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Ethiopian Civil Service University

## PUBLIC SECTOR TRANSFORMATION AND DEVELOPMENT

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# **Determinants of Retirement Income Adequacy in Ethiopia: The Case of selected Regions**

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## **Abstract**

*The households headed by retired peoples, the proportion expected retirement income is unable to replace at least half their preretirement income and this situation hampers and leads to destitute life of the retired peoples in Ethiopia. The study was focused on retirement income adequacy in Ethiopia; the case of selected regions. Its aim was to identify and prioritize the determinant factors that make retirement income adequate, how retired pensioners manage their living expense with current retirement income, and other alternative mechanisms use by retirees to make their income adequate. On this paper production many institutional groups might get benefit from the extracted results of the study. Employers might be interested if their employees with some degree participating on their retirement income plans and to be able for maintaining their livelihood. Policy makers are concerned with tax regulations and policies and they need to know limits for tax preferred employees of packages of benefits normal and appropriate. Financial service industries are interested with particularly needs and consumption behavior and their saving roles for the importance to financial institutions. Social security agencies are interested in understanding whether retirement income is adequate and sustainable for pensioner livelihood; If not they might be interested to see different conditionality like reshuffling of replacement rates, altering minimum retirement benefits and considering years of services in working life time. Employees are interested in such studies in order to know whether the retirement pension is adequate and sustainable. The study sample was sample survey containing close and open-ended questionnaire and 385 samples were selected by using probability sampling specifically proportional stratified sampling. In addition to this the data collection instruments were primarily questionnaire and in-depth interview. The researcher was also used different data sources like primarily and secondary sources in order to support the study. The study identifies that among the many determinant factors the most and more important factor is pre-retirement income level and household health status respectively. 73% of retirees are unable to meet their expenditure requirements. The study also reveals that approximately 30% of pensioners agreed that retirement income is “important” source of income for living expenses of the pensioners.*

**Key words:** Ethiopia, Retirement, Retirement Income, Adequacy

## **1. Introduction**

Economic growth is a fundamental basic requirement to secure sustainable retirement incomes. However, the current global financial crisis has shown once again that market-based economies have and will always experience business cycles and at times severe financial market disruptions. The past has also shown that in order to secure the living standard of retirees, the incomes of the retired population have to draw from diversified sources. The focuses on the sustainability of the various sources or pillars of current retirement systems, and it analyses the inherent risks arising from various challenges, such as demographic changes, economic business cycles and financial market volatility ( world Economic Forum 2011).

In 2005, Africa was home to about 47 million people aged 60 and over, most of whom live in rural areas. Those over the age of 60 and 80 represent the fastest-growing population group on the continent. Africa's older population is set to increase by 50% between 2000 and 2015 and by nearly fivefold by the year 2050 (Help Age 2005).

The growth in life expectancy presents new opportunities but it is also a challenge in itself for the future. Particularly, in the developing world, populations are now ageing and the proportion of the elderly is increasing at an alarming speed, while most of the poor in this part of the world still live in poverty. In other words, the increase in the number of elderly people in the developing world is not accompanied by real socioeconomic development; consequently, large segments of the population in general and that of the elderly in particular continue to live at the margin (Help Age 2005).

The population of elderly people in Africa is increasing rapidly and many countries are experiencing increases in both the proportion and the absolute number of older people. In East Africa, the number of people over the age of 60 increased from just over 3 million in 1950 to more than 11 million in 2000. And this number is projected to rise to more than 56 million by the year 2050. Unfortunately, these increases are taking place under circumstances where society is least prepared for

the challenges that older people are presenting and will present as the demand to meet their needs increase (Help Age 2005).

With a population close to 90 million, Ethiopia is the second most populous country in sub Saharan Africa. The proportion of young population under the age of 15 is 46.1% while the proportion of population in the working age group (15-64) is 51.2%. The proportion of population aged 65 years and above is 2.7%. Infant mortality rate is one of the highest in the world which is 78.99 deaths per 1000 live birth. About 38.7% of the population live below poverty line and only about 42.7% of the population is literate (Abdi 2012).

According to the 2011 human development report of the United Nations, life expectancy at birth is among one of the lowest in the world at 59.3 years (UNDP 2011, p.2). The same report mentions that there was a big change in the last three decades or so in which Ethiopia's life expectancy at birth increased from 43.9 to 59.3 years between 1980 and 2011. Despite this leap in terms of life expectancy, Ethiopia faces a critical poverty situation for the majority of its population with one of the world's lowest average per capita income of \$456 per year and \$1.25 per day (UNDP 2011).

This is a typical poverty scenario deeply rooted in the socioeconomic condition of Ethiopia. The same typical poverty scenario deeply rooted in retired people in Ethiopia. The greatest challenge facing the retired peoples (i.e., in the age group greater than 55) is whether their savings and/or resources (both private and public) is sufficient to maintain a decent standard of living in retirement. Poverty threshold (standards of living) and replacement rates (pre-retirement income) are the main determinants factors that may aggravate their poverty level (World Bank 1994).

A previous study found that among the households headed by retired peoples, the proportion expected retirement income is unable to replace at least half their preretirement income and this situation hampers and leads to destitute life of the retired peoples in Ethiopia. The minimum retirement income in Ethiopia is 744 birr and most of the retired peoples living in Ethiopia are under poverty line (psessa 2018). Retirement in Ethiopia has deeply rooted and variety of retirement related shocks and institutional and facilities estimation of the results of different factors



and decisions on targeting desired retirement outcome i.e. maintaining a standard of living, minimizing the risk of poverty etc (World Bank 1994). The followings are major challenges facing the retirement (pension) income in different countries including Ethiopia.

**Sustainability challenges:** Pension (retirement) income expenditure costs form a large part of government expenses and are a major determinant factor in the present, medium and long term in sectors of public budget position. The issue of sustainability related with the fiscal and financial balance between revenues and expenditures or liabilities (and the ratio of workers/contributors to pensioners/beneficiaries) in pension schemes. Pension reforms are needed to correct the negative impact of population ageing on this balance (European Commission 2015).

**Employment Challenge:** Late retirements and thus postponed pension purchase leads to longer years of service and hence a bigger bucket of savings which becomes the main route to simultaneous improvements in the sustainability and adequacy of pensions. The raise of pensionable age and success of pension reforms link the benefit level to gains in life expectancy depending on their underpinning through workplace and labor market measures that enable and encourage both women and men to work longer. Incentive structures such as pensions and medical insurances can influence age management practices at work to some extent. Employment and industrial relation policies need to be put in place to tackle the employment challenge which requires determined efforts to promote longer working lives (European Commission 2015).

**Adequacy Challenge:** The shock and the at-risk-of poverty rate and way of people living in under material deprivation are the two important main indicators to examine the adequacy of the pension systems that means their ability to prevent or mitigate poverty (European Commission 2015).

**Income Replacement:** At this time, pensions permits retirees to sustain their living standard that are similar or close of the rest of the peoples depending on their work time saving and for their retirement incomes are mostly much higher than other groups on the basis of their own income sharing (European Commission 2015 ).

Experts say that retirees need 70-80 percent of their prior earnings to keep up their standards of living in retirement. Social Security today replaces less than that -about 40 percent for an average earner at retirement. Yet most retirees rely on Social Security for most of their income (Reno 2007).

Future Adequacy: Current situation for the future are shaped as shifts in the nominal and real replacement rates. Till these days current public and private pension reforms have focused on to improve or maintain the poverty protection. It is true that most of the reforms will result in a lower replacement rate (present retirement income comparing with future). Based on different time experiences, pension adequacy in the future can be examined not only using theoretical replacement rates, which see at future income replacement for specific hypothetical individuals, but also with indicators computed from projections of expenditures (European Commission 2015).

Talking with the concept of indicators, including in pension scheme and their time horizons are different; outcomes may differ substantially among the indicators and are not directly comparable. Consequently, a summation of three indicators permits for a broader examination of the expected growth of old –age income in the future. The known decreased in replacement rate is based on the assumption that retirement age will remain constant over a definite period of time. Working to a higher age may help maintain or even increase the future level of replacement rates. The above-mentioned challenges and situation prevails in Ethiopian pension system and due to that reason the researcher needs to focus on whether retirement income adequate and sustainable in terms of its equivalent with pre- retirement income and current retirement income adequacy for livelihood (European Commission 2015).

## **1.2. Statement of the Problem**

Retirees' for most and known risk and challenge is the ability to at least maintain their standards of living by being able to replace their incomes in retirement to sustain their retirement needs and eliminate poverty. This being the case there is needed to investigate the retirement income adequacy in terms of its equivalence to pre-retirement's standard of living. The minimum retirement income in Ethiopia is 744 birr (psessa 2018). Retirees have expenses like food, clothes; house rent,

medical, bills and the like. Therefore, by considering these expenses, the retirement income is not sufficient to meet basic needs of these individuals. Replacement rate relationship between post and pre-retirement income and sustainability to cover all forecasted future living expenses and minimum needs as defined by poverty or other threshold.

The absence and the leave out study of empirical studies in Ethiopia concerning on retirement pension adequacy and sustainability is then what inspired the researcher to ground his own foot step on whether there is adequate retirement income in terms of its equivalent to pre- retirement income (standard of living), the availability and adequacy of current retirement pension for living standards and minimum needs.

While putting the image in to the frame, the absence of empirical investigation in to retirement income adequacy and sustainability, this study will focus on areas such as factors that determine the retirement income adequacy and sustainability, pensioners living expense and needs with current income. It will also focus on pensioners' perception towards their retirement income adequacy, sustainability, roles of work life time saving and other mechanisms use to make retirees income adequate and sustainable which is less discussed and examined that shows the practical evidence in the country. Therefore these are very pertinent issues to be studied for employers, policy makers, financial service institutions, social security agencies and for the individual (retiree) to help the retirees in getting adequate and sustainable pension to meet their basic need requirement.

### **1.3. Research Questions**

The study overviews and assesses different theoretical and empirical studies to develop research questions that the study attempted answer. Based on this, the research has the following research questions.

What are the factors that determine the retirement income adequacy?

How do retired people manage their living expense and needs with current retirement income?

What other alternative mechanisms do the retirees use to make their income adequate?

## **2. Review of Related Literature**

### **2.1. Basic Concepts**

**Social security** according to Kpessa (2011) is defined to include the institutions and societies designed to guarantee or protect individuals against the loss of income due to old age and other unforeseen contingencies such as workplace injury, unemployment, and death of a family's breadwinner among others. The objectives of any social security system are among others, to replace loss or reduction in incomes, promote health through medical care, and to assist families financially in bringing up their children.

These objectives are mainly achieved through the payment of pension or social security benefits and depend on the level of development of the social security institutions and for that matter the nation under consideration. Some forms of social security benefits are old-age pension, disability benefit, medical care benefit, death benefit, sickness allowance, maternity allowance, employment injury benefit, unemployment allowance and child care support.

A **pension scheme** is one form of social insurance. It is an arrangement to provide a member with income when he/she retires from gainful employment. The pension to be received can be a fixed amount depending on the amount of contributions and the length of time that those contributions have been paid (Hardy 1996).

**Retirement:** provision is one form of social security. Retirement is a transition from one stage of life to another (Aguila et al. 2008). The Merriam-Webster Dictionary of the Britannica Online Encyclopedia defines retirement as the "withdrawal from one's position or occupation or from active working life". Rowe (1994) defines retirement as partial or complete withdrawal from career work accompanied by a change in the sources and amount of income.

Retirement age however, is country specific and it may depend on the employment and pension legislation of that country. Retirement however in this study, is a period in one's life; in which one is disengaged from their formal work as a result of attaining a compulsory retirement age of 60 or voluntarily. The voluntary retirement age however, is 55-59 years.

Rowe (1994) identifies the following as reasons why people retire from work; some people retire because they have accumulated enough wealth stored up in savings which can be relied on during retirement; others retire due to deterioration in health which is mostly associated with old age; some people also retire due to abrupt termination of employment contracts mostly due to mergers, downsizing or privatization; some also go on retirement purposely for leisure which is mostly in the advanced countries, whilst others do so to cater for their families. Finally, some people go on retirement due to age, especially when they hit the official retirement age. Retirement in Ethiopia is mainly due to reaching the official retirement age, early retirement age, invalidity, sickness, employment injury (disability) or as a result of redundancy.

## **2.2. Determinants of retirement income (benefits)**

There is a legally established requirement to be legally eligible to grantee retirement benefit and the common requirements are minimum age and years of contributions. Retirement benefit can be paid to employees, if and only if the employees have worked long enough in covered employment to be granted for the benefits. The old age pension benefits mostly known age called the “normal” or “full retirement age” and at age an employee have the right to be entitled to a reduced pension if the contribution years are adequate enough and an employee left from previous work place is determined by birth year. Workers may want to retire before full retirement age if they want to receive reduced or lower pension, this age is called before retirement age or early retirement age. The other determining factor is to receive retirement benefit, workers have been required to fulfill the minimum years of contribution. On this case, those employees who have more years of working than minimum years will receive greater pension benefit (Colin et al. 2000).

There are also factors that determine average amount of retirement benefits. The first one is earning amount, how much the employee have earned for the last 36 months of full employment. The second one is, the age at which the employee claims for retirement, “The retirement pension of any employee whether he is from public or private organization shall have 30 percent of his\her average salary of the last 36 months preceding retirement and shall have a rate of 1.25 percent for each

year of the service beyond 10 years.” Based on the FDRE amended pension proclamation No 714\2014 and proclamation 715\2014, art 19(1) and 20(1) respectively indicate that employees with high earning of salary and long service year will have get greater benefits than those who have minimum years of services and low salary.

### **2.3. Retirement benefit provisions in Ethiopia**

The primary motive and purpose of pension scheme is to maintain workers and their survivors from economic crisis and to promote social wellbeing at the period of retirement. Based on this, out of the nine contingencies which are adopted by the ILO convention number 102\1952 on the basis of universally accepted conditions for pension benefits, the underlined pension benefits are presented under Ethiopian social security pension proclamation No. 714\2011 and proclamation No. 715\2011 and both are public and private social security pension proclamations (Ethiopian pension proclamation 2011).

**Invalidity benefit:** a benefit of pension made for employees who have been separated from regular work area and becomes unable to generate income as a result of health problems and failed to fulfill the minimum required medical criteria to stay in work. The application to the invalidity pension benefit is somehow similar with other benefit (Ethiopian pension proclamation 2011).

**Employment injury benefit:** a benefit of pension granted to an employee who has suffered because of work related injury and it has also provide the medical expenses in which the injured person covered in it. In this pension benefit provision, the one who does not fulfill the criteria to receive life time pension in either of the pension benefit and shall be entitled to receive gratuity (Ethiopian pension proclamation 2011).

**Survivors’ benefit:** is a pension benefit component which is designed to made payment to the family of the deceased. Beneficiaries entitled under this benefit are children who are below 18 years and below 21 years for those who are disabled and mentally ill. Spouses and parents

(Both Father and mother) of the deceased person is also entitled under this benefit (Ethiopian pension proclamation 2011).

**Old age benefit:** a usual payment set to an employee because of the service that the employee has provided in the organization until he\she gains age of retirement. In old age pension benefit, an employee who fulfill the minimum of 10 years of service and become retire at retirement age shall receive old age pension for life time. An employee resigns voluntary from regular work place after completing 20 years of services also shall receive old age pension age for life at retirement and entitled to receive old age pension, 5 years earlier from the normal retirement age, for life after completing the minimum of 20 years of service (Ethiopian pension proclamation 2011) .

The average benefits for senior government officials or the parliament members with a minimum of one full term service are entitled to receive to the amount 15 percent of the last 36 months of average salary before retirement and could be increased by 1.25 percent to additional service year of exceeding 5 years. Whereas the total benefit is not exceeds 70 percent of the recent three years of average salary of employees before attaining retirement (Ethiopian pension proclamation 2011).

#### **2.4. Standard of living and expenditure experiences of retirees**

The differences of social back ground that means culture, families' characteristics, religious affiliation and ethnic back ground, all retired peoples need to live their lives with confidence all the way through financial stability, desirable medical services, access to homes and others whereas majority parts of people experience socio economic crisis and most of the time they shared the same types of problems, even though their socio economic back grounds are different before retirement (ILO 2010) .

Retired peoples mostly fight everyday life due to different interwoven problems like rise of the cost of expenditures. More than about 75 percent of retired people whose age is greater than 65 years are lives on the basis of social security benefits for most or all of them have monthly earnings. Every single month from the totality of three retired individuals, one of them have not any money to spare for basic needs. More than 14 percent of retired people continue living through a stagnant change of worth and as a result they face to economic problems. About 27 percent

of retired people live with poverty and they are highly vulnerable to continuous health problems and these are retirement crisis (ILO 2010).

The average amount of expenses of the retired people is higher than others. But non pensioners spending and set their income in to different expense like food, health care and fuels and comparatively retired people spend their income for goods and services including entertainment and other contingencies. The differences in expenditure practices and experiences finally shows family living standards, test of preferences on consumer goods and services. The average amount of expense and what types of consumer goods and services spending as a family could magnify what kind of living standard of a household is hold it (Andrew et al. 2009).

## **2.5. Other alternative mechanisms (sources) of Retirement income**

According Dan (2004 ) most people anticipate retiring at 60 years and above recent changes make people retire ages under 50 years many people retire if they have saved enough resources sufficient to make them keep up with their living expenses more ever retirement income emanates from the coffers of governments farmers employers and personal savings or investments resources. She also added that most retirees depend on the state sponsored social security scheme but it is sustainability is questionable because of the current high number of retirees making cost of sustaining the schedule very high . following this most retirees personality have a longer life span and the need to support them until death.

Dan (2004) explained the following categories as source of retirement income social security pensions individuals retirement accounts personal savings and investments in heritance( remittances ) income gained from working after retirement and rental income are some of the sourced identified by Dan conserving of source of retirement income in the U.S.A, it includes social security retirement accounts pensions' saving accounts and certificates of deposits ( CDs) stocks and stock mutual funds hence equity part time work, Remittance, insurances and finally rental income and royalties (Dan 2004).

The identifiable sources of retirement income in Ethiopian prior to the survey for this study were retirement income pension benefit and lump sum payments rental income personal saving and support from family and friends. Income from



post retirement job was also mentioned as an identifiable source of retirement income.

## **2.6. Theories of Consumption**

### **2.6.1. Life Cycle Model**

The pioneers of this life cycle model were Modigliani & Brumberg (1954) and it is the fundamental theoretical frame work used for studying of patterns of house hold consumption expenditures level. This model asserts that households in making of choices of how much to consume in a specific period of time by considering their long term resource. What is referred to as permanent income not by their current income (Pistaferri 2009).

It describes life time consumption pattern of house hold by classifying the life cycle in to three periods. The first period is the period when an individual's is doing a job. Earning income and possibly saving part of the income. The second period when an individual's not saving due to young age or old age when an individual in retirement or not working. There is also another classification for this life cycle. the first one is when an individual's is early ages and not working the second one is in middle age when working and earning and the last stage is in age when in retirement (pistaferri 2009).

The fundamental assumption is that saving helps or provides households to transfer part of life cycle period in one's income to period two when there is minimal income or no income. This refers that an individual can have smooth consumption in his/ her / life time by borrowing to consume in the early age of life when one is young and with minimal or no income. save (accumulate wealth) and settle his financial liabilities in the period in which income is high and income for consumption from saving in retirement (pistaferri 2009).

The model has many commonalities with the permanent income hypothesis and even some research papers and texts merge two hypothesis in to theoretical frame work called the life cycle permanent income hypotheses (LCPIH) of consumption. More interesting however there are differences between the two models in the planning of time horizon. The LCM assumes definite time horizon. Therefore the permanent income hypothesis assumes that house hold live forever

hence infinite horizon whilst the life cycle model assumes that house hold live for a period of time hence finite horizon this is where the dominance of the life cycle is evident enough because no individuals live forever (pistaferri 2009).

The core future looking life cycle model states that consumption should remain smooth through the retirement transition as the change in come at retirement should be predictable ( Modigliani et al 1954) since then the model considered as the core theory used for studding most consumption behavior , however it is not escape for limitations.

Dan (2004 ) explained some short comings of the modes in her studies she fevered that LCM doesn't explain why high income earners save little for future needs information asymmetry makes housed hold not well informed enough to a make proper financial decisions especially saving for retirement. Secondly, the finite horizon assumption of the model refers that an individuals will die out with no income left or with zero wealth which is not observes in practice since most people having savings even at death .

Thirdly a research conducted by Carroll and summer (1991) explained that most households don't smooth consumption over their life time as indicated by the model rather consumption follows their current income and so as income shifts consumption also shifts up words or down wards in a proportional way .

The life cycle economic approach indicates that individuals try to vigorously save before retirement because they believe they won't be saving much after retirement more inters sting however economist have shown that retired individuals are less likely to disserve than was originally posted (pistaferri 2009).

### **2.6.2. The Permanent Income Hypothesis**

The permanent income hypothesis developed by Milton Friedman (1957), and it assumed that the that the income of the households makes ups & downs over time and is not a constant amount house The house hold in come can classified in two parts the first one is permanent income an income individuals a waits to earn with certainty over their life time and which they predict to carry on into the future .The second one is transitory income which house hold do not except but rather earn with uncertainly and which way fluctuate over periods it can be

refers to as deference between current income and permanent income. A house hold income therefore can be explained as  $Y = Y_P + Y_T$  where “Y” total in course of house hold “Y<sub>P</sub>” is permanent income and “Y<sub>T</sub>” transitory income (Pistaferri 2009).

According to Friedman consumption is also classified in to permanent and transitory consumption a consumption which depends on permanent income is called permanent consumption and a consumption which depends on transitory income is called transitory consumption. He also assumes there is no correlation between permanent and transitory consumption. He also added no relationship between transitory increase in income because of up and downs of transitory income will not add value to an individual's consumption (Pistaferri 2009).

For Friedman consumption is function of permanent income the model explained that households smooth their consumption over their life time based on permanent income and the up & downs of transitory income won't affect permanent consumption. The marginal propensity to consume and average propensity to consume is therefore constant and equal to one. The permanent income hypothesis implies that consumption in retirement should not fall below pre-retirement consumption but at worst equal to it since it does not depend on pensions or retirement but rather on permanent income (Pistaferri 2009).

### **2.6. 3. Cumulative Advantage (disadvantage model)**

The cumulative advantage (disadvantage) model is an alternative description of the differences of income distribution among the elderly or retired Individuals who have merits during their working life more likely to receive a good education, leading to good jobs, leading to better health and better retirement coverage leading to higher savings and better postretirement benefit income (pensions). The perspective of this model focuses on the much skewed post retirement distribution of such resources as private pensions and savings (Engen et al. 1997).

### **2.7. Perceived Adequacy of Retirement Income**

One of the major issues in retirement is that many pre retirees are reaching retirement age unprepared for retirement. They are unaware that 70% of their

annual salary must be replaced for retirement. This is especially true for women and single head of households because they lack information about retirement planning. It is also expected that older individuals will spend more than 20 years in retirement making it a long time to support one self while not working. Having adequate retirement income is the key to minimizing some of the problems during retirement. The perceptions of persons can be crucial in determining whether retirement will be emotionally and financially satisfying as it creates an awareness or understanding of the problem (Jing et al. 2015).

There has been little research to date about pre retirees, as most current literature on retirement is based on people who are now older. This study attempted to address the limitation. The purpose of this research is to study pre retirees' perception of having adequate retirement income and to examine the effect of socioeconomic and objective differentials on their perceptions (Jing et al. 2015).

The perceived adequacy of their incomes motivates those of upper economic levels to take action to preserve their current standard of living as much as possible during retirement. The less fortunate, on the other hand, may foresee little change in their living standards and those in the middle often feel strapped to do significant financial planning (Jing et al. 2015).

Perceived adequacy of retirement income differed significantly by age, gender, race, income, employment status, and planning horizon concurring with the results of previous research. Younger respondents were likely to perceive having inadequate retirement income. They may be affected by low paying jobs without benefits, security or pensions. Other barriers against younger workers include lack of information about retirement planning, lack of planning, or procrastination to saving for retirement (Jing et al. 2015).

A matter of concern is the perception of having inadequate retirement income among different age groups, race, gender, and employment status. Thus, there is a need to recognize the consequences of financial insecurity in the larger context of age, class, gender, race, and its interactions. In the event that retirees are faced with a shortfall in retirement income they would have to depend on social security or other supplemental programs. Social security is often described as a program which

was never intended to be the predominant income source on which retirees should rely, but rather to complement savings, private pensions, and other private sources of income, sources which in fact account for a large share of the resources on which older persons depend. The suggestion that social security should be reduced in favor of expanded private systems is often recommended. In light of the present results, it is evident that younger pre retirees are not confident of having adequate income for retirement. When the time comes for these workers to retire they will have no other alternative but depend on social security as their primary source of retirement income (Jing et al. 2015).

## **2.8. The Roles of working life time saving for retirement**

Standard textbook expositions of life-cycle savings and consumption behavior envisage rational individuals saving at a rate which generates sufficient wealth at retirement to enable a smooth consumption pattern over both working years and retirement. Reality is somewhat different. Individuals form (and dissolve) households with others, future income is unknown and uncertain, returns on accumulated wealth are uncertain, age of retirement is sometimes flexible and sometimes involuntary, time of death is unknown, and private wealth available for retirement may be supplemented by government benefits (Age Pension) in amounts determined by complex eligibility and means-testing rules. The ability of most individuals to adequately assess the rate of savings required at any stage of their life-cycle to achieve some target retirement savings amount is, at best; open to question (Skinner 2001).

Pre retirees themselves can strive for a more financially secure retirement by planning and preparing for it. Employees, especially women must become aware of the importance of fringe benefits, particularly pensions that accrue over time. They could start by saving some money for retirement on a regular basis. Even small savings can generate large returns over time. They should take every opportunity to learn how to maximize the return on their savings and investments by reading appropriate books and articles, by participating in financial planning seminars, and by taking advantage of retirement planning programs offered at work (Jing et al. 2015).

In order to avoid financial insecurity during retirement they need to aggressively plan for their retirement. And, the earlier the pre retirees participate in retirement planning. Thus, to better provide for old age in the future, people must save more during their working years, and/or they must develop institutions which will transfer from the working population to each succeeding generation of retired or semiretired aged the required amount of income. These options mean higher private pension or insurance contributions, higher personal savings in the working years, and/or higher taxes (Jing et al. 2015).

## **2.9. Empirical Literature**

Aon (2001) finds that the measurements of retirement income adequacy mostly related with retirement consumption and pre-retirement consumption. On this issue Aon identified three possible ways. Firstly, individuals may be considered well prepared for retirement if it is possible to maintain identical level of consumption as the periods of working years. Mostly, 80 percent of pre-retirement income is thus considered sufficient enough since the income needs of retirees are likely to be lower than active workers. Secondly, households no longer need to save for retirement, taxes are lower and work relates expenses disappear. In addition to this dependent of retirees is smaller than that of workers.

Thirdly, Aon identifies that retirement income adequacy as a constant nominal level of consumption during retirement as during working years. This implies consumption needs are expected to decline during retirement overtime, but in some what step by step fashion. Generally a household must consider uncertain future, because their marginal utility of certain consumption today is higher than in the future.

A number of studies have seen at the changes of retirement income adequacy overtime. Wolff (2002) indicated that households who have an age range between 47- 64 have replaced less than 75 percent of their current income. Through a period of specific years, Wolff saw retirement income rise from 56.1% to 61.2% within 11 years from 1989 to 1998.

Evidences that attach retirement income adequacy and sustainability also found on the works of Smith (2003) for the period 1980s-1999s to see the income replacement rates for actual retirees between the age of 68-72, the researcher using current retirement income and forecasted earnings before retirement and finds that income replacement rates increased between the periods and reaching a high of 74 percent in 1999.

Other paper on this area focuses mainly on consumption as a measurement of retirement income adequacy and sustainability. In her paper Montalto (2001) discuss and measure retirement income adequacy as the ratio of retirement wealth relative to consumption needs. She identifies consumption replacement rates ranging from 110 – 315 percent, depending on the planned retirement age.

In addition to this Butrica, Goldwyn, and Johnson (2005) finds using the HRS dataset and assess the consumption – to – income ratio for respondents and find the median ratios of 81 percent for married couples and 90 percent for single individuals. Considering the reciprocal of these ratios (a measure similar to the consumption replacement rate), the findings are comparable to those of this finding also show that expenditure- to- income ratios are lower because the consumption replacement rates are higher. As a result the use of the consumption replacement rate to measure retirement income adequacy is rooted in the life cycle literature.

Basically evidences show that consumption changes over a person's lifetime. The changes in consumption during retirement are assumed to mainly result from a drop in expenses resulting from a variety of factors including the absence of work related, dependent related factors.

Using the data of consumption expenditure survey in U.S.A, Parker et al. (2002) shows that consumption increases with age until around 45 when it begins to drop. This study in there are identifies that consumption falls between 14-16% during retirement.

More interestingly however, this result has important indications for the current article because they assert some support for the importance of consumption replacement rate as a pertinent method for examining whether an individual is sufficiently prepared and planned for retirement.

Moreover, while considering the consumption replacement rate not income replacement rate as a measurement of retirement income adequacy, Evidence from different researches suggest that since consumption lowers during retirement, a replacement of consumption higher than 85-90% would possibly be sufficient for the household to maintain a comparable standard of living during retirement. In examining just a few of the studies in this area, it is evident that significant differentiation exists in the results. These differences are due to the sources of income or investment that are used to compute retirement wealth. In addition to this, the measurement of retirement adequacy whether by examining retirement wealth relative to consumption needs or pre-retirement income and options of the retirement age and the data sources used in the study.

It is observed that consumption types and its measurement have varied in empirical research. Most of them focus on food expenditures while others include broader measures. The examination of a number of factors that might lead to differences in the retirement wealth measures, a more holistic picture of retirement income adequacy is created while providing some insight into the variations in the results obtained from prior studies.

### **3. Studies on Retirement income Adequacy in Ethiopia**

Previously in Ethiopia much attention has not been given in the studying of retirement income adequacy and sustainability. Although, it is not a direct study of retirement income adequacy and sustainability; unpublished Abdi (2012), conducted somehow a related study and he finds that older people in Ethiopia facing problems like access to food; shelter; lack of education, health problems; loneliness and depression. He also identifies the illumination of the role of reciprocal relationships in care for the elderly and the importance of family. The insufficient support rendered to the elderly by the Ethiopian government and the role played by non-governmental organization.

A study conducted by Natnael (2015) in assessing the contributions of pension scheme on elderly people's living standard revealed that presence of income gap across age groups. He also identifies that there exists significant income and



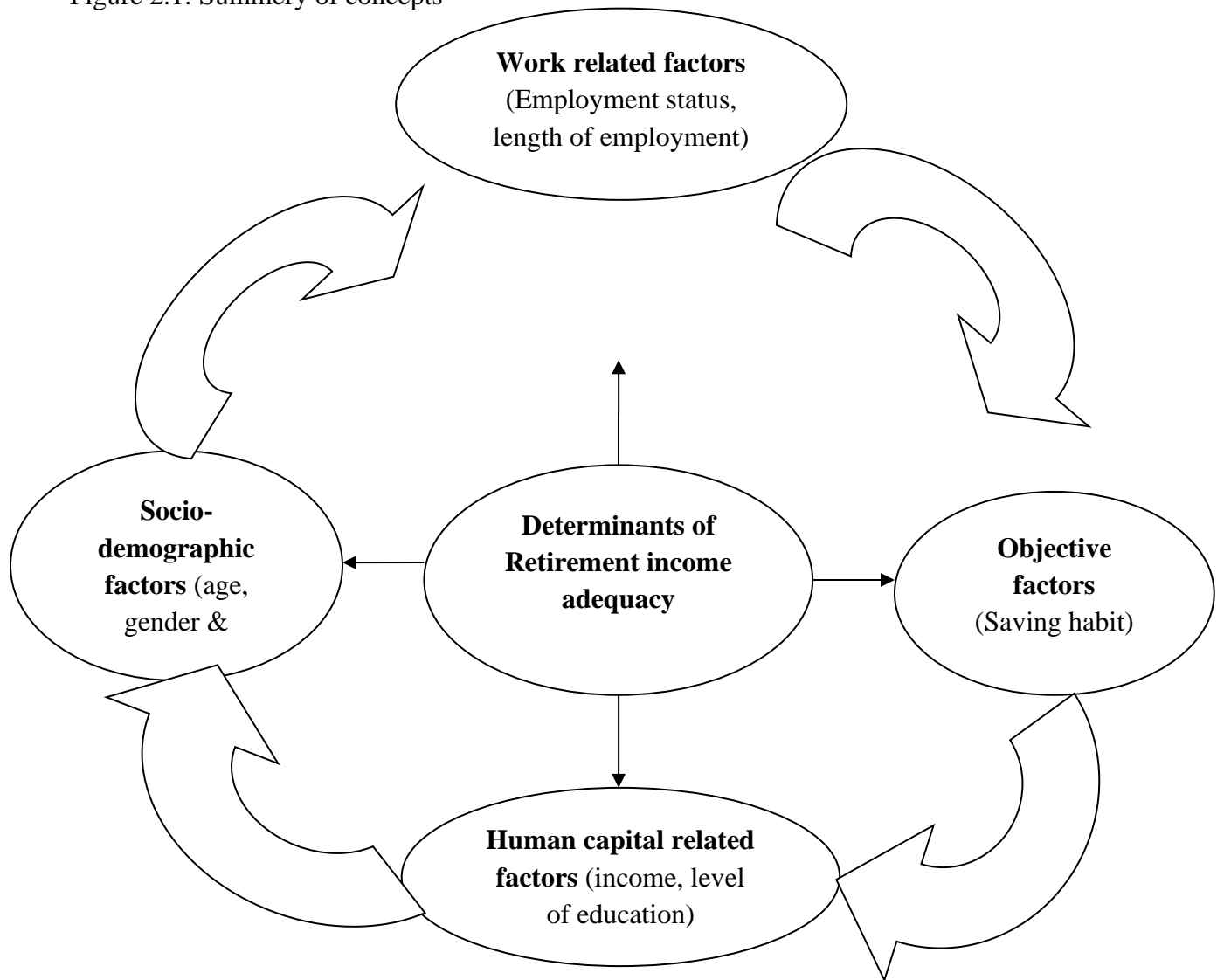
consumption expenditure gap across pensioners and non- pensioners. The statistical summary in general shows, that elders do not experience the Same living standard as they do before. This study also revealed that there is a positive significance of old age pension in supporting the living cost of elders and confirms that the establishment of pension benefits has major effect in the living conditions of the elderly.

#### **4. Conceptual Framework**

The conceptual frame work describes the determinants retirement income adequacy and sustainability in relation to pre and post retirement income. As it shown, the adequacy and sustainability of retirement income characterized and predominantly determined by independent variables (factors). These factors are work related factors, socio-demographic factors, human capital factors and objective factors. The work related factor is consists of employment status, length of employment of pensioners. Whereas socio – economic factor is composed of age, gender and house of size of retirees. In addition to these, there is also human related factor which consist of income, level of education. Finally the fourth independent factor is consists objective factor which consists of saving habit

The relationship between retirement income adequacy and sustainability with these independent factors are basically their ability to determine the post retirement income in relation with pre- retirement income. The one who fulfills these determinants in a positive way and maintain his\her pre- retirement status, in the future post retirement period may get stable means of income to sustain their living expense.

Figure 2.1: Summery of concepts



Source: from (Jing 1995) with some modifications.

### 3.The Methods

#### 3.1. Research Approach and Design

This research used both qualitative and quantitative approach. Qualitative and quantitative data collection and analysis methods are used. It is more than simply collecting and analyzing both kinds of data rather the use of both approaches has greater strength in the overall study than either qualitative or quantitative research. Hence, this study was utilized both qualitative and quantitative approach so as to get more reliable and valid results on factors that determines retirement income adequacy. Among the many mixed method research design, the researcher applied sequential explanatory design. According to Creswell (2003), this method is a two- phase design where the quantitative data is collected first followed by qualitative data collection. It also helps to explain further quantitative results

and interpret the findings from the qualitative phase

### **3.2. Descriptions of variable**

For the purpose of this study, the researcher is identifying the variables under study. These variables are called dependent variables and independent variables. The variables are discussed below.

#### **3.2. 1. Dependent & Independent Variable**

The dependent variable is retirement income adequacy in the study area. The determinants retirement income adequacy will be tested by asking if they felt they have adequate retirement income. Based on the review of literature, the independent variables are identified. These are including socio-demographic factor household size; human capital-related factors: income, education, work-related factors: employment status and length of employment, and objective factor: saving habit

### **3.3. Sampling Technique and Sample Size Determination**

For the purpose of selecting regions under study, the researcher applied simple random sampling and selected Addis Ababa and Bahir dar from the ten regions and one head office. However, the total pensioners or retirees in these study areas are around 200,000 (POESSA 2018). Therefore the sample size determination can be computed using the following statistical formula (Yamane 1967).

$$n = \frac{N}{1 + N(e)^2}$$

Where N is the total, e is the error or confidence level

The conventional confidence level of 95% confidence interval used to ensure a more accurate result from the sample. Based on this, the error term could be equal to 0.05. Using the total population around 200,000 with an error term of 0.05, the sample size calculated as follows.

$$n = \frac{200,000}{1 + 200,000(0.05)^2}$$

Therefore n= 400 hence, out of the total population of 200.000 retirees 400 retirees selected as a sample. Proportional Stratified sampling technique used to select 400 respondents from the pensioners of the two regions. The reason to select this sampling technique was that retirement income was characterized by different

stratum. It could be classified in to low income, median income and higher income. Therefore, it is better to use this technique and also important to get representative sample. According to Kothari C.R. (2004), “if the population from which a sample is to be drawn does not constitute a homogeneous group, then stratified sampling technique is applied so as to obtain a representative sample. In this technique, the population is stratified into a number of non- over lapping sub populations or strata and representative samples were selected from each stratum using simple random sampling.

### **3.4. Sources of Data**

To improve quality of data, multiple data sources were used for the research. Primary data were collected by using self-administered & non self-administered questionnaire from pensioners’ and FGD for selected retirees. In addition, secondary data such as different manuals and reports concerning on retirement income and pension payment from the agencies. Secondary data were also gathered from journals, books, internet and other relevant document that support to find information related to retirement income adequacy

### **3.5. Methods of Data Collection**

For the purpose of this study, the researcher employed two different data collection methods. Primary data were collected through questionnaire and interview. Secondary data were obtained from reports and different documents and journals of the social security agencies.

#### **3.5.1. Questionnaire**

The researcher used primary data that were collected through questioners for sample pensioners. First of all, the questionnaires were developed in English and to be translated in to Amharic to be easily understood by respondents. Then the questionnaires were applied to the selected respondents or pensioners. The questionnaire contains both open and close ended questions and it was administered by the data collectors.

### **3.5.2. Focus Group Discussion**

Along with questionnaire, the researcher also deployed focus group discussion consisting of 12 members and data were gathered through semi-structured interview that will be administered to the pensioners.

### **3.5.3. Secondary Data**

In addition to the primary data, secondary data were also collected from social security agencies report and different manuals to be collected from different authors' book and journals. All these data collection methods (questionnaire, interview, and secondary data) are important to have consistent information about the determinants of retirement's income adequacy and suitability.

## **3.6. Methods of Data Analysis**

After collecting the relevant data, quantitative data were presented by using descriptive statistics and multivariate regression analysis methods. To analyze and interpret the quantitative data, the researcher used Stata and statistical package for Social Science SPSS V20. For descriptive analysis, results were presented by using tables and graph. With regards to the factors that determine retirement income adequacy, this study used the multivariate OLS and logistic regression models to investigate the demographic, work related, objective and socioeconomic determinants of retirement wealth adequacy. And for these White heteroscedasticity-corrected standard errors (robust standard errors) was run. The Kendall's coefficient of concordance (W-test) also used to test the extent of agreement among the pensioners. The Kendall's coefficient of concordance is a non-parametric test used when data is ranked in order of importance. It is used to investigate inter-rater agreement, which is, the extent to which raters agree on an issue. On the other hand, open ended questions; interview and secondary data were interpreted qualitatively.

## **3.7. Data Quality Assurance**

### **3.7.1. Trust worthiness for qualitative section**

Trust worthiness is seen as strength of qualitative research. It helps to suggest determining whether the findings are accurate from the stand point of the researcher, participants, or the readers of an account. For the purpose of ensuring trust, the following strategies were employed for this study. The researcher used

rich and extensive explanation to convey the findings by evaluating and extracting evidences from the sources and utilize it to construct a reasonable explanation to the participants which were provided by the investigator.

### 3.7.2. Reliability and Validity for quantitative section

The reliability of the data collection instruments is interpreted based on the consistency when it measures the target attribute and concerns a measure of consistency and accuracy. In this study, to measure and ensure the reliability of the instrument majority of the variables were adopted from research problems and questions. In addition to this, a pilot study conducted by the researcher for some variables. This consists testing the actual tool on small samples that were drawn from the actual population. Before conducting the actual study, the questionnaires were administered for 30 retired individuals in the study area to ensure the clarity of question items and contents. On the other side, validity of an instrument concerns the extent to which the research measures what it asserts to measure without bias or distortion. To measure the validity of the instrument, a copy of the questionnaire will be submitted to known researcher to examine the number and type of items in the questionnaire measures the concept or construct of interest (content validity). Generally, questions in tools were developed based on the findings from previous studies and the literature reviewed.

## 4. Data Presentation, Analysis and Interpretation

### 4.1. Respondent Rate

As per the standardization of the sample used for this study, and 400 questionnaires were distributed for respondents and 385 questionnaires were returned from respondents. And based on the distributed questionnaires; the response rate is 96.25%

### 4.2. Distribution of Socio- demographic Variables of Respondents

Table 4.1. Age Distribution of Respondents

Age Category	Frequency	Percent	Valid Percent	Cumulative Percent
<b>55-59</b>	116	30.1	30.1	30.1
<b>60-64</b>	75	19.5	19.5	49.6
<b>65-69</b>	84	21.8	21.8	71.4
<b>&gt;70</b>	110	28.6	28.6	100.0
<b>Total</b>	385	100.0	100.0	

*Source: Author's Survey, (2019)*

The age distribution of retirees shows that 30.1%, 28.6%, 21.8% and 19.5% are in the age range of 55-59, greater than 70, 65-69 and 60-64 respectively.

Table 4.2. Sex Distribution of Retirees

Sex	Frequency	Percent	Valid Percent	Cumulative Percent
Male	259	67.3	67.3	67.3
Female	126	32.7	32.7	100.0
Total	385	100.0	100.0	

*Source: Author's Survey, (2019)*

The sex distribution of respondents shows that, 385 respondents 259 (67.3%) of them are male and 126( 32.7%) of them are female.

Table 4.3. Marital Status of Retirees

Marital status	Frequency	Percent	Valid Percent	Cumulative Percent
Married	281	72.9	72.9	72.9
Single	20	5.2	5.2	78.2
Divorced	28	7.3	7.3	85.5
Widowed	56	14.5	14.5	100.0
Total	385	100.0	100.0	

*Source: Author's Survey, (2019)*

The marital status of the respondents indicates that from 385 respondents 281(55.3%) of them are married, 56 (14.5%) of them are widowed, 28(7.3%) of them are divorced and 20(5.2%) of them are single.

Table 4.4. Educational Background of Retirees

Educational Background	Frequency	Percent	Valid Percent	Cumulative Percent
Basic writing & reading skill	16	4.2	4.2	4.2
1-5	72	18.7	18.7	22.9
6-12	150	39.0	39.0	61.8
Diploma	99	25.7	25.7	87.5
Degree	44	11.4	11.4	99.0
Masters	4	1.0	1.0	100.0
Total	385	100.0	100.0	

*Source: Author's Survey, (2019)*

The educational background of respondents shows that from 385 respondents 150(39%) of them are grade 6-12, 99 (25.7%) are diploma holders, 72(18.7%) of them are grade 1-5. 44 (11.4%) are degree holders 16 (4.2 %) of them can only write and read i.e they didn't take formal education, and 4(1%) of them are master's holder.

Table 4.5. Household Size of Respondents

Household Size	Frequency	Percent	Valid Percent	Cumulative Percent
None	32	8.3	8.3	8.3
1-3	97	25.2	25.2	33.5
4-6	218	56.6	56.6	90.1
Above 6	38	9.9	9.9	100.0
Total	385	100.0	100.0	

*Source: Author's Survey, (2019)*

The survey reveals that, excluding spouse(s) they cater for, from the totality of 385 respondents 218(56.6%) of them believed to have 4-6 dependents, 97(25.2%) of them believed to have 1-3 dependents, 38 (8.3%) of them believed to have above 6 dependents and at last 32(8.3) of them not believed to have dependents. The important thing in this part is that, the researcher also tried to investigate factors that determine retirement income adequacy. Among the factors, family size is one determinant factor which is directly associated number of dependents of the pensioners. All other things being equal, the relation is clear and as of pensioners has higher dependents; it needs to higher income to fulfill households expenditure requirement. And higher dependents of pensioners have needed higher retirement income. This is evident in this study because as you have seen most pensioners have higher dependents.

Table 4.6. Pre- retirement work places of Retirees

Pre-retirement work place	Frequency	Percent	Valid Percent	Cumulative Percent
public sector	362	94.0	94.0	94.0
private sector	7	1.8	1.8	95.8
both sectors	16	4.2	4.2	100.0
Total	385	100.0	100.0	

*Source: Author's Survey, (2019)*

The pre-retirement work place indicates that, from 385 respondents 362(94%) of them believed to work in public organizations. 16(4.2%) of them believed to work both private and public organization using rotation. And 7 (1.8%) of them were believed to work in private organization before retirement.



## **4.2 Factors that determine the retirement Income Adequacy**

This part investigates the factors that determine the retirement income adequacy.

The method and technique suggested to be used for this analysis is the Ordinary Least Square regression estimation technique and since the data used for this analysis was cross sectional in nature. Saying this some regression diagnosis test was executed in order to avoid biasness. These regression tests include mulitcollinearity, hetroscedasticity and test for omitted variables. According to Gujarati (2004, Pg, 362) mulitcollinearity is an issue of problem when in the model variable, the Variance inflation factor (VIF) exceeds 10. This wasn't happened in the model of the regression. And it is shown in the appendix. For the indication of the absence of omitted variables, Ramsey regression specification test performed and it is shown in the appendix. However, hetroscedasticity was present when tested for Breusch-Pagan|Cook Weisberg test for hetroscedasticity. Two remedial measures can be used to correct for the heteroscedasticity. If the variance of the errors is known as the method of Weighted Least Squares (WLS) or Generalized Least Square (GLS) could be used but since the variance of the errors are rarely known as according to Gujarati (2004, pg. 417) an alternative approach known as the White Heteroscedasticity-corrected standard errors (robust standard errors) was used. The White's heteroscedasticity-corrected standard errors are used to obtain unbiased and consistent estimates of the standard errors so that asymptotically valid statistical inferences can be made.

Table 4.7 Result of OLS Regression Estimation

**Dependent Variable: Retirement Income Adequacy**

Indep. Variable	Coeff.	Std. Err.	t	P> t	[95% Conf. Interval]
Family Health Status	-139.4216	61.42834	-2.27	0.024	-260.2057 -18.63754
Family Size	-60.70466	29.3281	-2.07	0.039	-118.3713 -3.037997
Saving Habit	47.00417	54.09595	0.87	0.385	-59.36252 153.3709
Occupational status	44.76391	50.03437	0.89	0.372	-53.61666 143.1445
Pre Ret. Income	398.1785	170.4923	2.34	0.020	-62.94637 733.4107
Cons	-4.329835	799.044	-0.01	0.996	-1575.458 1566.798

Significance at 5%

Number of observation = 385

R-squared = .080

Adjusted R-squared = .080

Table 4.7 Shows the result of the OLS regression which has been corrected for heteroscedasticity. The major changes realized are; differences in the p values, t values and standard errors. There are no changes however in the coefficients and the  $R^2$ . The interpretation of different determinant factors of the retirement income adequacy and sustainability are explained below.

Pre-retirement income is the most determinant factors for retirement income adequacy. This is because it has a positive sign which is assigned with the expected sign and it is highly significant at 5% confidence interval. This implies that there is a positive and direct relationship between pre-retirement and retirement income sufficiency. The other interpretation for this, it indicated in table 4.7, on average a

retiree will save additional income approximately ETB 398 monthly than others retirees. This has a significant impact on the adequacy of retirement income.

The survey revealed that household health status is the second more determinant factor for retirement income adequacy. This is because it has a positive sign which assigned with the expected sign and it is highly significant at 5% confidence interval. This also implies that there is a positive and direct relationship between household health status and retirement income adequacy. As it indicated in table 4.3, on average a household are healthy will have approximately ETB 139 monthly than unhealthy families of retiree.

Family size is the third important determinant factor that determines retirement income adequacy and sustainability. This is due to the fact that it has a positive sign which is assigned with the expected sign and highly significant at 5% confidence interval. This implies that there is a positive and direct relationship between family size and retirement income sufficiency. All other things being equal, economic theories state that, the larger the family sizes the higher consumption expenditure. This higher consumption expenditure needs relatively higher retirement income than small households.

Surprisingly, this result indicates that pensioners who have larger family members need an additional ETB 60 on monthly for consumption expenditure than smaller family members. Numbers of dependents or family size were found to be highly significant and so, it is an important factor affecting retirement income adequacy and sustainability.

Occupational status and Personal saving (investment) is not a significant factor affecting retirement income adequacy of the pensioners.

However, it should be noted that the value for  $R^2$  is approximately 0.80. This implies that about 80% of the variation in the model is explained by the explanatory variables as listed above. This is quite high considering the fact that the data set is cross sectional in nature. According to (Gujarati, 2004 pg 260), an important empirical observation is that, in cross sectional data involving several observations, one generally obtains low  $R^2$  because of the diversity of the cross sectional units.

Therefore one should not be surprised or worried about finding low  $R^2$ 's in cross sectional regressions. What is relevant is that the model is correctly.

**Table 4.8. Descriptive Statistics Results & Determinants of Retirement Income Adequacy**

Variable	Frequency	Mean	Std. Dev	Min	Max
Occupational Status	385	2.911458	1.719941	1	5
Pre- retirement Income	385	4.117188	.3220632	1	5
Family Health Status	385	3.661458	.876126	1	5
Family Size	385	3.572917	.9558919	1	5
Saving Habit	385	1.578125	.9249321	1	5

*Source: Author's Survey, (2019)*

Table 4.8, describes and summarizes the descriptive results of retirement income adequacy and its determinants. The minimum value that the determinants of retirement income could obtain 1 and the maximum rank is 5. As in table 4.3 already discussed above. 5: most determinant factor 4: more determinant factor 3: determinant factor 2: less determinant factor 1: undetermined factor. Therefore, pre-retirement income has a mean rank closer 4 is the first determinant factor than has a mean rank closer to 1. Based on this explanation, on average pre-retirement income is the leading determinant factor since it has the mean rank of 4.11. And it has the standard deviation of 0.322. Family (household) health status is the second determinant factor for retirement adequacy. This is because it has the second higher mean rank of 3.66 which approaches to 4. And it has the standard deviation of 0.87. The third important determinant factor is Family (household) size. Because it has the third mean rank of 3.57 but lower than the mean household health status. The last less important determinants of retirement income adequacy is occupational status and personal saving since it has the mean rank of 2.9 and 1.57 respectively. And the standard deviation for both variables is 1.71 and 0.924 respectively.

### **4.3. Management of living expenses (consumption expenditure) with Retirement Income**

#### **4.3.1. The comparison of living expense before and after retirement**

Table 4.9. Descriptive Statistics

Amount of expense	Minimum	Maximum	Mean
Before retirement	ETB420	ETB2985	ETB1702.5
After retirement	ETB700	ETB12000	ETB6350

*Source: Author's survey (2019)*

Table 4.9 indicates that the minimum amount of expenses before retirement is ETB 420 and the maximum amount of consumption expenditure is ETB 2985. And the minimum amount of consumption expenditure after retirement is ETB 700 and the maximum amount of living expenses for pensioners is ETB 12000. On the same speaking the average mean consumption expenditure of pensioners before retirement is ETB 1702.5 and the mean average of consumption expenditure of pensioners after retirement is ETB 6350.

The result of the survey shows that 85.9% from the total respondents of 385 that was used in the analysis had their average pre-retirement income (income before retirement) for consumption expenditure have less average pre-retirement income of the pensioners for household expenditure requirements. This pre-retirement income is a summation of monthly salary and lump sum converted into monthly basis. Similarly, this survey indicates that 94.1% from the sum total of 385 respondents was used in the analysis had their average retirement income for consumption expenditure have less than the average retirement income of the pensioners for household expenditure.

The remaining 5.9% can afford the consumption expenditure requirement due to the fact that their retirement income is greater than the average mean of consumption expenditure requirement which is ETB 1897 in this survey. Furthermore, the average mean of pre-retirement income (income before retirement) needed for consumption expenditure is ETB 1702.5 whilst the average mean of post retirement income needed for expenditure is ETB 6350. This means that the average consumption expenditure is exceeds by 73.18% which implies that

on average a pensioner needs additional 73.1% of alternative sources of retirement income to supplement his\her monthly retirement income.

#### **4.3.2. The comparison between average monthly income and living expense**

Table 4.10. Descriptive Statistics

Item	Minimum	Maximum	Mean
Average monthly retirement income	ETB560	ETB5572	ETB3066
Average monthly living expense	ETB700	ETB12000	ETB6350

*Source: Author's survey (2019)*

Table 4.10 indicates that, the minimum amount of retirement income for pensioners is ETB 560 and the maximum amount of retirement income for pensioners is ETB5572. And the minimum amount of living expense for pensioners is ETB 700 and the maximum amount of living expense for pensioners is ETB 12000. Similarly the average monthly retirement income is ETB3066 and the average monthly living expense for pensioners is ETB6350. The finding of the study indicates that, 48.28% from the aggregate respondents of 385 that was used in the analysis had their average retirement income for consumption expenditure have less average retirement income for consumption expenditure. This retirement income is a summation of monthly salary and lump sum converted into monthly basis. Similarly, this survey indicates that 73.18% from the sum total of 385 respondents was used in the analysis had their average consumption expenditure have less than the average consumption expenditure. The remaining 5.9 can afford the consumption expenditure requirement due to the fact that their retirement income is greater than the average mean of consumption expenditure requirement which is ETB 6350 in this survey.

More interestingly, the average mean of retirement income is ETB 3066 whilst the average mean of post retirement income needed for expenditure is ETB 6350. This means that the average consumption expenditure is exceeds by 48.28% which implies that on average a pensioner needs additional 48.28% of alternative sources of retirement income for monthly consumption expenditure. The rationale behind the need for this inquiry is so important because we can investigate where and how

pensioners get the alternative retirement income. This is why the researcher tried to set final objective called other mechanisms retiree's use to make the retirement adequate as finding of an alternative sources of retirement income.

To conclude, 48.28% pensioners spend more than their retirement income and 51.2% spend within their limits or less. More interestingly, pensioners on average spend 48.28% more than their retirement income can provide. This leads to the generalization of most pensioners have alternative sources of income to supplement their retirement benefit.

**Table 4.11. Frequent Experience of unexpected expenses of Retirees**

Expense Type	Frequency	Percent	Valid Percent	Cumulative Percent
For medical expense	109	28.3	28.3	28.3
For consumption	231	60.0	60.0	88.3
For debt	28	7.3	7.3	95.6
For social expense	17	4.4	4.4	100.0
Total	385	100.0	100.0	

*Source: Author's Survey, (2019)*

Table 4.11 indicates the result of frequent experiences of unexpected expenses of retiree's. And from the total respondents of 385, 231(60%) of them have consumption expenses, 109(28.3%) of them have medical expense, 28(7.3%) of them have debt and 17(4.4%) of them have ceremonial expenses like funerals and social expenses. This indication shows us among frequent expenses expense for consumption is the highest one following extra consumption expenditure.

Table 4.12. Composition of retiree's household expenditure requirements

Expenditure type	Frequency	Percent	Valid Percent	Cumulative Percent
Expense for renting house	14	3.6	3.6	3.6
Expenses for bills	28	7.3	7.3	10.9
Expense for clothes & footwear	20	5.2	5.2	16.1
Medical expense	56	14.5	14.5	30.6
Food consumption	267	69.4	69.4	100.0
Total	385	100.0	100.0	

*Source: Author's Survey, (2019)*

Composition of household expenditure (consumption expenditure) is the totality of expenditures spent a month on average basis for in food, water; utility which accounts water, electricity, telephone, clothes and foot wears. And form the total respondents of 385, 267(69.4%) of them have consumption expenses, 56(14.5%) of them have medical expense, 28(7.3%) of them have expenses for bills, 20(5.2%) and 14(3.6%) of them have expense for clothes, shoes ceremonial and expenses for rent respectively. This indication shows us among frequent expenses expense for consumption is the highest one following extra consumption expenditure. Therefore foods are accounts majority of the consumption expenditure. Secondly expenditure for healthcare is the most significant one for pensioners' because of the absence of National health insurance scheme. Therefore pensioners have paid great amount of money for healthcare and some kind of drugs which helps for their health condition. Pensioners who are fighting with various ailments pay huge sums monthly basis just for drugs and periodic and continuous checkups. Household expenditure on utility is the third major consumption expenditure for pensioners. Expenditure on clothes and footwear and expenditure for rent is the least consumption expenditure for pensioners.



#### 4.4. Other alternative Mechanisms (sources of income) the retirees use to make their retirement income adequate and sustainable

##### 4.5.1 Model 1: Ranks of alternative Sources of retirement income

The pensioners were asked to rank the alternative sources of retirement income on scale according how it significantly contributing to supplement retirement income and financing of living expense. The scale ranges 1-5 with (5) Most Important, (4) More Important, (3) Important, (2) Less Important and (1) Not Important. The result summarized in table 4.13 below.

Table 4.13. Sources of Income for Retirees

Source of Income		Most Important	More Important	Important	Less Important	Not Important	Total
Income from post retirement job	Frequency	46	68	119	82	70	385
	Percentage	11.9	17.7	30.9	21.3	18.2	100
Retirement income	Frequency	138	97	50	82	18	385
	percentage	35.8	25.2	13.0	21.3	4.7	100
Income from Saving	Frequency	14	16	120	60	175	385
	percentage	3.6	4.2	31.2	15.6	45.5	100
Rental income	Frequency	22	70	40	137	116	385
	Percentage	5.7	18.2	10.4	35.6	30.1	100
Income from Relatives	Frequency	165	134	56	22	8	285
	Percentage	42.9	34.8	14.5	5.7	2.1	100

*Source Author's Survey (2019)*

The survey of this study indicates that, from 385 pensioners 165 (42.9%) of them believed, income from relatives is the most important sources. 134 (34.8%) of them believed income from relatives is more important source of income. Interestingly, 56(14.5%), 22(5.7%), 8(2.1%) of them believed income from relatives is important, less important and unimportant source of income respectively. Secondly, 138(35.8%) of them believed, retirement income is the most important source of income. 97(25.2%) of them believed, retirement income is more important income

source. 82(21.3%), 50(13%) and 18(4.7%) of them believed, retirement income is less important, important and unimportant sources of income respectively.

Thirdly, 46(11.9%) of them believed, income from post retirement job is most important. 68(17.7%) of them believed, income from post retirement job is more important. 119(30.9%), 82(21.3%) and 70(18.2%) of them believed, income from post retirement job is important, less important and unimportant respectively. Fourthly, 22(5.7%) of them believed, rental income is most important source of income. 70(18.2%) of them believed, rental income is more important source of income. 137(35.6%), 116(30.1%) and 40(10.4%) of them believed, rental income is less important, unimportant and important respectively. The last alternative sources of income for retirees are income from saving and 14(3.6%) of them believed, income from personal saving is most important. 16(4.2%) of them believed, income from personal saving is more important. And 175(45.5%), 120(31.2%) and 60(15.6%) of them believed, income from personal saving is unimportant, important and less important respectively.

Table 4.14. Interpretation of sources of Alternative Income

Sources of Income	N	Minimum	Maximum	Mean	Std. Deviation
Retirement income	385	1	5	3.66	1.285
Income from Relatives	385	1	5	4.11	.990
Income from Post Retirement Job	385	1	5	2.84	1.254
Rental Income	385	1	5	2.34	1.240
Income from Saving	385	1	5	2.05	1.123

*Source Author's Survey (2019)*

Table 4.14, describes and summarizes table 4.13., in an explanatory form. The minimum rank that the sources of retirement income could obtain 1 and the maximum rank is 45. As in table 4.5.1 already discussed above. 5: most important 4: more important 3: important 2: less important 1: not important.

Therefore, the source of income relatives that has a mean rank closer 4 is most important in terms of source retirement income than has a mean rank closer to 1. Based on this explanation, on average retirement income is more important source of income since it has the mean rank of 3.66. And it has the standard deviation of

1.285. Income from post retirement job is the third more important source of income for pensioners. This is because it has the third lower mean rank of 2.84 which approaches to 3. And it has the standard deviation of 1.254. The fourth less important source of income for pensioners is income from rental. Because it has the forth mean rank of 2.34 which approaches to 2 but lower than the mean rank of remittance from family and friends.

The last less important source of income is income from personal savings since it has the mean rank of 2.05 which approaches to 2. Pensioners respond that personal saving is the least source of income since it has the lowest mean rank of 2.05. Surprisingly, pensioners considered the above sources of income are unimportant and less important.

Model 2: Kendall's Coefficient of Concordance (W Test) to know income sources that significantly affect consumption expenditure of pensioners'

In order to compute the Kendall's W test of concordance, there should be no missing observations in the data set used. Three sources of income were used to execute this test. These income sources are retirement income, income from post-retirement job and remittances from family and friends and income from personal saving. The conditions which serves as criteria is that, a pensioner needs to be receiving income from post retirement job, remittances, income from rent and income from personal saving and above all are pensioners and receiving retirement income.. The scale was divided from 1 to 5. The meanings assign to this ranks which are quite different from previous one; 5: Most important, 4: More important, 3: Important, 2: less important and 1: not important. The output of the distribution is presented in table 4.15 below.

Table 4.15. Ranking of source of Retirement Income

Source of Income		Most important	More important	important	Less important	Not important	total
Income from Relatives	frequency	165	134	56	22	8	385
	Percentage	42.9	34.8	14.5	5.7	2.1	100
Retirement income	Frequency	138	97	50	82	18	385
	percentage	35.8	25.2	13.0	21.3	4.7	100
Income from post retirement job	frequency	46	68	119	82	70	385
	Percentage	11.9	17.7	30.9	21.3	18.2	100
Rental income	frequency	22	70	40	137	116	385
	Percentage	5.7	18.2	10.4	35.6	30.1	100
Income from Saving	frequency	14	16	120	60	175	385
	Percentage	3.6	4.2	31.2	15.6	45.5	100

*Source Author's Survey (2019)*

## 6.4 Outputs of Kendall's Test

The execution of Kendall's test is classified in to three parts. And these parts are 1: descriptive statistics, 2: ranks and 3: test statistics. All these parts are discussed below.

Table 4.16. Descriptive Statistics

Sources of Income	N	Minimum	Maximum	Mean	Std. Deviation
Income from Relatives	385	1	5	4.11	.990
Retirement income	385	1	5	3.66	1.285
Income from Post Retirement Job	385	1	5	2.84	1.254
Rental Income	385	1	5	2.34	1.240
Income from Saving	385	1	5	2.05	1.123

*Source Author's Survey (2019)*

### Kendall's W test

Table 4.17. Ranks

Sources of Income	Mean Rank
Income from Relatives	4.11
Retirement income	3.66
Income from Post Retirement Job	2.84
Rental Income	2.34
Income from Saving	2.05

*Source Author's Survey (2019)*

Table 4.18. Test Statistics

Number of observation	385
Kendall's W	0.303
Chi Square	466.334
Degrees of freedom	4
Asymptotic Significance	0.000

*Kendall's coefficient of concordance*

As it already discussed in the above, Kendall's rank test (Kendall's coefficient of concordance) used to measure inter rater agreements between pensioners. That is the extent to which raters agree on an issue. The scale is from 1-5. A mean rank closer 5 is most important than a mean rank closer to 1 because 5 represents most important and 1 represents not important.

Saying so, income from relatives obtained the highest mean rank of 4.11 which indicates that it is the most important source of income. The second more important

source of income is income from retirement. This is because it has the second highest mean rank of 3.66. And the third important source income is income from post retirement job since it has the mean rank of 2.84 which is closer 3.

The Kendall's W in table 4.18 indicates that approximately 30% of pensioners agreed that income from relatives is "most important" source of income for living expenses. Retirement income is the "more important" source of income for living expenses of the pensioners. Income from post retirement job is ranked "important" source of income. This is followed by rental income and it is ranked as less important source of income used for living expenses of the pensioners. We can also have additional interpretation that is assigned to the Kendall's W. There is 30% inter rater agreement by pensioners to the order of the ranking of income from relative is the most important source of income followed by retirement income is more important source of income followed by income from post retirement job, rental income and income from personal saving respectively.

The asymptotic significance of 0.000 from the Kendall's coefficient of concordance test statistic shown in table 4.5.6 is a test of the significance of the differences in importance of the income sources. In other words it shows the significant effect of the importance of the various retirement income sources in financing household expenditure. An asymptotic significance of 0.000 therefore imply that the differences in agreement of the rankings of the importance of pensioner's retirement income sources is highly significant at 5% significance level because it is less than a p-value of 0.05 ( $p < 0.05$ ). Simply put, the pensioner's agreement to the order of importance of the income sources is highly significant.

Therefore, based on these findings we can deduct three equivocal statements. First, the social security agency in collaboration with the Ethiopian government should improve policies and rules of pension administration. Because pensioners regarded retirement income is more important source of income. Any policy shift or change on pension administration therefore will have an impact on the lives of pensioners and dependents on a very significant way.

Secondly, alongside with retirement benefit the government should see alternative means like creating post retirement job opportunities or extending retirement age.

This is due to the fact that, income from post retirement job is important source of income for pensioners. And a significant number of pensioners still working and other are willing to work and looking for work but are often discriminated on age grounds.

Thirdly, only 30% of pensioners ordered the rank of retirement income as more important source income. The remaining 70% are disagreed more importance of retirement income. This implies that significant proportion of pensioners regarded income from relatives; income from post retirement job is the most important source of income. Therefore retirement income is insufficient for their living expense. Simply put, pensioners have to work and get income from relatives to supplement their retirement income and this shouldn't be the usual case.

## **5. Conclusion and Recommendations**

### **5.1 Summary of the main findings**

- This study finds out that among the determinants of retirement income pre-retirement income level first. Following household (family) health status and this family size comes second and third respectively. Personal saving (investment) and occupational status is found to be insignificant factor for the determinant of retirement income adequacy.
- Concerning of distribution of retirement income and consumption expenditure, all the categories have expenditure being higher than pension benefits. This implies that the pensioners spend for more than their pension benefits.
- 48.28% pensioners spend more than their retirement income and 51.2% spend within their limits or less. More interestingly, pensioners on average spend 48.28% more than their retirement income can provide.
- Form the total respondents of 385, 231(60%) of them have consumption expenses, 109(28.3%) of them have medical expense, 28(7.3%) of them have debt and 17(4.4%) of them have ceremonial expenses like funerals and social expenses.
- And form the total respondents of 385, 267(69.4%) of them have consumption expenses, 56(14.5%) of them have medical expense, 28(7.3%)

of them have expenses for bills, 20(5.2%) and 14(3.6%) of them have expense for clothes, shoes ceremonial and expenses for rent respectively.

- Among frequent expenses expense for consumption is the highest one following extra consumption expenditure. Therefore foods are accounts majority of the consumption expenditure. Secondly expenditure for healthcare is the most significant one for pensioners' because of the absence of National health insurance scheme. Therefore pensioners have paid great amount of money for healthcare and some kind of drugs which helps for their health condition. Pensioners who are fighting with various ailments pay huge sums monthly basis just for drugs and periodic and continuous checkups. Household expenditure on utility is the third major consumption expenditure for pensioners. Expenditure on clothes and footwear and expenditure for rent is the least consumption expenditure for pensioners.
- Regarding on pre-retirement and post retirement income, 73.18% of the pensioners respond their average pre-retirement income for consumption expenditure is no sufficient for household's expenditure requirements. Similarly, the study indicates that 48.28% of the pensioners respond their average retirement income is not enough for household's expenditure requirements.
- Furthermore, the average mean of pre-retirement income (income before retirement) needed for consumption expenditure is ETB3066 whilst the average mean of post retirement income needed for consumption expenditure is ETB 6350. This implies that the average consumption expenditure is exceeds by 48.28% which indicates that on average a pensioner needs additional 48.28% of alternative sources of retirement income to supplement his or her monthly retirement benefit.
- 165 (42.9%) of them believed, income from relatives is the most important sources. 134 (34.8%) of them believed income from relatives is more important source of income. Interestingly, 56(14.5%), 22(5.7%), 8(2.1%) of them believed income from relatives is important, less important and unimportant source of income respectively.

- 138(35.8%) of them believed, retirement income is the most important source of income. 97(25.2%) of them believed, retirement income is more important income source. 82(21.3%), 50(13%) and 18(4.7%) of them believed, retirement income is less important, important and unimportant sources of income respectively.
- Thirdly, 46(11.9%) of them believed, income from post retirement job is most important. 68(17.7%) of them believed, income from post retirement job is more important. 119(30.9%), 82(21.3%) and 70(18.2%) of them believed, income from post retirement job is important, less important and unimportant respectively.
- Fourthly, 22(5.7%) of them believed, rental income is most important source of income. 70(18.2%) of them believed, rental income is more important source of income. 137(35.6%), 116(30.1%) and 40(10.4%) of them believed, rental income is less important, unimportant and important respectively. The last alternative sources of income for retirees are income from saving and 14(3.6%) of them believed, income from personal saving is most important. 16(4.2%) of them believed, income from personal saving is more important. And 175(45.5%), 120(31.2%) and 60(15.6%) of them believed, income from personal saving is
- The Kendall's coefficient of concordance (W test) shows that 30% of pensioners agreed that income from relatives is "most important" source of income for living expenses. Retirement income is the "more important" source of income for living expenses of the pensioners. Income from post retirement job is ranked "important" source of income. This is followed by rental income and it is ranked as less important source of income used for living expenses of the pensioners.
- Only 30% of pensioners ordered the rank of retirement income as more important source income. The remaining 70% are disagreed on the importance of retirement income. This implies that significant proportion of pensioners regarded income from relatives; income from post retirement job is the most important source of income.



- This indicates that significant proportion of pensioners regarded income from relatives and post retirement job as most important source of income. Generally speaking, retirement income is insufficient for their living expense. Retirees have to work and earn income from their relatives to balance their consumption expenditure.

## **5.2. Conclusion**

Thus, a major critique of this study is seen in the current retirement income is not ready to afford household's expenditure requirements. There is also the occurrence of disparities of consumption expenditure and current retirement income. From this point of view, retirement income would appear inadequate and unsustainable for members of the scheme unless and until retirement policies and regulations are issued for the better and adequate retirement income of the pensioners. Specifically, the Ethiopian pension scheme does not give any significant figure on retirement income adequacy and sustainability. Since its establishment, it is appearing to entitle pension benefits and create favorable and smooth consumption for retirees not more than 5-10 percent of the total pensioners.

The review of the related literature pointed out that retirees need 70-80 percent of their prior earnings to keep up their standards of living in retirement. Social Security today replaces less than that -about 40 percent for an average earner at retirement. Yet most retirees rely on Social Security for most of their income. This study also identified that most retirees replaces less than 50 percent for an average earner at retirement.

## **5.3. Recommendations**

In the view of the findings and the conclusion of the study, the following recommendations are suggested by the researcher in the hope that would help for policy interferences.

- It is recommended that the social security agency in collaboration with the government should considers the pension payments made in effect did not contribute for most of the pensioners to have even three meals a day and subsidize the scheme so that it can revise the amount of payment to be paid for the already retired people to improve their destitute living situation.

- The present working population in Ethiopia specifically who are under pension scheme should be advised to plan for retirement. Current workers are recommended to save and manage investment early in life and they should have enquired about investment opportunities in which they are undertaken. This is because retirement income is adequate and sustainable as witnessed in the study and most retirees should save strongly during working life time for retirement.
- The social security agency in collaboration with the Ethiopian government should set the minimum wage equal to the minimum pension and should be adjusted any time as the minimum wage is adjusted.
- The government of Ethiopia should establish free national health insurance schemes for pensioners since pensioners are highly vulnerable to old age related health problems and because of the highly expensive nature of health care cost. This is because they have contributed their best for national development at working time.
- The government should establish recreational and elderly centers to protect the pensioners' time and money. Unless and otherwise they will spend their time and money in unfavorable places like alcohol houses and other related places. And finally their health condition will be bad because of alcohols.
- In collaboration with government the social security organizations should organize retirement seminars and panels annually for their workers to give call up on retirement planning especially for those who are nearing to retirement.

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# **The Challenges of Public-Private-Partnership in Local Economic Development in Selected Municipalities of Oromiya National Regional State**

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## **Abstract**

*Public-private-Partnership is a collaborative arrangement between public sector and a private better provision of public infrastructure and services. This research seeks at investigating the constraints to public-private partnership and assesses the extent of participation of stakeholders in designing Local Economic Development (LED) planning in the selected municipalities of Oromiya National Regional State. The study employs a cross-sectional case study design and both quantitative and qualitative (mixed) approaches were used. Out of a total number of 350 business enterprises, 100 or (28.5%) were selected to collect data through questionnaire. In addition, about interviews were conducted with key 48 informants. In order to select samples out of the total population, both probability (i.e. simple random sampling technique particularly lottery method) and non-probability (subjective sampling) methods of sampling techniques were applied. The four study town administrations were chosen based on a number of criteria such as being the reform towns in Oromiya regional state. In line with the research objectives and questions, the following major findings were identified :(1) Lack of trust and political will ;(2) Inadequate capacity and skill to coordinate stakeholders; (3) Lack of the necessary support regarding land, credit, and training; (4) Lack of transparent bid opportunities by the city administration;(5) the Forum meetings usually focused on temporary political issues than long terms development issues; and (6) Less attention of officials to address the questions of business firms in the towns. With the view to mitigate the above-mentioned constraints, the following recommendations are forwarded. (1) LED plans should be designed, implemented, and evaluated by the participation of all stakeholders (2) there should be a legal framework and policy on public-private-partnership and areas of potential collaboration.*

**Key Words:** *capacity, participation, effectiveness, Local Economic Development, Partnership, political will.*

## **1. Introduction**

Local Economic Development (LED) is a recent approach to economic development. It places importance on activities in and by cities, districts and regions. This involves economic and social development activities undertaken at the local (micro) level to complement measures at the national (macro) level. LED encompasses a range of disciplines including planning, economics and marketing, all with the goal of building up the economic capacity of a local area to improve its economic future and the quality of life for all (Tegegne and Richard, 2011). Since

2009, the Ethiopian Government introduced Public-Private-Partnership in the Federal Government Procurement and Property Administration Proclamation No.649/2009 which clearly defined the term. This regulation empowers the Ministry of Finance to issue the rules and regulations on establishing and implementing public-private-partnerships. This document was later supplemented by the Investment Proclamation no. 769/2012. Despite the above proclamations, the prevalence of public-private-partnerships is limited in Ethiopia because Public-Private-Partnership arrangements are not incorporated in the development policy of the country (UNDP Ethiopia, 2015).

The concept of formal mechanism for Public-Private-Partnership (PPP) and Public-Private Dialogue (PPD) is not new to Ethiopia. For example, the United Nation Development Program (UNDP Ethiopia, 2015) worked closely with government and private sector stakeholders in the late 1990 have called the Public-Private Partnership (PPP). The Ethiopian Public-Private Consultative Forum which is chaired by the Prime Minister was established. The Consultative Forum held once a year. The forum is an opportunity for national level issues to be addressed by the Prime Minister. The public-private-partnership had been a top level dialogue that met on an annual basis. The level of trust between the public and private sector institutions were very low. There was little communication and the impact of any dialogue was limited (Mamo and James, 2011).

Different studies (Stavridis and Evelyin, 2012) showed that there are some obstacles to public-private collaborations. These include legal and regulatory restrictions, lack of trust among local stakeholders, and lack of strong institutional mechanisms, lack of political will and capacity of local government authorities, etc. According to a survey conducted by Teshome (2014), UNDP Ethiopia (2015) and Asubonteng (2011), public-private-partnership arrangement in Ethiopia are constrained by legal institutional and operational impediments.

This study assumes that currently in Ethiopian town administrations, there are major obstacles that restricted the development of sound public-private-partnerships. These constraints are mostly area specific. Therefore, this study seeks to assess the constraints and challenges of Public-Private Partnership and analyze the role and participation of development stakeholders or actors in designing local economic development plan in the selected cities. Hence, the final findings of the research are believed to contribute to increase the practical knowledge, awareness and understanding of the challenges of public private collaborations in the four selected town administrations of Oromiya regional state. This study is, therefore, designed to fill the knowledge gap on the critical challenges of Public-Private-Partnership.

## **2. The Methods**

This research is cross-sectional and explanatory in its design. A cross-sectional study design involves collection of information from a sample of population or phenomenon that is made at one point in time. However, explanatory cross-sectional studies have an inherent limitation. Although their conclusions are based

on observations made at only one time, typically they aim at understanding causal processes that occur over time (GIVEN, 2008).

This study is both quantitative and qualitative (mixed) in its approach. Both primary and secondary sources of data were consulted. According to Creswell (2003), qualitative research is basically interpretive. Qualitative research provides high quality data and findings and deep, meaningful insights into underlying values of individuals and groups. However, the data collected are usually exaggerated (Pierce, 2008).

According to the information gathered from the four sampled city authorities, there are 350 medium and small business firms in which data was collected from a randomly selected 100(28.5%) private business owners (including Small and Micro Enterprises) through questionnaire. The respondents were selected using systematic simple random sampling techniques after knowing the list of study population in each city. In addition, to complement the information gathered through questionnaire 48 office heads/ experts, Micro and Small Scale Enterprises, Development Association of the Region or Oromiya Development Association(ODA), Government universities found in each sample towns, Chamber of Commerce and Sectoral Associations, Offices of Trade and Industry, Women's Affairs office, Youth and Women's Associations, town administrations( mayors) and Labor and Social Affairs office of respective town Administrations were purposively chosen for face-to face interview. These were believed to have rich knowledge and experience on issues of public-private partnership in their respective towns. The numbers of interviewees were decided on the spot depending on the principle of data saturation.

According to proclamation no.65/2003 of the Oromiya National Regional State, there are 20 reform cities. Adama, Jimma, Metu and Ambo are included in this category of reform cities. These four towns (20%) were selected using simple random sampling technique especially lottery method. Respondents for questionnaire administration were selected using systematic random sampling technique. Respondents for qualitative information (interview) were chosen purposively depending on their level of expertise and knowledge to be used in this research.

A structured open-ended qualitative interview was employed to know the perceptions, views, challenges and constraints faced, feelings, knowledge and direct experiences of different but still relevant bodies on the subject matter. Structured approach is mainly useful if one knows the kind of questions to ask (Quinn, 2002).

### 3. Results and Discussions

#### Issues of Consultation, Legal Requirement, Criteria, and New Initiatives

The responses of the respective town administrations (100 percent) showed that mayors and heads of sector offices of the sampled towns made a consultation with the business community and other local development actors regarding policies and strategies which could affect the private sectors. However, the consultation is not consistent. As to the key informants, there is a meeting with the city businessmen every month. The meeting is annually planned. But, the opinion of business community is less considered in the legislative making process. The view of the business community is not getting considerable attention by the respective policy-making bodies.

Heads of sector offices and Mayors of the sampled towns said that consultation with the business community has a legal recognition. “Meeting with them is a must”. According to the mayors of the four towns, there are no criteria to assess whether business community members represented or not in the meeting. Usually, the discussion is held with the representatives of the business community. It is done directly with the business enterprises. There is always a regular meeting with business owners.

**Table 1: Legal Requirement, Criteria and Time**

Items	Category	Frequency	Percentage
Legal requirement of consultation with business community	Yes	10	20.8
	No	38	79.2
	Total	48	100
Legal criteria to assess representativeness of business organizations	Yes	15	31.25
	No	33	68.75
	Total	48	100
Compulsory time for consultation with the business organizations	Yes	0	-
	No	48	100
	Total	48	100
Sufficiency of time for consultation on a specific topic	Yes	0	-
	No	48	100
	Total	48	100
New initiatives aiming to improving the dialogue among private sector and the local government	Yes	40	83.33
	No	8	16.67
	Total	48	100

Source: Interview

Table 1: above depicts that majority of respondents (79.2%) of the sampled town administration believed that consultation with the respective business community



has no legal criteria. According to them, consultation with business community is not required as mandatory by law. Based on the responses of the majority, the absence of legal requirements and criteria could reduce sense of ownership, interest and commitment of various local actors in contributing to the development of the town.

### **1. Public-private Forums, Representation, Invitation and Accountability**

From the discussions in chapter two above, it is clear that establishing some kind of body or organization such as forms is useful to be a platform for discussion among local stakeholders. Furthermore, for successful public-private-partnership, following some important guiding principles such as inclusiveness, empowerment, accountability and fair representation are critical factors.

**Table2: Public-Private Forums, Representation, Invitation and Accountability**

Items	Category	Frequency	Percentage
Representation of public-private-Forums	Yes	80	80
	No	20	20
	I don't know	0	-
	Total	100	100
Invitation by local authorities	Yes	90	90
	No	10	10
	I don't know	0	0
	Total	100	100
Commitment of development actors to the goals of the Forums	Yes	85	85
	No	10	10
	I don't know	5	5
	Total	100	100

Source: Own survey

Respondents highlighted that public-private-partnership forums were established in all sample town administrations. For instance, in Ambo town, there is a “strong” forum which was established before 2 years. There is also a committee and command post to enhance and support Medium and Small Enterprises. The committee discusses issues regularly once a week. There are also clusters. According to respondents from business enterprises, they have requested a piece of land for urban agriculture in the town. Yet, their request did not get response from the local municipality. In Adama town there is a forum which was established in 2006. The forum is led by the Mayor and it is a member of the town Chamber of

commerce. According to respondents, they have a meeting convened every month. But it is not regular. Every 3 months they meet with business community. Despite the establishment of an organization, there is lack of consistent and regular meeting of the forum which may reduce the desire and confidence of stakeholders on local authorities and may also lead to dissatisfaction of the business community.

In Jimma town there is an organization known as Jimma city Development Advisory Forum which was established in 2005(E.C.). The forum has been led by Jimma university president and is working to engage and coordinate efforts towards the development of the town. According to the information gathered from the town Chamber of Commerce and Sectoral Association, the effectiveness of the forum is not satisfactory. The political willingness of the city government officials to make consultation with the private sector is very low. The respondent from Jimma town chamber of commerce and sectoral association also said that the forum should discuss development issues than temporary political issues. The agendas in the forum often are political than development oriented. As Table 2 depicted above, the majority of respondents agreed that they are invited by local government authorities for discussions. Almost all actors of development believe that the public-private- partnership has a greater benefit to them. And yet, their organizations were not adequately represented in different meetings held with the town administrations. They agreed that all actors of development are not committed to the goals of the forums established in the towns.

#### **a. Stakeholders Participation in Forums**

As it has been discussed in this paper, LED is a multi-actor process. This implies that every stakeholder has the right and obligation to directly or indirectly involve in the forum which they have established. The mere presence of an institution is meaningless unless and otherwise the members are actively participating in the decision-making and planning process. Participation is also helpful to timely identify problems and ensure good governance.

#### **b. Effectiveness of Forums, Political Willingness and Satisfaction**

**Table 3: Issues of Effectiveness of Forums, Participation and Political Willingness**

Items	Very Satisfactory		Satisfactory		unsatisfied		I don't know	
	Frequency	%	Frequency	%	Frequency	%	Frequency	%
Level of satisfied with the effectiveness of the forum	80	80	10	10	5	5	5	5
political willingness government officials to make consultation with the private sectors	85	85	5	5	10	10	0	-
Level of participation	75	75	15	15	5	5	5	5

Source: Interview

Very few respondent revealed that due to some problems such as lack of viable market link, lack of rules and regulations, absence of legal office structure that is

responsible to take responsibility, and weak performances in the industrial sectors are some of the major challenges face the for Public-Private-Partnership in the respective towns. According to respondents, no clear cut rules which may govern regarding the relationship between the local governments and Chamber of Commerce in the towns. Furthermore, the private sector lacks interest in getting consultation with the leaders of each government town administrations. However, the researcher observed that in some town administrations such as Jimma, Industry Zones were established.

Most of the owners of the business organization agreed that they made a consultation with their respective town governments especially with offices such as Children's and Women's offices, Agricultural offices, Trade and Industry offices, Kebeles officials, Revenue and Custom Authorities of the town, etc.

Three-fourth of respondents (75%) said that they have been very actively participating in the meeting of the town forums. However, some or (15%) have the opinion that they are not actively participating in the town forums due to lack of invitation by town administrative authorities to participate. According to the information gathered from members of the private sector, the local authorities invite selectively those stakeholders which they believe are important. From this response we can conclude that lack of legal framework, policy and strong institution which have been identified by this research are the critical obstacles for effective and efficient public-private-partnership.

### c. Benefits of Public-Private-Partnership

Respondents agree that public-private-partnership is beneficial and an opportunity to discuss different issues and concerns with government officials and share ideas with other stakeholders.

**Table 4: Questions Raised by the private sectors and Responses provided by local authorities**

Items	Yes		No		I don't know	
	Frequency	%	Frequency	%	Frequency	%
Prevention or restriction of demands	0	-	100	100%	0	-
Demands resolved	85	85%	15	15%	0	-

Source: Own survey

. About 85 percent of respondents pointed out that the demands of the business community have got positive responses by local authorities. Yet, few of the respondents (15%) said that some of the most important questions such as land and tax issues are not addressed by local government authorities. Informants were asked to explain the type of support they got from the local town administrations.

#### **d. Issues of Dialogue, Trust and Capacity**

For successful public-private-partnerships, consistent dialogue among stakeholders is very critical. In this regard, the following table highlighted the views of respondents on the issues of dialogue, trust and capacity.

Table 5: Issues of Dialogue, Trust and Capacity

Items	yes		No		No answer	
	Frequency	%	Frequency	%	Frequency	%
Trust on the leadership of the town administration	75	75%	20	20%	5	5%
Capacity to respond questions on time	85	85%	15	15%	0	-
willing and readiness to make a dialogue with the town administration	100	100	0	-	0	-

Source: Own survey

Respondents were asked whether their organization is willing and ready to make a dialogue with the town administration. Table 5 above revealed that almost all respondents stated that they are ready to make a dialogue with their respective local government officials. According to them (75%), the town administrative officials lacked the necessary knowledge and competence to respond the questions raised by private business men. Respondents also believed that Public-Private Partnership are the opportunity to make discussions and play their roles in the local economic development of their towns. Furthermore, they were asked if they have a trust on the leadership in their town administration. The majority (85%) of respondents have a trust on the local authorities. But some of them (15%) lack trust on officials in the town administrations.

#### **e. The Role of Stakeholders in LED Planning**

Although most local stakeholders show their interest to be included in the design of local planning at the beginning of every budget year, the local authorities are less willing, Respondents were also asked to forward suggestions to improve the public-private-partnership in their town administrations. According to the respondents, the forums established in the town administrations should discuss development issues than political matters.

Finally, the business owners who were asked to forward their ideas regarding suggestions to improve the public-private-partnership in their city explained that awareness creation must be given due attention to improve partnership among all actors of local development in their respective town administrations.

### **4. Conclusion and Recommendation**

#### **4.1.Conclusion**

Based on the detailed discussions in the above sections of the findings and summary of this paper, it can be concluded that:

- The public private partnership in the selected towns are still in its infancy;
- There is very weak level of cooperation among development actors;
- The established forums are not efficient and effective;
- There is still a lack of trust among the development partners;
- The role and representation of stakeholders in the town decision-making process is not satisfactory;
- The local government authorities lacked capacity to implement the principles of public-private-partnership;
- There is no strong political will of local government authorities; and
- The role of local stakeholders in designing LED planning is not satisfactory
- The mayors and heads of government sector offices of the sampled towns made a consultation with the business community regarding policies and strategies which could affect the private sectors. However, the consultation is not consistent;
- There is a meeting with the city businessmen in every month. The meeting is annually planned. But, the opinion of business community is less considered in the legislative making process. The view of the business community is not getting considerable attention by the respective local policy-making bodies;
- There are no criteria to assess whether business community members represented or not in the forum meetings;
- There is always a regular meeting with business owners. The meeting is done at the proposal level of laws. According to the respective mayors, there are new initiatives such as rewarding those businessmen who make development contribution, celebrating days of Coffee (especially in Metu) and pay their taxes permanently;
- There is lack of viable market for products, lack of tax incentives and training;
- Absence of legal office structure which is responsible to take responsibility,
- Weak and unsatisfactory performances of the Public-Private-Partnership in the respective towns;
- No clear cut rules which may govern the relationship between the legal governments and Chamber of Commerce in the towns; and
- The private sector lack interest in getting consultation with the leaders of each government town administrations.
- According to the information gathered from members of the private sector regarding a number of issues related with Public-Private-Partnership, challenges faced, trust and political willingness of the political authorizes in each respective town administrations, the following could be summarized. From the discussions with various stakeholders it is possible to infer that the role of local actors in initiating, and identifying problems and designing and implementing LED planning and executing development projects is negligible. However, the private sector has been engaging in the activities of town beautification, greening, pavement building, solid and liquid waste management etc. According to the respondent from Jimma town chamber of commerce and Sector Associations, most stakeholders mentioned their interest to participate in the town plan preparation at the beginning of the year.

However, local officials of the respective town administrations are not willing and interested to invite local stakeholders in the process of LED planning.

On the other hand, from the information gathered through observation and the respective town administration experts, the business organizations are participated in town greening, pavement building and dry and solid waste collections. This indicated that the type and level of public-private-partnership are limited to few areas.

## **4.2. Recommendations**

Based on the major findings of this study, the following recommendations are forwarded.

- To establish effective public-private-partnership, every stakeholder should be willing and committed to build a strong and viable forum;
- The established forums should conduct a regular (quarterly, monthly, bi-annual and annual) meetings and discuss issues of common concern. This is important to understand the feelings and development priorities of the business community, the problems of the business association such as chamber of commerce and medium and micro-enterprises. In addition, meetings can strengthen trust, accountability and transparency among development actors;
- Every local stakeholder should be a member of the forum and be represented fairly;
- Local government authorities should strengthen their capacity so as to provide the necessary and sufficient support to development actors;
- Local social and economic development programs should be thoroughly designed, planned, implemented, and evaluated by both the stakeholders;
- Local government authorities should respond to the demands of development actors and assist them with the necessary support such as land, facilitate market links and provide tax incentives;
- The local government should accommodate the views of the business community and other stakeholders; and
- If local stakeholders to play active role in the LED process, it is essential that there should be a legal framework and policy on public-private-partnership and areas of potential collaboration.

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# **Adopting International Financial Reporting Standards (IFRS) in the Financing Sectors of Ethiopia: A PLS-SEM Approach**

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## **Abstract**

*An international financial reporting standard requires an entity to comply with each individual standard effective at the reporting date for its first international financial reporting standards-compliant financial statements. Though the adoption of IFRS widespread and the benefits outweigh the costs, there are challenges that obstruct its implementation. The purpose of this study therefore is to assess the challenges and practices of adopting IFRS in finance sector of Ethiopia. The study attempted to find answers for why do the Ethiopian financial sector/firms adopted IFRS and what are the determining factors that affect the application of IFRS in the financing sectors of Ethiopia. The study deployed concurrent mixed research method. The data were collected from primary sources using questionnaire survey and key informant interview. The data gathered through questionnaires were analysed using an advanced multivariate statistical method of Partial Least Square Structural Equation Modelling (PLS-SEM) via SmartPLS 3 software. Data analysis was conducted in two major phases. The first phase involved a preliminary analysis of the data, to ensure that the data adequately meet the basic assumptions in using Structural Equation Modelling. The second phase applied the two stages of Structural Equation Modelling (SEM). The findings of this study revealed that IFRS adaptability depends on the perceptions of the users in terms of familiarity, usability and the risk involved. To effectively adopt IFRS a robust regulatory framework should be set and rigorously enforced, accounting education and training, efficient capacity building programme, and trained and qualified staff should be assigned to take care of its implementation.*

**Key words:** *IFRS, Practices, Challenges, Perception, Adopting, Use, familiarity, risk*



# **1. Introduction**

## **1.1. Background of the Study**

Currently, the Ethiopian financial sector consists of three public banks<sup>1</sup> counting the Development Bank of Ethiopia (DBE), 16 private banks, 14 private insurance agencies, 1 open insurance agency, 31 microfinance organisations and more than 8200 Saving and Credit Cooperatives in both rural and urban areas. Today, International Financial Reporting Standards (IFRS) is the principles of accounting standard which is utilized in more than 100 countries except in the United States. Ethiopia is one of the countries presently imagined implementing IFRS.

The IFRS, recognized as the International Accounting Standards, is a set of accounting standards issued by an independent, not-for-profit organization which is called the International Accounting Standards Board (IASB). The most obvious and immediate impact of the IFRS in financial reporting has been the adoption of tax reporting. The Ethiopian government has stepped up with regards to coordinating financial statements of its different companies with international standards. Accordingly, the government has established the Ethiopian Accounting and Auditing Board (EAAB) to observe and supervise the implementation of IFRS in Ethiopia. As a result, some progress has been achieved relating to awareness creation within the IFRS through coaching, and in pushing the commercial establishments to start out implementing the standards.

As per a final proclamation of 2014, Minister of Finance and Economic Cooperation (MoFEC), is responsible to transform the financial reporting system in the nation's firms. It requires banks, insurance firms and public enterprises to comply with the IFRS standards of reporting with a point in time set for 2018. Other entities, including public institutions, and small and medium enterprises must comply with the standard in the next three years (2019-2021).

IFRS is a cutting-edge financial reporting framework rehearsed in more than 135 nations. Other than profiting from having uniform worldwide benchmarks, it would likewise make it feasible for organizations, including the CBE, to tap worldwide monetary markets, as per specialists. The CBE, however, is not the only financial institution putting an effort to comply with financial reporting based on IFRS.

## **1.2. Statement of the problem**

First, several countries have faced different challenges in their decisions to adopt IFRS. The argument has promoted its widespread adoption that the benefits outweigh the costs. However, there are both advantages and disadvantages to harmonisation (Thorell & Whittington, 1994) and these may affect developed and

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<sup>1</sup> The state-owned CBE is the dominant commercial bank and accounts for 70% of total assets of banks as of May 2013 (See IMF 2013:20). The balance, 30%, is accounted by all the 15 banks.

developing countries differently. The International Accounting Standards Committee Foundation has recognized the “need to have an understanding of the impact of IFRS as they are adopted in particular regions” (IASB, 2004, para. 93) as a result of the criticism that the IASB tends to display an “ivory tower” mentality, hence paying insufficient regard to the practical impacts of its standards. Change (adopting IFRS in this case ) is the process by which organization move from their present state to some desired future state to increase effectiveness. Change is meet with varying degree of resistance in this case in the form of percieved risk, use and familiarity.

Secondly, there has been little empirical research which has focused only on Financial Sector of Ethiopia.

### **1.3. Objectives and basic research questions**

Academics and practitioners each state that IFRS adoption aims to contribute to the economic and cost-efficient in functioning of the capital market system by providing a high level of transparency and comparison of economic reportage since the adoption is related to essential enhancements within the info surroundings. In light of the these explanations, this study focuses on the challenges of IFRS adoption with the following research question:

- a) Why do the Ethiopian financial sector / Firms adopt IFRS?
- b) What are the determinant factors that affect the application IFRS in the financing sectors of Ethiopia?

## **2. Concepts and Theories**

The history of IFRS extends over 40 years. The first set of IAS was issued in 1971 by the International Accounting Standards Committee (IASC), which was subsequently restructured to form the International Accounting Standards Board (IASB). The IASB has globally reshaped the map of financial reporting as evidenced by the large number of countries that have adopted IFRS. This holds true even when one excludes EU adoption, which provided the initial impetus for broader acceptance of IFRS. The main purpose of financial reprinting is provide financial information about the reporting entity that is used to existing and potential investors, lenders and other creditors in making decisions about providing resources to the entity. Private sectors in many country to which Ethiopia belongs had using GAAP but currently there is a move to IFRS.

IFRS is thought to be more comprehensive than domestic GAAP of most countries (except US GAAP). Different Studies have investigated the impact of IFRS adoption on earnings quality, on the cost of capital, and on the value relevance of profits and book value (Beiruth, Fávero, Dal Ri Murcia, de Almeida, &

Brugni, 2017; Chand, Patel, & White, 2015; Goodwin, Cooper, & Johl, 2008; Houque & Monem, 2016; van Greuning, Scott, & Terblanche, 2011; Weaver & Woods, 2015).

According to different scholars, the main impeding factors in the adoption process of IFRS in Europe, America and the rest of the world are not necessarily technical. However, they found that the following factors such as cultural issues, mental models, legal impediments, educational needs and political influences (Mejzlik, Arltova, Prochazka, & Vitek, 2015). Moreover, according to Rong- Ruey Duh (2006), the implementation challenges include timely interpretation of standards, a continuous amendment to improve IFRS, the required bookkeeping learning and mastery controlled by money-related proclamation clients, preparers, examiners and controllers, and administrative impetus (Ball, Robin & Wu, 2000).

Although IFRS has the potentials to facilitate cross-border comparison, increase the reporting of financial straightforwardness, diminish data costs, decrease data asymmetry and consequently increment the liquidity, rivalry and proficiency of business sectors (Ball 2006, Choi & Meek 2005). Armstrong et al.,(2007) and Soderstrom & Sun (2007) have discovered that social, political and business contrasts may likewise keep on imposing huge deterrents to the advance towards a solitary worldwide monetary correspondence framework on the grounds that a solitary arrangement of bookkeeping models can't mirror the distinctions in national business works on emerging from contrasts in organizations and societies. The perception of IFRS quality by users is essential to IFRS adoption. For instance, in a recent survey by McEnroe and Sullivan (2011), individual investors financial specialists felt happy with the present US bookkeeping model and don't want development towards IFRS appropriation. Similarly, Winney et al. (2010) found that small businesses in the US were not prepared for IFRS because they do not see the benefits in switching from GAAP to IFRS accounting standards.

## **2.1 First-time adoption of International Financial Reporting Standards**

IFRS 1 sets out the precise way in which companies should implement a change from local accounting standards (their previous GAAP) to IASs and IFRSs. One of the main reasons for issuing a new standard was that listed companies in the EU were required to prepare their consolidated financial statements in accordance with IFRSs from 2005 onwards. The adoption of a new body of accounting standards will have a significant effect on the accounting treatments used by an entity and on the related systems and procedures. Here are some of the change management considerations that should be addressed (Ernst & Young, 2019):

1. Accurate assessment of the task involved. Underestimation or wishful thinking may hamper the effectiveness of the conversation and may ultimately prove inefficient.
2. Proper planning. This should take place at the overall project level, but a detailed task analysis could be drawn up to control work performed.
3. Human resource management. The project must be properly structured and staffed.

4. Training. Where there are skill gaps, remedial training should be provided.
5. Monitoring and accountability. Implementation progress should be monitored and regular meetings set up so that participants can personally account for what they are doing as well as flag up any problems as early as possible.
6. Achieving milestones. Successful completion of key steps and tasks should be appropriately acknowledged, i.e. what managers call celebrating success so as to sustain motivation and performance.
7. Physical Resourcing. The need for information technology equipment and office space should be properly assessed.
8. Process review. Care should be taken not to perceive the change as a one-off quick fix. Any change in the future systems and processes should be assessed and properly implemented.
9. Follow-up procedures. As with general good management practice, the follow up procedures should be planned in to make sure that the changes stick and that any further changes are identified and addressed.

## **2.2 Challenges of IFRS Implementation**

Implementation of IFRS is not free of challenges. The major challenges encouraged/maybe encountered are as follows (Ball, 2006):

- a. Adoption of IFRS is costly. Costs related to the changing of the internal systems to make it compatible with the new reporting standards, training costs, etc. For example, a study conducted in USA has indicated that the total cost of transition for the US companies will be over \$8 billion.
- b. More detailed rules: Local GAAP of many countries have had no such detailed rules about recognition, measurement and presentation of the financial instruments and many will have had no rules for some accounting issues.
- c. Concepts and Interpretation: Preparers of accounts are likely to think in terms of the conceptual frameworks – if any – that they have used in developing local GAAP, and these may be different from that of the IASB. Where IFRS themselves give clear guidance, this may not matter, but where there is uncertainty; preparers of accounts will fall back on their traditional conceptual thinking.
- d. Choice of accounting treatment: It could be argued that choice is a good thing, as companies should be able to select the treatment that most fairly reflects the underlying reality. However, in the context of change to IFRS, there is a danger that companies will choose the alternative that closely matches the approach followed under local GAAP, or the one is easier to implement regardless of whether this is the best choice.

- e. Inconsistency in recognition or measurement methods. As well as the broader choice of which accounting model to adopt (cost or revaluation, and so on), IFRS allows further choice on recognition and measurement within a particular reporting standard. In countries, where local GAAP is not very developed, preparers of accounts might well choose the least complex option.

According to Obazee (2007), the principal impeding factors in the adoption process of IFRS in Europe, America and the rest of the world are not necessarily technical but cultural issues, mental models, legal impediments, educational needs and political influences.

### **2.3 Factors Affecting the Adoption of IFRS**

The adoption of International Financial Reporting Standards is largely driven by a number of factors, which include among others professional support with IFRS experience and self-enforcement by companies (Iyoha & Faboyede, 2011). Similarly, Mir and Rahman, (2005), examined the factors that influence the recent decision of the Bangladeshi government and accounting profession to adopt IASs. The results of their study revealed that institutional legitimization is found to be the main factor that influences the decision of adoption of IASs. They argued that this was due to pressure on the Bangladeshi government exerted by key international institutions and professional accounting bodies. Chamisa (2000) evaluated the contradiction of the relevance of IASs to developing countries and used the particular case of Zimbabwe. The study reported that there is a significant increase in the number of professional bodies in developing countries. These professional bodies have supported the adoption of IASs, which suggests that these standards are relevant and not harmful to developing countries. The results showed that the adoption of IASs and their impact on the reporting practices of the listed Zimbabwe companies appeared to 19 are significant and relevant to the country as well as similar developing countries where shareholder/fair view is important. Baker and Barbu (2007) in their review of international accounting harmonization research state that: Before 1990, two factors were identified as being the primary explanatory factors for differences in accounting practices: the cultural and economic. After 1989, other factors began to be considered and researchers argued that the diversity of accounting practices was caused by factors beyond the cultural and economic. These includes the historical development of a nation's economy and its capital markets; differences in legal systems; differences in the nature of property rights; the size and complexity of companies within a country; the social climate; the degree of currency stability; the existence of accounting laws; and the educational system. According to Cooke and Wallace (1990), as cited in Zeghal and Mhedhbi (2006, p. 356), the factors affecting the choice of accounting systems could be internal as well as external. They could include factors such as economic growth and the level of wealth, the level of inflation, the education level, the legal system, the country's history and geography, the financial system, the size and

complexity of business enterprises, the notoriety of the accounting profession, the development of financial market, sources of investment and financing and the predominant culture and language. In this study to answer the question of factors that could affect the adoption of IFRS by Ethiopian companies, factors such as perceived familiarity, perceived risk, and perceived use.

### 3. The Methods

#### 3.1 Sampling and Data Collection

The sample was selected based on the universe of the study. The population of the study consists the entire Ethiopian financial sector in Ethiopia but the number of Saving and Credit Cooperatives is quite large. Due to time as well as money constraint, it was not possible to contact all. At this stage, the researchers plan to take a sample 230 selected financial firms and their perception regarding the adoption IFRS. The study used primary data as well as secondary data.

#### 3.2 Methods of Data Analysis

A survey was conducted on accounting academics and practitioners (Financial sectors) to measure their perception of the readiness, benefits, challenges, and ways to adopt IFRS. The research strategies employed in this study combine both qualitative and quantitative methods (concurrent). This study used the concurrent triangulation strategy, which is the most familiar of the six major mixed methods. It is selected because the researcher used different methods to confirm, cross-validate, or corroborate findings within a single study (Greene et al., 1989, Morgan, 1998; Steckler, McLeroy, Goodman, Bird, & McCormic, 1992; as cited by Creswell, 2009).

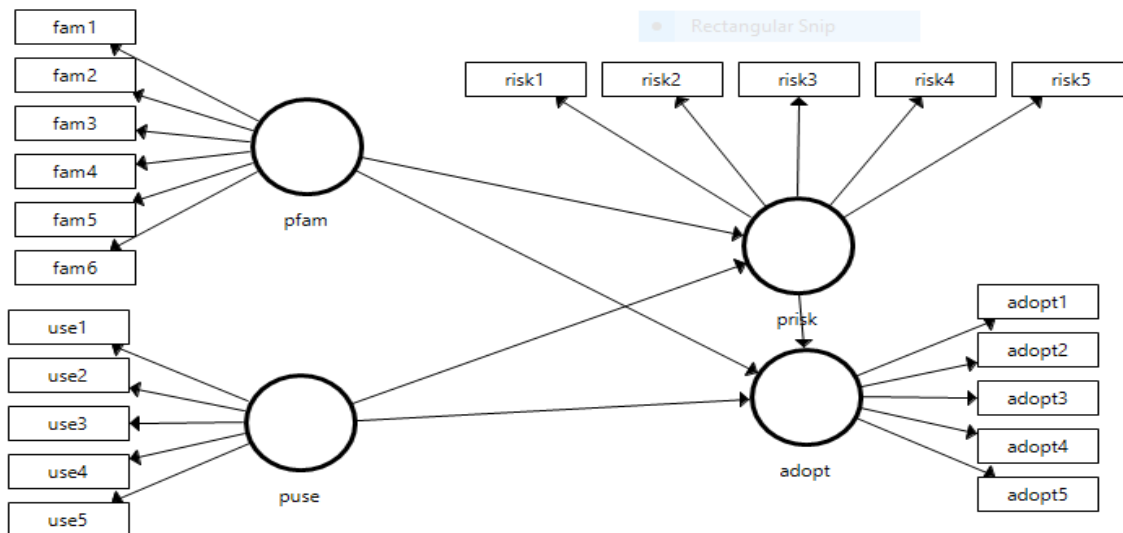


Figure 1: Research Model

Source: Organized from review literature

For the present study, we formulate both Null Hypothesis and Alternative Hypothesis. These Hypotheses are tested with the help of statistical tools. The statements of Hypotheses are as under:

H0: Perceived familiarity has no impact on adoptability of IFRS

H0: Perceived usefulness has no impact on adoptability of IFRS

H0: Perceived risk has no impact on adoptability

H0: Perceived familiarity has no impact on perceived risk

H0: perceived usefulness has no impact on perceived risk

The researchers used a variance-based SEM technique as our estimating method. Partial Least Square (PLS) which is multivariate technique was used to estimate the parameters of a structural model. It maximizes the explained variance of dependent variables by disaggregating the overall causal model into partial equations which are solved simultaneously via regression analysis (Nitzl, 2016).

#### **4. Results and Discussion**

This chapter presents data analysis and findings involving the factors influencing the adoptability IFRS in Ethiopia. These factors are based on the research model presented in section for this purpose and consist of factors representing perceived familiarity, perceived use, perceived risk and the adoptability. A control variable has been involved using Gender as a control variable. The multi group analysis has been attempted to trace out the gender impact. A structural equation model has been estimated using PLS-SEM approach. This study designed PLS-SEM model based on the conceptual framework discussed earlier.

Structural Equation Modelling (SEM) is a second-generation multivariate data analysis method that is often used in marketing research (and has become popular now and used in several research areas including finance) because it can test theoretically supported linear and additive causal models (Chin, 1996; Haenlein & Kaplan, 2004; Statsoft, 2013). With SEM, researchers can visually examine the relationships that exist among variables of interest. The fact that unobservable, hard-to-measure latent variables (not observable also known as constructs or factors) can be used in SEM makes it ideal for tackling research problems involving theoretical constructs.

There are two sub-models in a structural equation model; the inner model (structural model) specifies the relationships between the independent and dependent latent variables, whereas the outer model (also known as measurement model) specifies the relationships between the latent variables and their observed indicators, which can be measured directly. In SEM, a variable can be either exogenous or endogenous. An exogenous variable has path arrows pointing outwards and none leading to it. Meanwhile, an endogenous variable has at least one path leading to it and represents the effects of other variables. Below we present the figure relating inner and outer models:

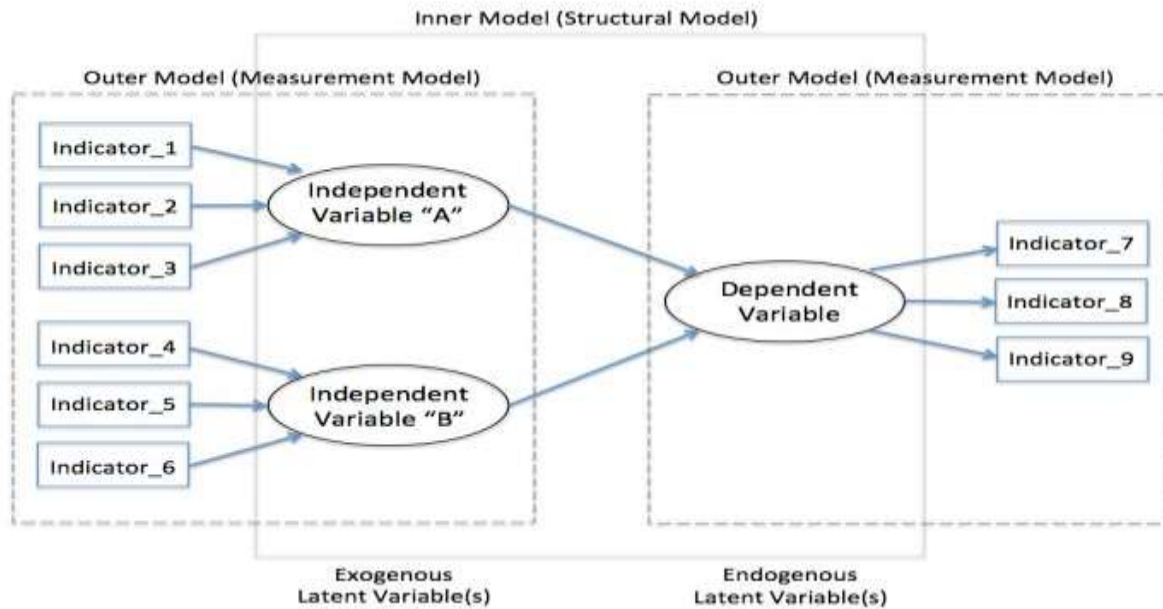


Figure 2: Inner and Outer Models of SEM

Source: Constructed by authors

According to Hair et al. (2016), model assessment should always start on assessment of measurement model. In our model perceived familiarity, perceived use, risk and adoptability form an inner model. The indicator variables reflecting these factors along with the said variables indicate outer model. The model we have estimated is presented below:

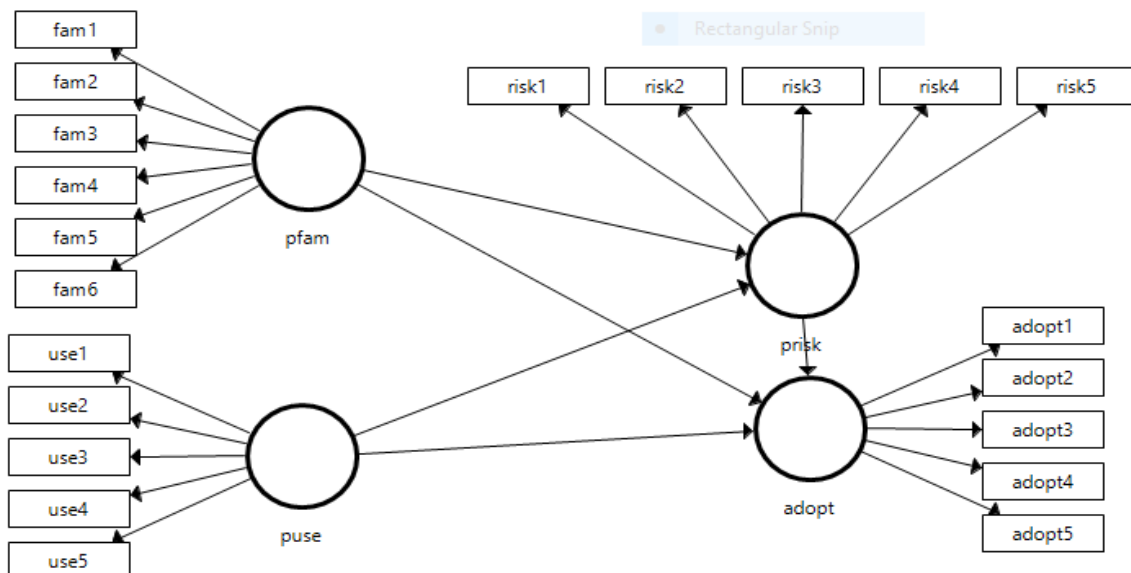


Figure 3: The Theoretical Model of IFRS Adoptability

Source: Constructed by authors



The indicators of the model are identified using factor analysis and indicators loading above 0.70 are included as the determinants. For this purpose, various software's have been used including SPSS. After deciding the model, the indicator data have been entered into the latest version of PLSSEM3 software for the estimation purposes. When the researchers load data into the software, they found the indicators list and their descriptive statistics; a screenshot of some of the variables is presented below:

Table 1: Descriptive statistics of variables

	No.	Missing	Mean	Median	Min	Max	Standard Devia...	Excess Kurtosis
age	1	0	1.818	2.000	1.000	3.000	0.664	-0.765
prof	2	0	2.267	2.000	1.000	4.000	0.974	-0.572
edn	3	0	2.020	2.000	1.000	3.000	0.851	-1.627
gender	4	0	1.287	1.000	1.000	2.000	0.453	-1.116
resi	5	0	1.085	1.000	1.000	2.000	0.279	7.020
fam	6	0	2.433	2.000	1.000	4.000	1.100	-1.263
fam1	7	0	3.765	4.000	1.000	5.000	0.987	-0.148
fam2	8	0	3.870	4.000	1.000	5.000	0.977	0.348
fam3	9	0	3.660	4.000	1.000	5.000	0.960	0.132
fam4	10	0	3.518	4.000	1.000	5.000	1.068	-0.055
fam5	11	0	3.846	4.000	1.000	5.000	0.944	0.784
fam6	12	0	3.619	4.000	1.000	5.000	0.900	0.498
risk1	13	0	3.379	4.000	1.000	5.000	1.091	-0.485
risk2	14	0	2.441	2.000	1.000	5.000	1.205	-0.767
risk3	15	0	2.955	3.000	1.000	5.000	1.073	-0.724

Source: Computed by authors using PLS-SEM3

After verifying skewness, the indicators have been chosen for the estimation purpose. The PLS-SEM algorithm was run by using “Calculate PLS Algorithm” procedures and successfully converged within the guideline recommended by Hair and his associates in iteration lower than the maximum number of iteration (300) as set in parameter setting (Hair et. al., 2013). Before assessing the path-coefficients in the structural model, the measurement model should be tested. Accordingly, this study examined the indicator reliability, internal consistency reliability, discriminant validity, and convergent validity of the measurement model to ensure whether they are satisfactory or not as suggested by Wong (2013).

### Indicator Reliability

This study first examined indicator reliability to ensure that the associated indicators have much in common that is captured by latent variable. Wong (2016) suggests that an indicator's outer loading should be 0.708 or above to able to explain at least 50% of each indicators variance since the number squared (0.708) equals 0.50. Therefore, the study retained the indicators with outer loading 0.708 or above and removed all the indicators with outer loading below 0.3. However, this study made a loading relevance test for the indicators with loadings 0.4 to 0.7 to retain in the model. By checking the value of composite reliability and Average Variance Extracted (AVE) problematic indicators are deleted and others are retained even if their values

are less than 0.7 (hair et al., 2013; Wang, 2016). For robustness of indicator reliability, we have used the newly developed Jamovi software and the reliability statistics are presented below in the table;

<b>Table 1: Scale reliability statistics</b>		
<b>Scale</b>	Cronbach's $\alpha$	McDonald's $\omega$
	0.894	0.895

Table 3: Item Reliability Statistics

	Mean
fam1	3.74
fam2	3.85
fam3	3.64
fam4	3.49
fam5	3.83
fam6	3.63

<b>Table 4: Scale Reliability Statistics : perceived Use</b>		
	Cronbach's $\alpha$	McDonald's $\omega$
<b>Scale</b>	0.851	0.857

Table 5: Item Reliability Statistics		
	Mean	
use1	3.19	
use2	3.35	
use3	3.34	
use4	3.31	
Table 6: Scale Reliability Statistics: Adoptability		
	Cronbach's $\alpha$	McDonald's $\omega$
Scale	0.833	0.839

Table 7: Item Reliability Statistics

Item	Mean
adpt1	3.60
adpt2	3.70
adpt3	3.40
adpt4	3.64
adpt5	3.33

Table 8: Scale Reliability Statistics: Perceived Risk

	Cronbach's $\alpha$	McDonald's $\omega$
Scale	0.821	0.827

Table 9: Item Reliability Statistics

Item	Mean
risk2	2.40
risk3	2.94
risk4	3.37
risk5	3.28
risk2	2.40

Table 10: Scale Reliability Statistics, All times

Scale	Mean	SD	Cronbach's $\alpha$	McDonald's $\omega$
	3.42	0.686	0.932	0.933

Table 11: Item Reliability Statistics; All items			
Item	Mean	SD	Item-rest correlation
fam1	3.74	0.984	0.643
fam2	3.85	0.976	0.670
fam3	3.64	0.954	0.662
fam4	3.49	1.062	0.653
fam5	3.83	0.942	0.629
fam6	3.63	0.907	0.677
risk2	2.40	1.172	0.477
risk3	2.94	1.076	0.612
risk4	3.37	1.065	0.734
risk5	3.28	1.184	0.689
use1	3.19	1.018	0.592
use2	3.35	1.040	0.651
use3	3.34	1.069	0.660
use4	3.31	1.147	0.555
adopt1	3.60	1.052	0.588
adopt2	3.70	0.939	0.668
adopt3	3.40	0.967	0.580
adopt4	3.64	0.867	0.577
adopt5	3.33	0.957	0.591

Source: Computed by authors using Jamovi

As the above tables indicate, the reliability statistics are good in terms of Cornbach and Mac Donald tests. The correlation heat map also indicates that all the correlations among the indicator variables are in the acceptable range. The following figure presents this:

Correlation Heatmap

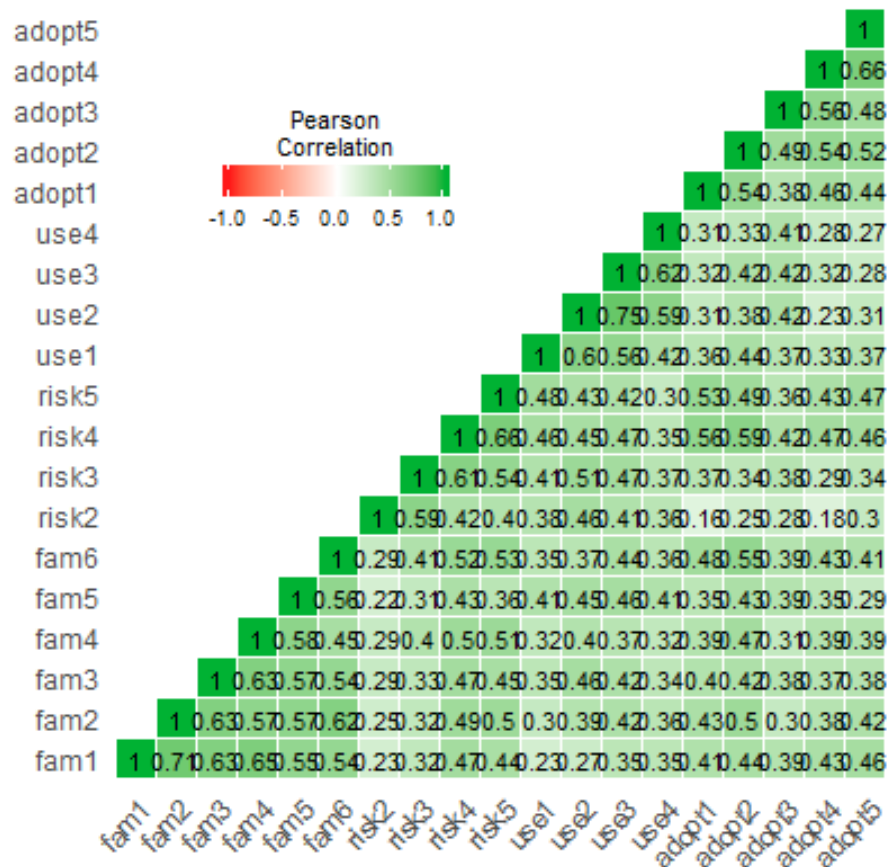


Figure 4: Correlation Heat Map  
Source: Computed by authors

The model has been estimated using consistent PLS algorithm and the path model is presented below:

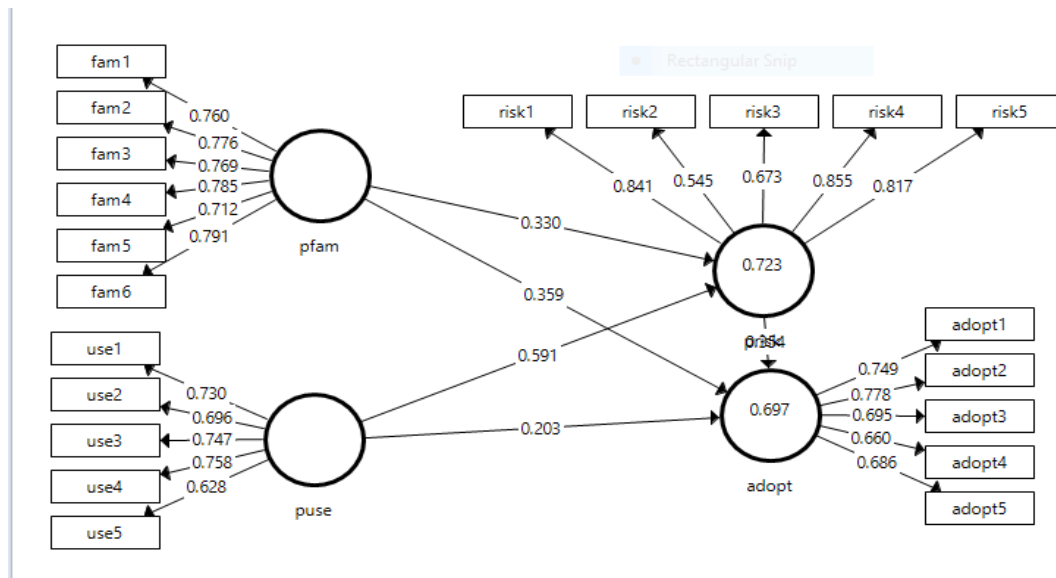


Figure 5: The Path Model of IFRS adoptability  
Source: Computed by authors

The model has been estimated using consistent PLS algorithm in PLSSEM3. The latent variables are presented in circles. Perceived familiarity and perceived use are considered as independent variables influencing adoptability of IFRS, which is a dependent variable. The perceived risk is the mediator variable in the model. The values within the circles indicate R<sup>2</sup> values, pfam, and Puse together influence the adoptability by 69%. Similarly, they influence the perceived risk by 72% while perceived risk has a mediating role in the model. The arrows towards indicator variables present indicator loadings, which are satisfactory as all of them are above 0.6. The arrows in between latent variables indicate the path coefficients, which are also known as inner weights. However, the statistical significance of the path coefficients has to be decided using t test procedures and this has been done using PLS consistent bootstrapping procedures in PLS-SEM. The results are presented in the following figure:

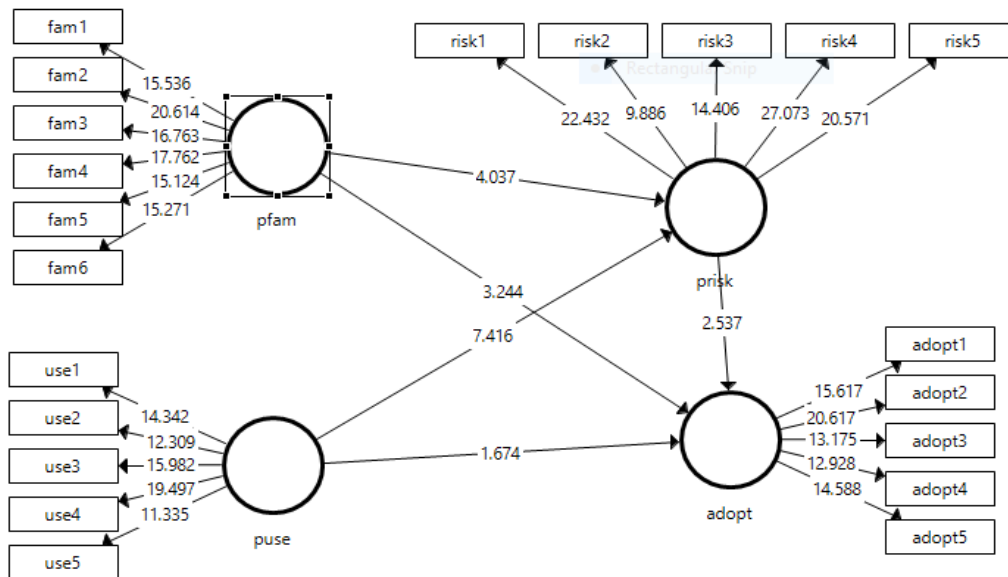


Figure 6: Statistical significance the Path coefficients

Source: Computed by the authors

The coefficients on the arrows indicate T values, which suggest that all the relations are statistically significant at 0.05 probability level except the relation between perceived use and adoptability. The impact of the mediator variable is also statistically significant; however, to know whether it is partial or full mediation effect, we will proceed further in the following sections.

#### Internal Consistency Reliability

As suggested by Wong (2016), this study used composite reliability to evaluate the measurement model's internal consistency reliability. Since Cronbach's alpha is sensitive to the number of items in the scale, and this measure is found to generate severe underestimation when applied PLS-SEM models the study used

composite reliability. In this study, the composite reliability for all the constructs is higher than a threshold (0.6) for exploratory research and not exceeding the 0.95 level (Hair et al., 2013). Therefore, the results of composite reliabilities of each constructs were indicative of good reliability among indicators of each construct. Table below presents composite reliability and Average Variance Extracted of the constructs in the model.

Table 12: Composite Reliability and Average Variance Extracted of the Constructs in the Model

Construct	Composite Reliability	Average Variance Extracted
Perceived familiarity	0.767	0.525
Perceived use	0.889	0.800
Perceived risk	0.853	0.747
Adoptability	0.878	0.591

According to Hair, Hult, Ringle, and Sarstedt (2013), a convergent validity test would be performed to assure that the multiple items that are used to measure the constructs agree. Convergent validity measures the model's ability to explain the indicator's variance. To check convergent validity, each latent variable's Average Variance Extracted (AVE) was evaluated in SmartPLS software. The AVE can provide evidence for convergent validity (Fornell and Larcker, 1981 cited in Wong, 2016). As indicated in Table above all our constructs exceeded the minimum level of 0.5 as suggested by Wang (2016). The result indicates AVE values range from 0.508 to 0.828; so it can be concluded that convergent validity is established. Thus, the measure of all the constructs can be said to have high levels of convergent validity.

### **Discriminant validity**

A discriminant validity test conducted to assure that the measures do not reflect other variables. It refers to the extent to which a construct is truly distinct from the other constructs by empirical values (Wang, 2016). According to Cheung and Lee (2010) discriminant validity needs to be indicated by low correlations between the measure of interest and the measures of other constructs. To ensure that the latent constructs used for measuring the causal relationships are truly distinct from each other, the assessment of discriminant validity is important in research that involves latent variables along with the use of several items for representing the construct. Therefore, this study used the Fornell and Larcker criterion to assess discriminant validity. Fornell and Larcker (1981) cited in Wong (2013, 2016) claim that discriminant validity is measured by the square root of Average Variance Extracted (AVE). According to the authors,

this value for each latent variable should be greater than the correlations among latent variables. This is used as a criterion to establish as a common and conservative approach to assess discriminant validity and it can be applied in PLS-SEM. Another method is cross-loading examination, in which the indicator's loading to its latent construct should be higher than that of other constructs. Table below presents discriminant validity of constructs.

Table 13: Discriminant Validity of Constructs in the Model

Construct	1	2	3	4
Perceived familiarity	<i>.724</i>			
Perceived Use	-.002	<i>.895</i>		
Perceived risk	.071	.169	<i>.864</i>	
Adoptability	-.142	.206	.157	<i>.769</i>

Note: The square root of AVE is shown on the diagonal and written in italics; non-diagonal elements are the latent variable correlations (LVC).

The results presented in Table clearly illustrate that there was no evidence of strong correlations between constructs. Therefore, discriminant validity is met in the model since the square root of AVE for all the constructs in the model are much larger than the corresponding latent variable values. The measurement model was confirmed to be used to evaluate the structural model and test path analysis in the research analysis (Hair et al., 2013).

### Evaluation of the Structural Model

After assessing the measurement model, the structural model needs to be properly evaluated before drawing any conclusion. The final step after evaluating the reliability and validity of the measurement model is the evaluation of structural model (hair et al., 2016). According to Wang (2013, 2016) collinearity is a potential issue in the structural model. The variance inflation factor (VIF) value of 5 or above typically indicates the problem of collinearity (Hair et al., 2011). In this study, the collinearity statistics presented by VIP values was between 1.073 and 2.783, which was confirmed to be used to evaluate the structural model and test the path coefficients. After assessing collinearity, the study next examines, coefficient of determination and its effect size ( $f^2$ ), evaluate predictive relevance ( $Q^2$ ) and its effect size ( $q^2$ ), and finally the study assess the significance of the relationships.

### Coefficient of Determination ( $R^2$ )

A major part of structural model evaluation is the evaluation of coefficient of determination ( $R^2$ ). According to Hair et al (2016),  $R^2$  is the most commonly used measure to evaluate structural models in PLS-SEM. According to Hair et al (2011),  $R^2$  is the measure of the model's predictive power and is calculated as a



squared correlation between a specific endogenous construct's actual and predicted values. Coefficient of determination indicates the amount of variance in the endogenous constructs as explained by all the exogenous constructs linked to it. The value of  $R^2$  ranges between 0 and 1. In this study, adoptability is the main construct of interest.

The threshold value of 0.75, 0.5 and 0.25 are often used to describe strong, moderate and weak coefficient of determination (Hair et al., 2013). However, for studies of small business which considers the drivers of performance, the  $R^2$  value of 0.20 are considered high (Henseler et al., 2009, cited in Naidu, 2016).

Table 14: Coefficient of Determination Values of Endogenous Constructs

Endogenous Construct	R Square
Perceived risk	0.723
Adoptability	0.697

The results in Table 14 indicate that the  $R^2$  values represent strong association between variables. It is also important to measure the magnitude or strength of the relationships that were found by examining effect size. In addition to evaluating the  $R^2$  values of endogenous constructs, this study measures the effect size  $f^2$  that measures the change in  $R^2$  value when a specific exogenous construct is deleted from the model.

According to Field (2005), effect size is an objective and standardized measure of the magnitude or the degree of importance of the observed effect of the exogenous constructs to endogenous construct. According to Cohen (1988), the values 0.02, 0.15, and 0.35 are interpreted as small, medium and large effect sizes respectively. Table following presents effect size ( $f^2$ ) values of constructs.

Table 15: Effect Size ( $f^2$ ) for Constructs

Construct	Risk	Adoptability
Perceived familiarity	0.028	0.031
Perceived use	0.030	0.027
Perceived risk		0.031

As it is presented in the Table above, the exogenous constructs have the effect size above the minimum 0.02 level and around 0.35 which represents large effect size.

Evaluating the Predictive relevance ( $Q^2$ ) and its effect size ( $q^2$ ) Values of Constructs:

An assessment of Stone-Geisser's predictive relevance ( $Q^2$ ) is important to check whether the data points of indicators in the reflective measurement model of endogenous construct predicted accurately. This can be obtained through a procedure known as blindfolding (Gaiser, 1974 and Stone, 1974 cited in Naidu, 2016). Blindfolding is a sample reuse technique, which removes every data point at certain omission

distance ( $d^{\text{th}}$  point) in the endogenous construct indicators and estimates the parameters with the remaining data (Chin, 1998, Henseler et al, 2009). Hair and his associates also recommended that when deciding on the data point to be removed, researchers select a  $d$  value that does not result in an integer when it is divided from the number of observations. According to Chin (1998), as long as the  $Q^2$  value is above zero, then the model has predict power about that particular endogenous construct. Table 16 presents the Results of Predictive Relevance ( $Q^2$ ).

Table 16: Predictive Relevance ( $Q^2$ ) Values of Endogenous Constructs

Construct	$Q^2 (= 1 - SSS/SSO)$
Perceived familiarity	0.09
Perceived use	0.06
Perceived risk	0.09

Source: Computed by authors

As it is summarized in Table, the proposed model has good predictive relevance for all of endogenous constructs. As suggested by Chin the  $Q^2$  values of endogenous constructs are larger than zero.

Similar to the effect size ( $f^2$ ) approach to assessing  $R^2$ , the relative impact of predictive relevance of  $Q^2$  can be assessed by driving its  $q^2$  effect size. According to Cohen (1988), the values 0.02, 0.15, and 0.35 are interpreted as small, medium and large predictive relevance respectively.

#### Evaluating the Path Coefficients and Significance

In PLS-SEM, the relationship between constructs can be determined by examining their path coefficients and related t-statistics through the bootstrapping procedure. The PLS-SEM structural model results enable us to evaluate the predictive power of each relationship drawn in the model. Understanding the path coefficients and their significance used to answer the research aims by confirming hypotheses. According to Hair et al (2016), path coefficients represent the hypothesized relationships among the constructs and their values range from -1 to 1. The coefficients closer to 1 represent strong positive relationships, while closer to -1 represents strong negative relationships. Coefficients above 0.20 are statistically significant, while those that are less than 0.1 are usually not significant. For coefficients between 0.10 and 0.20, the model has to be subjected to bootstrapping procedures to compute t and p-values for the path coefficients. Based on the t and p-values the relationships were determined statistically significant or not.

Table below presents path coefficients of structural model and their significance testing.

Table 17: Path Coefficients of Structural Model and Their Significance Testing.

Hypothesis	Path	Path Coefficients	T Values	P Values	Hypothesis Test
1	Pfam - Adoptability	0.359	3.244	0.000	Significant
2	Puse - adoptability	0.697	1.674	0.000	Significant
3	Puse-Risk	0.591	7.416	0.000	Significant
4	Pfam - Risk	0.330	4.377	0.000	Significant
5	Prisk- Adoptability	0.354	2.537	0.000	Significant

Note: Significant implies the rejection of the Null hypothesis,  $H_0=0$

Based on the path coefficients and significance levels we can accept or reject the hypothesis mentioned. The interpretation of the significant variables based on the results of PLS\_SEM structural model analysis. The results show that perceived use has the strongest influence on the perceived risk, followed by perceived familiarity. Perceived risk also has statistically significant influence on adoptability as a mediator variable indicating partial mediation as it was found to be 0.021.

## 5. Conclusion and Recommendations

The basic argument advanced in this research was that the IFRS adoptability depends on the perceptions of the users in terms of familiarity, usability and the risk involved. The said variables appear to have an expected positive and statistically significant impact. The analysis also has been extended to involve the Gender variable as a control variable using MGA analysis in SmartPLS. However, the results are not statistically significant indicating gender has no impact on the adoptability of IFRS in Ethiopia. The mediating analysis was performed to determine the direct and indirect effects of the exogenous constructs on endogenous construct.

The relationships among constructs in PLS-SEM can be complex and not always straightforward (Wong, 2016). To gain better understanding of the role of perceived risk in our model, its potential mediating effect on the linkage between perceived familiarity, perceived use and the adoptability the mediation analysis has been attempted. It requires the determination of the direct effects of the exogenous constructs on the endogenous construct (i.e. adoptability) as well as the indirect effect accounted for the presence of the mediating variable (Risk). To examine mediating effects two-step procedures involved (Wong, 2016):

- 1 Checking the significance of direct effect (if the significance of direct effect cannot be established, there is no mediating effect) using bootstrapping without the presence of the mediator Risk in the model.
- 2 The significance of indirect effect and associated t-values are checked using the path coefficients when the mediator Risk is included in the model. If the significance of indirect effect cannot be established, there is no mediating effect.

Having a significance of indirect effect is the basis to determine the mediators' magnitude. Once the significance of the direct effect is established, the strength of the mediator can be examined using total effect and variance account for (VAF). Total effect is the summation of direct and indirect effect, while VAF is the ratio of indirect to direct effect (Wong, 2016). According to Hair and his associate's partial mediation is established when VAF exceeds the 0.2 threshold level and full mediation is established when it exceeds 0.8. If the VAF value is smaller than 20% threshold level, risk is said to have no mediating effect on the construct's adoptability. After computing this, the data established that ii no mediation effect of gender on IFRS adoptability.

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# Alternative Ethnic Groups' Conflict Resolution In Gambella/Ethiopia

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## Abstract

*The problem to be addressed in this study is armed inter-ethnic groups' conflict between Nuer and Anywa communities in Gambella, Ethiopia. Many Africa countries are experiencing ethnic groups' conflicts which impose social and economic costs. The governments in Africa take different measures to resolve ethnic groups conflicts. Yet the local administration faces challenges to its successful delivery of services and there is no consistency in application of strategies that address these types conflicts This research is mixed research type. It will employ concurrent triangulation research approach. The data will be collected using questionnaire, interview, focus groups discussion and documents analysis. The study will be conducted in Gambella regional state. The sample size will be 200. The sampling will be more of purposive. The data will be analyzed, described, discussed and qualified using explanatory means, interpretation, logical arguments and Statistical Package for the Social Sciences.*

## 1. Introduction

Conflict is endemic and will go on to be for the future. Getting rid of conflict is understandably impossible and likely undesirable, but limiting conflict is undeniably necessary, inevitably crucial to our future on this planet, and inevitably a central agenda for all disciplines. Because of this, conflict is taken as a normal aspect of social life rather an uncommon incidence (Augsburger, 1992).

Sometimes, the intervention mechanisms to a conflict right from its oncoming can be problematic and therefore can be a source of conflict itself. Conflicts often occur within a certain political, economic, social and cultural milieu. Many of the conflicts that occur today are more internal, non- conversational and culture-sensitive. These conflicts need intervention mechanisms that are culturally-based and relate to their environment of occurrence (Bukari, 2013).

The social and cultural context bring in a substantial complexity into the administrator's task in socio-economic development, involvement of people and the dispensation of fair justice within the framework of democratic political processes (Joseph, 2003). A significant element in most contexts is the reality of ethnic diversity in all its myriad forms emanating from nationality, region, religion, language, caste and gender leading to more vibrant as well as more volatile social dynamics (ibid).

Ethnic groups' conflicts are usual in public administration and dealing with these types of conflicts require existence of the rule of law, involvement of various agencies and stakeholders, and also the proactive participation of civil society and local communities (Joseph, 2003). Considerable energy and resources are therefore deployed in dealing with such conflicts which in turn diverts attention from developmental goals and activities. It requires much hinges on the conflict handling capability of public administrators by virtue of their roles, responsibilities and accountability in dealing with civic and social strife (ibid). There is thus

a reason to believe that the human race confronts a serious and endemic ethnic diversity, which is also increasingly accompanied with unprecedented ethnic rivalry, competition, conflicts, violent clashes and all-out wars demand (Chatterji, 2009).

In Ethiopia, like other many countries, the armed ethnic groups' conflicts have high recorded. In Keffa zone of the Southern Nation, Nationalities and Peoples' Regional State (SNNPRS), there have been conflicts between the Manja occupational minority groups and the Keffa majority. The root cause of the conflict is discriminatory measures carried out by the Keffa which is also institutionally perpetuated by influential members of the community. In the Ethiopia Somali Regional State, such disputes have gone to the extent of denying some groups their claimed status as Somalis by others who thought that avoiding such groups would provide a better opportunity for a greater share of the national/ regional resources as was the case with the Ogaden and the Shekash (Alemayehu, 2009).

The conflict between the Gumuz and the Oromo in the border areas between Eastern Wellega and Kamash zone of Benishangul-Gumuz and the Oromia States can be invoked as a good illustration of the inadequacy on part of the State and local government officials' knowledge in and capacity of conflict management mechanisms. The conflict was caused by disputes over land, which was further aggravated by demographic pressures in both States (Alemayehu, 2009)..

A case in point is the Metekel zone of the Benishangul-Gumuz and the Awi zone of the Amhara States. There had been violent conflicts that led to many deaths and displacements in both states in 1993 and 1994. These conflicts were caused by lack of awareness of the newly introduced federal arrangement in the country and provocations of ethnic cleansing of the non-indigenous settlers in the Metekel zone by the indigenous community. There are still outstanding disputes of land ownership in the borders between both zones of the States. There are around 10,000 illegal migrants per annum crossing the borders of the Amhara State into the Metekel zone of the Benishangul-Gumuz State (Alemayehu, 2009).

In Gambella regional state there is long lasting ethnic groups conflict having diversified sources, especially the conflict between Nuer and Anywa. Therefore, the purpose of this study is to assess the effectiveness of conflict resolution and suggest the mechanism which can bring to an end to this endemic conflict between two ethnic groups.

The chapter includes statement of the problem, objectives, research questions assumptions, limitations, scope/delimitations and significance of the study.

### **1.1.Statement of the Problem**

The problem to be addressed in this research is the persistent ethnic groups' conflict between Nuer and Anywaa in Gambella Regional State. Most African countries still hold onto customary laws under which the application of traditional dispute resolution mechanisms is common. Such values have contributed to social harmony in African societies and have been innovatively incorporated into formal justice systems in the resolution of conflicts. This is best exemplified by the South Africa's Truth and Reconciliation Commission, a rehabilitative, restorative rather than punitive form of justice which merged formal and informal procedures using the traditional methods of truth telling to engender reconciliation (Muigua, 2010). In Rwanda it was observed that the International Criminal Tribunal for Rwanda was slow, cumbersome, expensive and inefficient, while Rwanda's Courts could not cope up with the huge numbers of those awaiting trial. The Rwanda's endogenous *gacaca* which was motivated by the need to come up with creative solutions to bring about justice and reconciliation after the 1994 genocide was taken as alternative and brought successful solution to the country reconciliation (ibid).

Conflict resolution among the traditional African people was anchored on the ability of the people to negotiate. However, with the arrival of the colonialists, western notions of justice such as the application of the common law of England were introduced in Africa. The common law brought the court system which, being adversarial by nature, greatly eroded the traditional conflict resolution mechanisms (Muigua, 2010).

The governments in Africa takes different measures to resolve ethnic groups conflicts. Yet the local administration faces challenges to its successful delivery of services and there is no consistency in application of strategies that address the conflicts. This disarmament was thought to be the overall solution to stop the problem. It was done in 2010 on both sides, yet communities are still possessing arms and ammunition (Jal, 2015).

Notwithstanding all these efforts made by regional government, there is no remarkable headway of solution to the conflict. The governments of Sudan, Kenya, Ethiopia and Uganda are blamed for turning a blind eye as thousands of their pastoral populations living along the borders die from increased cross-border resources and armed based conflicts (UN-OCHA, 2008). Today, the main problem is that legal reforms have essentially destroyed many of these successful traditional structures and processes, and failed to develop a workable alternate (AMIS, n.d.).

In Gambella Regional State (GRAS) of Ethiopia, since the downfall of the Derg regime during 1991, the permissible (acceptable or tolerable) peace has not prevailed (Norwegian Refugee Council (NRC), 2009). The Anywaa-Nuer conflict is the most prominent of all conflicts in the region which dated back to the second half of the 19 century (Dereje, 2009). The ethnic groups pressures have repeatedly risen over into bloodshed that has left hundreds dead and thousands homeless (NRC, 2009).

Therefore, the above-mentioned reasons are the indications that there is still a lot to be done on ethnic group's conflicts, especially in Africa and in particular in Gambella region of Ethiopia.

## **1.2.Objectives**

The general objective of this study is to is to assess the effectiveness of conflict resolution and suggest the mechanism which can bring to an end to this endemic conflict between two ethnic groups.

## **1.3. Research Questions**

This study will try to answer the following research questions:

1. What are the root causes of the conflict?
2. What are the mechanisms used to solve the conflict?
3. What is an alternative way of conflict resolution that can bring to an end to the conflict?

## **Assumptions, Limitations, Scope and Delimitations**

### **Assumptions**

The different assumptions the researchers have including the following:

1. The participants in this study will be willing to share the root causes and their experiences on the conflict.
2. The data collection techniques and analysis will be appropriate to answer the study objectives and questions.



3. Informants responses obtained using interviews, focus groups discussions and questionnaire will be accurate and sufficient to draw conclusions.
4. The participants of study will sufficient knowledge to respond to the questions.
5. The sample size is sufficient to obtain reliable data and to draw conclusions.

### Limitations

The study may experience the following limitation:

- The dependence on participant knowledge and what they were able to share in responding to the interview questions.
- Problems could have arisen in determining effects of or existence of insufficient knowledge or records for participants to be in positions to respond.
- There may be potential for security problem to move free from village to village.
- There may be time limit necessary to complete data collection.

## 2. Literature Review

### 2.1. Conflict and Conflict Resolution

Augsburger (1992) defined conflict as "...visible sign of human energy; it is evidence of human urgency; it is the result of competitive striving for the same goals, rights, and resources." Virtually all conflicts are not from one source but involve a combination of causes (Fisher, 2000). Wherever there are scarce resources, different levels of power, divided functions in society, competition for a limited supply of goods, valued roles, status, or power as an end in itself, conflict will occur there (Augsburger, 1992). Where there are many sources involved, the more severe and intractable the conflict usually is (ibid). According to Augsburger (1992) conflicts are endemic and will continue to be so for the future. Eliminating conflict is clearly impossible and likely undesirable, but limiting conflict is undeniably necessary, inescapably crucial to our future on this planet, and inevitably a central agenda for all disciplines (ibid). As a result, conflict is seen as a normal aspect of social life rather an unusual incidence. Modernization and Economic-interest Theories conceive conflict as the struggle for resources and opportunities that are valued in common (Horowitz, 2000). On contrary, the Theory of Cultural Pluralism conceives ethnic conflict as the clash of incompatible values (ibid).

One of theories of conflict resolution is "Conflict Transformation Theory." Conflict transformation is all about transforming the relationships, the very system and structures which give rise to violence and injustice (Berghof, 2012). Theorists of conflict transformation explain that present-day conflicts need more than the reframing of positions and the discovery of win-win outcomes (ibid). Conflict transformation is best described as a complex process of constructively changing relationships, attitudes, behaviors, interests and discourses in violence-prone conflict settings. In addition, it addresses underlying structures, cultures and institutions that encourage and condition violent political and social conflict (ibid). This study will use "*Conflict Transformation Approach*" theory, because the conflict transformation is a process of engaging with and transforming the discourses, relationships, interests, and the very formation of society that supports the persistence of brutal conflict. Using this theory in resolving the conflict, people within the conflict parties, the society, and outsiders who have relevant human and material resources all have complementary roles to play in the long-term process of peace building. The theory advocates a comprehensive and extensive approach, stressing support for groups within the society in conflict rather than for the mediation of outsiders (ibid).

## 2.2. Ethnic Groups' Conflicts

The theories of ethnic conflict rely on some combination of two broad categories of motives: instrumentalist (or rationalist) and primordialist (or consummatory) (Caselli and Coleman II, 2011). The instrumentalist explanations, emphasize the fact that participants in conflict hope to derive some material benefit from the conflict, such as jobs, wealth or power and primordialist views focus on the visceral dimension of conflict, which they interpret as an eruption of mutual antipathy. The traditional cultures see conflict as communal concern; the group has ownership of the conflict and context and resolution processes are culturally prescribed (Augsburger, 1992). Ethnic conflicts vary in nature and mode of expression and action depending on which of the two paradigms underlie embedded or engineered ethnic conflicts. The four leaders concerned had to contend with the “dehumanizing” forces as they led the ethno-political struggle for emancipation and liberation of the masses in their respective contexts. This could be a useful framework in deeper understanding and for generating creative and sublimating responses (Joseph, 2003).

In many societies, conflicts of violent nature regularly spring up, which cause a destruction of economic and social assets and needless loss of human lives. In similar societies, on the contrary, a peaceful resolution of serious conflicts often takes place. Even many societies seem to traverse from conflicts to peace and to costly conflicts again. The literature on the economics and politics of peace and conflict has been with us now for several decades. An abundant crop of excellent work has appeared supporting, critiquing and complementing the original ideas that economic development is a precursor to an effective resolution of conflicts and, hence, a pre-condition for sustainable and lasting peace demand (Chatterji, 2009).

The concept of ethnicity has been extant in anthropological studies since the 1960s and is still an important topic in the research on social anthropology. Ethnicity refers to special characteristics and aspects of relations between groups, on the basis of which people think of themselves as being different and also are perceived as culturally different by others (Chatterji, 2009).

Studies indicated any attempts at addressing ethnic conflicts and resolution approaches related to contemporary expressions of deep rooted ethnic conflicts and tensions cannot ignore the poignant reality of these alienation expressions of the main protagonists engaged in a churning over ethnic-identity and ethno-political definitions and redefinitions. The prism of the alienated protagonists is more potent than the filter of the nation-state in arriving at a grounded understanding of the state of civil society dynamics in throes of a fractured ethnic dynamics (Joseph, 2003).

Apparently, ethnic conflict has not yet captured the interest of most conflict resolution scholars (Richard and Wang, 1993). Horowitz's massive comparative study, *Ethnic Groups in Conflict* (1985) maintains that while deeply rooted issues must be addressed, some ethnic differences may be inherently unresolvable. He believes that conflict reduction, rather than conflict resolution is a more practicable goal in ethnically diverse societies. Horowitz identifies five basic mechanisms of conflict reduction (p. 597):

- 1. creating proliferating points of power; 2. raising the saliency of intra-ethnic conflict; 3. creating incentives for inter-ethnic cooperation; 4. encouraging alignments based on interests other than ethnicity; and 5. reducing disparities between groups so that dissatisfaction declines.*

Apparently, ethnic conflict has not yet captured the interest of most conflict resolution scholars (ibid).

## 2.3. Ethnic Groups' conflicts and Governance (Politic)

Why do people display intolerances and sometimes get into serious conflicts? It is a question that is neither well understood nor fully addressed by social scientists. Though intolerances are universal, serious and costly conflicts occur disproportionately in low-income countries and push these nations further down the poverty trap demand (Chatterji, 2009).

An ethnic conflict is a violent contest/war between ethnic groups as a result of ethnic divisions and chauvinism. They are of great interest because of their prevalence and onslaught since the end of the Cold War and also because they frequently result in atrocious war crimes like genocide. In general, theories of ethnic conflict rely on some combination of two broad categories of motives: instrumentalist (or rationalist) and primordialist (or consummatory) (Caselli and Coleman II, 2011). According to them instrumentalist explanations, emphasize the fact that participants in conflict hope to derive some material benefit from the conflict, such as jobs, wealth or power and primordialist views focus on the visceral dimension of conflict, which they interpret as an eruption of mutual antipathy.

The leaders usually find ethnic divisions less costly and more productive and more effective than interest group formation along social classes. According to this view, there are pre-existing ethnic divisions, or cleavages, that are exploited by community leaders to further their narrow and sectarian interests. Constructivist: On the contrary, this strand of thoughts believes that an ethnic grouping is not based on any real difference but on imagined and manipulated or socially constructed ones. As an example, one can look at the horrific genocide in Rwanda that was caused by the apparent Hutu–Tutsi ethnic cleavage. This strand tends to argue that the Hutu–Tutsi distinction is not based on any real ethnic or lingual differences (Chatterji, 2009).

Yet it is an agreement among scholars that ethnic conflicts are a common phenomenon today. Research papers on internal conflicts attempt to explain conflicts in the light of the precise roles of the state, the state-structure and policies within states and even social justice. One of the increasingly popular measures to address ethnic conflicts is to grant autonomy to ethnic groups in a multi-ethnic set-up. Autonomy is a popular mechanism for resolving conflicts, yet the concept of autonomy and means to achieve it are all highly controversial, which can further fuel conflicts in a multi-ethnic society. Ethnic groups, when they are politically charged and motivated, are defined according to their own political goals demand (Chatterji, 2009).

Within these groups, kinships, ties and social networks play an important role in mobilising political support, financial resources, social movement and also triggering violent conflicts. Leaders of a threatened people appeal to the specific economic and social privileges for their ethnic groups. A lack, real or perceived, of these specific privileges usually triggers conflicts that gradually develop its own momentum. A major problem arises when ethnic groups seek territorial rights along with cultural autonomy for a specific ethnic group, which more often than not threatens the stability of a nation, or region, and thereby precipitates serious, violent and costly conflicts demand (Chatterji, 2009).

A lot depends on how the state manages the situation, and the extent to which diversity is politicized, that is, made the basis of political competition and conflicts through the instrumentalization, manipulation and mobilization of difference in furtherance of constitutive interests (Chatterji, 2009).

## **2.4. Ethnic Groups' Conflicts and Resources**

Within these groups, kinships, ties and social networks play an important role in mobilizing political support, social movement and also triggering violent conflicts. Leaders of a threatened people appeal to the specific economic and social privileges for their ethnic groups. A lack, real or perceived, of these specific privileges usually triggers conflicts that gradually develop its own momentum. A major problem arises when ethnic groups seek territorial rights along with cultural autonomy for a specific ethnic group, which more often than not threatens the stability of a nation, or region, and thereby precipitates serious, violent and costly conflicts demand (Chatterji, 2009). AUMIS (n.d.) indicated that environment and natural resource management matters are significant causative factors to the conflict in Sudan in addition to religious, tribal and clan divisions, ethnic, economic factors, land tenure deficiencies, historical feuds and political. In Afar region in Ethiopia the scarcity of pastoral resources caused by drought, extensive land use by the state and expansion of farming in the high lands are the major factor those explains the eruption and increase of conflicts in the areas (Simpkin, 2005 and Bekele, 2008). Also around the boundaries of Ethiopia and

Kenya the conflicts between groups were principally caused by competition over water and pasture (Yohannes, Kassaye and Zerihun, 2005).

Political mobilization of ethnic identities results in ethnic intolerance and competition over resources and rights which can lead to a violent conflict. When resources are scarce, it is easier for political entrepreneurs to capitalize on the conflict potential of ethnicity (Blagojevic, 2009).

When scholars discuss competition over resources, they often refer to the economic competition over resources. The argument is that: under difficult economic conditions, high unemployment and poor prospects for the future, people feel victimized and blame their misfortune on other ethnic group(s). This leads to inter-ethnic competition. In this article, I expand the concept of resources to include not only economic, but also political, social, and cultural “goods” that not only include material security but also encompass individual and group rights (Blagojevic, 2009).

The likelihood of conflict is higher when disagreement and opposition concern collective goods, e.g. language rights, religious beliefs and symbols, civil and political rights and privileges, regional-ethnic power, or regional-ethnic parity in the economy. The more nearly indivisible the goods and the less the access of the ‘disadvantaged,’ the greater is the resentment and the more likely is ethnic mobilization, followed by overt conflict.

In his analysis of peace accords and ethnic conflicts, de Varennes (2003) found that in almost all conflicts, ethnic groups’ demands focused on securing basic rights for their group. For example, they demanded more effective political participation, a fairer share and distribution of education, employment opportunities, etc (Blagojevic, 2009).

## **2.5. Ethnic Groups' Conflicts and Traditional Culture**

It is important to recognize that cultural diversity becomes a problem usually under poor economic governance: when a state tries to assimilate previously self-governed and territorially concentrated cultures within a larger area. The culture will demand some autonomy or self-governance to protect their existence as specific communities in a pluralistic society. As an example, cultural diversity can become a problem when migrants do not integrate with the host society. It is important to note at the outset that ethnically heterogeneous societies have diverse experiences in terms of inter-ethnic hostilities and demand for autonomy: There are several migrant societies like Australia, the United States and the United Kingdom where there are clear images of inter-ethnic rivalry and cleavages – yet there are no serious implications for violent conflicts. There is an emerging literature that marshals evidence of economic discrimination along racial lines – yet there is no ground to discuss the idea of autonomy to ethnic groups and inter-group hostility and violence. There are several countries that have relatively stable ethnic arrangements as many ethnic groups have some well-defined autonomy – examples are Canada, India and Spain. However, some of these nations have over time developed serious cleavages between ethnic groups with open or hidden inter-ethnic rivalry and conflicts. There are nations, or societies, that have simply collapsed under the cascading burden of serious inter-ethnic violence – a burning example for us is the former Yugoslavia. There are countries that have experienced continuous, violent and seemingly endless inter-ethnic conflicts, important examples are Cyprus and Sri Lanka demand (Chatterji, 2009).

## **3.The Methods**

### **3.1. Type of Research**

#### **Mixed Research**

For this study, the researchers will employ Mixed research approach, both qualitative and quantitative. Qualitative research is chosen because it searches to answer questions about: why people behave the way they do; how opinions and attitudes are formed; how people are affected by the events that go on around them; how and why cultures have developed in the way they have; and the differences between social groups (Hancock 2002). Because it finds out how

people feel or what they think about a particular subject or institution (Kothari, 1996). This study presents attitudes and/or opinions of the people involved and affected by the conflict and this qualitative research approach aim at discovering the underlying motives and desires of human being (ibid). The quantitative data will help to test hypothesis to make inferential interpretation of the data.

### **Concurrent Triangulation**

The researchers will use concurrent triangulation approach which is one of the mixed research method. According to Berg (2001) triangulation is the use of multiple line of sight. The researchers will use triangulation because it represents varieties of data, investigators, theories, and methods (ibid). The combination of many lines of sight will help better information, more substantive picture of reality; and richer concepts verify many of these elements.

## **3.2. Types, Sources and Methods of Data Collection**

### **Types of Data**

The types of data will be both qualitative and quantitative data. This will to gain much entry that can lead to design resolution mechanism for this type of conflict. Qualitative data refers to some collection of words, pictures, or other non-numerical records, or artifacts that are collected by a researcher and are data that has relevance to the social group under study. And quantitative data refers to numerical data.

### **Sources of Data**

In order to achieve the objectives of the research, the researcher will collect both primary and secondary data.

Primary Sources of Data: The researchers will collect primary data directly from the field. The methods of data collection involved focus group discussion, interview and questionnaire to procure primary data directly from respondents.

Secondary Sources of Data: The researcher will collect secondary data from the existing relevant published and unpublished documents including books, magazines, journals, newspapers, reports and electronic source. As O'Sullivan, Rassel and Berner (2003, p.264) stated, "Secondary data are existing data that investigators collected for a purpose other than the given research study." The reason for collecting secondary data is to determine which institutions conduct research on the topic area or country in question (McCaston, 1998) and when investigators want comparative or longitudinal data (O'Sullivan, Rassel and Berner, 2003).

### **1.2. Methods of Data Collection**

In dealing with any real-life problem it is necessary to collect data that are appropriate, since it is often found that the data at hand are inadequate (Kothari, 1996). The primary data can be collected in one of the two ways through experiment or survey (ibid). For this study the researchers will use survey methods to collect primary data.

Questionnaire: The researchers will use structure semi-close-ended questions for this study. The general form of a questionnaire either be structured or unstructured questionnaire. Structured questionnaires are those questionnaires in which there are definite, concrete and pre-determined questions (Kothari, 1996). The questions are presented with exactly the same wording and in the same order to all respondents. Structured questionnaires may also have fixed alternative questions in which responses of the informants are limited to the stated alternatives (ibid). This type of data collection will help to procure quantitative data.

Interviews: The researchers will use face-to-face interview method of data collection to maintain the confidentiality and to avoid interruption that may occur using the telephone interview. The researchers will apply the intensive interviewing techniques to collect data. In an intensive interviewing techniques, the questions asked, their wording,

and order vary from interview to interview and the questions ask are more general and open-ended (O'Sullivan, Russel and Berner, 2003). The researchers will use semi-structured and unstructured interviews techniques of data collection. Using this technique of data collection will help to get in-depth information about this conflict those are qualitative data.

**Focus Group Discussions:** A focus group consists of a small group of unacquainted people, mostly ranging from 4 to 15 members, who share some characteristics, but who usually do not know each other ( O'Sullivan, Russel and Berner, 2003). The researchers will use focus group discussions method of data collection and the members of each group will range from 6 to 8. The researchers will use semi-structured questions for focus group discussions. This will help to collect data and insights those are not raised from individuals' interviews.

**Documents Analysis:** The researchers will collect secondary data from the existing relevant published and unpublished documents including books, magazines, journals, newspapers, reports and electronic sources. Secondary data refer to the data which have already been collected and analyzed by someone else (Kothari, 1996).

### **1.3. Sampling Design**

#### **Sampling Size**

The researchers will collect data from communities and government officials relevant to the study. Thus, the population of the study comprises all communities in Nuer zone, Anywa zone, Itang special district, Gambella town and government official of Gambella Regional State. The sample size will be 200.

#### **Sampling Techniques**

The researchers will use the purposive sampling, stratified sampling, and simple or systematic random sampling techniques.

**Purposive Sampling:** The researchers will select district and kebeles purposively in order to get areas where the conflict is more pervasive. The purposive sampling is a second type of non-probability sampling, sometime called judgment sampling (O'Sullivan, Russel and Berner, 2003). It is used for selecting items which researcher considers as representative of the population and used frequently in qualitative research where the desire is to develop hypotheses (Kothari, 1996).

**Simple Random Sampling:** The researchers will employ simple random sampling to select villages within purposively selected district and/or kebeles. The simple random sampling is a chance or probability sampling where each and every item in the population has an equal chance of inclusion in the sample (Kothari, 1996). To select districts, the researchers will write the names of the districts and picked up two from conflict affected districts. That is, the lottery method will be used.

**Stratified Sampling:** The researchers will form stratum for ethnic groups as Nuer, Anywaa and other communities, and stratify the respondents into strata as elites, elders, youth (both young men and women), women, governments' officials and religious people. The stratified random sampling is a technique in which the population is stratified into a number of non-overlapping sub-populations or strata and sample items are selected from each stratum (Kothari, 1996). It is used if the population from which a sample is to be drawn does not constitute a homogeneous group (ibid). The age ranges for one to be considered as youth and/or elder, will depend on the context of each ethnic group under study. For the interviews of elders, the researchers will use purposive and snowball method.

The researchers will select the investigators from the area under study. Their education levels will be diploma or degree and who speaks and write English and their local language. The researchers will train enumerators at their own district for one day.

## 1.4. Unit of Analysis

The unit of analysis of study, as defined in Oxford Dictionary, is the major entity that is being analyzed. It is different from the unit of observation, which is the unit on which one collects data (Oxford Dictionary). The unit of analysis is the 'what' or 'whom' that is being studied (ibid). According to Trochim (2006) any of the following could be a unit of analysis in a study: artifacts (photos, newspapers, books), individuals, groups, geographical units (state, town, census tract), and social interactions (dyadic relations, divorces, arrests). The unit of analysis is “Conflict resolution” which of course dyadic relation. This study will analyze the conflict resolution mechanisms used to solve the conflict between Nuer and Anywa.

## *Methods of Data Analysis*

The information that will be gathered, being primary and/or secondary, will be analyzed and presented them in different forms. The researchers will reduce the data into meaningful accounts, often the data from fieldwork are analyzed inductively (Bailey, 2007).

### **Primary Data Analysis**

The presentations of primary data involved the use of qualitative descriptions and tables. The researchers will analyze, describe, discuss, code and qualify the primary data using explanatory means, comparisons, interpretation logical arguments and SPSS. These primary data will be data collect, using questionnaire, interviews, and focus groups discussions, from the field.

### **Secondary Data Analysis**

Institutional documents like reports, agreements, policies, newsletters and others relevant to this study will be analyzed and interpreted. The researchers will analyze the secondary data using narratives, descriptions, discussions, comparisons, logical arguments and narrations. As Corbetta (2003, p.287) state “Document is any material that provides information on a given social phenomenon and which exist independently of the researcher’s action”.

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# Challenges of Implementing Balanced Score Card Automation System: the case of Ministry of Education and Jimma University

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## Abstract

*The aim of this study is to assess the challenges of implementing Balanced Score Card Automation System in the Ministry of Education and Jimma University. Descriptive research design and mixed research approach were applied. Simple random sampling technique was used to select a sample from employees of the two institutions. But purposive sampling has been used to select sample for focus group discussions and interview. Descriptive statistics and Thematization techniques have been used to analyze the data. The most serious challenge revealed in this study is related to lack of genuine commitment from the top management. Resistance to change, lack of awareness on the benefits of BSC automation system and unfriendliness of the system are also among the challenges. It is recommended that committed engagement of high-level leaders is essential. Besides, continuous investment in building the capacity of leaders and employees within the organization on BSC is essential. It is also advisable to develop BSC automation software at the center/national level as it is not easy and cheap to do it at an institutional level.*

**Keywords:** *BSC automation, Ministry of education, Jimma University*

## 1. Introduction

### 1.1. Background of the Study

The aim of performance management is to establish a high-performance culture in which individuals and teams take responsibility for the continuous improvement of business processes and for their own skills and contributions within a framework provided by effective leadership (Armstrong, 2006). It is concerned with aligning individual objectives to organizational objectives and ensuring that individuals support corporate core values (Aserat, 2014). The above scholars claim that performance management provides for expectations to be defined and agreed in terms of role, responsibilities and accountabilities (expected to do), skills (expected to have) and behaviors (expected to be) and to develop the capacity of people to meet and exceed expectations and to achieve their full potential to the benefit of themselves and the organization.

In the last two decades, there has been a paradigm shift in the public sector toward “new public management” which is more closely aligned with private enterprise management systems (Chang, 2007). This has precipitated the adoption of more sophisticated performance management systems such as the balanced scorecard (BSC) which has been widely adopted by both profit making and non-profit

organisations around the world (Lawson et al., 2006, Yang et al., 2005). This has been evidenced by the fact that over 50% of the Fortune 500 companies are using this approach as a performance measurement and strategic management tool (Gumbus 2005).

The balanced scorecard is a strategic planning and management system that is used extensively in business and industry, government, and nonprofit organizations worldwide to align day to day activities of employees to the vision and strategy of the organization, improve internal and external communications, and monitor organization performance against strategic goals (Harvard Business Review, 1996). BSC has evolved from its early use as a simple performance measurement framework to a full strategic planning and management system (Kaplan, 2001). The “new” balanced scorecard transforms an organization’s strategic plan from an attractive but passive document into the "marching orders" for the organization on a daily basis. These performance lenses are learning and growth, internal business, financial and customer (community perspective). Improving performance in the objectives found in the learning & growth perspective enables the organization to improve its internal process perspective objectives, which in turn enables the organization to create desirable results in the customer and financial perspectives (Harvard Business Review, 1996).

The balanced scorecard is seen as a strategic management system that helps to incorporate all measures that have importance to the organization (Andre, 2010). It is used by government agencies, business organizations and nonprofit organizations (Andre, 2010). In the light of this, designing and implementing balanced scorecard play a key role to achieve organizational goal as well as individual goals to the success of an organization.

Fully automating the BSC reporting using purpose-built BSC software rather than maintaining completely on simple tools such as Excel, PowerPoint or Word provides efficient collaboration among users and more importantly ability to support cascading (SPImpact, 1998). The metric data required for the measure is collected automatically by interfacing with various data sources (SPImpact, 1998). However, there is quite broad agreement that there are important challenges in transposing the BSC principles to public sector organizations, and that particular circumstances unique to the public sector give rise to the need for adjustments in both BSC design and implementation (Kaplan 2001; Niven, 2002). Therefore, this paper aims to assess the challenges of implementing BSC automation system in the Ministry of Education and Jimma University.

## **1.2. Statement of the problem**

Before a decade, the Ethiopian government has propelled change programs. One of the change programs was Business Process Reengineering (BPR). The point of BPR is to build the productivity and viability of an association on process-based structure. While some of the public organizations achieve remarkable result through BPR, there were some problems in the implementation process especially in measuring the outcome (Aserat, 2014). To solve those identified problems and to go with those achieved results the Balanced Scorecard System was launched in 2010 G.C (Aserat, 2014). Balanced score card is a better tool used for strategic planning, strategic results monitoring and performance measurement which are achieved at corporate level as well as at individual level (Niven, 2002). The BSC would help the organization strategically focus its activities, align the day to day work with the organization overall strategy, and transform the organization daily operations (Niven, 2002).

The use of technology has accelerated the acceptance of the Scorecard (Sawalqa, Holloway and Alam, 2011). Hence, he suggests Scorecard would not be accepted and used without the availability of software. BSC automation links the vision to strategic objectives and measures and show cause and effect of relationships; allow creation and linkage of organizational and personalized scorecards; support both quantitative and qualitative information; enable dynamic communication; link through to tactical or operational bi applications and be easy to set up and maintain. Previous empirical literature has focused on practices and challenges of BSC (Ashenafi, 2018; Hiwot, 2015); design and implementation of Balanced Scorecard (Asrat, 2014) and assessment of balanced scorecard implementation, success stories and challenges (Mulugeta 2016). However, non-of them attempted to see the issue from BSC automation point of view. Hence, the aim of this research is to fill this gap.

## **1.3. Research Questions**

This study aims to address the following basic research questions:

- What are the benefits recorded by implementing BSC automation system?
- What are the challenges facing the users in implementing BSC automation system?
- What is the attitude of employees towards BSC automation system?

## **2. Concept and Theories**

### **2.1. Concept of Performance Management**

Performance management is a means of getting better results by understanding and managing performance within an agreed framework of planned goals, standards and competency requirements (Armstrong, 2006). Processes exist for establishing shared understanding about what is to be achieved, and for managing and

developing people in a way that increases the probability that it will be achieved in the short and longer term. It focuses people on doing the right things by clarifying their goals. According to Armstrong (2006), performance management system serves strategic, administrative, and developmental.

*...With regards to strategic purposes, a performance management system should link employee activities with the organization's goals. The second one is that it is used for administration decision like salary increment, promotions, retention-termination, layoff, and recognition. The third one is developmental purpose, which is used to develop employees who are effective at their jobs.*

Effective performance management systems have a well-articulated process for accomplishing evaluation activities, with defined roles and timelines for both managers and employees. Especially in organizations that use performance management as a basis for pay and other HR decisions, it is important to ensure that all employees are treated in a fair and equitable manner” (Pulakos, 2004). Based on examination of performance management processes in several organizations, most contain some variation of the process shown below.

## **2.2. Criteria for Performance Evaluation**

There are five criteria to evaluate performance management system. These are strategic congruence, validity, reliability, accountability, and specificity (Noe et al, 2006). *Strategic congruence* is the extent to which a performance management system elicits job performance that is congruent with the organization's strategy, goals, and culture. If a company emphasizes customer service, then its performance management should assess how well its employees are serving the company's customers. *Validity* is the extent to which a performance measure assesses all the relevant-and only the relevant- aspects of performance. This is often referred to as content validity. For performance measure to be valid, it must not be deficient or contaminated. The performance measure should seek to minimize contamination is seldom possible. Similarly, reliability refers to the consistency of performance measure. One important type of reliability is *inter-rater* reliability: the consistency among the individuals who evaluate the employee's performance measure has *inter-rater* reliability if two individuals give the same (close to the same) evaluations of a person's job performance. Acceptability refers to whether the people who use a performance measure accept it. Many elaborate performance measures are extremely valid and reliable, but they consume so much of managers' time that they refuse to use it. Alternatively, those being evaluated by a measure may not accept it.

### 2.3. Basic Concepts of Balanced Scorecard

As defined by Kaplan and Norton (1996), the Balanced Scorecard translates an organization's mission and strategy into a comprehensive set of performance measures that provides the framework for a strategic measurement and management system<sup>ll</sup>. This strategic management system measures organizational performance in four balanced' perspectives: Financial, Customer, Internal Business Process and Learning and Growth (Knnap, 2001). Because the balanced scorecard is not focused solely on a single measurement of performance, it allows us to view results of organizational performance from different dimensions. Although the Balanced Scorecard was developed in part as a reaction against the excessive reliance on financial measures, the financial measures are still an important component of the Balanced Scorecard (Niven, 2006).

According to Kaplan and Norton (1992) the Financial Perspective indicate whether the implementation of the company strategy and its execution are contributing to the improvement of bottom-line results. Focusing resources, energy, and capabilities on customer satisfaction, quality, knowledge, and other factors in the other perspectives without incorporating indicators showing the financial returns of an organization may produce little added value. In the *Customer Perspective*, the aim is to identify the customer and market segments in which the organization will compete, and, accordingly, the measures to track related performances (Kaplan and Norton, 1996). The Customer Perspective should ask how an organization appears to customers in order to achieve the organization's vision and mission. This reflects the factors that are really important to customers (Kaplan and Norton, 1992). Kaplan and Norton (1992) recognized these factors in: time, quality, performance, service and cost.

Great customer performance is the result of processes, decisions, and actions which managers need to focus on in order to satisfy customer needs (Kaplan and Norton, 1992). According to Kaplan and Norton (2000), in the *internal process perspective* the organization determines how it will achieve the value proposition for its customers and the productivity improvements to reach its financial objectives in order to satisfy its shareholders. This perspective measures the business processes that have the greatest impact on customer satisfaction. It measures factors like quality and employee skills.

By measuring the organization's ability to innovate, improve, and learn, the Learning and Growth Perspective identifies the needed infrastructure to support the other three perspectives. Niven (2006) argues that measures of the Learning and Growth Perspective are the enablers of the other perspectives and represent the foundation of the Balanced Scorecard. Knowledge, employee skills and satisfaction, the availability of information and adequate tools are frequently the source of growth and therefore the most common measures of this perspective (Niven, 2006).

#### **2.4. The Steps of the building and Implementation Process of Balanced Scorecard**

The balanced scorecard includes two Phases. These are the building phase and the implementation phase. From step 1 to step 6 are included in the building Phase where as step 7 to 9 are in the implementation phase (Balanced Scorecard Institute, 2007).

*The Building Phase:* in step one, in the organizational assessment, the first one is about a number of things: to finalize the Balanced Scorecard Plan which will detail, among others, all the teams that will be involved in the designing of the scorecard and the training they will require. Secondly, in step one involves conducting the organization assessment of the strategic elements: the mission and vision, SWOT and organization values. Thirdly, step one is also about preparing a change management plan for the organization, which will entail conducting a change readiness review to determine how ready the organization is in embarking on such a journey and what needs to be put in place to make it ready, as well as defining communications strategy which will identify the target audience, key messages, media channels, timing, and messengers of the communication (Morongwa, 2007).

Step two is strategy; the strategy is about determining the strategic themes, including strategic results, strategic themes, and perspectives, which are developed to focus attention on the customer needs and their value proposition. The most important element of this step is to ensure that you have unpacked what your customers are looking for from your organization in terms of function, relationship and image to determine whether you are providing value to your customers (Morongwa, 2007). With regards to the third step, it is about determining your organization's objectives – that is your organization's continuous improvement activities, which should link to your strategic themes, perspectives and strategic results (Morongwa, 2007). The fourth step is about strategic map, the objectives designed in step three are linked in cause-effect relationships to produce a strategy map for each strategic theme. The theme strategy maps are then merged into an overall corporate strategy map that shows how the organization creates value for its customers and stakeholders (Morongwa, 2007). Strategy Map as a one-page graphical representation of what you must do well in each of the four perspectives in order to successfully execute your strategy. The other steps in the design phase about performance measures. Measures are quantifiable (normally, but not always) standards used to evaluate and communicate performance against expected results (Niven, 2006). The performance measures are developed for strategic objectives. Performance measures should be defined clearly, differentiating the outcome and output measures (Morongwa, 2007). The Balanced Scorecard should contain a mix of lagging and leading indicators of performance. Lagging indicators represent the consequences of actions previously taken (past performance history), while leading indicators drive, or lead to, the results achieved in lagging indicators (future expected performance) (Niven, 2006).

In Step Six, the strategic initiatives are developed that support the strategic objectives. This is where the projects that have to be undertaken to ensure the success of the organization (the extent to which the organization fulfills its mandate or vision) are drafted and assigned. To build accountability throughout the organization, performance measures and strategic initiatives are assigned to owners and documented in data definition tables (Morongwa, 2007). *The Implementation Phase (Business Unit and Individual Score card)*: Step Seven involves automating the Balanced Scorecard system, and consists of analyzing software options and user requirements to make the most cost-effective software choice for today and to meet company performance information requirements in the future. Automation is purposely put as Step 7 on the 9-step framework, to make sure that the proper emphasis is placed on strategic thinking and strategy development before "software seduction" sets in. Purchasing software too early limits creative strategic thinking, and purchasing software late makes it difficult to sustain momentum of the new system, as performance information reporting utilization is clearly an early benefit to be captured from the process of building the scorecard system (Morongwa, 2007).

Following the development of the corporate scorecard, Step Eight (Cascading) involves cascading the corporate scorecard throughout the organization to business and support units. Then team and individual scorecards are developed to link day-to-day work with departmental goals and corporate vision. Cascading is the key to organization alignment around strategy. Optionally, objectives for customer-facing processes can be integrated into the alignment process to produce linked outcomes and responsibilities throughout the organization. Performance measures are developed for all objectives at all organization levels (Morongwa, 2007). As the scorecard management system is cascaded down through the organization, objectives become more operational and tactical, as do the performance measures. Accountability follows the objectives and measures, as ownership is defined at each level. An emphasis on results and the strategies needed to produce results is communicated throughout the organization levels (Morongwa, 2007). The final step which is Step Nine (Evaluation) involves evaluating the success of chosen business strategies.

## **2.5. The benefits of Balanced Scorecard Implementation**

Research has shown that using Balanced Scorecard has many benefits and pitfall. Some of the benefits are. The Balanced Scorecard framework provides a powerful framework for building and communicating strategy. The business model is visualized in a strategy map which forces managers to think about cause-and-effect relationships. It means that the performance out comes as well as key enablers or drivers of future performance (such as the intangible) are identified to create a complete picture of the strategy (Marr, 2010). The fact that the strategy with all its interrelated objectives is mapped on one piece of paper allows companies to easily communicate strategy internally and externally. The balanced scorecard approach



forces organizations to design key performance indicators for their various strategic objectives. This ensures that companies are measuring what actually matters (Marr, 2010).

*Moreover*, companies using a BSC approaches tend to produce better performance reports than organizations without such a structured approach to performance management. Increasing needs and requirements for transparency can be met if companies create meaningful management reports to communicate performance both internally and externally (Marr, 2010). Organizations with a balanced scorecard are able to better align their organization with the strategic objectives. In order to execute a plan well, organizations need to ensure that all business and support units are working towards the same goals. Cascading the balanced scorecard into those units will help to achieve that and link strategy to operations. Furthermore, well implemented Balanced Scorecards also help to align organizational process such as budgeting, risk management and analytic with the strategic priorities. This will help to create a truly strategy focused organization (ibid.).

## **2.6. Challenges in the Balanced Scorecard Implementation**

There are many Balanced Scorecard implementations where companies don't seem to get all the benefits described above. As the world is changing constantly, the Balanced Scorecard needs to change too. However, in order to be practical, it is important to agree on one Balanced Scorecard and run with it for a while instead of waiting forever to create something perfect (Marr, 2010). Not having the buy-in and support of key manager and executives can jeopardize the success of any Balanced Scorecard implementation. It is important that key individuals in an organization are committed to the strategic objectives and performance indicators identified in the Balanced Scorecard. The best way to achieve this is to closely engage them in the process of designing the Balanced Scorecard (Marr, 2010). In addition, the Balanced Scorecard is often seen as a top management initiative in which they define what needs to be done and what needs to be measured. However, creating a Balanced Scorecard is a fantastic opportunity to engage with a wider group of internal staff and key external stakeholders. Involving them will yield a better Balanced Scorecard and most importantly help to create buy-in and support (Marr, 2010). Many organizations assume that once senior management have agreed on their Balanced Scorecard, strategic map and their indicators everyone will happily implement it and collect and report the data. Don't underestimate the need for training and communication about the Balanced Scorecard initiative and its aims and objectives. Lastly, one of the main problems with Balanced Scorecards arises when senior managers use the performance indicators identified to apply a command-and-control approach in which they use the indicators to punish or reward people. This creates fear, resistance and cheating. Instead, managers should use their Balanced Scorecards to foster a

learning culture where everybody is encouraged to collect performance information to improve future performance (Marr, 2010).

### **3. The Methods**

This research has followed both quantitative and qualitative (Mixed) research approaches. Its central premise is that the use of quantitative and qualitative approaches in combination provides a better understanding of research problems than either approach alone (Creswell and Plano Clark, 2007). Besides, descriptive survey research design has been used. It is a fact finding study with adequate and accurate interpretations of the findings (Kotari, 2004). It enables researchers to describe, compare and construct causal analysis of events as it exists. In this study, both primary and secondary data have been used. Primary sources have been staffs who are currently working in the two sample institutions. The secondary data sources constituted different documents.

As the available data indicates, Ministry of Education and Jimma University are the sole public institutions that attempted to implement the automation of the BSC. Hence, these two institutions have been purposively selected for this study. Because of time and financial limitations and the nature of the population, sample determination method developed by Carvalho (1984) has been used to determine the sample size. Accordingly, a sample size of 500 has been selected. Furthermore, three FGDs (two at Jimma and one at Ministry of education) and six Key informant interviewees (three from each study site) have been interviewed. The information collected from both primary and secondary sources have been processed and analyzed using descriptive statistics such as mean and percentage. Moreover, Thematization approach has been used to analyze the qualitative data.

### **4. Results and Discussions**

#### **4.1 Employees' Perception on the Benefits of BSC Automation System**

In this study, employees' perception on the benefits of BSC automation is the aggregate score of the six factors (items) used to measure their perceptions such as elimination of manual and repetitive tasks, enhance data retrieval and tracking, provision of a single version of truth, provision of spontaneous analysis and reporting, link organizational and personal scorecards, and support both quantity and quality of information. The 5-point agree-disagree response choices has been used. For each factor of benefits as well as for the six-item total score, a mean of 3 or more represent agreement on the existence of the benefits, whereas a mean score of 3 or less represents disagreement on the existence of the benefits. A mean score of 3 or very close is ambivalent.

Table 1. Mean and standard deviation of the perceived benefits of BSC automation

Benefit factors	N	Mean	SD
Elimination of manual and repetitive tasks	420	2.9	1.10
Enhance data retrieval and tracking	420	2.30	1.21
Provision of a single version of truth	420	1.20	0.90
Provision of spontaneous analysis and reporting	419	2.40	1.01
Link organizational and personal scorecards,	420	3.10	1.02
Support both quantity and quality of information.	420	1.10	1.10
Aggregate mean		2.16	

As shown in the table 1 above, link organizational and personal scorecards with mean=3.10 and SD=1.02 has the highest mean score and provision of the single version of truth mean=1.2 and SD 0.9 and support both quantitative and qualitative information mean=1.10 and SD=1.10 have the lowest mean score. Similarly, enhance data retrieval and tracking mean=2.3 and SD=1.21, eliminate manual and repetitive tasks mean=2.9 and SD=1.10, provide spontaneous analysis and reporting mean=2.4 and SD=1.01 comprise the relative lower mean score. When one compares the mean score of employees' perceptions on the benefits factors on table 1, their perception level is the highest for linking organizational and personal scorecard than other factors. The next is provision of spontaneous analysis and reporting, enhance data retrieval and tracking, and eliminate manual and repetitive tasks. The employees' perception on the question that BSC supports both quantity and quality information and provision of a single version of truth is the lowest. The aggregate mean score of 2.16 is below three. To support the above survey response, focus group discussions (FGDs) have been held with selected employees of the two institutions. The result was mixed. Those participants who are close to BSC automation system (for instance who are working on planning and budget, MIS, reform, etc) have the perception that the system has all the benefits mentioned above. But, other participants to FGDs were either hesitant or silent to the issue during the discussions. Besides, the key informant interviewees also have strong perception that the BSC automation system has all the above-mentioned benefits and more. Hence, from the above findings, one can infer that there is lack of enough awareness on the benefits of BSC automation particularly on the lower level employees.

#### 4.2 Assessment of Employees' Attitude toward BSC automation system

In this study, attempts have been made to assess employees' attitude toward BSC automation system. The factors used to measure the attitude are- implementing BSC automation system is wastage of time and resources, considering BSC automation as a political agenda, not feeling proud of using BSC automation in the office, not recommending other organizations to implement BSC automation system, not seeing any

benefit of BSC automation system and not worthy to implement BSC automation. Mean and standard deviation score of the response is presented in table 2 below.

Table 2. Mean and standard deviation of employees' attitude items toward BSC automation system

Employees' attitude items	N	Mean	SD
Implementing BSC automation system is wastage of time and resources,	419	3.12	1.01
Considering BSC automation as a political agenda	420	3.30	0.93
Not feeling proud of using BSC automation in the office	420	3.20	1.22
Not recommending other organizations to implement BSC automation system	420	3.40	1.10
I did not see any benefit of BSC automation system	420	4.10	1.02
It is not worthy to implement BSC automation system	420	3.41	1.11
Aggregate mean		3.42	

As presented in the table 3 above, employees' attitude toward BSC is presented. Accordingly, the mean and SD score of the employees' response to the question implementing BSC automation system is wastage of time and resources (mean = 3.12 and SD=1.01), considering BSC automation as a political agenda (mean = 3.3 and SD=0.93), not feeling proud of using BSC automation in the office (mean = 3.20 and SD=1.22) , not recommending other organizations to implement BSC automation system(mean = 3.40 and SD=1.10), not seeing any benefit of BSC automation system(mean = 4.10 and SD=1.02) and not worthy to implement BSC automation(mean = 3.41 and SD=1.11). The aggregate mean is 3.42 which is higher than expected mean (3.0).

When one compares the mean score of employees' attitude items on table 2, employees' feeling that they are not seeing any benefit from BSC automation system has the highest mean score. Whereas, other items such as implementing BSC automation system is wastage of time and resources, considering BSC automation as a political agenda, not feeling proud of using BSC automation in the office, not recommending other organizations to implement BSC automation system, and not worthy to implement BSC automation have mean score above the expected mean. Result from the focus group discussions also pointed out that there is attitudinal challenges to implement the system. As the discussant emphasized

attitudinal challenge comes as a result of top down approaches to the system. There have been no broad consensuses between the management and the employees on the issue. The implementation of the system is also on and off, for instance, in Jimma University, the application of the system has stopped this time.

#### 4.3 Challenges of Implementing BSC Automation System

In this study the seven factors used to measure the challenges of implementing BSC automation system include existence of uneven skill (awareness) among employees, attitudinal problem among employees, employees' resistance to change (stick to do business as usual), lack of sufficient training on BSC, lack of commitment from the management, unfriendliness of the system (for instance language problem) and inconsistency of scorecard terminologies with the culture of the organization. The 5-point agree-disagree response choices has been used. The result is presented in the following table:

Table 3. Mean and standard deviation of the challenges of implementing BSC automation system

<b>Challenge Factors</b>	<b>N</b>	<b>Mean</b>	<b>SD</b>
Existence of uneven skill (awareness) among employees	420	3.90	1.21
Attitudinal problem among employees	420	3.91	0.90
Employees' resistance to change (stick to do business as usual)	420	4.30	1.01
Lack of sufficient training on BSC automation system	420	4.10	1.02
Lack of commitment from the management	420	4.81	0.81
Unfriendliness of the system (for instance language problem)		3.50	0.91
Inconsistency of scorecard terminologies with the culture of the organization	420	3.86	1.12
<b>Aggregate mean score</b>		<b>4.07</b>	

Existence of uneven skill (awareness) among employees (mean = 3.90 and SD=1.21) , attitudinal problem among employees(mean = 3.91 and SD=0.90) , employees' resistance to change (stick to do business as usual) (mean = 4.30 and SD=1.01) , lack of sufficient training on BSC(mean = 4.10 and SD=1.02) , lack of commitment from the management (mean = 4.81 and SD=0.81) , unfriendliness of the system (for instance language problem) (mean = 3.50 and SD=0.91) and inconsistency of scorecard terminologies with the culture of the organization(mean = 3.86 and SD=1.12) . The aggregate mean score of the seven challenge areas is 4.07.

When one compares the mean score of the factors on table 3, all the identified factors used to measure the challenge areas have a mean score of greater than 3.0. However, lack of commitment from the management,

lack of sufficient training on BSC automation system and employees resistance to change (stick to do business as usual) are the highest identified challenges to the implementation of BSC automation. Similarly, lack of commitment from the management, lack of sufficient training on BSC automation system and employees' resistance to change (stick to do business as usual) are the second identified challenge areas to BSC implementation. Relatively lower mean score but still greater than the expected mean (3.0) is the unfriendliness of the system (for instance language problem).

The above survey findings are substantiated by qualitative data collected from FGDs and interview with key informant interview. Different factors challenging the implementation of BSC automation system have been identified by the discussants. But, the most repeatedly raised challenge comes from lack of commitment from the leadership to implement the system. Employees' lack of sufficient skill and awareness on the system, employees' low understanding (knowledge) about the system and considering the system as additional task have also been seriously mentioned by the discussants. In this regard, different scholars have indicated that especially if the application is too complex to use the learning curve for users to adapt to new application could be lengthy (Suppiah, 2005). Regarding, lack of commitment from the management, Marr (2010) explain that not having the buy-in and support of key manager and executives can jeopardize the success of any Balanced Scorecard implementation. It is important that key individuals in an organization are committed to the strategic objectives and performance indicators identified in the Balanced Scorecard. The best way to achieve this is to closely engage them in the process of designing the Balanced Scorecard (Marr, 2010).

Issues of employees' low awareness on BSC has been explained by one scholar that many organizations assume that once senior management have agreed on their Balanced Scorecard, strategic map and their indicators everyone will happily implement it and collect and report the data (ibid.). The scholar emphasized that need for training and communication about the Balanced Scorecard initiative and its aims and objectives must not be underestimated. Experience has shown that the support of lower and middle tier managers is essential for the success (Marr, 2010).

#### **4.4 Benefits recorded after the implementation of BSC automation system**

Similarly, the study has assessed perception of the respondents on the benefits accrued after the implementation of BSC automation system. The following table 4 presents means and standard deviation score of the respondents.

Table 4. Mean and standard deviation of benefit recorded after BSC implementation

<b>Benefit recorded after BSC implementation</b>	<b>N</b>	<b>Mean</b>	<b>SD</b>
Able to incorporate strategic and annual plan	420	3.20	1.09
Able to measure performance of the organization and implementation	420	2.32	1.11
Able to replace manual paper work	420	1.10	0.12
Able to saved time of your institution	420	1.20	1.11
Able to disseminate data easily	418	2.9	0.91
Able to provide adequate report	420	2.21	.90
Able to provide feedback online	420	2.10	1.03

Table 4 above depicts opinion of the respondents regarding possible benefits obtained after implementing BSC automation system. In this regard, the first question posed to the respondents was whether or not implementing BSC automation system has able to incorporate strategic and annual plan. Mean score of the response is 3.2 and it is the highest. The mean score of all the other factors identified to measure the benefits are below the expected mean (3.0). For instance, able to provide feedback online (mean = 2.32 and SD=1.11), able to replace manual paper work(mean = 1.10 and SD=0.12), able to saved time of your institution(mean = 1.20 and SD=1.11), able to disseminate data easily (mean = 2.90 and SD=0.90), able to provide adequate report(mean = 2.21 and SD=0.90) and able to measure performance of the organization and implementation (mean = 2.10 and SD=1.03). The aggregate mean score is 1.97. The qualitative data collected particularly from the focus group discussion depicts complementary results. The discussants as well as the key informants have concluded that implementation of BSC automation in their institution has not yet brought the desired benefits.

## **5. Conclusion and Recommendations**

The relevance of Balanced Scorecard Automation System is blurred. Awareness on the benefits of BSC automation system particularly on the lower level employees of the sampled institutions is low. Top down approaches and lack of broad consensus between the management and the employees on the implementation of BSC automation system have been observed. Successful implementation of BSC automation system has faced strong challenge. The lion share of the challenge is from the leadership. The issue could not get genuine attention from the top management. As a result, sufficient awareness has not been created among employees; they have no skill and appetite to implement the system. The right attitude has not yet developed among the employees. In the two institutions, implementation of the BSC automation

system has not brought the desired benefits. In Jimma University it is even getting back for extinction. Based on the above findings and conclusion, the following specific recommendations are forwarded:

- The committed engagement of high-level leaders is essential to effective implementation of BSC automation system.
- Continuous investment in building the capacity of leaders and employees within an organization on BSC is essential.
- It is advisable to develop BSC automation software at the center as it is not easy and cheap to do it at an individual level

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# Internally Displaced Persons and Ethiopian Federalism

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## Abstract

*Since 1995, Ethiopia has started to practice multi-cultural /ethnic form of federalism to empower nations, nationalities and peoples of Ethiopia to exercise rights to self-determination. However, a number of persons were being internally displaced from different regions of Ethiopia federations as a result of conflict basing on ethnic minority, language and religious minority. Therefore, this writing assesses the relationship and gaps of internally displaced persons and Ethiopian federalism. Internally displaced persons are persons or groups of persons who have been forced or obliged to flee or to leave their homes or places of habitual residence, in particular as a result of or in order to avoid the effects of armed conflict, situations of generalized violence, violations of human rights or natural or human-made disasters without crossing internationally recognized state borders. This situation has an impact on both internally displaced persons and the hosting communities or regions. On the side of internally displaced persons, they lack access to necessity of life such as food, shelter and clothes since their houses and properties were destroyed, looted or burnt down. There is also overcrowding of internally displaced persons who create informal settlements on communal land on the sides of hosting communities or regions. To this end, the writer has employed qualitative research methodology to provide in-depth understanding of the relationship between the Ethiopian federal system and internally displaced persons in the country to forward new legal and institutional alternatives to solve the realities of internally displaced persons in lights of Ethiopian federalism.*

**Key words:** Displacement, Ethnic federalism, Internally displaced persons, FDRE Constitution, Ethiopia

## 1. Introduction

### 1.1. Background of the Research

*Though man, by nature, is migratory animal, but, nevertheless, 'there is no greater sorrow on earth than the loss of one's native land'.<sup>2</sup>*

The loss of one's native land may happen due to multifarious unforeseen dimensions, but its cumulative effect is designating the affected persons as refugees, asylum seekers, and internally displaced persons (here in after abbreviated as IDPs). The status of refugees and asylum seekers is different from internally displaced persons. The refugees and asylum seekers are more near to the arena of international law as to save such persons from the status of statelessness and as such international law regulates and establishes institutional mechanisms for the settlement of such interstate(involving two or more sovereign states) disputes, which have proved quite adequate in such like institutions because of political goodwill.<sup>3</sup> The prevention of misuse of the human rights of asylum as well as refugees is a grave problem of the area of

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<sup>2</sup> K.L.Bhatia, *Federalism and frictions in center- state relations, a comparative Review of India and German Constitution*, DEEP and Deep publications PVT. LTD, 2007, p.233

<sup>3</sup> Ibid.

international law than constitutional law. There is an increasing / growing feeling that the internal problems a country cannot be conceived as burdens for other country, and looking for philanthropy. This research focuses on internally displaced persons as a challenge of Ethiopian federalism.

Internally displaced persons are persons or groups of persons who have been forced or obliged to flee or to leave their homes or places of habitual residence, in particular as a result of or in order to avoid the effects of armed conflict, situations of generalized violence, violations of human rights or natural or human-made disasters, and who have not crossed an internationally recognized State border.<sup>4</sup> IDPs must therefore be distinguished from “refugees”, for whom protection is provided by existing international mechanisms. As defined in such mechanisms, refugees are persons who, unlike IDPs, have crossed international borders and have thus lost the protection of their home countries.<sup>5</sup> IDPs, having remained in their home countries, are entitled to the protection of their home-country governments. It is therefore incumbent upon national governments to provide such protection. The problems of IDPs are increasing at alarming rate within countries that follow federal form of government. For instance, in India federations, population of states of Punjab, Jammu and Kashmir, Assam (because of armed conflict, militancy and terrorism), and Maharashtra -Madhya Pradesh- Gujarat- Rajasthan (because of Narmada Development Dam project) presents as well as highlights the internal displaced problem of internally displaced persons.<sup>6</sup> This reflects as internally displaced persons are a great challenge to centre –state relations or state- states relations within federations. Ethiopia was not an exception this fact even though it takes different causes. Since 1995, Ethiopia started to practice multi-cultural /ethnic form of federalism. The rationale behind to follow such king of government form possibly to solve ethnic conflict, intra- state conflicts and to empower nations, nationalities and peoples of Ethiopia to exercise rights to self-determination. However, a number of persons are internally displaced from different regions of Ethiopia federations. For instance, there has been a trend of increased conflict-related displacement since December 2016, mainly in 2018, due new waves of violence in many regions including the SNNPR-Oromia border, in Oromia and Somali regions, and in Afar region .The crisis also happened within Benishangul Gumuz regional state and Oromia regional state, West Guji Zone and Gedoe of SNNPR.

## **1.2. Statement of the Problem**

Intra-state conflicts that involve internally displaced persons as a result of ethnic conflict have become common since the establishment of the modern state in Ethiopia. However, the Ethiopian People’s Revolutionary Front (EPRDF) regime has implemented federalism as a means of intra-state conflict management since 1994. The problem of internally displaced person is different from refugees and asylum.

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<sup>4</sup> Introduction, *Guiding Principles on Internal Displacement*; Kampala Convention, Article 1(k)

<sup>5</sup> Ibid.

<sup>6</sup> Supra note 1 at 235.

For this reason it requires to be treated differently. That means since it is a problem of intra-state conflict (centre-state or state/s-state, it is a national law/constitution which is expected to provide mechanism for their resolves.<sup>7</sup> The FDRE constitution does not provide lasting solution for internally displaced persons. There are some rights and entitlements for such internally displaced persons, but it is not clear within constitution who has obligation to ensure such rights whether federal government or regional states or both federal and regional state governments. Internally displaced persons affect the wider community; they cluster in camps in large number, and therefore, the vulnerability of the internally displaced persons is not a matter of theoretical debate, but a glaring reality on the ground.<sup>8</sup> This research project provides in-depth understanding of the relationship between the Ethiopian federal system and internally displaced persons in the country. The motivations for this study and research focus include the following. Firstly, the federal government of Ethiopia had formed different ministry to solve ethnic conflict which in turn raises issues of internally displaced persons such Ministry of federal Affairs, Ministry of federal affairs and pastoralists. Recently the federal government has established ministry of peace. Though federal governments of Ethiopia established of those ministries, the crises of internally displaced persons in Ethiopia are not solved at grassroots level. Secondly, such crises have a negative effect on resources sharing between federal government and regional state when internally displaced persons settle in other regions instead of their original home. It also adversely affects the issues of conducting population census survey. Thirdly, it also inflates the unemployment rates within settlers. Finally, the federation of the state has stimulated academic debate about whether it can prevent, manage and resolve intra-state conflicts in the country. On the one hand, some scholars have praised the federal arrangement as an innovative conflict management tool.<sup>9</sup> Others, however, consider it a risk to the national integrity of the country.<sup>10</sup> For this reason, writer developed an intellectual interest in researching the complexities of federalism as an approach to solve internally displaced persons or internally displaced persons are a challenge to Ethiopian federalism.

### **1.3. Objectives of the Research**

The overall objective of this research is to examine the relationship between Federalism and internally displaced persons in Ethiopia to reduce the gaps between them. Specifically the study tries to assess whether internally displaced persons are a challenge to Ethiopian federalism or not; to examine the institutions and practices to manage internally displaced persons in Ethiopia; to analyze whether Ethiopia federation has effective institutions and legal framework to manage internally displaced persons and finally to identify whether it is a federal government or regional states who have a power to provide appropriate forms and levels of support for the practical return of internally displaced persons to their original native place.

### **1.4. Research Questions**

In order to achieve above stated objective, the researcher have framed the following research questions:

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<sup>7</sup> Ibid.

<sup>8</sup> Ibid.

<sup>9</sup> Mengisteab, K, New Approaches to State Building in Africa: The Case of Ethiopia's Ethnic-based Federalism", *African Studies Review*, Vol: 40 (3) 111-132, 1997, <http://www.jstor.org/stable/524968>, as accessed on 02/01/2019.

<sup>10</sup> Kefale, A, Federalism: Some trends of Ethnic Conflicts and their Management in Ethiopia", in Nhema, A.G (ed.) *The Quest for Peace in Africa: Transformations, Democracy and Public policy*, Addis Ababa: OSSREA, 2004, pp: 51-72.

2. What are the underlying causes of internally displaced persons in Ethiopia?
3. How internally displaced persons are the challenges to Ethiopian federations?
4. Does the Ethiopian federation have an effective institutional means/mechanism to manage internally displaced persons in different parts of Ethiopia? What are the institutional and practical reforms are needed to mitigate the internally displaced persons within Ethiopia?

## **2. Conceptual Framework of Internal Displacement Persons and Federalism**

### **2.1 Meaning and History of Internally Displaced Persons**

Recognition of internal displacement emerged gradually through the late 1980s and became prominent on the international agenda in the 1990s. Dynamics of displacement worldwide has shifted; assistance and protection is no longer restricted to refugees (those who have crossed international borders) but has also been extended to those who have been displaced within their own borders - otherwise known as IDPs.<sup>11</sup> A 1992 UN working definition of the internally displaced is now widely deemed too narrow, Persons who have been forced to flee their homes suddenly or unexpectedly in large numbers, as a result of armed conflict, internal strife, systematic violations of human rights or manmade disasters, and who are within the territory of their own country.<sup>12</sup> For example in Myanmar, Iraq and Ethiopia IDPs were not ‘forced to flee’ but were expelled from their homes because of ethnic and religious ties.

### **2.2. Internally Displaced Persons in Ethiopia**

Ethiopia was faced displacement in different forms starting from 1960’s. Resettlement project during 1960-1991, were became part of government policy with the aim of spreading out the population and advancing less inhabited regions.<sup>13</sup> Those projects were mainly set up with the aims of preventing famine and increasing food security, alleviating vulnerable land of population pressure and boosting agricultural production<sup>14</sup>; many considered resettlement programs to be a panacea. In due time, however, they found that land was not suitable for ox plough farming and that the local environmental circumstances created health risks for both the farmers and their livestock. On top of that, the resettlement was implemented without the consent of the people involved and often constituted of a violation of rights of both the settlers and the host communities. All of these factors contributed to the failure of the resettlement system as a

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<sup>11</sup> United Nations High Commissioner for Refugees (UNHCR), Chapter 7: Internally Displaced People, in UNHCR, *The State of the World’s Refugees*, New York: Oxford University Press , 2005c, pp.153-175

<sup>12</sup> Korn, D., *Exodus Within Borders: An Introduction to the Crisis of Internal Displacement*, Washington DC: Brookings Institute, 1999

<sup>13</sup> François Piguet, *Moving People in Ethiopia: Development, Displacement and the State* (Alula Pankhurst ed, 1st edn, Boydell & Brewer Ltd 2009), p. 9

<sup>14</sup> Ibid.

whole and led to large numbers of people leaving their new settlement sites to return to their original homes.<sup>15</sup> Resettlement in Ethiopia took place in two main phases during/under EPRDF: some 600,000 people were relocated in 1985- 1986 under the Derg regime and around 627,000 people during 2003-2007 under the Ethiopian People's Revolutionary Democratic Front (EPRDF), the current ruling party.<sup>16</sup> The EPRDF seized power in 1991 after a long and hard-fought armed struggle against the Derg. The party was highly critical of resettlement programmes at the time of their rebellion, and reaffirmed their position towards the matter after they successfully ousted Mengistu Haile Mariam's regime. The coercion, enormous loss of lives, abuses and violation of settlers' rights together with all the other negative consequences made resettlement a very unfavorable strategy.<sup>17</sup>

The EPRDF was strongly aiming for their resettlement program to be voluntary but there is much debate amongst scholars on the voluntary nature of the 2003-2007 resettlements. On the one hand, settlers were given the opportunity to return to their original homes if they felt discontented, assistance was available where necessary and settlers were promised land-use rights for three years for their property in their homeland.<sup>18</sup> On the other hand, decision-making and the ability to make choices out of complete freedom are often influenced by different factors. During the 2003-2007 resettlements, Ethiopians were facing land shortages, recurring droughts and endemic poverty. Government officials would often describe the resettlement sites as a picture-perfect place and would make promises in terms of support that could, in reality, not be met. In addition to this, the people living in the drought-prone highlands were informed that food aid would cease to exist; leaving them no choice but to resettle.<sup>19</sup> Hence, in reality, resettlement under the VRP (voluntary resettlement program) was not entirely voluntary but contained elements of pressure, threats or downright coercion. Due to its controversial character, the fear of yet another humanitarian crisis emerging if the program would fail<sup>20</sup> and concerns that their support would fund forced resettlement, the international donor community was unwilling to contribute anything more than the life-saving nutrition and medical necessities. Villagization was another way of reflection of displacement in Ethiopia. The villagization program of the EPRDF government was launched in 2010 and aimed to resettle about 1.5

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<sup>15</sup> Dessalegn Rahmato, *Resettlement in Ethiopia: the Tragedy of Population Relocation in the 1980s* (Forum for Social Studies 2003), p. 32

<sup>16</sup> Francois Piguet, supra note 13, p.138

<sup>17</sup> Ibid.

<sup>18</sup> Mulgeta Ayene, *Role of African Union in addressing the lack of legal protection afforded to internally displaced persons in Ethiopia*, LLM thesis, 2018, Tilburg University, Netherlands, Unpublished, p. 10

<sup>19</sup> Ibid, p. 146

<sup>20</sup> Stephen Devereux and Bruce Guenther, "Social Protection and Agriculture in Ethiopia"(2007) [http://www.fao.org/fileadmin/templates/esa/Workshop\\_reports/Social\\_protection\\_2008/workshop\\_0108\\_ethiopia.pdf](http://www.fao.org/fileadmin/templates/esa/Workshop_reports/Social_protection_2008/workshop_0108_ethiopia.pdf) accessed on janaury12,2019 at 10:30 pm

million people by 2013 in four regions: Gambella, Afar, Somali and Benishangul-Gumuz.<sup>21</sup> By implementing Villagization, the Ethiopian government sought to improve socioeconomic infrastructure, enhance livelihoods and increase access of communities to basic services.<sup>22</sup> However, Human Rights Watch reported in contrary to the intention of government of Ethiopia that villagization is carried out in an involuntary manner and goes hand in hand with widespread and systematic human rights abuses. In their 2012 report “Waiting Here for Death”, they state: *“Villagization is carried out with no meaningful consultation and no compensation. Despite government promises to provide basic resources and infrastructure, the new villages have inadequate food, agricultural support, and health and education facilities. Relocations have been marked by threats and assaults, and arbitrary arrests for those who resist the move. The state security forces enforcing the population transfers have been implicated in at least 20 rapes in the past year (2011). Fear and intimidation are widespread among affected populations”*.<sup>23</sup> So, they concluded that the hidden agenda behind it is clearing land for agricultural investment or development project. There is an instance in which the government gave land for foreign investors around 2.6 million hectares even without compensation.<sup>24</sup> In areas where rebel group/resistance movements were active, Villagization was used as a means to manipulate and control local communities and keep them from assisting and siding with the rebel groups/forces. Currently, despite many positive effects like economic growth, the confluence of rapid economic development, ethnic conflicts, recurrent droughts and lack of drought-resilience, seasonal floods and other natural disasters causes a large number of people to be internally displaced every year in Ethiopia.<sup>25</sup> The government of Ethiopia has started to acknowledge the gravity of the situation and has in recent years adopted strategies to address some of the root causes of displacement. For instance, the government has established different institutions like Ministry of Federal of affairs, Ministry of Peace. But, the number of internally displaced in Ethiopia has been continued from time to time at different regions with alarming rate. Those are mostly prevalent in Somali regional state, Benishangul Gumuz regional state particularly Kamashi Zone, West Guji Zone, Gedo zones and so on.

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<sup>21</sup> Mulgeta ayele, supra note 18, p.12

<sup>22</sup> Abraham Tekeste and Shiferaw Teklemariam to DAG Ethiopia Co-Chairs, “Reply to DAG Findings and Recommendations on CDP and South Omo” <http://www.mursi.org/pdf/goe-reply-to-dag-letter-of-18-march-2014> accessed on February 10,2019

<sup>23</sup> “Waiting Here for Death: Displacement and ‘Villagization’ in Ethiopia’s Gambella Region” (Human Rights Watch 2012) rep 2

<sup>24</sup> Ibid.

<sup>25</sup> “DMC: Ethiopia: Country Information” (*Internal Displacement Monitoring Centre (IDMC)*) <http://internaldisplacement.org/countries/Ethiopia>, accessed on January 13,2019, at 10:35 pm

### 2.3. Causes of Internally Displaced Persons in Ethiopia

There are a number of causes for internally displaced persons. Climate induced displacement which was drought, exacerbated by El Niño, affected more than 10 million people<sup>26</sup> and displaced hundreds of thousands. The El Niño-induced drought continued to affect Ethiopia throughout the first half of 2016. Not everyone that is affected by drought and/or dependent on humanitarian assistance is internally displaced. In fact, the majority of the affected population stays in their own location, despite the scarcity of resources. Climate-induced IDPs are people who are displaced due to “environmental factors such as drought, seasonal floods, flash floods and landslides”.<sup>27</sup> However, why under the same circumstances, some become displaced and others don’t, remains to be unclear.

Conflict can also be taken as the most cause for the prevalence of internally displaced persons in Ethiopia. One of the conflicts that caused a large amount of people to be displaced over a short period of time is the Oromo-Somali conflict. Some of the causes of this conflict can be traced back to the tension created by the Ethio-Somali war in the 1970s<sup>28</sup> and to system of ethnic federalism.<sup>29</sup> Disagreements about the exact location of the Oromia-Somali border emerged when the regional states were created in 1991.<sup>30</sup> Conflict-induced displacement is not only a problem in the Oromia-Somali border dispute but also occurs in other parts of the country. Conflict has become the main driver of displacement in Ethiopia in the last few years.<sup>31</sup> By the end of 2015, at least 450,000 people had been displaced by conflict and violence.<sup>32</sup> Ongoing conflicts in different parts of the country, the problem of conflict-induced displacement is far from being solved. Mostly causes for conflicts are for the recognition of self government/ self-rule. Those conflicts mostly bases on the rights granted for nations, nationalities and peoples of Ethiopia particularly sovereign power and rights included under article 8 and 39 of FDRE constitution. Conflict has become the main driver of displacement in Ethiopia in the last few years.<sup>33</sup> The writer is focused on the existence of internally

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<sup>26</sup> The Humanitarian Requirements Document (HRD) 2016 estimated that 10.2 million people would be in need of humanitarian food assistance in 2016. However, beneficiaries of the Productive Safety Net Program (PSNP) that were in need of humanitarian aid are not included in the document and the number of people in need of food assistance was in reality a lot higher. The drought was and remains to be politically sensitive and Ethiopia does not want to be perceived as a famine-prone country. Hence, the government of Ethiopia tried to keep the number of aid-dependent people low by not including PSNP beneficiaries in documents such as the HRD.

<sup>27</sup> “Ethiopia - National Displacement Dashboard (May - June 2018)” (DTM Ethiopia 2018) rep. <http://displacement.iom.int/> Ethiopia, Accessed on February 6, 2019 at 8:00 pm.

<sup>28</sup> James Jeffrey, “Ethnic Violence in Ethiopia Amid Shadowy Politics” (*Inter Press Service News Agency* November 21, 2017) <http://www.ipsnews.net/2017/11/ethnic-violence-ethiopia-amid-shadowy> Accessed on January 23, 2019, at 2:00 pm.

<sup>29</sup> Mulgeta Ayele, *Supra* note 18, p. 16

<sup>30</sup> *Ibid.*

<sup>31</sup> Ethiopia National Displacement Dashboard (May - June 2018)” (DTM Ethiopia 2018) rep <http://displacement.iom.int/> Ethiopia, Accessed on January 12, 2019 at 2:40 pm

<sup>32</sup> Ellie Kemp, “2016 Africa Report on Internal Displacement” (Jemery Lennard ed IDMC 2016) rep

<sup>33</sup> Ethiopia National Displacement Dashboard (May - June 2018)” (DTM Ethiopia 2018) rep <http://displacement.iom.int/> Ethiopia, Accessed on January 12, 2019 at 2:40 pm



displaced persons currently in Ethiopia instead of indicating the exact numbers of internally displaced persons. For this reason, the research does not indicated the exact number of internally displaced from Benishangul Gumuz regional state, Somali regional state, Southern Nations Nationalities state example Gedeo Zone and West Guji Zones of Oromia regional state.

#### **2.4. Federalism and Human Rights**

Under this sub section, the writer discusses the relationship between Federalism and human rights. This is because, after indicating some clues on the relationship between human rights and federalism, it is easy to understand the relationship between federalism and internally displaced persons. Federalism is a system of government in which, there is a division of powers between tiers of government: the federal at the center and other sub national states that are, also independent with each other in their respective jurisdiction and autonomous from one another. Such distributions of powers are prescribed within a constitution, as one of them would not take other's jurisdiction discretionary. These distributions of powers are not only attributable between the federal and sub national governments but also among executive, legislative and judiciary. Different country throughout the world are now becoming a federal state for different purposes: to protect against the central states authority by securing immunity and non domination for minority groups; to accommodate minority nations who aspires to self determination and preservations of their culture, language, or religion; to increase opportunity for citizens participation in public decision making and resource allocations and etc. Ethiopia is not an exception to this fact and starting from 1995 Ethiopia has been exercising a full fledge form of federalism. The federation of Ethiopia was formed from the federal government as the centre and nine regional states horizontally basing on settlement patterns, languages, identity and consent of them. One writer notes that forms of government.., can contribute to violence and disintegration or to peace and progress.<sup>34</sup> Federalism, like all other forms of government structure, has underlying assumptions about the nature and character of government which then shape its political objectives. The relationship between federalism and human rights is not clear as the relationship between federalism and democracy or between Democracy and human rights. Apparently, realization of human rights should not depend up on the federal or unitary form of government and equally good or bad human rights record could exist in both. For instance, countries like USA, Canada, Australia and Switzerland have a good record of human rights. But it is difficult to say, this is as a result of democracy or federalism. Federalism alone does not protect human rights. But, it has some contributing principles for the protection of human rights. As it is well known the doctrine of separation of power is acceptable as guarantee against

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<sup>34</sup> James C. Macpherson, *The Future of Federalism*, in *FEDERALISM AND THE NEW WORLD ORDER* 10 (Stephen Randall & Roger Gibbins eds., 1994)

the violation of liberty of individual by the state because it prevents the concentration of all state power in one person or body. Federalism also performs the same function by dividing powers of the state between two or sometimes three levels of governments, each level checking and balancing the exercise of power by the others. Thus, at least potentially, this institutional arrangement is more likely to prevent the abuse of power by government. Elazar unequivocally asserts that the "central interest of both federation and confederation and, indeed, for true federalism in its entire species, is the issue of liberty."<sup>35</sup> He argued that all federalist theories of government are "realistic" in that they are premised on the fact that (1) government in some form is necessary and is a major human task, and (2) humans are born free and therefore "good government must be grounded in a framework of maximum human liberty."<sup>36</sup> Federalism, he states, is designed to secure good government based upon liberty or, put in other terms, to maintain effective government under conditions whereby the liberties of the partners to the federal bargain are maintained. It seeks to do so, in part, by restricting and dividing governing powers and, in part, by giving the partners to the federal compact... a participatory role in the exercise of those powers.<sup>37</sup>

Federalism also enhances the protection of minority rights. In countries where states/regions can enact their own constitutions like in the case of Ethiopia, the states can put lists of human rights in their constitutions thereby enabling a double protection of human rights for minorities both at federal and state levels. It is important to notice here that the regions cannot violate the human rights provisions enshrined within the federal constitution. But they can go farther to provide for bills of rights that give more protection of minorities. It is about utilization of constitutional space by regional state constitution. For instance in Ethiopia, regional states protected human rights in similar fashion with the FDRE constitution. But they are expected to go beyond the protection granted by the federal constitution. Rights of disability, rights of internally displaced persons, rights of prisoners and remedies for the violation of human rights are not included within both FDRE constitution and all regional state constitution. However, those regional constitutions are expected to include those rights through utilization of constitutional space. This implies federalism leads away for the protection of human rights.

## **2.5 Existing legal frame work to protect internally displaced persons within Ethiopian federations**

Ethiopian IDPs are, just like others who are internally displaced, prone to discrimination and unequal treatment. Members of ethnic groups can experience discrimination and unequal treatment prior to their displacement but the likelihood of them becoming victims of discrimination and inequality increases during

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<sup>35</sup> Daniel J. Elazar, constitutionalizing globalization 17 (1998) *See generally* Daniel J. Elazar, *The Role of Federalism in Political Integration*, in *FEDERALISM AND POLITICAL INTEGRATION* (Daniel J. Elazar ed., 1979) at 71

<sup>36</sup> A.E. Dick Howard, *Does Federalism Secure or Undermine Rights?*, in *federalism and rights* 11, 26 n.1 (Ellis Katz & G. Alan Tarr eds., 1996) At 12

<sup>37</sup> Id.

their displacement. Not only are they at risk of being discriminated because of their ethnic origin, their status of 'being displaced' may create all kinds of issues upon arrival at their displacement site. They face problems of access to service and goods, basic necessities, security and risks. Those risk include: Stigmas, discrimination, marginalization, Arbitrary detention or arrest, Family separation, Threats to life and security, Torture or cruel, inhuman and degrading treatment, Sexual and gender-based violence, sexual exploitation, sexual slavery and harmful traditional practices, Enslavement, forced recruitment and human trafficking, Forced displacement, forced return or relocation, Destruction of livelihoods and property, confiscation and disappearance of property, Obstructing and impeding of humanitarian assistance.<sup>38</sup> The consequences of internal displacement can have disastrous and long-lasting effects on both IDPs and host communities. Not only are human rights often violated in the context of (forced) displacement, the loss of property, homes, access to livelihoods and the separation of families following the displacement cause IDPs to be unable to enjoy their fundamental rights. Subsequent the displacement, IDPs often become dependent on the local authorities, humanitarian organizations or host communities for access to the most basic needs and services such as food, water, shelter, health care, education, sanitation and income generating activities. The Constitution of the Federal Democratic Republic of Ethiopia is the supreme law of the country and is most relevant regarding the safeguarding of the principles of equality and non-discrimination. In Article 9(4) of FDRE constitution stated that all international agreements ratified by Ethiopia are a fundamental part of Ethiopian legislation.<sup>39</sup> Hence, all principles regarding equality and non-discrimination in the ICCPR, ICERSC and other international legal instruments have force and validities under Ethiopian legislation. On top of that, article 13(2) states that all fundamental rights and freedoms included in the Constitution shall comply with and reflect the principles that are laid down in the UDHR and the core international human rights instruments that they are ratified by Ethiopia.<sup>40</sup>

For rights to equality and the prohibition of discrimination, the FDRE constitution under article 25 states that all persons are equal before the law and are entitled without any discrimination to the equal protection of the law. In this respect, the law shall guarantee to all persons equal and effective protection without discrimination on grounds of race, nation, nationality, or other social origin, color, sex, language, religion, political or other opinion, property, birth or other status.<sup>41</sup>

This provision should in theory offer protection to Ethiopian IDPs from discrimination and unequal treatment based on their status of 'being displaced', as part of the 'other status. At outset, this provision

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<sup>38</sup> Handbook for the Protection of Internally Displaced Persons” (Global Protection Cluster Working Group 2009) rep [http://www.unhcr.org/4c2355229 .pdf](http://www.unhcr.org/4c2355229.pdf), accessed on january2,2019

<sup>39</sup> *Constitution of the Federal Democratic Republic of Ethiopia*, Proclamation No. 1/1995, Art. 9(4)

<sup>40</sup> Ibid, article 13/2

<sup>41</sup> Ibid. article 25

should also offer protection from discrimination and unequal treatment based on ethnicity, which is an important factor in the displacement crisis in Ethiopia. However, without an explicit reference to the prohibition of discrimination on the basis of ‘being displaced’ and ethnicity, protection offered to IDPs on this matter remains insufficient. This have an indication for in needy to have specific law that regulates the issues of internally displaced persons in Ethiopian. IDPs in Ethiopia are in need of access to basic goods and services and remain to be largely dependent on relief operations. With again and again from time to time a new wave of inter-communal and ethnic violence hundreds of thousands persons are displaced, food, safe drinking water, shelters are amongst the most vital subsistence needs of Ethiopian IDPs are required to be provided. Within Ethiopian FDRE constitution, some provisions are included though they are not sufficient. For instance, article 41(3) of the FDRE Constitution sets out the right of Ethiopian nationals to access publicly funded social services. However, these services are not specified in the Constitution. Additionally, article 41(4) of FDRE constitution describes the duty of the government of Ethiopia to improve public health, education and other social services through funding.<sup>42</sup> Furthermore, Article 43(1) of FDRE constitution sets out the right of all Ethiopians to improved living standards and sustainable development.<sup>43</sup> It is also not specified what is meant by improved living standards. Most importantly, Article 90(1) of FDRE constitution states: To the extent the country’s resources permit, policies shall aim to provide all Ethiopians access to public health and education, clean water, housing, food and social security.<sup>44</sup> However, the above-mentioned articles are subject to the government’s ability and the country’s resources. Access to basic subsistence needs is therefore not guaranteed. It can be concluded that the existing framework of Ethiopian law does not provide sufficient protection to the needs of IDPs. Similar to the framework of international law, some basic rights and freedoms are protected by Ethiopian laws, policies and proclamations. However, insufficient protection is offered to most of the identified needs amongst Ethiopian IDPs by Ethiopian law. Education, subsistence needs, family reunification, identification and documentation are only a few examples.

### **3. Assessment of Internal Displaced Persons as Challenge to Ethiopian Federalism**

In the preceding sections elsewhere, the writer have identified, the issues pertaining to internally displaced persons are more of national issues than international one. Because in lights of the definition or explanations of the phrase of internally displaced persons, it is limited or restricted to national boundary/ no crossing the state bounders to another independent states. That means the problems of internally displaced persons are

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<sup>42</sup> Ibid. Article 41

<sup>43</sup> Ibid. Article 43/1

<sup>44</sup> Ibid. Article 90/1

different from refugees and requires be addressing and treating differently. It is a problem of intra state and constitutional law was expected to provide mechanisms for the resolve. Constitution is expected to impose responsibilities on national state/government to protect the rights, entitlements of displaced persons. If any things related to internally displaced persons are remain unsolved that may be due to the lack of political will or political good will, but, nevertheless, on account of the conceptual and institutional in adequacy of the constitutional law.<sup>45</sup> So it has a negative consequence up on the displaced persons and hosting states or communities which can affect the concepts of federalism. This internally displaced person can be taken as a challenge to Ethiopian federalism in different perspectives. For instance, on the issues of assignment of expenditure and revenue sharing, particularly revenues sharing formula is made by House of federations which lasts for at least five years without any revision. When the matter of internally displaced raised/occurred, it benefits for the original state within the range of the five years formula of house of federation and affects the hosting state/ region. This increases the expenditures responsibilities for the hosting regions and also fails to go with the revenue sharing on one side and decreases the expenditure responsibilities of original states of displaced persons. Internally displaced persons also have taken as a challenge to Ethiopian federalism in lights of conducting population census nationally which is one of determinants for budget and resource sharing and conducting election. This problem affects the weighing of revenue sharing and electing their leaders. Even it goes to the extent of those internally displaced are becoming to be ruled by leader that they would not been elected. This internally displaced person also has an effect on the fluctuating the unemployment rate. It increases unemployment rate mostly at the hosting regional states but reduces the unemployment rate in the original places of displaced persons. Besides, it reduces the investment flow within/among regional states for the fear of internally displacement from their properties or from their families. This in turn has adverse effect up on the national economy and victims of the displacements in particular. The Ethiopian government response to the fact is instead of having specific legal framework to give durable solution for internally displaced persons, it prefers to relate the IDPs problem as a sign of bad governance, rent seeking. The writer also believed that the above cause can be taken as the symptom for internally displaced persons, but not agreed that bad governance, less accountability and rent seeking are conclusive causes of IDPs in Ethiopia. The FDRE constitution has some provisions under chapter three which talks about the protections of human rights in general way. However, the FDRE constitution is not included specifically which treats the issues of internally displaced persons in different parts of Ethiopia.

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<sup>45</sup> K.L.Bhatia, supra note 1 at p.234

Internally Displaced persons must be treated specifically under FDRE constitution for durable solution to the problem. The constitution should answer the following questions pertaining to Internally Displaced persons: who has to ensure, federal government or regional states or both under the Ethiopian federal set up, the effective guarantees of their constitutional rights and freedoms? Who has to compensate for the loss of health and property? Who has to ensure that internally displaced persons camp is not compromised by presences or activities of some groups? Who shall have to ensure respect for the principles of internally displaced persons protection, safety and personal security? Who shall have to mobilize adequate sources in areas of relief, education, and health, physical as well as psychological rehabilitations? Who shall have to provide appropriate forms and levels of support for the practical return of internally displaced persons to their original native place? Who shall have to ensure the non-exploitation of internally displaced women, girls, children, old aged persons because the vulnerability of those internally displaced persons shall have damaging effects? And etc.

Those above-mentioned questions are closely in the context of the crisis of internally displaced person which requires to be addressed in challenging the scenario of centre state relationship or Ethiopian federalism. Internally displaced persons are not a matter of theoretical debate, but a glaring reality on the ground.

### **3.The Methods**

The methodological approach of this research is Qualitative research methodology. This methodology was aimed to achieve in-depth understanding of relationship between federation and internally displaced persons in Ethiopia. Moreover, the study requires data collection that embraces perceptions about the actors who have been involved either in instigating or managing internally displaced persons. The qualitative approach enables the researchers to be flexible enough to conduct data collection. In addition, the qualitative research design also enables the researcher to apply triangulation methods, which involve comparing and contrasting the empirical data for validation purposes. In addition, the research methodology has enabled quantitative data collection to be used as a supplementary source. This is necessary because some of the sources of conflict in the regional state are associated with horizontal inequalities, budget allocation and population size, which require collection of quantitative data from secondary sources.

## **4. Conclusions and Recommendations**

### **4.1. Conclusions**

Internally Displaced Persons (IDPs) go through severe stress due to their plight, which implies that if measure is not taken to address the situation it could lead to serious social and health problems. This implies that the consequences of internal displacement can have disastrous and long-lasting effects on both IDPs and host communities. Not only are human rights often violated in the context of (forced) displacement, the

loss of property, homes, access to livelihoods and the separation of families following the displacement cause IDPs to be unable to enjoy their fundamental rights. Subsequent the displacement, IDPs become dependent on the local authorities, humanitarian organizations or host communities for access to the most basic needs and services such as food, water, shelter, health care, education, sanitation and income generating activities.

With national authorities and humanitarian organizations struggling to get the situation under control, IDPs are at risk of ending up in protracted displacement. Violations of these rights and freedoms of internally displaced persons are therefore the result of the unwillingness of the federal government, regional government or other government institutions to abide by the law.

It can also be concluded that the existing framework of Ethiopian law does not provide sufficient protection to the needs of IDPs. Similar to the framework of international law, some basic rights and freedoms are protected by Ethiopian laws, policies and proclamations.

It can also be concluded that the existing laws of Ethiopian government is not sufficient to control the instigators or causes of conflict like boundary, self-administration, political will which goes to the extent of saying that Ethiopian ethnic federalism is a cause to internally displacement persons and to have some economic advantages from contributions for internally displaced persons through rent seeking or another mechanism.

#### **4.2. Recommendations**

Based on the findings and conclusion of this study, the writer has recommended the following recommendations which are expected to be used either alternatively or cumulatively.

- The Federal government has to take care of the major portion of the problem of internally displaced persons but, of course, it has to be graduated by regional states as equal partners of federal structure. In this scenario off centre state relationship, the theoreticians and practitioners must revisit the FDRE constitution with integral humanitarianism perceptions to resolve those challenges constitutionally, legally, administratively with political good will gesture as well as spirit. This goes with the principle of enjoying constitutional space particularly for regional state to have better protection for human rights including IDPs through amending their constitutions.
- Both the federal and regional government need to take proactive steps in providing the needed incentives and provide security for the IDPs. This is through having legal framework that can

regulate the issues of IDPs and the hosting communities and issues of compensation for the damage made as a result of displacement from their original places.

- Problems on IDPs must not be solved by imposing ideas of majority/ principles of majority rule but by consensus building and accommodations which seems to be the basis for developing mutual faith, mutual trust, mutual confidence to strengthening centre-state/nations, nationalities and people's relations and developing strong constitutional conciliatory machinery.
- Finally, it is better to limit the sovereignty power and rights of nations, nationalities and peoples of Ethiopia which is included under article 8 of FDRE constitution. This provision grants absolute rights. But, it is advisable to set limitation for those empowered groups by FDRE constitution specially to exercise self-rule such as forming institutions that manifests their autonomy. To be a regional state or another administrative unit, it is advisable to have population size, economic factors and other parameters which have purpose of limiting sovereign power enshrined within FDRE constitution.

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# **Determinants of Graduate Unemployment and its Duration in Oromia National Regional State: The Case of Some Selected Cities**

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## **Abstract**

*Generally, it is believed that higher education lowers the risk of unemployment. However, the mismatch between number of graduates and absorption capacity of the economy is resulting in frustration and discontent among the graduates and remains to be a serious concern in Ethiopia. It has gone to the extent of threatening the stability and peace of the county. Accordingly, this study had an objective of identifying determinants of graduate unemployment and its duration in Oromia National Regional State. To realize this objective data was collected from 600 graduates from selected towns. To analyze the data obtained logistic regression and survival analysis techniques were employed. The result from the logistic regression model shows that level of education, specialization, place of residence (town), and year of graduation significantly affect the employability of graduates. The finding from the Weibull regression for survival analysis also showed that level of education, specialization, year of graduation, and place of residence were important in determining the duration of unemployment among the graduates. Graduates of engineering had 33.5% less hazard rate compared to graduates of natural science. Similarly, the hazard rate of level I graduates was higher than that of other levels graduates. These results imply that when universities open a program they need to consider strategically the issue of employability. The findings also suggest the need for inclusion of entrepreneurship in the curriculum to make graduates innovative and forward looking.*

**Key words:** *Graduate Unemployment, duration of unemployment, determinants of unemployment.*

## **1. Introduction**

### **1.1 Background of the study**

There are a number of problems confronting developing countries including Ethiopia. These include among others poor governance, corruption, political instability, illiteracy, war, poor infrastructure, and unemployment. As a result, poverty remains to be unbeatable. One means of addressing these challenges is education. Recognizing this many developing countries governments are investing a lot on building human capital through expansion of higher education.

In recent years the government of Ethiopia has given due emphasis to higher education expansion to foster the development of the country (Haile, 2003; Broussard and Tekleselassie, 2012). It has expanded vocational and higher education training schools and universities. For example, it has expanded the number

of universities that were 2 in 1996 to 50 in 2017. It has gone to the extent of letting the private sector in providing higher education. As a result the number of graduates is increasing year after year. This rapid expansion of higher education entirely focuses on the supply side of the labor market. It was done without considering the demand side of the labor market. Consequently the problem has shifted from lack of skilled man power to graduates unemployment. For example, in 2015/16 there were 268,840 new graduates that joined the labor market (MoE, 2015/16). However, like many African countries currently the labor market in Ethiopia is not capable of absorbing the increasing number of young graduates. This has resulted in an increase of graduate unemployment. A rising trend in the number of labor force entrants, fueled by rapid population growth, poses an immediate question: where do the graduates go? There are potentially three sectors into which these labor force entrants can be absorbed, namely: the formal sector, self-employment or the informal sector, and unemployment.

Graduate unemployment is a serious concern on a number of grounds. First, the youth makes up a significant proportion of the population. Second, developing countries already spend huge amount of resources on the youth. This may turn out to be a lost investment if, ultimately, the graduate is not going to be in a position to support itself and the larger society. Third, high level of graduate unemployment has been linked to social problems that threaten the stability and peace of society (Getinet A., 2003). Youth unemployment rate among graduates is rising. For instance it has increased from 2% in the year 1999 to 7.5% in the year 2013 (CSA, 2013) and this implies graduate unemployment incidence increases from year to year. Hence, the issue of enabling graduates get an employment has been a major policy concern in Ethiopia.

Therefore, this study was carried out to analyze determinants of graduate unemployment and its duration in selected cities of Oromia National Regional State. The emphasis was given to urban centers because like any other developing countries urban centers in Ethiopia are challenged by high rate of unemployment. This high rate of unemployment further is exacerbated by high rate of rural-to-urban migration. In Ethiopia, after completing a college or university education, rural graduates moves to urban centers to look for jobs that match their skills. This makes urban centers to have the high rate of graduate unemployment (Srinivasan, 2014). Accordingly, sample of graduates from private and government owned TVETs, colleges, and universities from 2011/2004E.C to 2017/2009E.C and first-time job seekers were taken.

## **1.2 Statement of the Problem**

For long there has been a strong belief that employment increases as the level of training increases (Becker, 1964; Schultz, 1960). This human capital theory was developed in a period of full employment during which individuals were certain about their employment after training (Bolson, 2000). However, nowadays

this theory is criticized because of high rate of graduate unemployment. Nowadays graduates are at the risk of unemployment. This makes individuals to invest in education that enhances their employability and reduce their unemployment.

Massification of higher education and insufficient creation of adequate jobs are the main causes of the exponential rise in the unemployment rate of graduates (JAMOUSSE, SAID, & GASSAB). There is huge number of graduates entering in the labor market. However, the economy has no sufficient capacity to create job for the flocking graduates. As a result a number of graduates remain unemployed for long period of time. Because of the prolonged unemployment, the skill and knowledge individuals acquired depreciate if are not used. Thus unemployment for longer period leads to deterioration of knowledge and skill (Gassab & Jamoussi, 2011).

Failing to address the issue of graduate unemployment will result in a serious social, economic, and political problem in the society. Being graduate but unemployed means a bad start in one's life. It leaves a scar that has a potential to have a destructive short-term and long-term impacts on the graduate and a wider society (O'Higgins, 2001; Haile, 2003). If unemployment is prolonged it may have negative social consequences and makes spells of unemployment longer. Unemployment affects not only a person's economic wellbeing but also social and political participation and the economic inequality in the society at large. For instance, violence, dependence on family, low self-esteem; poor social adaptation, depression and loss of confidence are some of the problem of unemployment (Kabaklarli et al., 2011). It may lead to poor mental health, corruption, drug addiction, crimes, and suicide in a society (Nazir et al., 2009). It entails negative costs to the youth itself, parents and to the public at large (Haile, 2003; Guarcello and Rosati, 2007). Thus, if overlooked graduate unemployment has a series social repercussion. If there is no sufficient job opportunities for the growing graduates it will lead to erosion of confidence and motivation of the graduates. If graduate unemployment is not addressed the graduates will remain as a risk factor in terms of economic, social, and political stability in the country. Most of the unemployed graduates in urban areas of Ethiopia are first-time job seekers, and the average duration of unemployment period is more than a year (Serneels, 2007). In Ethiopia, the Oromia national regional state in particular, shares the above aforementioned problem related to graduate unemployment. In recent years it has become common to see uprisings and social upheaval in Oromia region, among all others, graduate unemployment is the main cause.

So far there have been various studies focusing on unemployment in Ethiopia. Most of the studies focused on general youth unemployment (Broussard & Tekleselassie, 2012; Beshir, 2014; Nganw et al., 2015; Muhdin, 2016). They gave less attention to the determinants of graduate unemployment and its duration. Graduates employment is a challenging policy area for developing countries and little empirical evidence is available to inform policy makers. Therefore, this research fills this gap and provides empirical evidence.

The result from this study is important to know the status of employability of graduates in the economy. This is helpful to evaluate the contribution of higher education training programs in addressing unemployment in the country. Understanding higher education effect on employability may offer a new perspective for policy makers in unmask the effect of the current education system in the country.

### **1.3 Research Questions**

This research aimed to address the following questions:

1. What are the major determinants of graduate unemployment in Oromia National Regional State?
2. What are the determinants of duration of graduate unemployment in Oromia National Regional State?

### **1.4 Objectives of the Study**

The general objective of this study was to investigate determinants of graduate unemployment and its duration of those graduated from both government and privately owned higher institutions in Oromia Regional State. The specific objectives of the study were:

1. To identify the major determinants of graduate unemployment in Oromia National Regional State.
2. To examine the determinants of duration of graduate unemployment in Oromia National Regional State.

## **2.Literature Review**

### **2.1Definition of graduate unemployment**

Graduate in this study refers to individual who has academic certificate from TVETs, colleges, and universities from government or private colleges and universities. Graduate unemployment refers to lack of employment due to lack of the necessary qualification, field of study, high expectations, job search and work experience (Oluwajodu et al, 2015). Thus in this particular study graduate unemployed are those individuals who are first time job seekers looking for a job but unable to find a job after graduation.

### **2.2Theories of Unemployment**

#### **2.2.1 Neoclassical theory**

Neoclassical economists view unemployment as voluntary because the labor market is deemed to be always in equilibrium based on the assumption of flexible wages and perfect market information. Any intervention in the labor market that distorts wage flexibility causes involuntary unemployment. Involuntary unemployment arises if individuals cannot obtain work even if they are prepared to accept lower real wages than similar qualified workers who are currently employed (Shackleton, 1985).

### **2.2.2 Keynesian theory**

According to Keynesian unemployment could occur as a result of deficiencies in aggregate demand. Deficiency in aggregate demand leads to creation of jobs that are not enough for everyone who wants to work (Keynes, 1936). Contrary to the neoclassical argument that attributes involuntary unemployment to institutional factors, this type of demand-deficient unemployment is involuntary since the unemployed are constrained by limited job availability. These theories of unemployment were formulated in more developed economies with wage-employment dominated labor markets. They have only limited relevance in developing countries, dominated by self-employment.

### **2.2.3 Human capital theory**

The Human capital theory views that the investments in training and education by an individual determines an individual's chance of getting employment after school (Becker, 1993; Berntson, et al., 2006). But, the possibilities of securing employment through education is hardly realizable and many young people remain home for an uncertain and a long period of time without getting jobs of their desire after a long-term schooling (Jeffrey, 2009). There is a poor return on investment in education in many developing countries because of various factors such as poor economic base which does not open a wider chance to the growing army of graduates, bad governance, the low standard of education, the training capacity, and unattractive economic policies that do not encourage individuals and firms to invest in training (Middleton et al., 1993).

## **2.3 Determinants of graduate unemployment**

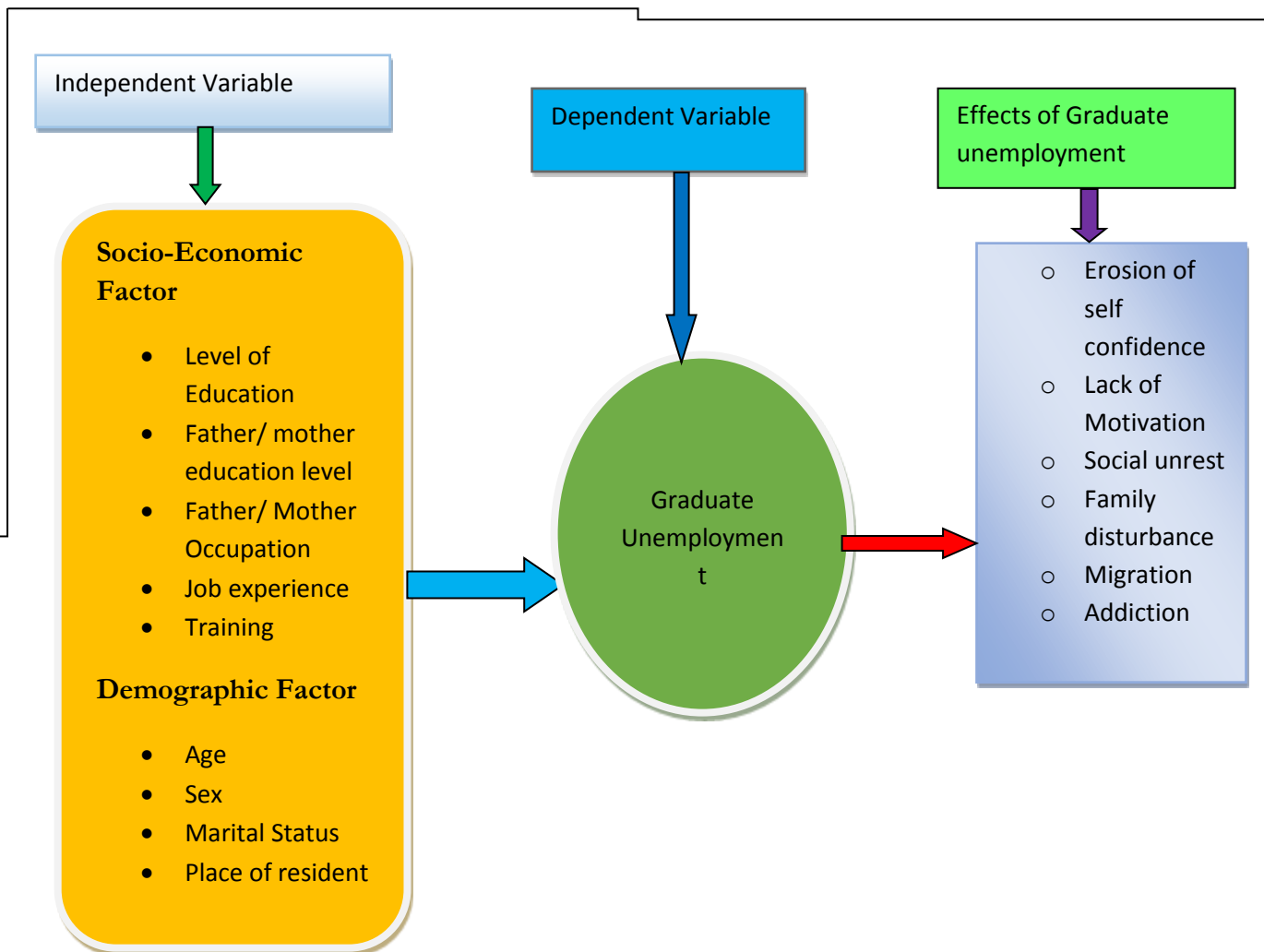
Factors affecting graduate unemployment can be viewed from micro and macroeconomics perspective. The microeconomic level drivers of graduate unemployment includes demographic characteristics of the graduates including sex, age, education level, and individual location are factors affecting of getting a job. For example, some studies have observed higher unemployment rates among individuals with at least a secondary school education, relative to the less educated, in developing countries (Aryeetey et al., 2014; Baah-Boateng, 2015). Family background has also been observed as a determinant of graduate unemployment. Essentially, the education status or occupation of family members in the labour market can affect an individual's employment prospects, as a result of the professional networks that may arise from the jobs and acquaintances of family members (Zhang and Zhao, 2011; Vaerhaeghe et al., 2012).

Graduate unemployment can also be explained from macroeconomic perspective, that is, the overall characteristics of the labor market in terms of the interaction between demand for and supply of graduates. The demand side refers to the ability of the economy to create jobs for various skill categories as per the requirement of the economy and the supply side refers labor force or skilled graduates. The tendency for most advertised jobs to require substantial work experience implies that most young graduate people are locked up in an 'experience trap' through limited opportunities for work experience.

## 2.4 Conceptual Framework of the Study

Graduate unemployment may arise because of a number of factors. Broadly these factors can be classified into micro and macro factors. The micro factors may include individual and household characteristics. While the macro factors are related to the capacity of the economy. The emphasis of this particular study is on micro factors. In Ethiopia the current graduate unemployment is mainly due to the increased access to education accompanied with limited job opportunities and the undesirable attitude of young people about certain available jobs (Mains, 2007). The conceptual framework represented by figure 2.1 indicates that the independent variables: demographic and socio-economic factors which is unemployment status either positively or negatively. Among the potential determinates of employability of graduates includes the orientation of the degree (vocational vs mainstream). Unemployment and prolonged unemployment may result in erosion of self-confidence of the graduate, lack of motivation, migration, social unrest, addiction and family disturbance.

**Figure 2.1. Conceptual Framework for Graduate Unemployment.**



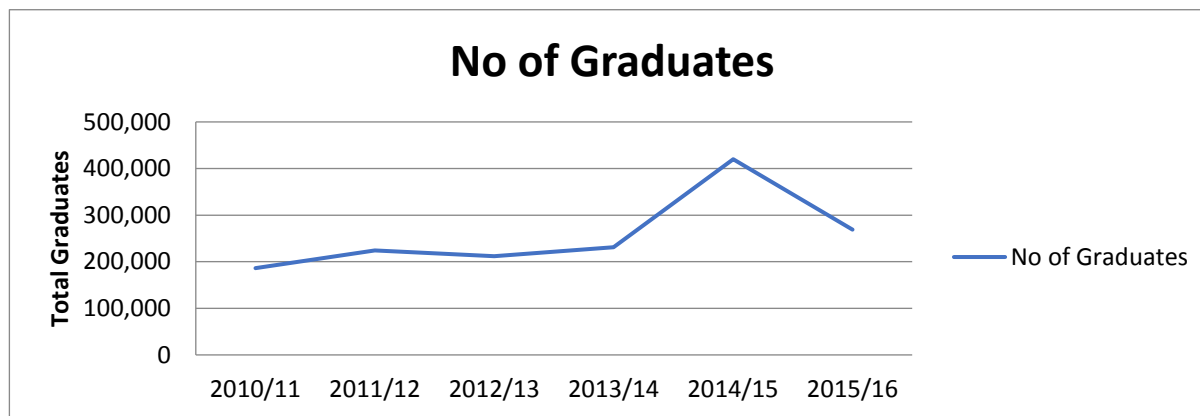
Source: Own Formulation from literatures, 2018

### 3. The Methods

#### 3.1 Graduate Trends

Ethiopia is investing its scarce resource on education to enhance its human capital. For example, in the year 2015/16 304,139 trainees were enrolled and 131,097 graduated in level I-V TVET excluding Benishangul-Gumuz and Ethio-Somali regions (MoE, 2015/16). In the same year the Oromia region enrolled 94, 804 trainees and 23,032 graduated in level I-V TVET. In addition to this the number of university graduates is increasing year after year. Figure 3.1 shows the trend of the number of graduates between 2010/11-2015/16 at all level of education ranging from Level I to post graduates from government and non-government owned institutions.

Figure 3.1: Trends in number of graduates in government and non- government institutions



Source: MoE, 2015/16 education statistics annual abstract, 2008 E.C.

#### 4.2. Types and sources of data

To achieve the objectives of the study both primary and secondary data sources were used. The primary data was collected from graduates selected cities of the region. Data from graduated of TVETs, colleges, and universities and first time job seekers was collected. The data was collected from graduates of 2012/13-2016/17 graduates. These graduates may be currently employed or unemployed.

#### 3.3. Sampling techniques and sample size

Graduates may involve in both formal and informal sectors. They concentrate in the cities even if originally, they were from rural areas. Particularly the concentration of graduates is high among the urban centers. In this particular study major urban centers particularly Sululta, Burayou, Sebeta, Bishoftu, and Adamaa were taken. From each urban centers samples were taken. Once the number of samples under each city was identified the cities were classified into kebeles. Again each kebele was classified into different sub groups.



Then from each locality under each city samples were taken. In the case of unemployed graduates lists were obtained from the city and individuals were randomly selected if they graduated from 2012/13-2016/17.

To determine the sample size we have used the following formula which is commonly used when the population size (N) is unknown. Because number of graduates from 2012/13 to 2016/17 (2004 to 2009E.C) is not exactly known and not exhaustively recorded.

$$n = \frac{z^2 * p (1 - p)}{e^2}$$

Where:

n= the resulting sample size

z = the standard normal variable at specified confidence interval

p= the proportion of the variable in the studied population

e=margin of error

Therefore, taking the assumption that  $p = 0.5$  for unknown population, the usual  $z = 1.96$ , and the wanted margin of error  $e = 0.04$  (4%), the total number of sampled graduates were 600.

### **3.4. Data collection tools**

Primary data was collected using structured questionnaire from 600 graduates. The questionnaire once designed was pre-tested and qualified further based on the responses. The questionnaire contains various information. Information pertaining to individual graduate, family background, discipline, and labor market experience particularly employment and unemployment were collected. Training was given to the data collectors and the data was collected with the close supervision of principal researchers.

### **3.5. Methods of data analysis**

To realize the objectives of the study appropriate descriptive and econometric methods were used. The descriptive analysis used was mean, percentage, and standard deviation. The econometric models used include binary logistic regression and survival analysis models.

#### **3.5.1 Econometrics Analysis**

##### **3.5.1.1 Model selection and specification**

To examine the relationship between Graduate unemployment and a set of explanatory variables, logistic regression model were fitted. This model is preferred because the dependent variable is unemployment status which is dichotomous.

Based on Gujarati (2004), in estimating the logit model, the dependent variable is unemployment status which takes a value of ‘1’ if the respondent is employed “0” otherwise. The logit model is mathematically formulated as follows:

$$P_i = E\left(Y = 1/X_i\right) = \frac{1}{1+e^{-Z_i}} \dots\dots\dots 3.1$$

Where,  $Z_i = \beta_0 + \beta_i X_i$

Thus, the probability that a given respondent is employed is given by;

$$P_i = \frac{1}{1+e^{-Z_i}} \dots\dots\dots 3.2$$

The probability that a given respondent is unemployed is given by;

$$1 - P_i = \frac{1}{1+e^{Z_i}} \dots\dots\dots 3.3$$

The ratio of the probability that a respondent is employed to the probability that the respondent is unemployed (the odds ratio) is given by;

$$\frac{P_i}{1-P_i} = \frac{1+e^{Z_i}}{1+e^{-Z_i}} \dots\dots\dots 3.4$$

Changing both sides to the natural logarithms we can form linear equation, like

$$L_i = \ln\left(\frac{P_i}{1-P_i}\right) = Z_i = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_n X_n \dots\dots\dots 3.5$$

Where;

$L_i$  = is the log of the odds ratio, which is linear in both  $X_i$ 's and parameters.

$P(i)$  = is the probability that  $i$ th respondent is employed

$1-P(i)$  = is the probability that the  $i^{\text{th}}$  respondent is unemployed

$Z_i$  = is a function of  $n$  explanatory variables ( $X$ ), expressed as;

$$Z_i = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_n X_n \dots\dots\dots 3.6$$

$\beta_0$  = is an intercept, and  $\beta_1, \beta_2 \dots \beta_n$ , are the slopes of the function

$X_i$  = is the vector of explanatory variables

The logistic regression model can be expressed including to disturbance term as:

$$Z_i = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_n X_n + U_i \dots\dots\dots 3.7$$

Hence, the value of the dependent variable,  $\ln \left( \frac{P_i}{1-P_i} \right)$  is not known, the logit model cannot be estimated using Ordinary Least Squares (OLS) method, maximum likelihood method was used for estimation.

After identifying determinants of graduate unemployment we tried to identify factors that determine the duration (spell) of unemployment. It is often common to see a period of time spent in a given state before transition to another state, such as duration unemployed or alive or without health insurance. In such cases the question how long it takes until the state changes is apposite. In dealing with such questions it is common to use survival analysis. One of the advantages of using survival analysis compared to OLS is that it takes into account censoring. In this study the questions are what is the expected duration of time until a graduate get employed? There are three types of survival models depending on the hazard function, namely parametric, semi-parametric, and non-parametric models. Parametric models often rely on fully specifying the baseline hazard function. If the baseline hazard is mis-specified, then results can be biased. Non-parametric models do not assume the function form of the hazard function. A more flexible approach is to use a semi-parametric model (Jones 2007). The best known in this regard is Cox proportional hazard model. This leaves the baseline hazard unspecified, treated as an unknown function of time. Here we used Kaplan-Meier non-parametric estimator of survival model. Kaplan Meier estimator is defined by

$$S(t) = \left( \prod_{j: t_j \leq t} \right) \frac{r_j - d_j}{r_j}$$

Where;  $d_j$  number of spells ending at time  $t_j$ ,  $r_j$  is the number of spells at risk at time  $t_j$  (Greene, 2003). This estimator can be interpreted as survival probability at time  $t_j$ . Together with Kaplan-Meier non-parametric estimator of survival we also used Weibull parametric regression model in identifying the determinants of duration of unemployment among graduates.

The baseline hazard function as  $h_o(t) = hpt^{p-1}$  gives the Weibull proportional hazards model  $h_i(t) = hpt^{p-1} \cdot \exp(x_i\beta)$ , where  $p$  is known as the shape parameter. In the Weibull model, the shape of the baseline hazard function,  $pt^{p-1}$ , is shifted by proportionality factor  $h \cdot \exp(x_i\beta)$ . The hazard is monotonically increasing for  $p > 1$ , showing increasing duration dependency, and monotonically decreasing for  $p < 1$ , showing decreasing duration dependency. The hazard function,  $h(t) = \frac{f(t)}{s(t)}$ , can be used to derive the probability density function,  $f(t)$ , and the survival function,  $s(t)$ , of the Weibull model, and the likelihood function with right censoring is

$$L = \prod_i \left\{ \frac{f_i(t)}{s_i(t)} \right\}^{\delta_i} \cdot s_i(t).$$

Then standard maximum likelihood estimation can be used to obtain estimates of the parameters  $p$  and  $\beta$ .

## **4. Results and Discussion**

### **4.1 Socio-Demographic Characteristics of the Respondents**

The data was collected from the 5 towns of Oromia Region. Accordingly, 105 (17.5%), 115 (19.17%), 140 (23.33%), 117 (19.5%), and 123 (20.5%) of the samples were collected from Adama, Bishoftu, Sebeta, Sululta, and Burayou, respectively. Hereunder the descriptive results are presented in Table 4.1. The result shows 27% of the respondents were female. The vast majority (63.17%) of them were single followed by married (35.8%). The result from education shows the respondents had various levels of education. The result shows 9 (1.5%), 29(4.83%), 42(7%), 135(22.5%), 26 (4.33%), and 359(59.83%) of the respondents had level I, level II, level III, level IV, diploma, and BSC/BA, respectively. The respondents were derived from various specializations. The result in Table 4.1 shows 33.5%, 34.43%, and 32.17% of the respondents had specialization in natural science, social science, and engineering, respectively. The proportion is more or less the same. The respondents were also derived from graduates of different years between 2011/12 and 2016/17.

Table 4.1: Characteristics of the respondents

Variables		Frequency	Percentage
Sex	Male	438	73
	Female	162	27
Marital status	Married	215	35.8
	Single	379	63.17
	Divorced	6	1
Place of resident	Adama	105	17.5
	Bishoftu	115	19.17
	Sebeta	140	23.33
	Sululta	117	19.5
	Burayu	123	20.5
Education level	Level I	9	1.5
	Level II	29	4.83
	Level III	42	7
	Level IV	135	22.5
	Diploma	26	4.33
	BSc/BA	359	59.83
Specialization	Natural science	201	33.5
	Socialscience	206	34.43
	Engineering	193	32.17
Year of graduation	2011/12	100	16.67
	2012/13	60	10
	2013/14	60	10
	2014/2015	94	15.67
	2015/2016	129	21.5
	2016/17	157	26.17

Source: Own data

Furthermore, the result shows 68.17% of the respondents were born in rural areas. The majority of the respondents were living by themselves (44.33%) followed by those living with family (39%). The average of the respondents was 25.59 year. This implies most of the respondents were young.

## 4.2 Employment Characteristics of the Respondents

The survey result shows 65.17% of the respondents were employed while the rest 34.83% were unemployed. Among employed graduates 34.67% waited more than a year to be employed. The result shows the issue of graduate unemployment requires a series concern. Again among those employed, 11.08%, 52.58%, and 36.34% were working in private organizations, government organizations, and their own business. This implies government was the main employer of graduates. Among those unemployed 43.54%, 16.75%, and 16.75% reported high number of graduates, lack of work experience, and waiting for government jobs as cause their unemployment, respectively. From this we understand the problem of new entrants (graduates) into the labor market, lack of work experience, and shortage of government jobs were the most important concerns of respondents in the unemployment pool. In an effort to understand to what extent the graduates are working in their area of specialization or not they were asked what they were doing. However, only 43.73% of the graduates were working in their area of specialization. The rest 56.27% of were working outside their area of specialization. Respondents were asked to forward reasons behind working out of specialization. Many of the graduates were working outside of their specialization because there was no enough job opportunity in their area of specialization (75.58%) or were not interested to work in their area of specialization (18%). Even 6.45% of the graduates reported they working until they get work in their area of specialization. The result from the data also showed many of the graduates preferred to run their own business than to be employed as the cost of living was rising and difficult to win daily bread.

## 4.3 Determinants of Graduate Unemployment

It is known that an interplay of a number of factors that determine employability of an individual in the labor market. In understanding the determinants of graduate's employment logit model was used. Table 4.2 presents the results in terms of marginal effects.

Table 4.2: Determinants of graduate's employment

Variables	Logit
Gender	
Male	0.017
	(0.04)
Age	-0.012
	(.009)

Marital status	
Single	-0.090*
	(0.037)
Divorced	0.046
	(0.162)
Family size	-0.008
	(0.008)
Education	
Level 2	-0.669**
	(0.192)
Level 3	-0.395
	(0.305)
Level 4	-0.426
	(0.263)
Diploma	-0.517
	(0.299)
BA/BsC	-0.213
	(0.153)
Specialization	
Social science	0.011
	(0.045)
Engineering	-0.14*
	(0.059)
Year of graduation	
2012/13	-0.115
	(0.279)
2013/14	-0.373
	(0.269)
2014/15	-0.754**
	(0.120)
2015/16	-0.870**
	(0.064)
2016/17	-0.885**
	(0.059)
Town	
Bishoftu	0.168**
	(0.039)
Sebeta	0.004
	(0.055)
Sululta	0.109**
	(0.041)
Burayu	0.120**
	(0.042)
<i>N</i>	600
pseudo-R <sup>2</sup>	0.378

- Standard error in parenthesis and \*  $p < 0.05$ , \*\*  $p < 0.01$

- Notes: the column is from logit estimation. The R-square is a pseudo-R<sup>2</sup>;
- The dependent variable is employment; 1=employed 0=unemployed
- The reference category for the marital status dummy is married; the reference category for the education dummy is Level I; the reference category for the specialization dummy is natural science; the reference category for years of graduation dummy is 2011/12; and the reference category for the variable town is Adama.

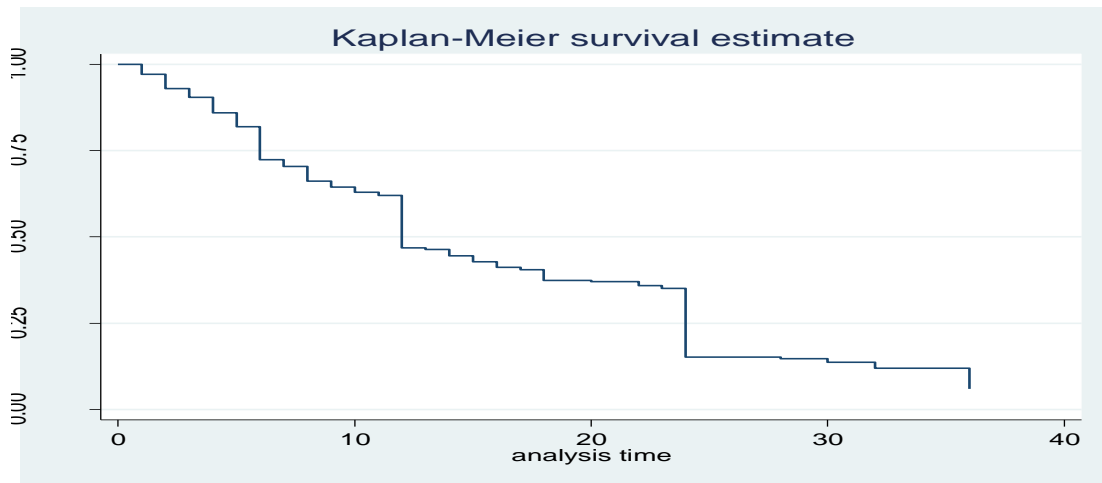
The result shows compared to married graduates, single graduates were less likely to be employed by 9% and this is statistically significant at 5%. The result shows consistently that compared to graduates of level I level of education other levels of graduates were less likely to be employed regardless the level of education. For example, compared to those graduates of level I, graduates of level II were less likely to be employed by about 66.9% and this result is significant at 1%. This shows the economy is not in a position to creating enough job opportunities for higher level of education. The result from estimation also shows there was variation in employability by specialization. Compared to natural science graduates engineering graduates were less likely to be employed by about 14% and this is statistically significant at 5%. This might arise because the industrial sector particularly the manufacturing sector was underdeveloped to absorb graduates of engineering. Year of graduation was found to be important factor behind employability. The result shows consistently those recent graduates were less likely to be employed compared to graduates of 2011/12. This implies much of the respondents in the unemployment pool were recent graduates. Unemployment is also related to spatial. As the estimation result shows graduates living in Adama were less likely to be employed compared to graduates living in other towns. For example, a graduate living in Bishoftu was 16.8% more likely to be employed compared to graduate living in Adama.

#### **4.4 Determinants of Unemployment Spell**

To identify the determinants of unemployment duration models were used. First, using the Kaplan–Meir estimator, which is widely used non-parametric estimator, survival function was estimated. The result in Figure 4.1 shows until the 12<sup>th</sup> month the survival function declines relatively at higher rate (high probability for being employed). Then after graduate unemployment declines slowly.

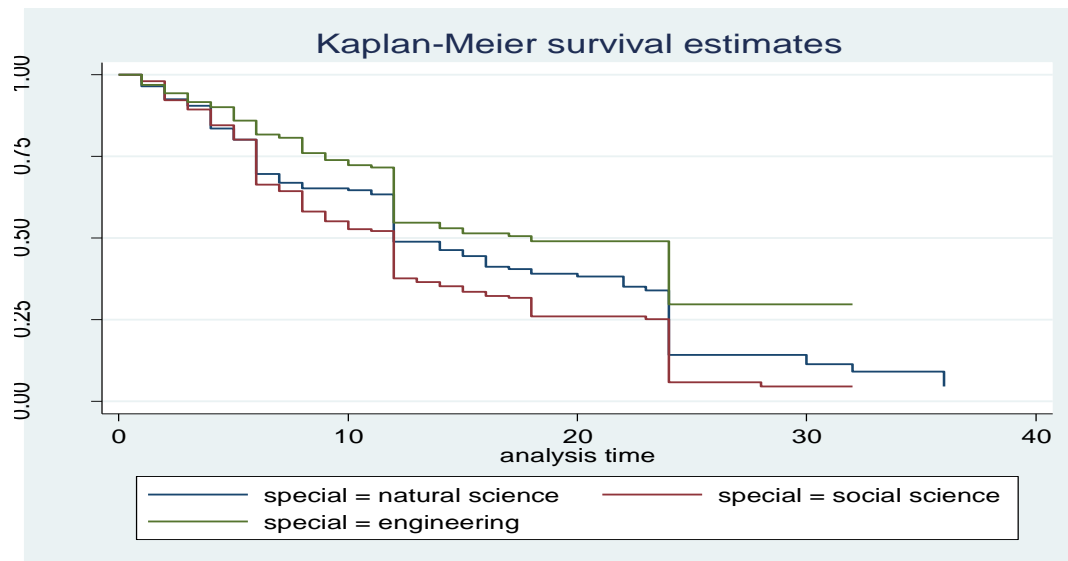
Figure 4.1: Kaplan-Meier survival curve for duration of unemployment





The result in Figure 4.2 shows the survival function based on specialization of graduates. Among the three specializations engineering graduates had a higher survival rate of unemployment. This means regardless of the number of periods elapsed after graduation surviving unemployment was higher for engineering graduates. The test result consistently also shows there was significant difference ( $p=0.000$ ) in survival rate of unemployment based on specialization.

Figure 4.2: Kaplan-Meier survival curve for unemployment by specialization



Finally, to identify determinants of duration of unemployment Weibull regression was run and the result is presented in Table 4.3.

Table 4.3: Determinates of duration of unemployment using Weibull Regression

Variables	Hazard rate
sex	
Male	1.111
	(0.135)
Age	0.987
	(0.029)
Marital status	
Single	0.763**
	(0.088)
Divorced	0.951
	(0.450)
Family size	0.981
	(0.025)
Education level	
Level 2	0.532
	(0.233)
Level 3	0.861
	(0.351)
Level 4	0.613
	(0.232)
Diploma	0.739
	(0.318)
BA/BsC	0.907
	(0.338)
Specialization	
Social science	1.064
	(0.133)
Engineering	0.665***
	(0.103)
Year of graduation	
2012/13	1.085
	(0.182)
2013/14	0.865
	(0.153)
2014/15	0.502***
	(0.088)
2015/16	0.422***
	(0.075)
2016/17	0.953
	(0.182)
Town	
Bishoftu	1.869***
	(0.327)
Sebeta	1.186
	(0.209)

Sululta	1.345*
	(0.244)
Burayu	1.197
	(0.214)
constant	0.042***
/ln_p	0.364***
	.0418
p	1.44
	0.060
1/p	0.695
	.029
N	600
pseudo-R <sup>2</sup>	0.378

- Standard error in parenthesis and \*  $p < 0.05$ , \*\*  $p < 0.01$
- Notes: the column is from Weibull estimation. The R-square is a pseudo-R<sup>2</sup>;
- The dependent variables is the spell of unemployment;
- The reference category for the marital status dummy is married; the reference category for the education dummy is Level I; the reference category for the specialization dummy is natural science; the reference category for years of graduation dummy is 2011/12; and the reference category for the variable town is Adama.

The result shows single graduates had 23.7% less hazard rate compared to married graduates and this is statistically significant at 1%. The result consistently shows the hazard rate of those with level I level of education was higher than that of other levels of education but it is not significant. However, the result shows there was significant difference in hazard rate among specializations. For example, graduates of engineering had 33.5% less hazard rate compared to graduates of natural science. This implies graduates of engineering are more likely spend much time in unemployment pool. The hazard rate was low for graduates of 2013/14, 2014/15, 2015/16, and 2016/17 compared to graduates of 2011/12. For example, the hazard rate by graduates of 2015/16 is less by about 57.8% compared those graduates of 2011/12. The result is significant at 1% level. Finally, the result shows there is variation in hazard rate by the town where the graduate resides. For example, the result shows compared to Adama, the hazard rate of Bishoftu town is higher by about 86.9%. This result is significant at 1% level of significant.

## 5. Conclusion

There is a need to evaluate the mismatch between the needs of the economy and the skilled outputs of higher education institutions. Often these imbalances are reflected in the length of unemployment and working out of the profession. Accordingly, the objective of this study was to identify determinants of graduate unemployment and its duration. To achieve this objective data was collected from 5 towns of Oromia, namely Adama, Bishoftu, Sebeta, Sululta, and Burayu. The result obtained shows employability depends

of the level of education. As the level of education increases, employability declines. This implies the economy is not yet in a position to absorb high qualified graduates. The other factor identified important in determining employability of graduates is discipline. Graduates of engineering are less likely to be employed compared to graduates of natural science. This implies the economy particularly the industrial sector is not in a position to provide employment opportunities for graduates of engineering. Universities when open a program they need to evaluate strategically the issue of employability. Thus due emphasis needs to be given to the sector that may absorb them. Also this finding suggests the need for inclusion of entrepreneurship in the curriculum to enhance employability of graduates in addition to functional skills/knowledge to make them innovative and forward thinkers. The result also identified graduates living in Adama towns are less likely to be employed early compared to graduates living in other towns. This implies employability depends where an individual lives. So, there is a need to have area specific strategy to overcome the problem of employability.

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# **Evaluation of the Quality of Open Public Space in Addis Ababa: The Case of Three Selected Sub-Cities**

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## **1. Introduction**

### **1.1. Background of the Study**

The historical background of the public space often referred in connection to Greek Agora, as many regards it as the quintessential public space. The function of Greek Agora was first to serve as a central market, though later also served as a place of assembly for the town's people (Madanipour, 2003:194). The Ancient Greek Agora still stands for many as the first example of public open space where citizens can assemble, debate and formulate diverse opinions that ultimately form what could be called a public opinion (Larbi Touaf and Soumia Boutkhil(ed)., 2008). In view of this background public spaces are taken as part of urban structure, where space and societies are in the dynamic harmony of historical change. Currently, a renewed interest in public space in urban spaces is growing time to time. New types of public spaces are emerging around the world and old public space typologies are being resurrected and retrofitted to contemporary needs. There has been a growing demand and resurgence in the investment, and use of, existing and new pedestrian-oriented streets, squares, plazas, and other traditional types of open public spaces in cities.

In today's urban planning and design projects around the world, the quality of open public spaces is getting much attention than ever before. This is because urban space is one of major urban structural components of planning to enhance the quality of urban life. As Commission for Architecture and the Built Environment (CABE Space, 2004), stated, high quality public spaces are essential features of successful neighborhoods where people want to live, work, play and invest. They are vital to people's health and the local economy. Economically it plays a role of increasing land and property value, encourages investment and tourist attraction. Socially, it increases social cohesion, sense of space identity for the community and

decreases depression. Spatially, it increases aesthetics and legibility of town and decrease environmental pollution and health problems. This is why it is justified as the main component of urban design and town planning to enhance quality of urban life and holistic urban development (CABE Space, 2004).

Addis Ababa is capital and the center of administration as well as socio-economic and service center of the country. Different and diversified activities and flows of people are among day to day activities of the city. The city is also characterized by high level of primacy being more than ten times compared to the second populated city of the nation. However, the current physical and aesthetical status of the city is not attractive enough and welcoming for its residents while they are dealing with their living, business, investment, tourism and so on due to inadequacy of quality open public spaces in its urban settings.

This research tries to evaluate the quality of open public spaces in Addis Ababa considering space attributes as defined using the key attributes of quality regarding open public in different scholarly works. Such key attributes include access and linkage, comfort and image, uses and activities, and sociability.

## **1.2. The Problem Statement**

Addis Ababa is the capital city of Ethiopia with a projected population of 3.5 million in (2015). As a chartered city, Addis Ababa has the status of both a city and a city administration. It is a seat for the African Union, United Nations Economic Commission for Africa (UN-ECA) and numerous other continental and international organizations. Addis Ababa is therefore often referred to as the political capital of Africa due to its historical, diplomatic and political significance for the continent.

Since Addis Ababa is organically grown rather than planned developments, it is not attractive enough for its residents and visitors. As the result it calls for proper urban design and planning interventions considering redevelopment of open public spaces that suffices proper pattern of built-forms. It is important to note that the growth of Addis Ababa is without thorough planning intervention as the city centers composed of poor spatial qualities of public open spaces and high percentage of ground coverage by dense commercial and mixed use built-forms. Built-up area ratio/BAR/ in the old and central part of the city may exceed 90% coverage. Besides, more than 65% of the central part of Addis Ababa is condensed with slum neighborhoods (UN-Habitat, 2006). The current situation shows that the central part of the city is more or less in the state of rejuvenation as Brownfield Development. But the evidence shows that less attention has been given to develop adequate open public spaces in the redevelopment areas.

Experiences of other countries show that urban open public spaces provide environmental, social and economic benefits to communities in the world. Since open public spaces constitute mainly green spaces, they live many years in perpetuity. They provide the environmental, social and economic benefits



not only to the present communities but also, with little management cost to the future generations as well. Though urban open public spaces ensure the sustainability of urban areas, the current situation in Addis Ababa indicates that city administration have given little attention to public green and open spaces which resulted in poor urban setting and image.

It is worth mentioning that open urban public space in Addis Ababa is not well designed, developed, managed and protected to fulfill the environmental, social and economic benefits of urban residents. As the result the city is facing tremendous environmental, social and economic problems associated with lack of appropriate open public spaces, poor management and planning defects. Though Ethiopian National Urban Green Infrastructure Standard (NUGIS Manual, 2015) suggests authorities to allocate 30% for green areas and shared public use in their urban land management plan, the reality on the ground reveals that urban spaces are congested by buildings and other structures.

Public open spaces in Addis Ababa are not according to the current national or international standards in which case the quality of the city is impaired. Among the three outdoor activities in public open spaces, optional activities and social activities are very important activities that determine the quality of spaces. These are expressed as sociability, walk ability, and delight to the pedestrian. But Addis Ababa City has still very limited public open spaces or no public spaces to support these qualities. The City Plan (2016) report of Addis Ababa shows as there are very few formally organized Public Open spaces found in the town that accounts only for less than 5% from the total land use of the town. This report focuses on quantity only but the study uncover the question of quality in terms of accessibility and linkage, use and activity, comfort and image and sociability.

This research is intended to fill the gaps related to the use, state and challenges for the low level or, no development of urban open public spaces in the City Administration. Besides, the study would facilitate and paves the way to come up with proper solutions and strategies to install quality public open spaces in the city. The study aims at investigation and evaluation of quality of open public spaces in Addis Ababa City.

### **1.3. Objectives of the Study**

#### **1.3.1. General Objective**

The general objective of this study is to evaluate the quality of public open spaces in City of Addis Ababa based on internationally recognized standards.

#### 1.4. Research Questions

- What are the indicators of the quality public open spaces in Addis Ababa City?
- How are the qualities of the existing public open spaces being evaluated in the study areas?
- To what extent social interactions are taking place in the open public spaces of the study area?
- What are the activities operating in the quality open public space in the study area?

## 2. Literature Review

### 2.1. Introduction

This chapter situates the phenomenon of the influence of Addis Ababa's origin and the successive master plans on the *Spatial Organizations* and ***qualities of open public spaces*** and their impacts on spatial quality of residential, commercial and mixed use neighborhoods in the context of Addis Ababa (*New-Flower*). It focuses on the influence of the city's origin and its successive master plans on the city structure as this is the arena and context in which the activities have been occurring. In this regard it emphasizes four main issues: characteristics of city settlements, spatial qualities of open public spaces, and existing situation of quality open public spaces in the city of Addis Ababa. Owing to its coverage of the previous and ongoing planning activities in the city, the chapter can be viewed as a ***backdrop to the main case studies***. It deals with various actors and their planning activities so that the ***research case studies*** can be understood as part of the interdependent city dynamics. Equal emphasis is also given to the prevalent challenges in qualities of open public spaces, prompting the main research questions.

A need for public open spaces are highly linked with high level urbanization and high rate of urban growth around the world which is not exceptional for Ethiopia though urbanization in its modern sense is a recent phenomenon in Ethiopia. Like most developing countries, Ethiopia has a low level of urbanization. The level of urbanization is even lower than that of most African countries. In 2008, according to the UN-HABITAT (2012), the average level of urbanization for Africa was about 38 % while that of Ethiopia was about 20%. However, the current urban population growth rate of Ethiopia, which is estimated at 5 % per year, is much higher than the growth rate of urban population worldwide. In 1984 there were 312 urban centers with a population of more than 2000, by 2002 this number had increased to 534 and currently there are 950 urban centers showing a rapid change of population distribution in the country.

The urban centers which constitute about 20% of the population, are facing multitude of challenges; the main ones being rapid urbanization and the housing problem that accompanies it, the ever-increasing nature of inner-city decay, urban sprawl, indiscriminate application of density, poor spatial quality of open public spaces and housing settlements, environmental degradation, inadequate infrastructure and utilities,

inadequate health and educational services, HIV/AIDS pandemic and increasing unemployment and poverty. These urban challenges are extensively demonstrated in Addis Ababa because it houses about 28% of the urban population of the country, about 10 to 11 times as large as Dire-Dawa, the second largest city, with a population of 350,000. Only twelve cities in the country have population size of 100,000 and plus.

Addis Ababa is the capital city and the seat of the Federal Government of the country. It is also the seat of the headquarters of various international organizations such as the African Union (AU) and the United Nations Economic Commission for Africa (UN-ECA). Addis Ababa is located at the geographic center of the country and covers 54,000 ha of land with an estimated population of 3.5 million in the city and 4.5 million in the metropolitan area (CSA, 2008) and gross population density of 5,165.1/km<sup>2</sup> (13,378/sq mi). It is located astronomically within the Coordinates: 9°1'48"N 38°44'24"E in the elevation of 2,355 m (7,726 ft) a.s.l.

Addis Ababa, being the commercial, industrial and service hub is a melting pot for the various people coming from all corners of the country. (Refer Fig. 4.1, for the location of Ethiopia and Addis Ababa.) The administrative system of Ethiopia is structured in such a way that it has the Federal Government comprised of nine regional states and two chartered, autonomous cities. The chartered cities are *Addis Ababa* and *Dire-Dawa*. Dire-Dawa is the second largest city as already being explained above.

The City of Addis Ababa has the dual status of both a *city* and a *state*. The Mayor is the chief executive of the city government. The *second tier* of the city government refers to the *sub-cities*. The city is divided into *ten* sub-cities with responsibilities of municipal and non-municipal services. The lowest tier of government is the *Woreda* (*local government*). Each sub-city has on average population of about ten *Woreda*' under its jurisdiction. The structure discussed above is the current one; however, the city has passed through many administrative restructurings in previous years. At one point it was divided



Figure 4.1: Location Map of Addis Ababa

into 6 zones, 28 *Woreda/Keftegnas* and 284 *kebeles*. This was later changed into 10 sub-cities and 201 *kebeles* doing away with zones and *Woreda*. Recently, the 201 *kebeles* were further merged into 116 *Woreda*'. The current administrative structure has thus 10 sub-cities and 116 *Woredas*. Each sub-city and *Woreda* administration has demarcated boundaries. Each sub-city has an average population of 350,000 and each *Woreda* has also an average population 15,000 to 35,000. ***Addis Ababa is the only Metropolitan city in Ethiopia selected for this research investigation.***

Different studies addressed that there is a clear and understandable shifts in the public interest in using public spaces from work-oriented to leisure and recreational (Gehl, 2007). Recently people are demanding for more attractive living environments with alternative choices. Several surveys illustrate a considerable growth in the use of public spaces in many cities globally (Aljabri H., Smith H.,2013). According to studies quality spaces are declining and becoming scarce in cities. Ibrahim Bin Ngah (2014) has pointed out that a considerable decline of quality and quantity of public spaces as well as the loss of their concept and importance due to various reasons. The UN Habitat (2015) report complements such opinion as it goes, most cities in the developing world are facing problems of open public spaces more severely because of the pace of urban growth and the strain on scarce financial and human resources. The standard of life in many ways, changed considerably in the last century. As social life changed, open spaces need therefore to provide higher quality to attract the public, but this is not being met by the urban planning authorities Aljabri H., Smith H. (2013).

This section discusses scholarly works from different perspectives. Operational definitions for key terms are given. Theoretical, conceptual and empirical literatures are discussed that have high level contribution to clearly understand the gaps.

## **2.2. Definition of Key Terms/ Operationalization of Variables**

**Public:** Pertaining to the people as a whole; that belongs to the community; common, popular (J.A.Simpson and E.S.C Weiner,1991)

**Open Space:** is any open piece of land that is not occupied by buildings or other built structures and accessible to the public.

**Quality Public Open Space:** is any open piece of land that fulfill the requirement for use and accessible for public at large.

**Streetscape:** the visual elements of a street, including the road, adjoining buildings, sidewalks, street furniture, tree and open space, etc, that combine to form the street's character (<http://wiktionary.org>)

**Service Area:** is a region that encompasses all accessible areas that can be reached within 5 minute travel time from a Public Open Space. It constitutes service areas of the public spaces and define the accessibility coverage's that public spaces could generate (Rubén Talav Era, 2012).

**Outdoor Space:** is a public place found on streetscape at the edge or in front of buildings.

## 2.3. Genesis and Effects of Successive Master Plans on the Spatial Organizations and Qualities of Open Public Spaces in Addis Ababa

### 2.3.1. The Period from Mid 1880s to 1936

According to the UN-Habitat (2003a) in most cities of Africa and Asia that have pre-colonial and pre-industrial existence usually the original settlement is separated from the “modern” part of the city by a fortress like wall (e.g. in Lahore, Pakistan) or a moat, and often has a distinct name (e.g. *Kasbah*, in Morocco) or the old city (e.g. Old Delhi, India).

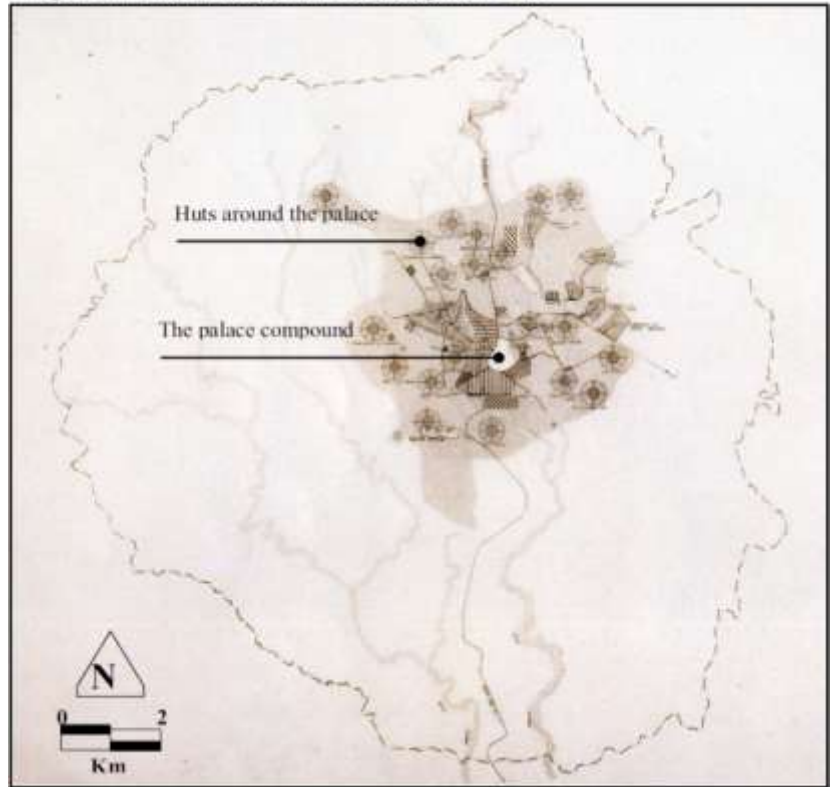
Such neighborhoods are distinguished by their mixture of grand residential buildings (sometimes in ruins), and *open public spaces* (ibid).

Addis Ababa, which was established in the last quarter of the 19th century, was not only a pre-industrial city, but also it was established *without a colonial model*. Unlike the African and Asian cities, that had pre-colonial existence, the old part of Addis Ababa does not fully show similar characteristics. A substantial part of the old inner-city is rather occupied by huge masses of non-planned settlements of single storied *chika* (mud and wood construction) houses composed of little and *poor quality of open public spaces*. The inner-city manifests temporariness rather than

permanency, and rather than occupying a limited and demarcated portion of the city it stretches through large tracts of land with very limited open public spaces.

The background to the current layout and condition of the *spatial quality* of open public spaces in Addis Ababa can largely be traced back to its formative age of the city, which spanned from the mid 1880s, the period the city was founded, up to 1917, the year the construction of the *Ethio-Djibouti railway* reached Addis Ababa. The city was *founded by Emperor Menelik and his wife Empress Taitu*. Empress Taitu had played an important role in choosing the current location of the city. Addis Ababa was the first urban centre

Figure 4.4: The Taitu-Menelik Devevelopment Plan



Source: Adapted from Tekeste & Ceccarelli (1986:n.p.)



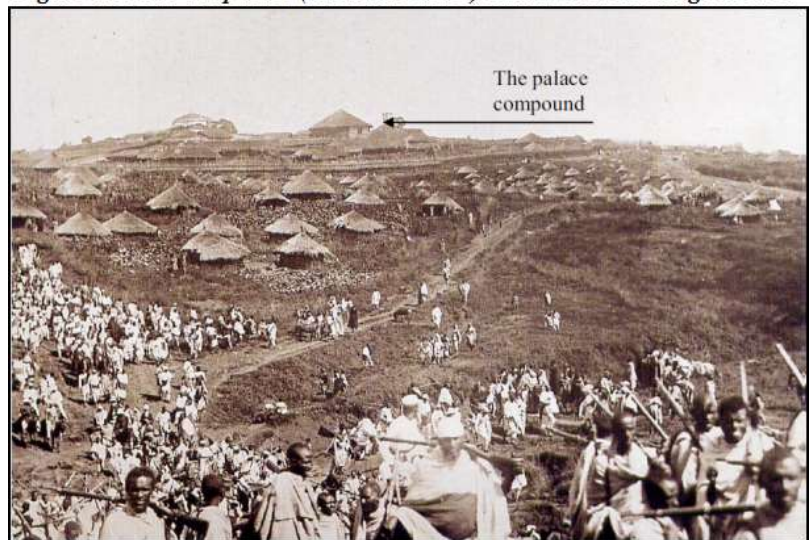
which heralded permanence as opposed to the wandering capitals of former times. The city's foundation is related to the movement of Emperor Menelik II and his army in the pursuit of expanding and consolidating territories. This phenomenon, referred by Mesfin (1976) as *“political nomadism”* had not started with the reign of Menelik. In Ethiopia, the rise and fall of capital cities had been tied to the movement of Emperors. For example, Almeida in the first quarter of the seventeenth century, observed:

*“The Emperor’s camp is the royal city and capital of this empire. It deserves the name of city because of the multitude of people and the good order they observe in sitting it...this is usually the same although those there have been hitherto have never lasted for many years. The Emperor now retires to one called Dancaz and it is nearly ten years since he chose it. Yet before, this same Emperor in thirteen or fourteen years had five or six other places in each of which he stayed for about two, three, or four times. This has always been the custom of this empire. When the emperor changes these places, you will usually see nothing in those he has left but meadows of Troia fruit. These changes are made so frequently in the first place because it costs them little to build houses, as I shall explain directly, then because of his different wars, now against one enemy and now against another”* (Mesfin 1976:7-8, quoting Almeida in Buckingham, 1954).

Like his predecessors Menelik’s headquarters and military camps were set up following his movements. The first plan for Addis Ababa, known as *“the Taitu- Menelik Development plan”* was not more than a “blueprint of a military camp” (See Fig. 4.4). The camp was called a *Sefer*, a term which is now commonly used to name *neighborhoods* within the city. When the camp became more permanent the settlement was called a *Ketema*, a term

now used to indicate *town or city*. The noun “*Ketema*” is probably derived from the root verb “*keteme*”, which indicates the end of a movement (Mesfin, 1976). Wherever the Emperor has, alongside his large entourage and army, made temporary encampment the area used to become his capital. Before the final settlement in Addis Ababa, according to Akalou (1976) four military camps

**Figure 4.5: The old palace (Menelik Palace) and Its Surroundings in 1919**



*Source: Post card by Point Sur Point, Paris*

(garrison towns) were used as capitals, namely: Ankober (1868-1876), Liche (1876-1882), Ankober and Debre-Berhan (alternatively) (1882-1884) and Entoto (1884-1887).

Owing to the trend of “*political nomadism*”, in the early days the permanency of Addis Ababa was not a settled issue. According to Akalou (1976, citing Pankhurst, R. 1962), at one point Menelik had an intention of moving to Addis-Alem. The narrative reports of foreign visitors were also replete with statements regarding the mobility of the capitals. For example, Count Gleichen, a visitor at the end of the nineteenth century predicted the inevitability of the movement of the capital elsewhere (Akalou, 1976 citing Gleichen, 1898). However, the prediction did not materialize; rather Menelik, before his death in 1913, achieved his power over most of the country and as a result Addis Ababa became the last city in the chain of wandering capitals.

To date, the emergence of Addis Ababa out of an inherently temporary garrison town has influenced the housing characteristics and type of construction. Addis Ababa’s early houses were built after the model of village houses (*Saar biet*) - circular *chika* huts with **thatched roofs**. Unlike other old historical cities with pre-colonial existence, the houses and settlements were not meant to show monumentality and permanence. In the 1900s Merab (cited in Ottaway, 1976:36) described Addis Ababa as a city of some 60,000 inhabitants that looked more like an enormous camp than a city, with tents and *tukuls* (huts) dominating the landscape. He stated: Aside from the market quarters and the *ghibi* [palace] compound, which have all the sadness of a city without having its splendor, one can say that the capital of Ethiopia is more countryside than city. (*Refer also Fig. 4.5*)

The legacy of this humble start has still persisted. In 1994, of the total housing units 97% were non-storied (CSA, 1998) and 82% of the houses were built up of *chika*, (CSA, 2008). Currently, it is still estimated that the same proportion of houses are built of the non-durable *chika* construction (Mathewos, 2009). These circumstances of non-planned and organic characteristics have contributed a lot for the formation **poor quality urban spaces** with haphazard organization of residential neighborhoods in the city’s built environment. The other phenomenon that shaped the characteristics of the non-planned city settlements was the city’s early **morphology**. According to Johnson (1974) the morphology of the city during the formative age was related, among other things, to the location of important places (“charged nodes”) and the cultural traditions of the founders of the city.



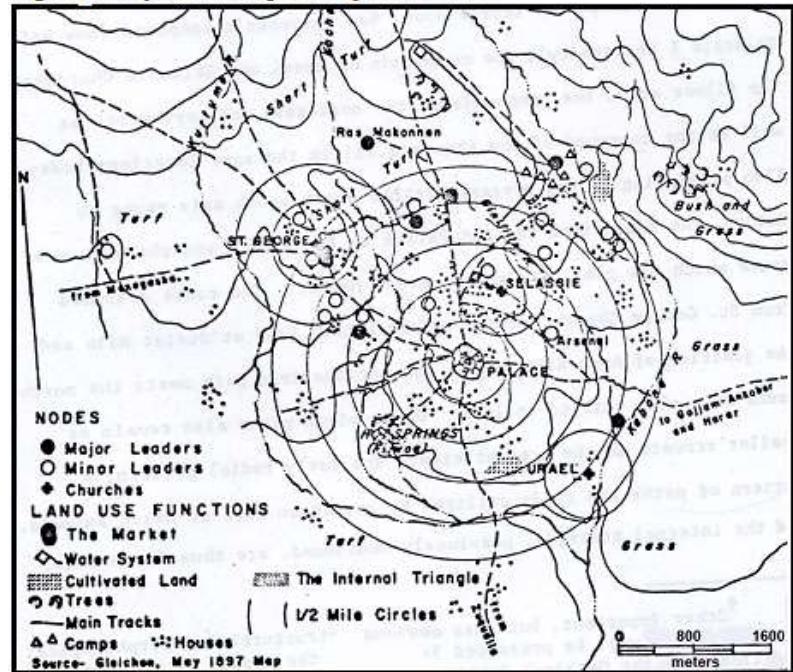
The centre of the original settlement was Menelik's palace located on a higher plateau surrounded by his immediate entourage (*refer Fig. 4.6*). Next to the palace, churches, the compounds of the nobility, and the military leaders occupied important nodes. Surrounding these secondary nodes the followers of the military leaders settled around them regardless of the terrain and the availability of better location elsewhere. In the case of churches the clergy and other church servants inhabited their surroundings. Johnson observed circular *concentric settlement patterns*: 1) "clustered around a series of small nodes which are in turn clustered around larger main nodes" and 2) having "a series of radiating paths and routes connecting these nodes" (*ibid*: 84) (*refer Figure 4.6*).

Johnson added another important observation that the nodes, which appropriated big tracts of lands, were in turn located at a considerable distance from each other leaving huge *open public spaces* in between. According to Johnson,

these *open public spaces* were used as additional camp sites, for pastures, crops, as market areas or occasional ceremonies. He attributed the nodes' consumption of the huge tracts of land and the distance between them to the concept of distance and attachment to land ownership of the Amhara. Levine (1965:54), expounding on the attitude of the Amhara culture regarding distance stated, "for him [the Amhara] a distance of two or three hours by foot is like the American's trip to the corner drugstore". The second cultural element, attachment to land ownership was related to the land tenure system. Basically, all of the land belonged to the Emperor; who according to his wish granted portions of it to the church, the nobility, and the military chiefs. The grantees usually were those holding the nodal locations. It was both the Amhara's concept of distance and the land tenure system which, at that time, lent the city its characteristic of spaciousness and openness.

Following the formative age, the introductions of the Ethio-Djibouti railway and vehicles have led to the expansion of the city towards the southern part of the city (where the railway station was located) and to the provision of wider roads for vehicular traffic. With these advancements and through time more and more new comers infiltrated the city and the *large open public spaces* between the nodes started to be filled

Fig. 4.6: Early settlement pattern of Addis Ababa



Source: Adapted from Johnson, 1974:88

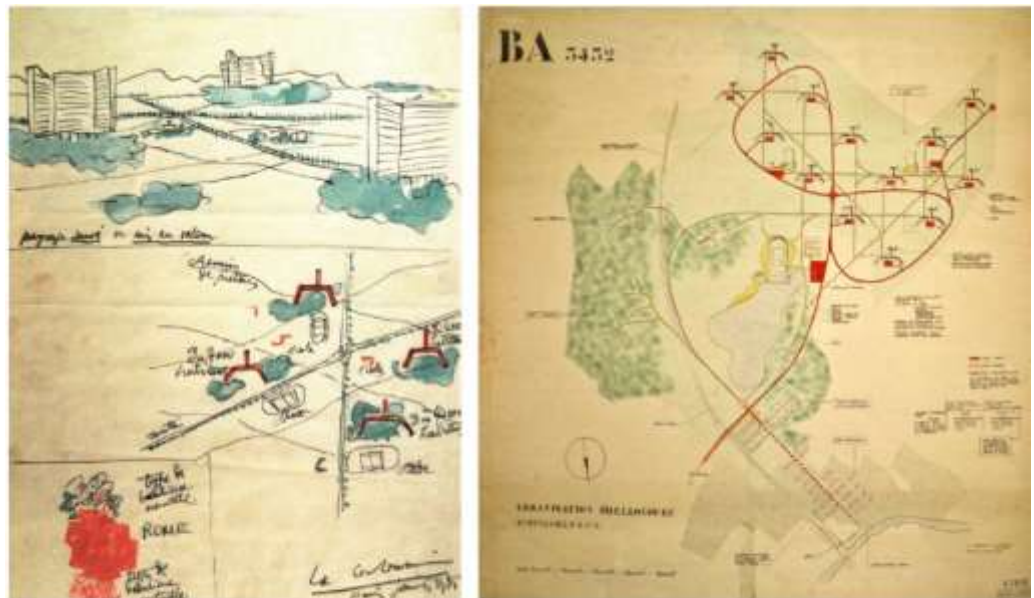
in. The city became more like a conglomeration of *Sefers* surrounding the nodal centers – the house of the nobility or churches. Such densification between the nodes was not properly planned, it just happened. Owing to this non-planned development, in fact the phrase “*shanty town*” was used to describe Addis Ababa as early as the 1930s. It was stated:

*Addis Ababa in 1930 rather resembled a shanty town...over the rolling hills, right up to the edge of the palace, bumbled a mass of mud huts, half of them thatched, half of them covered in the garish, glinting new strips of corrugated iron which had begun to be so fashionable. There were still only one or two buildings of more than one story (Johnson 1976:268, citing Mosley, 1965:155).*

The early *morphology* of Addis Ababa has also contributed to the present day mingling of the rich and the poor. This can be traced back to the network of dispersed nodes, which were occupied by the rich noble men surrounded by their poor followers. Hence, to date though the inner-city settlements are predominantly occupied by the low income people one can hardly say this is the ghetto of the underclass and that is the gated city of the rich with extremely *poor spatial quality of housing settlements* characterized by high incidence of crime, absence of greenery and open public spaces, no possibility to use outdoor spaces, high built-up density/high ground coverage (BAR) & low floor area ratio(FAR) characterized by high density low-rise and close distance between buildings.

### 2.3.2. The Period of Italian occupation (1936-1941)

In 1936 the Italians occupied Ethiopia and Mussolini, the fascist leader, dreamed of making Addis Ababa the capital city of the annexed territories of East Africa – the “*new Rome*”. Soon after the occupation, however, the Italian authorities in Addis Ababa felt that



5. On the left: *Suburb of Rome*, Le Corbusier, 1934. Published in Le Corbusier: *The Radiant City*. New York: Orion Press, 1967, p.304, ©FLC-ADAGP. On the right: *Urbanisation d'Hellocourt 1935 (Usine française Bat'a en Lorraine)*, Le Corbusier, 1935, ©FLC-ADAGP.

the city is not convenient for materializing the vision. Among the reasons given were the mountainous

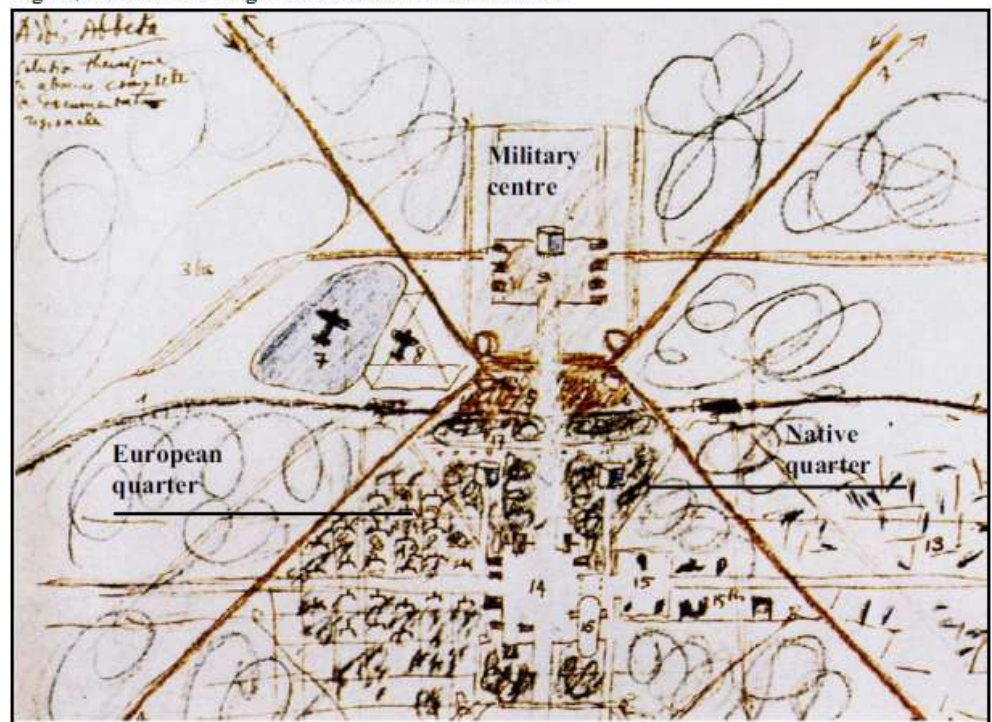
landscape difficult for transportation, the bad soil type requiring expensive building foundation and the challenge of expropriating land enough for a new city freed from every native traces (Pankhurst, R., 1986). In addition to these, security problem from the Ethiopian patriots fighting from the nearby forest of the Entoto Mountain was presented as a reason for the need of a change of capital city (Dandena, 1995 referring CIPIA, 1992).

Despite the number of reasons given, however, the suggestion for the change of capital was not accepted by Mussolini. Consequently, a master plan was sought to reorganize and build the city. In preparation to the construction of the new city in May, 1936 proclamation was issued to stop the maintenance of the existing buildings and construction of new buildings in order to cut compensation expenses.

Among the first proposals for Addis Ababa's master plan was that of *Le Corbusier, the famous French architect*, presented to the Italian authorities in 1936. Le Corbusier's sketch, which was derived from his concept of the "*Radiant City*", took into consideration neither the existing settlements nor the topography.

Disappointed but undeterred by Mussolini's initial disinterest in discussing his proposals, Le Corbusier organized another visit to Rome to participate in the annual Conference held by the Alessandro Volta Foundation on

Fig. 4.7: Le Corbusier's guideline sketch for Addis Ababa



Source: Adapted from Tekeste & Ceccarelli (1986:n.p.)

October 1936. On September 19th, 1936, only some months later the Fascist conquest of Ethiopia, the architect sent Bottai, Italian governor of Addis Ababa, a proposal for the Ethiopian capital accompanied with sketches. In a letter he sent along with the plan, Le Corbusier expressed his interest in the construction of the newly proclaimed Fascist empire in Africa. In place of Rome, Addis Ababa became Le Corbusier's object of interest in the construction of his ideal city. In his role of acknowledged leader of the modern movement, Le Corbusier sought to guide the architectural and urban development of the new Roman



Empire. From his perspective, the design of Addis Ababa was the perfect “architectural playground” for the urban revolution of the Ville Radieuse, and it could transform in the concrete possibility of leading the design and planning of the Fascist empire.

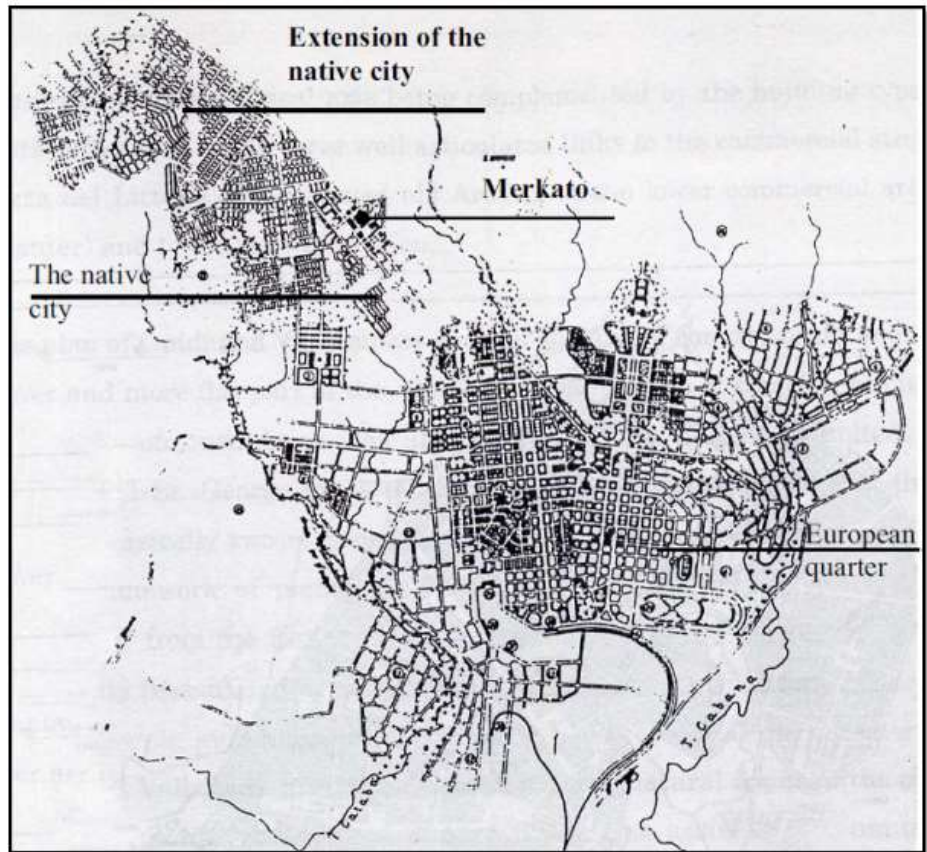
In his letter to Fascist authority, the French architect offered his technical services and criticized the garden city project of Ignazio Guidi and Cesare Valle, two Italian architects selected by the government to work on the capital in the summer 1936. According to Le Corbusier, as designed by Guidi and Valle the plan would have been “a disaster, a regression to dangerous concessions, to the death of capitalism.”<sup>9</sup> Le Corbusier did not share the interest in the garden city; unlike Guidi and Valle’s proposal, his plan rejected the model of centralized city, introducing the limitless concept of the zoning system in parallel bands. According to Le Corbusier, the division in zones allowed infinite expansion and easy access to surrounding areas. Moreover, it permitted a heavy population density of 600-800 inhabitants per hectare in the residential area; the ground surface was rendered as a continuous park in which pedestrians could walk, participate in leisure activities, and enjoy the landscape. In his book *La Ville Radieuse* he wrote: “To a healthy body, to a mind kept in a continual state of activity and optimism by daily physical exercise, the city, if the right measures are taken, can also provide healthy mental activity.”<sup>10</sup> Similar concepts were expressed in the plan of the utopian Ville Radieuse and Antwerp, in Belgium (1933), where a pragmatic approach outlined the idea of a high-density city thriving within greenery.

Le Corbusier reproduced his radiant model in the European residential quarter of Addis Ababa by means of 50m high buildings. Located on the Western side of the wide and central boulevard, the buildings for Europeans settled according to a grid street network of 400m spacing. The sector could host 2,000-4,000 inhabitants per group of buildings, similarly to what Le Corbusier proposed in his sketches for the area around Rome. The proportion between built-up area and available land followed the capacity fixed in the Ville Radieuse – **12% built-up** and **88% for parks and other open public spaces**. However, unlike his plan for the Ville Radieuse with 15-story serpentine blocks “a redents,” the type chosen for the Ethiopian skyscrapers was more similar to the version proposed for Antwerp, the Banlieue de Rome, and the Urbanization d’Hellocourt (1935), with non-cruciform slabs standing as a hybrid of the Ville Radieuse type and the later-developed free-standing 20-story slab block of Marseilles (1946).

It was a new city reflecting the colonial attitude of segregation between the native and European quarters (See Fig. 4.7 above). The authorities did not approve of the plan and thus it was not realized.

The same year, *two Italian architects Ignazio Guidi and Cesare Valle* prepared a master plan for a new city to be juxtaposed on the old settlements. This plan was approved and its implementation was started in 1937. Similar to that of the *Le Corbusier's* this plan was also based on *segregation* (See Fig. 4.8). The original settlement of the “natives” was either left

Fig. 4.8: Master plan of Addis Ababa by Guidi and Valle



Source: Adapted from Dandena (1995:43b, referring, Diamantini & Patassini, 1993

untouched or was subject to a clearance whenever viewed as a hurdle to the implementation to the layout of the European quarters. Traditional huts were cleared from the site of the European quarter and were replaced by modern housing and office blocks and the original meandering road network was replaced by a grid layout.

The traces of these exercises can still be observed in the areas commonly known as Kazanchis (corrupted form of Case INCIS) and Popolare (Dandena, 1995 & Mathewos, 1999). Parallel to this in the western part of the city, adjacent to the “native city”, an extension area was planned with a grid layout. Based on this extension plan Merkato, which has now evolved to be one of the biggest open markets in Africa, was constructed. The traces of this extension plan can also be found in some parts of the present Kolfe area, in the vicinity of Merkato. Both figure 4.7 and 4.8 illustrate the segregation policy of urban planning in the city by the above mentioned planners as being addressed below in 4.4.2.1.

### 2.3.3. The Impact of Italian Occupation (1936-1941)

Already in the late 1930s ideas of having a comprehensive plan for Addis Ababa was on the agenda of the Italian Occupation in the above period that the country had been in war to protect the country from Fascists. Following this, for instance, architect Le-Corbusier was contracted to prepare a comprehensive plan for Addis Ababa under the leader of Mussolini (Italian). His plan was however not fully implemented; orchestrating segregation, Piazza area for foreigners with Le-Corbusier's radiant city Plan and Merkato are for natives with Grid iron planning (*see Fig 4.8 above*). This has direct impact of the development of the city's spatial organization and quality of urban public open spaces. This plan was seen to be conflicting with the many city ship establishments.

The city of Addis Ababa lacks the colonial history, however, the detail plans made by various architects and planners of Europe including le-Corbusier in the above limited period from 1936-to -1941) has resulted in the plans in some extent similar to the cities developed through colonial cities, like the patterns of segregation of the historical development of Merkato and Piazza areas from the planned expansions, Although they might have not been military objectives to the segregation. Therefore, the impact of these plans on the dense and sparse urban patterns in the selected cities might not to be underestimated (*see Fig 4.7 and 4.8 above*).

### 2.3.4. The Period from 1942 up to the End of the Imperial Regime (1974)

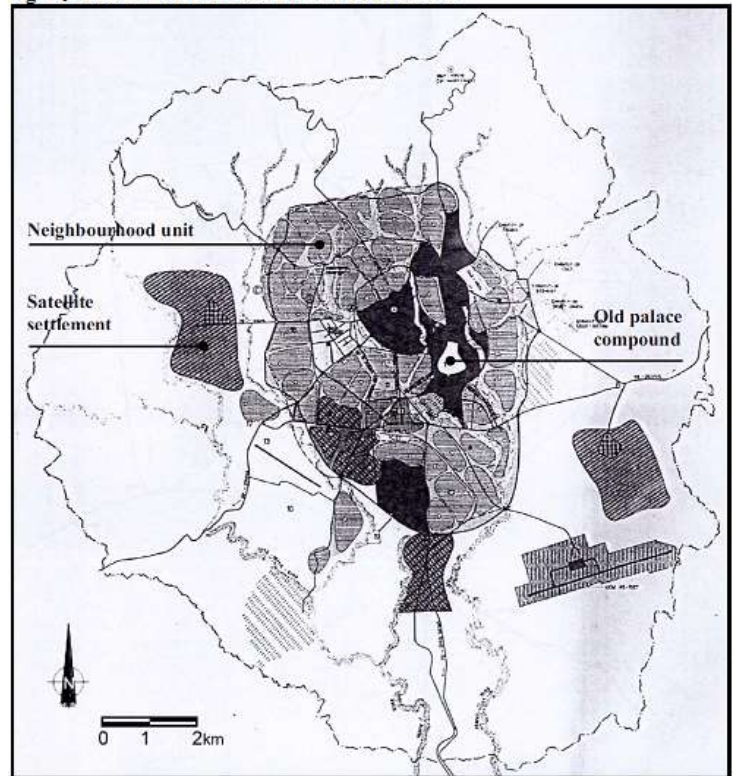
The end of the Italian occupation in 1941 had also brought the implementation of the Italian master plan to a halt. Post Italian occupation up to the year 1974 the main master plans developed were that of the British architect *Sir Patrick Abercrombie* and the *French architect Liouis De Marien*. While Abercrombie's plan remained largely unrealized, on the other hand De Marien's plan, though in an ad-hoc and sporadic manner, had been used in guiding the city.

Abercrombie's plan, which was prepared in the period of 1954-1956, unlike its predecessors not only had abolished the concept of segregation, but also was more of organic layout. It was based on two basic concepts: the *neighborhood unit* as a basic *organizing principle* and *a street network of radial and ring roads*. It also proposed satellite *settlements at Kolfe, Gerji and Mekanissa* around the inner-city (*See Fig. 4.10 below*). With his death in 1957 the plan was left at the stage of a guideline and thus could not be implemented. In 1959, another British consultant, *Bolton Hennessy and Partners*, was commissioned to refine Abercrombie's master plan. Following the consultants' input, through time, some part of the proposed street layout and the satellite towns were implemented. However, the neighborhood concept remained on

paper lacking the financial and technical capacity to enforce the strict control and reorganization of space it entailed (Dandena, 1995).

In 1965, following the frustration by the failure of the Abercrombie / Hennessey plan, a French consultant by the name of Luis De Marien was invited. Similar to the plans of the Italian occupation this *plan emphasized form and geometry rather than spatial planning* that leads to the current poorly planned situation of the *spatial quality of urban public open spaces*. Thus Abercrombie's concept of neighborhood unit was replaced by emphasis on *axial layouts* that visualized the city as a trade and political centre (See Fig. 4.9). Considerable part of the plan was implemented as its preparation coincided with the city's construction boom period.

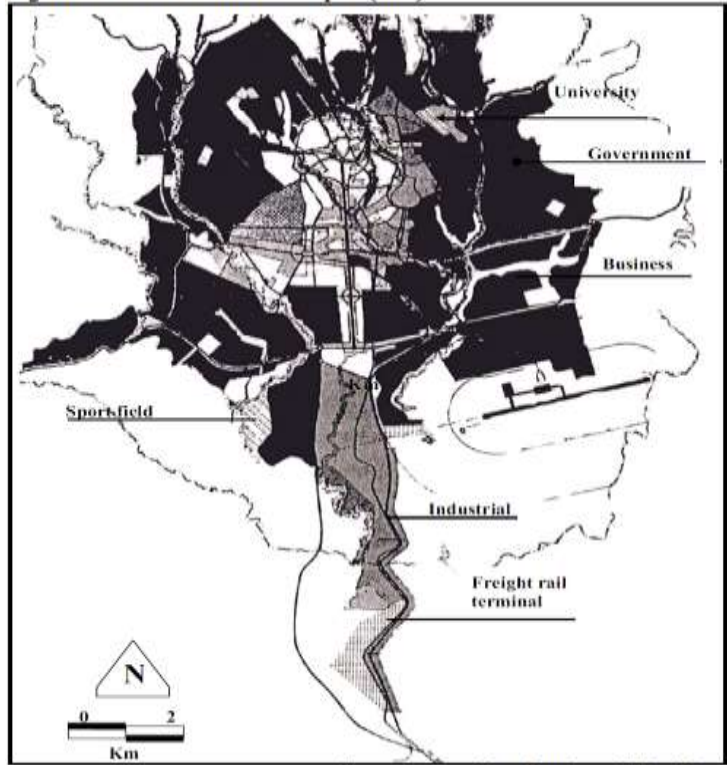
Fig. 4.9: Abercrombie's Master Plan of Addis Ababa



Source: Adapted from Tesfaye, Berhanu, et al. (1987:10)

De Marien's plan, as was typical to all its predecessors, lacked a systematic evaluation of the socio-economic condition of the city ignoring or marginalizing the majority of the inhabitants of the *mushrooming non-planned settlements with poor spatial quality built environment*. Particularly the land tenure system, similar to that of pre-occupation period, continued to be in favor of a few members of the royal family, the noble men and military chiefs. According to the 1961 land holding and ownership survey of the existing total land of the city: 9% was owned by the royal family, 12% was owned by the church, 12.7% was owned by government agencies and foreign embassies, and the rest 65.4% was owned by individuals (Tesfaye, et al., 1987). This shows a vast amount of land was in the hands of few landlords and the church.

Fig. 4.10 : Luis De Marien's master plan (1965)



Source: Adapted from Dandena (1995: 63a)

According to Wubshet (2002) the few land owners had been allocating some part of their lands to their followers on a lease basis. However, the land owners did not allow the lessees to legally register with the Municipality, obliging them to develop houses informally. That was one of the bad trends of developments contributed for the ***formation poor spatial quality of Urban Public Open Spaces in Built Environment***

According to Tesfaye et al., (1987) before 1957 special permission, from the king, was required in order to build a durable house. It was only after the first African summit, in 1963, and the establishment of international organizations that dwellers were allowed to build luxurious buildings of various functions along the main roads (ibid). Even then, despite the housing production that exceeded 4,000 units per year, during the period preceding the Marxist revolution of 1974, the Municipality rarely issued more than 500 permits per year (Solomon & McLeod, 2004:11). Thus, with the passage of time the housing requirement of the increasing population was met by the *production of informal rental houses*. Consequently, just before 1974 about two thirds (Wubshet, 2002) of the housing in Addis Ababa was informally developed, substandard rental housing and that is still existing. In subsequent years, with the accelerated increase of *population more and more open public spaces and greeneries were occupied by contiguous settlements*



still without any sort of planning intervention, contributing to the formation of the present day *congested non-planned poor quality urban settlements and disorganized morphological settings*.

### **2.3.5. The Period from 1975 – 1991 (Post- Revolutionary Development)**

Following the revolution, the most important proclamation affecting urban housing was the proclamation 47/1975, known as “*Government Ownership of Lands and ‘Extra’ Houses*”. Through this proclamation, private ownership of land and houses for the purpose of renting was outlawed. All properties belonging to the crown and the church were nationalized, and the same happened to houses owned, but not personally used by individuals (“extra houses”). As part of the Marxist ideology, which favored the poor, the rent of the nationalized houses was reduced by up to 50%. The government took the responsibility of administering urban land and extra houses and the construction of new housing. The administration and management of the nationalized houses were transferred to two organizations. Those with a rental value of less than 100 Birr (Rs 320) were put under the *kebele* or local administrations, while those more than 100 Birr were put under the Agency for the Administration of Rental Housing (AARH). The 1994 census showed that more than 40% of the city housing units were owned either by the city government or the AARH. Later as a result of the introduction of housing cooperatives and private housing construction, the trend gradually changed the public/private of 40/51 proportion during the Dengue, to the current 34/59 proportion (Mathewos, 2005).

Under the *kebele* administration the nationalized houses started to deteriorate. The main reasons for the physical deterioration of the *kebele* houses were the lack of proper management on the part of the *kebeles* and their inability to maintain the houses; the lack of motivation and capacity to collect rents; and the extremely low controlled rental fees, which made maintenance impossible. The other reason for the dilapidation of these settlements emanated from the 1986 Master Plan of Addis Ababa that prohibited the upgrading of foundation-less *Chika* houses located in the city. The Master Plan ambitiously envisioned the renewal of the whole deteriorated neighborhoods.

Through time within the formal *kebele* housing many informal activities evolved lending more spontaneity to the already non-planned settlements. The *kebele* authorities had generally a tolerant attitude towards tenants. Despite restrictions regarding unauthorized transformations of the *kebele* houses the majority of the tenants were defiant to the rules and they have been using all possible ways to add space to their units. Tenants could continue the occupancy of a house without paying rent for a number of years, particularly when it was known that they did not have a source of income. Use right could be transferred to siblings (by including children’s names in the *kebele* registry) and the control of who actually inhabited the house was

very weak. Further, the sale of use-right (selling one's right to use the *kebele* house), through illegal payments such as key money is not unusual though the magnitude of such practice is difficult to know, as such dealings are shrouded in secrecy. Tenants have also been taking advantage by sub-letting at market price. This practice is so common that tenants use the *kebele* houses in whatever way they think would generate income. This has been contributed to the formation of the current poor spatial quality of open public spaces in the neighborhoods.

## **2.4. Theoretical and Conceptual Review on the Public Open Spaces**

All Open Public Spaces are around us. For instance the streets we pass through on the way to school or work, the places where children play, or where we encounter nature and wildlife, the local parks in which we enjoy, sport grounds, quiet place to get away for a moment from the bustle of a busy daily life etc constitute open public spaces. In other words open public space is our open air living room, or outdoor leisure centre (CABE, 2004, p.1).

According to IS.Z.abidin, I.MS.Usman, MM.Tahir, Y.C.Yap (2010), public space generally has physical and functional conditions which influence social interaction, comfort and security which attract people to the urban settings. Public spaces that are dynamic and highly visited by people are settings where people are able to engage passively with the environment by looking at others, offers many sitting spaces, are accessible for people, contain public art and natural features such as fountains and waterfalls. The same source express a great public Open Spaces as a “living room” where people come together to enjoy in the city and each other and it is a combination of beautiful architecture with great public space that creates the most beautiful places to live. Dynamic public spaces are essential component for the urbanites to have their recreational activities and social interactions. Streets, squares and parks of a city (leisure green spaces) are public open spaces that form a city fabric and its character. Such spaces are often considered as green nucleus or breathing space of the city that gives form to the flow of human exchange.

The other scholar, Douglas Farr as forwarded by Andres Duany (2008) discussed public space as “third place”. According to him, Great good public place is a “third place” next to home and working place. He discussed open public space as a third place after home and work place. Third place is established by people informally designated them as to go to see and to be seen, and open for minimum of sixteen hours a day, five or six days a week, Many but not all, serve food and/or beverages, encouraging people to hang around longer to converse, can result in a new acquaintances, friends and even romances.

## **2.5. Outdoor Spaces on Streetscape**

Any designed outdoor area are Public open space as defined by many scholars like Aljabri H., Smith H. (2013). Hence most of the time “Outdoor space” and “public open spaces” are used interchangeably. But the outdoor spaces selected in this thesis focuses on Outdoor leisure places that found on the streetscape at the edge or in front of buildings. About such type of outdoor spaces, literatures agree that “many celebrated pedestrian environments have streets and buildings so as to create “outdoor rooms”. Most successful streets that promote pedestrian activity have buildings built to the sidewalk designed with inviting features for users. For these users, well executed outdoor spaces can become the central focus of an area for “outdoor activity” (<http://www.cityofws.org>). Generally, an Outdoor activity includes a range of leisure activities undertaken just like as any other public open spaces.

## **2.6. Urban Open Space Planning Models and Principles**

Contemporary urban open space planning models, while being concerned with questions like how much, what type of and where open space should be provided, reveal that quantitative parameters (e.g. population size, spatial location and distance) are the most common measures utilized to determine open space access. In this regard Maruani and Amit-Cohen (2007) identified three models. These are opportunistic model, space standards model and park system model. Beyond quantitative standards, park system model emphasizes proximity to users and the variety of user experiences. Therefore, this model is the one which have high relation with quality of open public spaces because it concern about proximity and variety of users experiences which are the factors of good open public spaces and it is main focus in this paper. So the researcher believes that good planning of open public spaces has its own effect on the quality.

## **2.7. Principles to Good Quality Public Spaces**

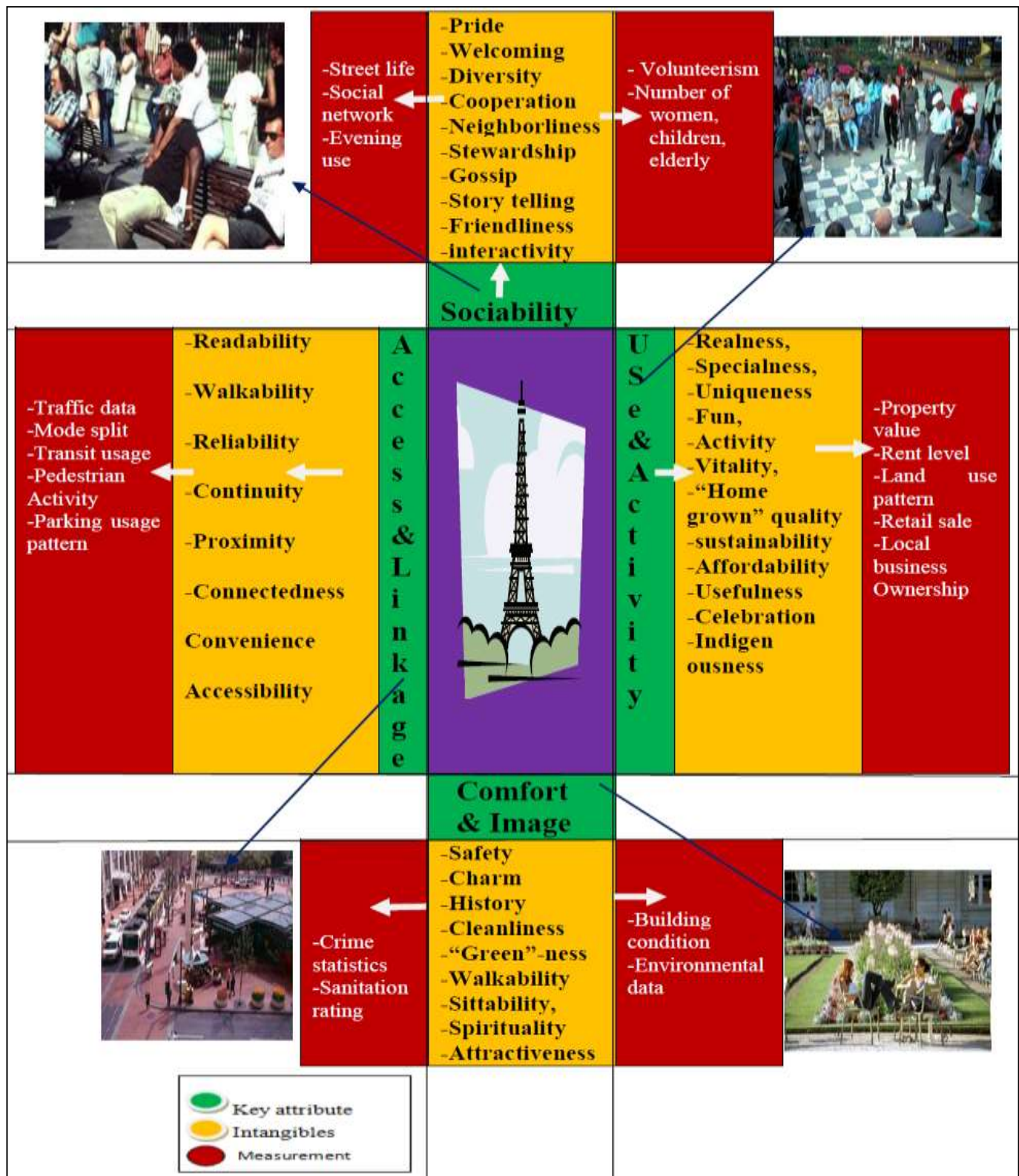
There are ten key principles to measure quality of public spaces. It is very important to know that the principles of good quality public open spaces are the destinies of urban design and planning. Hence in this study, the principles are adopted from Quality Public Spaces Sub Group: Leeds Chamber Property Forum (2008) to suggest the stakeholders after intensively evaluating study places benchmarking the principles and the quality measurements of this paper. So the principles to good quality open public space stated as providing a context and venue for social interaction, design primarily for the pedestrians, design the space as ‘an outdoor room’, create a clear and lively relationship between indoor and outdoor uses, cater for different users, provide an inclusive not exclusive place, plan a 24 hour space, Key elements must be robust and attractively designed, provide options for shade, shelter and security, not one space but many, ensure the space becomes of the existing urban hierarchy.

## **2.8. Measuring the Quality of Public Open Spaces**

Before directly going to see the measurement of quality POS, it is important to see what the scholars of public spaces expressed about quality of open public spaces. For example John Ruskin stated, a measure of any great civilization is its cities and a measure of a city's greatness is to be found in the quality of its public spaces, its parks and squares which means cities in the garden (Z.Abidin et al, 2010). In the same manner the UN habitat relates civility and open public spaces in such a way that Quality of open public spaces can lead to civilian behavior and civilized behavior can lead to quality public spaces. In agreement with other works, UN Habitat stated that public space is the banner of urban civility (UN habitat, 2015).

Qualities of open public spaces are highly related to the physical amenities, the activities, accessibility condition, the location characteristics of open public spaces and the surrounding land uses that supports the activities developed in public plaza and that will influence in their capacity to promote social interaction, livability, and comfort. (Z.Abidin et al, 2010). Studies revealed that more than 1000 urban public spaces in different countries around the world have shown that four main factors as effective factors to evaluate quality of any urban open public spaces. They are Access and linkage, Comfort and image, uses and activities and Sociability (PPS; Vahid Bigdeli Rad and Ibrahim Bin Ngah, 2014).

**Fig 2.1 Place Diagram for Judging Quality of Any Open Public Spaces**



Source: (Mathew Carmona et al. 2003 and [www.pps.org](http://www.pps.org))

Among different researchers on quality of open public spaces, PPS is an internationally known organization which developed the place diagram as a tool to help people in judging quality of any place, good or bad. The purple color in the above diagram (in which land mark is placed) is a certain public square that is available in a study town. So it is possible to evaluate that place according to the four attributes in the green box. In the yellow box next to green are an intangible of qualitative aspects by which to judge a place, the next outer red boxes shows the quantitative aspects (variables) that can be measured by statistics. These four criteria are applied in this research and details are discussed below as part of Operationalization framework in this research.

### **2.8.1. Accessibility and Linkage**

Accessibility and linkage is given due consideration in this research among the four quality of open public spaces, since the dimension of accessibility is not determined by only in quantity (per capita) but also it can be determined by proximity (distance), the variety of user experiences and other social factors as different study revealed. Therefore, as a UN habitat report implied, the potential of open public spaces to fulfill its role of equity can best be fulfilled by correcting imbalances in the supply, quality and distribution of public spaces in different sections, neighborhoods and settlements of the city/town. This is why public space surveys have to cover the whole urban area (UN habitat, 2015). According to the Project for Public Space (PPS), it is possible to judge the accessibility of a place by its connections to its surroundings, both visual and physical. A successful public space is easy to get to and get through, it is visible from a distance and up hills.

In addition to linkage, another important quality of open public space joins linear parks, road reserves, playing fields, parks, allotments, private gardens, buffer planting and surface drainage corridors. Greenways can be created to run through or alongside linear elements such as natural streams, wooded belts or canals and connects with parks and footpaths in nearby neighborhoods. These can plug into neighborhood streets that have cycle routes, reduced car levels and mature tree planting - creating a network of what the city of Vancouver calls 'Green Ways-Public Ways'. To bring this network, the 400m or 5minute walkable catchment radii focused on neighborhood focal points forms the starting principle for network design (Llewelyn-Davies, 2007).

### **2.8.2. Comfort and Image**

According to PPS, a space which is comfortable and presents itself well, that means a place which has a good image is a key to its success. Comfort includes perceptions about safety, cleanliness, and the availability of places to sit, walking and provide favorable image of community life. Comfort and image is

related to how the public space is physically arranged. As a result quality of the open public spaces can be easily recognized and attract many people to the public space.

### **2.8.3. Sociability**

This is a difficult quality for a place to achieve, but once attained it becomes an unmistakable feature. When people see friends, meet and greet their neighbors, and feel comfortable interacting with strangers, they tend to feel a stronger sense of place or attachment to their community—and to the place that fosters these types of social activities ([www.pps.org](http://www.pps.org)).

### **2.8.4. Use and Activity**

Activities are the basic building blocks of a place. Having something to do gives for people a reason to come to a place again and again. When there is nothing to do, a space will be empty and generally means that something is wrong ([www.pps.org](http://www.pps.org)). The life and the activities that take place in public space determine how space is used and for what purpose, or function, it serves. The wonderful ideas of scholar Jan Gehl indicates this in well manner how the qualities of outdoor can influences the activities of people in the public spaces (Jan Gehl,1987 as edited by Richard T.Legates and Frederic Stout 2011, p.537-538). He referred the above four qualities of open public spaces as key factors for the occurrence of three types of outdoor activities as discussed below:

#### **2.8.4.1. Necessary Activities**

Necessary activities are the things that compulsory to be done. This may include going to school, waiting for the bus, going to work, etc. These types of activities occur regardless of the quality of the physical environment because they are mandatory part of daily life that people are enforced to carry them out.

#### **2.8.4.2. Optional Activities**

Optional activities are activities that people are attracted to do when the surroundings and the place are generally inviting and attractive (for instance urban recreational activities). These activities are especially sensitive to quality. They only occur when quality is high. A Good City is characterized by many optional activities. People come to town, find the places attractive and stay for a long time.

### 2.8.5. Social Activities

Social activities occur whenever people move in the same spaces for watching, listening, experiencing other people and passive and active participation. A good city offers a wide range of attractive optional activities. As a result so many people are present in the city (social activity increased). The city becomes a lively and wonderful city.

**Fig.2.2. Graphical Representation of the Connection between Outdoor Quality and Outdoor Activities**

An increase in outdoor quality gives a boost to optional activities in particular. The increase in activity level then invites a substantial increase in social activities.

### 2.9. Sense of Place

“In addition to physical factors, urban spaces and environment include messages, signification and codes.

People decode and percept based on roles, expectations, motivations and other factors. This general sense, created in individual after judgment of a specific environment is called ‘sense of place’, an essential factor for compatibility of individual with environment and their perpetual presence, the reason of better utilization of environment, user satisfaction increase and finally their sense of belonging to the environment and its continuation. Furthermore sense of place is a factor that establishes relations between human and place and creates unity. As a result a set of environmental factors decent living, rituals, social and credence concepts impact stability and social belongingness over place and sense of place can be found in places that have distinguished character”(Mohammad Moayedi, Seyed Komeyl Salehi, Reza Kheyroddin, 2015). According to Montgomery (1998) as cited by Mathew Carmona et al, (2003) physical setting, activities, and meanings constitute the three basic elements of the identity or sense of places as illustrated below. These three basic elements in turn constitute different type of qualitative and quantitative features (Table 2.1).

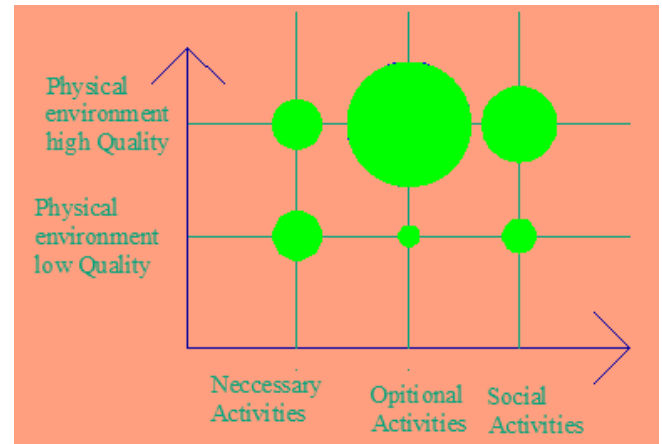




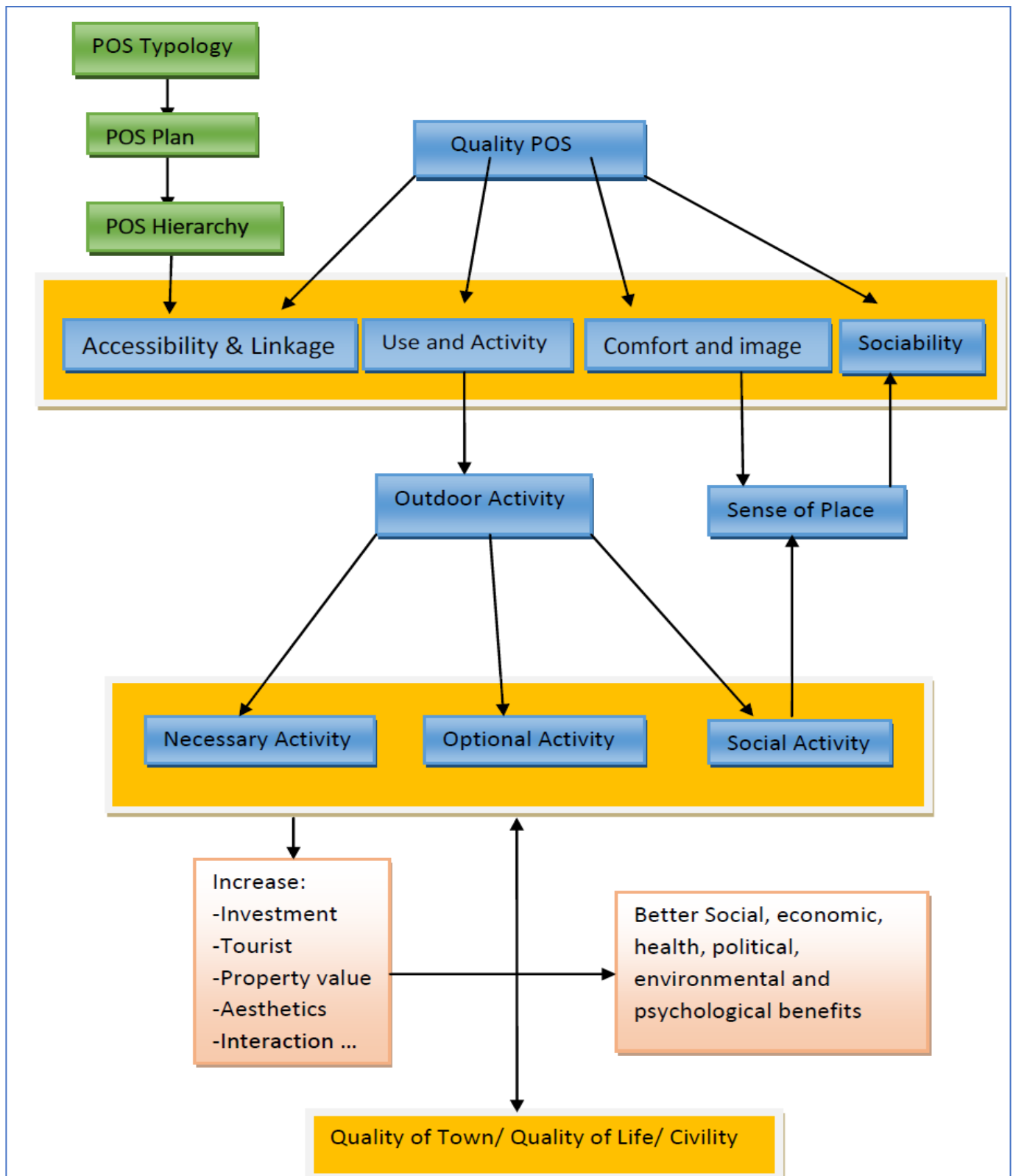
Table 2.1. The Three Basic Elements of Sense of Place

No	Activity	Physical Setting	Meaning
1	Land use	Townscape	Legibility
2	Pedestrian flow	Built form	Cultural association
3	Behavioral pattern	Permeability	Perceived function
4	Noise and smell	Landscape	Qualitative assessment
5	Vehicular flow	Furniture	
<i>Source: Carmona et al, 2003</i>			

## 2.10. The Role of High Quality Public Open Spaces:

Recently, there have been considerable rising concerns regarding the significant value of public space. The provision and the quality of public open space has climbed to the top of political and policy agendas in both developed and developing countries (CABE Space, 2004: cited in Carmona, 2010) and (Zetter & Butina-Watson, 2006: cited in Carmona, 2010). This increasing interest is a result of growing evidence of its importance to improve economic, social and environmental qualities (Woolley et al., nd: cited in Carmona, 2010). In general, Studies show that good plan of open public spaces with all typology and hierarchy is a good mechanism to fulfill the attributes of quality open public spaces and in turn the occurrence of those attributes increase the outdoor activities. Finally the occurrence of large activities in the outdoors of a city/town increases the socioeconomic, environmental, physical and psychological benefit of a town as detailed and illustrated in the following diagram that shows the theoretical framework of the study.

**Fig 2.3: Diagram Illustrating the Role and Relation of Quality Open Public Space with Quality of Town/Life/Civility (Blue color highlights in the diagram constitute the core of this research)**



Source: Schematic Diagram Developed by Researchers, 2018

## **2.11. Best Experience of Developed Countries**

### **2.11.1. Paris, France**

Paris is best known for its parks, plazas, boulevards and other civic spaces. One does not have to venture far to stumble upon a sculpture, fountain or garden in the spaces between the city's buildings. And these small green spaces delight residents and visitors lucky enough to venture upon them. As the following Figure shows, street-side fountains really enhance the built environment of Paris (Jason Byrne and Neil Sipe, 2010)

#### **Plate 2.1. Show Street Side Water-feature and Boulevard, Paris**



Street-side water-feature, Paris

Source: Jason Byrne and Neil Sipe (2010)



Paris, panoramic aerial view of Champs Elysees Boulevard.

France, Europe. © Shutterstock.com cited by UN habitat, 2013

### **2.11.2. Copenhagen, Denmark**

Copenhagen is taken as one of livable cities in the world with respected design. Scholars have cited Copenhagen as a place to emulate, especially the quality of its public realm. Copenhagen features some excellent examples of green and open spaces that complement higher density living. The city contains a wide variety of parks, plazas, walking trails, cycle routes and green streets. The city has managed to strike a balance between hard-caped civic spaces and relatively intact ecological spaces. Many of these spaces are integrated into a wider open space network that is easily accessible by public transportation (Jason Byrne and Neil Sipe, 2010).

Plate 2.2. Photos Showing Inner City Plaza and Park, Copenhagen



*Source: Jason Byrne and Neil Sipe, 2010*

### **3.The Methods**

This section discusses basic methodology employed in the research. To start with the measurement of open public spaces will be calculated from the aerial photographs, on site counting of customers, satellite images and line maps along with on-site measurements from the case study areas of open public spaces. In addition, survey, questionnaire and Interview were also be made to get in depth opinion. Observations (both overt and Covert), expert assessments and photographs will also be applied to analyze the practices of open green spaces in the study areas of Addis Ababa. The research approaches will be mixed employing both qualitative and quantitative approaches. The mixed approached helps for triangulation of data to maximize reliability and validity of the instruments.

#### **3.1. Research Approaches and Strategy**

The study with mixed approaches employs the case study strategy. The case study approach advocates the use of multiple sources of data and methods of data collection, (Yin, 1994:55). The approach to data collection tries to employ both quantitative and qualitative sources, so as to enable '*triangulation*'. The former uses open-ended questionnaire and measurements and the latter includes structured/unstructured interviews, FGDs, observations and analysis of documents including aerial photographs to evaluate the quality of open public spaces and Development in Addis Ababa

##### **3.1.1. Sample Design**

The government offices are selected from target Sub Cities to administer FGD and key informant interview. The target public offices are 1) Urban Planning Office 2) Office of Urban Greenery and Beautification and 3) Youth and Sport Office. Three focus groups from these three target public offices each with 12 participants (a total of 36 participants) comprising professionals and officials are selected for discussions. Besides, a total of 9 officials (3 from each target sites) were interviewed. On the other hand 200 participants

from each study area totaling 600 community members/residents from the inner city, the intermediate surrounding and the suburb were taken in proportion. Of which 486 participants responded and returned the questionnaire. Besides 1 FGDs in each study area (totally 3 FGD) with 12 participants totaling 36 participants are participated. Totally six FGDs each with 12 participants totaling 72 participants from the three target public offices and from the three study sub-cities have participated.

As it is clear that sample size depends on the type of research and size of population under study among other things, here Kothari Statistical Formula for unknown population in the context of the research type (hence inner city population is not yet come to be known) is used. This formula is:

$$n = z^2 \frac{pq}{d^2}, \text{ if population size is infinite or not known (Kothari 2004: 179).}$$

Where; N = Population; n = Sample size; z = Standard normal variable at the required confidence level;

p = Estimated characteristics of target population; q = 1-p; d = Level of statistical significance or margin of error

To calculate sample size researchers used characteristics of p and q to be the same for inclusion of maximum possible sample size at 5% level of significance. Accordingly sample size is calculated.

### **3.1.2.Types and Sources of Data**

In this study both quantitative and qualitative type of data are used from primary and secondary sources. The quantitative data are gathered from the government offices and through survey questionnaire. Qualitative data are collected through theoretical literatures, observations/visual survey as well as FGDs and via document analysis.

### **3.2.Methods of Data Collections**

The data collection methods were conducted in two phases. First by classification and identification of open public spaces and development in the study areas from inner to suburbs are done. Then, the residents and experts' opinion were assessed through FGD, questionnaire survey and interview. The identification, usability and classification of open public spaces were carried out in the same phase. Multiple methods of data collection were adopted in the field including customers (questionnaire Survey) at Woreda and Neighbourhood level, physical survey/measurements along with support of Google Earth & GIS/Line/Nortek Maps at (plot, block), key informant interview, visual observation/visual survey at all scales, FGD and secondary data (GIS maps, Google Images, Line maps, Nortek and Master Plan documents and Related Documents).

### **3.3.Methods of Data Analysis and Presentation**

The purpose of data analysis, in this study, is to make wise use out of the bulk of data from the fieldwork amenable to the need of addressing the research questions. This involves the examination, categorization and tabulation of the evidence. Data analysis processes started by coding, re-coding, classifying. Statistical software as SPSS and Excel are utilized. Matrix rating technique in SPSS were utilized to compare results from each case analysis in reference to identified open public space quality indicators. This is to identify the built-form type with increasing or decreasing trends of open public space quality elements in the study areas. In addition to the analysis of interviews and questionnaires; line maps, GIS and Nortek maps, photographs, aerial photos and secondary written documents were interpreted in relation to the key issues of the research questions and are incorporated as part of the case reports.

## **4.Data Presentation,Discussion and Analysis**

### **4.1. Characterization of Respondents**

The idea of public open space can be traced back to the Greek Old Civilization. For instance Agora in Greek was regarded as among prominent public open spaces which were used as a central market. From then public spaces got attention as common place to be used for different purposes in urban areas. Now public open spaces are one of significant components in the urban plan as part of urban structure. Recently Ethiopia is considering the share of public open spaces to constitute 30 percent of the total land use. Apart from ratio distribution, quality of public open space is vital to help them used by citizens. Public open spaces have a role of increasing land values and making cities livable. For instance Commission for Architecture and the Built Environment (CABE Space, 2004), pointed out that quality public spaces are among factors that characterize successfulness of neighborhoods where people want to live, work, play and invest.

Addis Ababa is among the fastest growing urban areas in the world. Since 1970, the population has increased by nearly threefold. However, the spatial expansion of the urban area has been much greater than the population growth. The earliest available *Google Earth* satellite photos (1973) indicate that the urban land area (continuous urban development) has expanded over 12 times. Thus, the urban spatial expansion has been at least four times that of the population over the since the early 1970s (*Figures 4.2*).

Since 1973, the urban population density of Addis Ababa has declined almost three quarters, from approximately 75,000 per square mile or 29,000 per square kilometer to 20,000 per square mile or 8,000 per square kilometer. Addis Ababa represents yet another example of the counter-intuitive reality of growing urban areas simultaneously becoming less dense, because population growth occurs, generally less dense periphery in an organic city but not inner city areas. It is not unusual for urban analysts to (wrongly) assume the opposite.

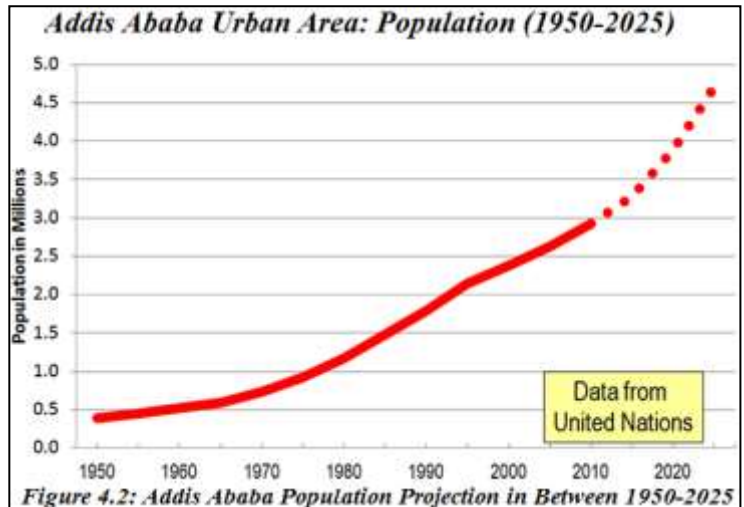


Figure 4.2: Addis Ababa Population Projection in Between 1950-2025

One of the results of the spatial expansion is a significantly better lifestyle for residents of Addis Ababa, consistent with the view of Professor Shlomo Angel, who decries attempts to constrain cities within artificial boundaries (compact city policies) because they can deny people both an adequate housing and a decent standard of living.

On the other hand, as would be expected in a developing world urban area, there is a large urban core with mixture of government and private buildings, literally surrounded by lower income, principally informal housing. With this predominant informal housing, the population density of the urban core is by far the highest in Addis Ababa

Major government offices and cultural facilities are in the inner area, such as the Parliament, the prime minister's residence,



Figure 4.3: Showing the redevelopment trend in Addis Ababa, 2013

museums, the residence of the primate of the Ethiopian Orthodox Church (Coptic), the most important cathedral, Holy Trinity, in which former Ethiopian leader Haile Selassie is buried, as well as the Catholic Cathedral and the largest Mosques.

In contrary, there's been also a huge expansion of the periphery around Addis Ababa. Extensive tours around the urban area provide evidence of relative prosperity. It appears that Addis Ababa is rebuilding itself around its urban core. There is major construction in three directions from the urban core. The greatest

activity is in the Bole District, which includes Bole International Airport, to the south of the urban core. There is a substantial amount of new commercial high-rise construction within a few kilometers to the north of the airport, along two major arterials and in between (*Fig 4.3: Photo: Bole Corridor Development*). There are also a large number of condominium buildings. The Bole Corridor represents an edge city, in the sense defined by Joel Garreau in his seminal book *Edge Cities* two decades ago. This is also the location of the largest Ethiopian Orthodox Church in the country, which is called Bole Medhanealem Cathedral.

Since Addis Ababa is socio-economic, administrative and political center for Ethiopia and Africa a need to avail quality public open spaces is not arguable. Public open spaces are among core components that could influence physical and aesthetic quality of the city. In view of core ideas discussed, this research is proposed having vital objectives associated to quality, existing situations, extent of social interactions and major activities operating in existing public open spaces in Addis Ababa. The study results are discussed below.

#### **4.1. Response Rate**

A total of 600 survey questionnaire was initially designed and distributed to respondents according to the initial plan. Of which 486 questionnaires were filled and returned back to researchers which accounts about 81 percent of the total. Only properly filled and returned questionnaires were considered for further analysis. Since the number of questionnaires returned so far is more than enough, the analysis processes and the reporting is proceeded according to the initial plan.

#### **4.2. Demographic and Socio-economic Characteristics of Respondents**

Of variety of variables that explain social and economic features of respondents, variables that may have link to public open spaces are considered. Such variables include age, gender, educational level, and so on. Details are given hereunder.

##### **4.2.1. Sex**

From the total survey participants, male are 381 (78.4) and female are 105 (21.6). Researchers do not believe that the gap between male and female is so wide due to association of public open spaces and gender. But likely the gap is due to the differences size of male and female while questionnaire was filled (Figure 4.1).



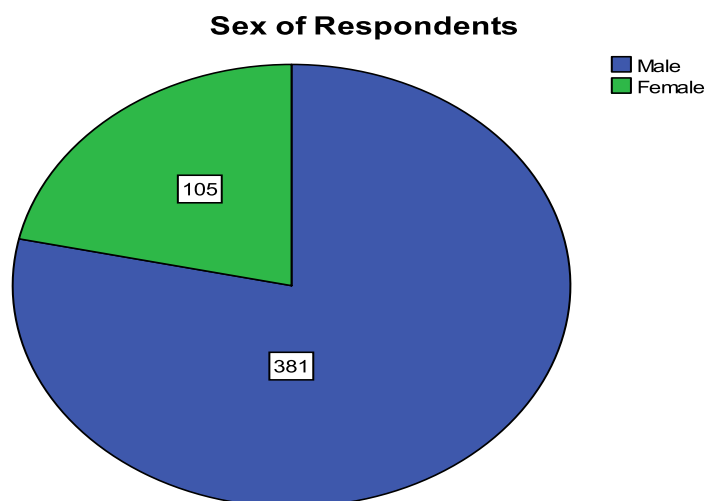


Figure 4.1. Description of Sex of Respondents

Source: Field Survey, 2018

#### 4.2.2. Age, Marital Status and Family Size

The study results have shown that about 88% of total participants are in age category of more than 25 years. Of which more than 52 participants are in age group of more than 35 years which indicates that participants are matured enough to respond questions in responsible way. Nearly 80% of the total respondents are married and only about 12% of respondents were reported as single. Share of divorced and widowed respondents is less than 10%. Family structure is among important variables treated under this study. The result has shown that about 80% of the total respondents have a family size of 6 and less which is not much deviant from census result. However about 11% of research participants reported that their family size is more than 9 which is very large compared to CSA average of the nation (Table 4.1).

**Table 4.1. Description of Selected Demographic Variables of Respondents**

Age	No.	%	Marital Status	No.	%	Family Size	No.	%
<18 Years	16	3.3	Single	57	11.7	< 3	174	35.8
18-25 Years	43	8.8	Married	385	79.2	3-6	211	43.4
26-35 Years	173	35.6	Divorced	18	3.7	6-9	45	9.3
> 35 Years	254	52.3	Widowed	26	5.3	> 9	56	11.5
Total	486	100.0	Total	486	100.0	Total	486	100.0

Source: Field Survey, 2018

### 4.2.3. Employment Status and Employing Organization of Respondents

The study results have shown that about 93% of the total respondents are employed. Of which more than 60% of employments were secured in public organizations whereas about 40 of employees are from Non-government organizations and from private sectors (Table 4.2).

**Table 4.2. Description of Employment Conditions of Respondents**

Employment Status	No.	%	Employing Organization	No.	%
Employed	450	92.6	Government	294	60.5
Not employed	36	7.4	NGO and Private Sector	192	39.5
Total	486	100.0	Total	486	100.0

Source: Field Survey, 2018

### 4.2.4. Educational Level and Estimated Monthly Family Income

Only 3% of respondents reported that they did not attend formal education and only 4% of the total respondents said that their education level is at secondary level. The fact that Addis Ababa has a number of educational opportunities, participants got different chances to improve their educational level. About 56% of respondents reported that their estimated monthly family income is between 6000 and 12000 Birr. More than 21% of the total participants told that their estimated monthly family income is less than or equally to 6000 Birr. Owing to large family size as discussed above, the estimated monthly family income is considered as low. This conclusion could be clearer if we consider the average family size of 5 and divide the stated amount into five (Table 4.3).

**Table 4.3. Description of Selected Socio-economic Variables of Respondents**

Educational Level	No.	%	Estimated Monthly Family Income	No	%
No formal education	16	3.3	< 3000	32	6.6
Secondary education	20	4.1	3000-6000	72	14.8
Diploma or TVET	140	28.8	6000-9000	80	16.5
First Degree	182	37.4	9000-12000	190	39.1
Second Degree and Above	128	26.3	> 12000	112	23.0
Total	486	100.0	Total	486	100.0

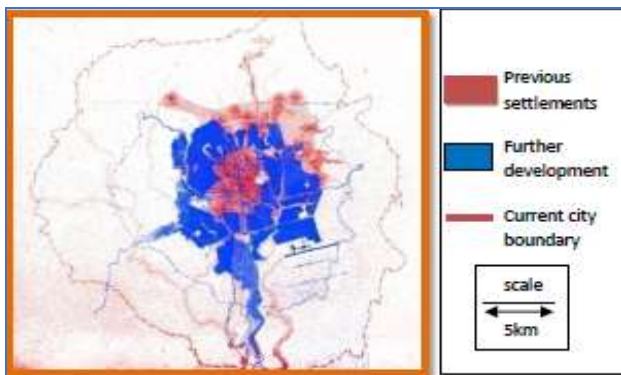
Source: Field Survey, 2018

### 4.3.Evaluation of Public Open Spaces

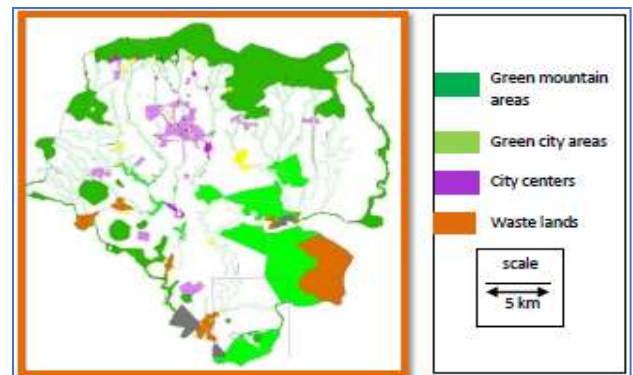
#### 4.3.1. Availability of Public Open Spaces by Current Residential Area

Availability, quality and access of public open spaces are becoming among core measures in modern urban planning efforts. For instance Ethiopia is standardizing urban planning in the cities and bigger towns of the nation as 30% of the urban space to devote for different types of public open spaces. Poor quality and presence of few open public spaces in Addis Ababa has been being commented as areas of deficits to address to bring the city to the level of world scale urban space.

Various scholarly works have shown that Addis Ababa has not yet met the standards which give it the image of an international city. The quality of urban life is not being considered in many aspects. The urban planning and design aspect has not yet given the needed priority to open public space. The new office for Urban Greenery and Beautification is very recent and does not have much of the plans and strategies lined out yet. But open public spaces including green areas, parks and urban open spaces are managed under this office. According to the master plan these spaces are categorized in to local, district and city level open spaces. Following we will briefly discuss the current situation of each type of space.



Map showing the development of the A.A of A.A



Map showing the current open public space of A.A

At the local or small neighborhood level, there are many open public spaces and green areas which are used for festivals, children playgrounds and other social activities. These places are not yet designed or planned. Some of them are left out spaces between residential houses and the ones which are distinguished as open public spaces are not managed well. Most of these places are being either sold for private investors or used as housing plots for real estates and condominiums. The exemplary areas chosen in figures above and below show that a local open public space being used by children playing on it as well as investors who are producing hollow concrete blocks. The area is in conflict between the two uses. It used to accommodate more people, but because of the HCB production taking place, it has now become a smaller place and with



Local open space with kids playing



children playing along HCB construction



HCB construction on local open space



Fenced Local open space near major street

this trend the space could disappear in the future. These kind of open spaces are left over spaces which the local people use until they are put to a “better” use. The functions that these spaces give are usually related to recreational activities. Most of their users are in the age of 5-20. They use it for the function of playing football. They also give the function of an open area for

public gathering such as religious festivals, community occasions and meetings.

The district level green areas include street sides, parks, plazas and most of the open spaces found in the center of the city. The district level open spaces are officially designated as plazas, squares, streets and parks. Currently, there are seventeen parks in the city which have their own reserved space and are considered as main places for recreation. The city parks are mainly used for weddings, graduation and other community activities. On other days, they are used by the local people for the purpose of relaxing areas, reading areas and meeting places. The management of these places looks relatively good. They are not properly managed when it comes to the use of the spaces. It is not allowed to use drugs and other kinds of addictive relaxation types in the parks. But, people use the parks for different purposes that are not legal.

This has kept the use of many of the parks to a limited number of people. Other types of services given by the parks are cafeteria and restaurant services. These are popular places of recreation in the city. The streets are used for different purposes as well. They are used as meeting places, market places and circulation. There are properly designed streets for these purposes as well as inconvenient ones.

At the wide city level, there are forest areas which are usually on mountains and are being preserved and forestation activities are being taken seriously. These areas are well managed in the sense of preservation of trees and forests. But, people do not use these areas since they are not easily accessible and do not have the necessary facilities to be used as recreational areas.

These three types of spaces are managed by different government bodies. The city is divided in to ten sub-cities. Each local, district and city level open and green spaces is managed by the local administrator depending to which sub-city they belong. Another managing body is the City Beautification and Greening bureau which is concerned with all the three and this body is directly responsible for their cleanliness and greening. Since this office is very recent, there is not much done under it. The city municipality is responsible in coordinating the different management bodies. The use of these spaces is usually controlled by the managing bodies, especially the sub-cities. They are responsible for the proper use of the public spaces. The Woreda Administration is fully involved to control, manage improve the quality of existing open public spaces

Respondents replied about availability of public open spaces as shown in the following table since availability of public open spaces is taken as starting point to evaluate other aspects of public open spaces. Research participants asked if the open public spaces are available around their residences and they reported accordingly. From total respondents, 84% of them agreed about availability of at least one type of open public spaces and only 16% of research participants said that open public spaces were not available in their residential areas. When spatial distribution is evaluated, about 34% of respondents reside in Bole Sub-city, Woreda 7, and 27% of respondents in Yeka Sub-city Woreda 8. Of which 33% and 18% of respondents confirmed availability of public open spaces around their residential areas respectively. Kirkos Sub-city Woreda 7 and 8 constitute 36% of the total participants from which 29% confirmed the presence of public open spaces around their residences (Table 4.4).

**Table 4.4. Availability of Public Open Space by Current Residential Area**

Availability of Public Open Space		Sub-Cities/Current Residential Area					Total
		Bole W. 7	Yeka W. 8	Kirkos W. 7	Kirkos W. 8	Others	
Yes	No.	162	88	89	54	15	408
	%	33.3	18.1	18.3	11.1	3.1	84.0
No	No.	4	44	3	27	0	78
	%	0.8	9.1	0.6	5.6	0.0	16.0
Total	No.	166	132	92	81	15	486
	%	34.2	27.2	18.9	16.7	3.1	100.0

Source: Field Survey, 2018

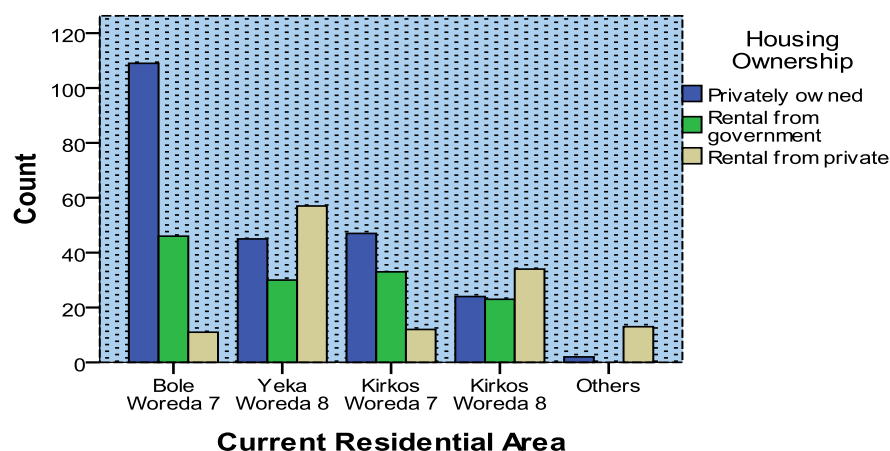
#### **4.3.2. Housing Ownership by Current Residential Area**

Housing ownership by current residential area is evaluated because residents with their own houses are believed to live longer time than those who are living rental housing. Current reality shows that renters from rental houses of government are more stable than the private ones. Therefore both with their own private houses and renters from government may have higher opportunity with relatively higher frequency to use open public areas in their residential areas. Besides the tendency to get involved in social affairs is higher for those with their own permanent residence and renters from government so that there also exist a tendency to use open spaces for common activities with the community around. The results from data analysis have shown that 74% of total respondents are living either in their houses or in rental houses from government. Of which 32% are from Bole Woreda 7, 16% from Yeka Woreda 8 and 26% from Kirkos Woreda 7 and 8 respectively (Table 4.5 and the figure 4.2). Therefore the tendency to use public open spaces is theoretically higher. However still about 26% of the total respondents are living in houses obtained from private sector in rental modality which again indicates high level of instability in choice of residential locations.

**Table 4.5. Housing Ownership by Current Residential Area**

Housing Ownership	Current Residential Area										Total	
	Bole W. 7		Yeka W. 8		Kirkos W. 7		Kirkos W. 8		Others			
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Privately owned	109	22.4	45	9.3	47	9.7	24	4.9	2	0.4	227	46.7
Rental from gov.	46	9.5	30	6.2	33	6.8	23	4.7	0	0.0	132	27.2
Rental from private	11	2.3	57	11.7	12	2.5	34	7.0	13	2.7	127	26.1
Total	166	34.2	132	27.2	92	18.9	81	16.7	15	3.1	486	100.0

Source: Field Survey, 2018



Source: Field Survey, 2018

**Figure 4.2. Housing Ownership by Current Residential Area**

#### 4.3.3. Regularly Used Public Open Spaces

Different types of public spaces were reported by respondents. The use of neighborhood park is dominant, hence it accounts for 70% share of the total. Children park accounts about 15 whereas squares account for about 10% of the total. The share of street side greenery share is very minimal, hence its contribution is only less than 5% (Table 4.6).

**Table 4.6. Regularly Used Public Open Spaces**

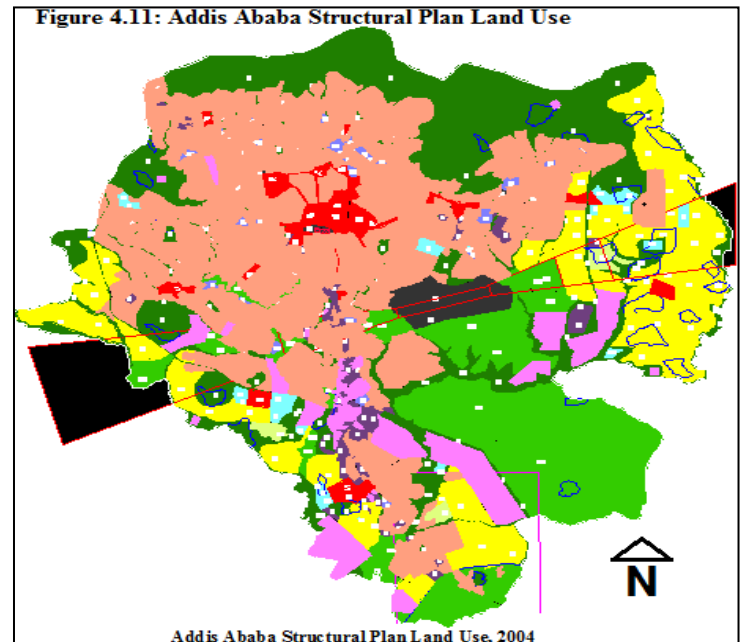
Regularly Used POS	No.	%
Neighborhood Park	339	69.8
Children Park	74	15.2
Squares	46	9.5
Street Side Greenery	20	4.1
Others	7	1.4
Total	486	100.0

Source: Field Survey, 2018

#### 4.3.4. Existing Quality, Reasons for the Current Level of Quality, the Role of Redevelopment, and Friendliness of Public Open Spaces

Quality of urban public open spaces is the reflection of provisions of the city's plan. When urban plans are well designed considering the necessary ration of public open spaces versus as forms of land use, and given that it is implemented accordingly, quality issue could easily be addressed..

The Addis Ababa master plan has been formulated in 1986 by the City Administration in cooperation with the Italian Government. The master plan focuses on various development topics such as population, agriculture, industry, transport, public amenities & utilities, housing, town and landscape. The master plan was prepared to guide the city for 20 years. The Master plan was composed of Regional, Metropolitan and Urban levels growth models. It aims at accommodating the city growth through upgrading, infill, densification and expansion. The Master Plan also has the objectives of reducing unemployment, mitigating urban poverty, augmenting service provisions and reducing adverse effects of urban activities on the natural environment (Mathewos, 2005) .



The Addis Ababa City Administration formally approved this Master Plan in 1994. It was however realized that the Master Plan could not promote the development agenda of the city given the current situation. The Master Plan had substituted by newly revised structural plan prepared by the Office for the Revision of Addis Ababa Master plan (hereafter mentioned as ORAAMP, 2004) (See Figure above). The objectives of the revised structural plan was to transform the previous Master Plan into an effective



instrument which promotes sustainable development of the city and to devise strategies and develop appropriate instrument to deal with the key urban problems and development issues. Accordingly, Norms and standards were devised as structure plan component used to design built environment to meet the international standards. The city of Addis Ababa was used to be guided initially by the intents and visions of its governors. Later a number of master plans were introduced at different times to guide the development of the city as addressed in the preceding sections. The lack of enough details to implement the master plans and the dissatisfaction with the ease of implementation of master plans gave rise to local development plans that are believed will help to realize the master (structure) plan of the city.

As the new strategy major cities in Ethiopian are guided by plan though most of plans introduce demolish the old ones and give a way for new constructions. Implementations of such plans are based on classifying the whole into different feasible local plans which are said to be Local Development Plans (LDPs). Local Development Plans are developed for the specific areas of the city and are meant to facilitate the realization of the structure plan and speed up the development of the city. *Local development plans like Renewal and Redevelopment programs* are also legal documents that have to be observed in the areas of their application. The city administration has been considered it as *vehicles to install open public spaces, green and open spaces etc so as to bring about good spatial quality open public spaces*. Local development plan (LDP) comprises different components including Renewal/Redevelopment, upgrading, new neighborhood plan and infill development.

Respondents evaluated the quality of open public spaces. About 63% of respondents said that quality of existing open public spaces was bad whereas about 34% judged them as fair both amounting 97%. Only about 3% of respondents confirmed that existing quality of open public spaces are in good condition. Poor management by government is reported as the most important contributing factor by accounting more than 60% of the responses. It was significantly reported that the community contribution was less accounting 30% of the total and reported as the contributory factor for bad quality of public open spaces. About 83% of respondents reported that redevelopment program opens opportunities for the public open spaces. Only about 13% of the respondents did not agree about opportunities for open public spaces due to redevelopment programs. In contrary, 84% of respondents did not agree about pedestrian friendliness of streets for which 12% of respondents have assessed positively (Table 4.7).

With regard to urban renewal in Addis Ababa, two approaches are practiced. These are area-wise renewal and plot wise renewal. The initiative of area-wise urban renewal comes from the City Government. In this approach, a specific area is designated for urban renewal program, as per the set criteria, and then the necessary Local Development Plans are prepared under the supervision of the Institute of Urban Planning

and Information of the city administration. As the preparation of LDPs for the designated areas are completed the process of implementing the plans will commence i.e. shifting existing residents/resettling/ and demolishing existing structures. Finally, the vacant plots are put into auction for leasing. After the winners of the respective plots acquire their plots they are supposed to start constructing the buildings as per the requirement of the LDPs.

**Table 4.7. Respondents Opinions about Existing Quality, Reasons for Current Quality, the Role of Redevelopment, and Friendliness of Public Open Spaces**

Existing Quality of POS	No.	%	Reasons for Bad Quality	No.	%	The Role of Redevelopment Program for POS	No.	%	Streets are Pedestrian Friendly	No.	%
Good Quality	16	3.3	Poor Management by Government	298	61.3	Provides Opportunities	404	83.1	Yes	58	11.9
Fair Quality	165	34.0	Lack of Attention by the Community	146	30.0	Provides Less Opportunities	65	13.4	No	408	84.0
Bad Quality	305	62.8	Not Applicable	42	8.6	Others	17	3.5	Missing	20	4.1
Total	486	100.0	Total	486	100.0	Total	486	100.0	Total	486	100.0

Source: Field Survey, 2018

This approach can be also categorized as a conventional slum clearance activity, which belongs to the first generation of urban renewal approach. As envisaged Local Development Plans show, in most cases, forthcoming activities and structures that follow from this approach are largely different from what exists, this implies a fundamental functional and structural change to the respective project areas. The other category is as opposed to area wise renewal plot-wise renewal, on the other hand takes place on the basis of private developers' initiatives. Recent information from the authorities of the urban planning institute has revealed that plot wise renewal could either follow a predetermined Local Development Plan or they are handled as per the provisions of the structure plan.

As we know, Major parts of Addis Ababa were organically grown, so that it has ambiguous figure-ground or void-solid relationships. That means the city has high shortage of proper and standard public and private open spaces. Thus, these development approaches are supposed to be the best opportunities to plan and install adequate (quantity), quality and accessible standards of quality spaces in urban areas where redevelopment programs are undertaking. That is why urban redevelopment programs as a policy and strategy that could be considered as vehicles for the development of standard and spatially organized urban spaces in the built environment so as to bring about aesthetically pleasing and quality city image.

The Addis Ababa City Administration is striving to set the strategy to revitalize/regenerate deteriorated and ill planned urban areas, urban slums and blight with poor spatial quality and has a significant role in building proper built-up density through prescription and good spatial quality appropriately in a built environment. The primary aim of urban regeneration is to address the complex dynamics of modern urban areas and their problems by revitalizing their spatial, economic, social, environmental and cultural functions. So the process starts from an analysis of urban problems. Therefore, this City Administration Regeneration program would be the best opportunity to build and install good spatial quality and built-up density thresholds in the city built environment to increase possibilities for private and communal outdoor spaces, green and open public spaces, accessibility and circulation.

Accordingly Addis Ababa has started rejuvenating deteriorated built environments through redevelopment and renewal programs however; spatial arrangements of building blocks in the neighborhoods are inadequately planned and fail to accommodate the needs of the urban community so as to bring about good quality urban spaces. This is proved through visual survey and continuous appraisal conducted by the investigator. Therefore, serious emphasis should be given to explore the issue and to improve the way of providing urban good spatial quality together with appropriate application of built-up density thresholds with respect to new urbanism concept. As the city redevelopment program is conducting, appropriate landscaping and standard open space and greenery design should never be overlooked in making sure the space usability, cross ventilation, possibility to use outdoor spaces and day light provisions in the housing settlements. We know that Ethiopia is located in the *tropics*; so that thinking about the microclimate situation is also quite indispensable.

Therefore, Good spatial quality plays a vital role in enhancing the quality of urban life and health of the community. Spatial qualities help to make neighborhoods more attractive to live in and provide opportunities for city dwellers to relax, safety and security, take exercise, play sport, and meet friends and neighbors and overall space usability. The existence of high quality urban space contributes to wider Government objectives such as improved health, more sustainable neighborhood renewal and better community cohesion, especially in more deprived communities.

#### **4.3.5. Types of Open Spaces by Frequently Run Activities**

Presumably, different open spaces attract visitors differently so that frequently run activities have variations for different types of open spaces. Study result has shown that recreation is most used activity in open public spaces, hence it 236 (49%) out of 486 respondents reported. Social activities are second ranked and reported by 165 (34%) of participants. Both social activities and recreation together account for 83% of the total.

**Table 4.8. Types of Open Spaces by Frequently Run Activities on Public Open Space**

Types of Open Space		Frequent Activities on Public Open Space				Total
		Social Activities	Recreation	Daily Walk	Cultural Activities	
Neighborhood Park	No.	130	80	66	0	276
	%	26.7	16.5	13.6	0.0	56.8
Pocket Space	No.	9	112	0	0	121
	%	1.9	23.0	0.0	0.0	24.9
Small Green Space	No.	3	7	3	0	13
	%	0.6	1.4	0.6	0.0	2.7
Play Ground	No.	3	0	0	16	19
	%	0.6	0.0%	0.0	3.3	3.9
Others	No.	20	37	0	0	57
	%	4.1	7.6	0.0	0.0	11.7
Total	No.	165	236	69	16	486
	%	34.0	48.6	14.2	3.3	100.0

Source: Field Survey, 2018

When compared with type of open space, neighborhood accounts for 57% of all activities. From which social activities with 27% of share are dominant in neighborhood and followed by recreational activities with the share 17%. Pocket spaces are also reported as significantly attracting visitors especially for recreational purposes whereby 121 (25%) out of 486 reporting using it in which the use of both neighborhood and pocket spaces account for 82% of the total (Table 4.8).

Desk review results have shown that Open Public spaces in Addis Ababa are categorized into field crop, vegetable farm, public recreational parks, riparian vegetation, plantation forest, institutional forest (mixed forest), street plantation, and grassland. Assessment of the green space of Addis Ababa based on aerial photo taken in 2011 showed that field crop constitutes about 65% of the total green space of the city covering 14578 ha of land. However, this green space has been reduced to 9835 ha in 2014; a loss of 5476 ha, largely due to conversion of the field crop land to residential (condominium) and manufacturing and storage land uses.

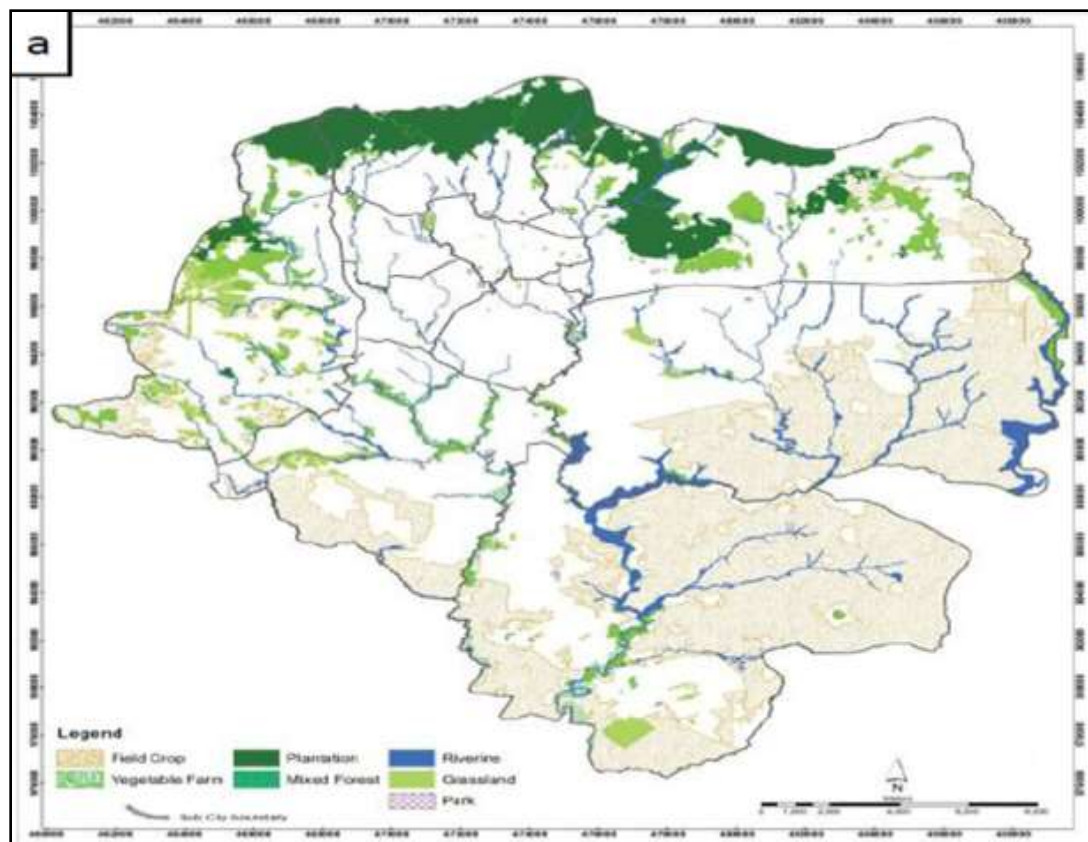


Fig 5.1(a &b): Open Green space



Map of Addis Ababa (a) in 2011 (b) in 2014

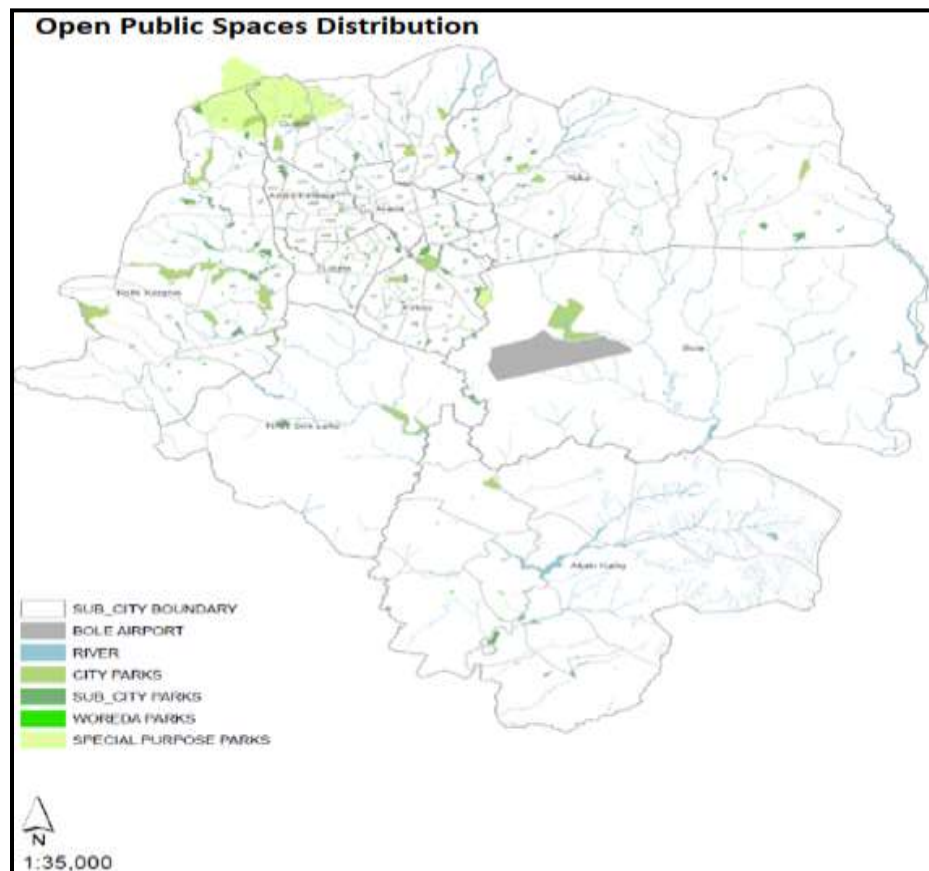


Fig 5.2: Map of open public Spaces and recreational park of Addis Ababa, 2014

According to secondary data from desk review, major types of public open spaces include:

### **Private Gardens**

Private gardens are small size green spaces located within the compounds of private houses and offices reserved for private uses. Ornamental and fruit trees and vegetables constitute this green space. The garden provides aesthetic service, provides fruits and vegetables, serve as storm water infiltration and provide shading to houses.

### **Street Trees**

These are planted trees on pedestrian roads, in road medians and road corridors. Street trees are part of the overall green spaces component of cities. Street trees provide shade to pedestrians and vehicles, increase the beauty of streetscape, mitigate air pollution, absorb carbon dioxide and emit oxygen. Street trees reduce the amount and intensity of rain water striking the ground thereby reducing erosion and storm water management costs. Street tree plantation in Addis Ababa was based on aesthetic values (beautification). However, the shade provision services of street trees are found to be more important as the climate of cities

gets increasing. Street plantation on the pedestrian roads and medians of Addis Ababa are few. Those that have been planted are not establishing and growing well because of improper site management and follow up. Tree species selection for plantation is also a problem. In several places trees planted along median create visual problem of vehicular movement thereby hindering smooth traffic flow. Many pedestrian roads are not planted with shade providing tree. Therefore, all roads with pedestrian walkway need to be planted with shade providing trees. Plantation on road medians could focus on providing beautification, shade and storm water regulation services.

### **The Case of Woreda 7 Kirkos Sub-City (Meskel Square)**

This case area chosen for this study is Meskel Square. This area is one of the selected study site. It has certain unique characters as indicated below.

- It is the first urban open space to be designed for the purpose.
- It is the only place recognized by the city administration as plaza.
- It is found in the center of the city and is easily accessible from any part of the city.
- It is the largest amphitheatre in the city.
- It is considered as the only open gathering place when the city hosts international events.

The square is bordered by a 50m wide vehicle street on the northern side, two museums on the eastern side, and an exhibition center on its southern side and a high school on its south western side. This place has a total area of 47790 m<sup>2</sup>. It has a total height of 6.7 meters from its northern to southern edge. The municipality is currently planning to build three more such spaces in three other parts of the city.



Fig 5.3: Map showing *Meskel Square* and its surrounding

I will discuss the study of the square in three sections. The first section shows the development of the square through time. This section will discuss the creation of the square and the different phases it has gone through until today related with the functions it has been used for. The second section discusses the current situation and uses of the square. In this section, there are two parts. The first part is concerned with the occasional

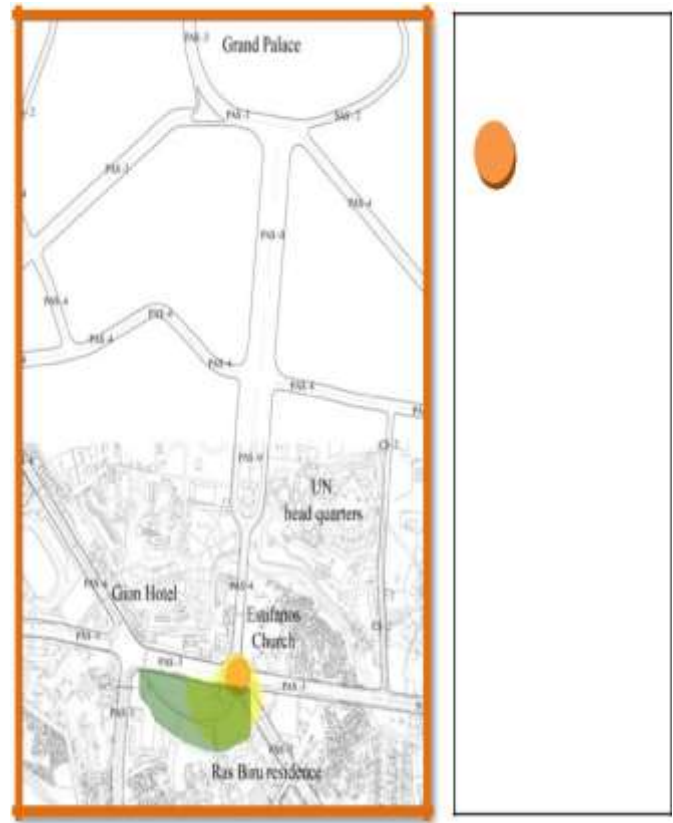


functions of the square and the second part is concerned with the day to day function of the square. The overall function of the square is discussed, interviews of the users giving first hand information on the user trend of the square is also included. The third section covers the physical analysis of the square in relation to the use of it by the public.

### Development of Meskel Square

The site of the current location of the square was given to *Ras Biru*, a royal person related to emperor Menelik II when the city was founded. As every other royal person, *Ras Biru* also lived at a higher level near this location. (Giorghis and Gerard, 2007) The place was owned by him. Thus, even at that time, the landscape had a potential to be changed in to the current shape of the square, a square with the shape of an amphitheatre. The base for the foundation of the square was the construction of the *Estifanos Church* in 1958. This church was built by Emperor *Haileselesie*. The previous church which was used by the Emperor was the *St. George church*. After the construction of the *Estifanos church*, in combination with the UN head quarters and the *Gion* international hotel, the place was a promising new center for the city. This led to finding a place near *Estifanos church* for the celebration of the

“*Meskel*” festival. (Addis Zemen, 1961) and starting from 1961, “*Meskel*” was celebrated in this space.



**Fig 5.4: Map showing the development of the Square**

Today, the square is used by the inhabitants of the city throughout the year for different purposes. As the main objective of this study, I tried to study the main functions of this space. The different functions could be categorized in to religious, political, cultural and day to day activity. The first function which is the religious function takes an important place in the usage of the square. Complying with the fact that the square was first founded for the purpose of the religious ceremony of “*Meskel*” festival and it got its name from the festival, the “*Meskel*” festival is one of the main highlights of the square every year on September 27<sup>th</sup>. The square at this time is filled with people celebrating the festival. As seen on fig 5.4, a structure is



built from dry wood and is burnt for the ceremony. Priests sing and show religious songs and dances on the ceremony. This is done on the lower flat level of the square while the people watch from the amphitheatre steps. Many tourists from all over the world come to see this festival every year. The national TV and Radio recognize this place as the main event area even though there are smaller places where the same ceremony takes place at the same time. People find this place easily accessible since it is in the center of the city. Other religious activities could take place on the square. But, these are done with special request and permission from the city administration office.

The results from interview and focus group discussants have shown that public open spaces have multiple advantages and they do have also lots of challenges. According to interview and focus group participants, said that there are many important positive return from public open spaces. These advantages include greater freedom, better conveniences for the use of specific purposes (for instance these open spaces help friends to get together and converse to each other, etc), to get together and so on. Participants have also reiterated that public open spaces are alternative spaces where there is shortage of space in home environment. Public open spaces have also good scenery compared to other. Public open spaces are places to enjoy with many people who involve themselves in different activities with fresh air. Participants have also mentioned that public open spaces are liked because they are found nearby areas for residents. Participants have also listed other important advantages of public open spaces. According to them public open spaces give chances for physical exercises which has positive implications for personal health.

Interview and focus group participants have disclosed problems associated with public open spaces. Space use conflict with other forms of land use in public open spaces is capitalized by many of participants. Besides, poor management of public open spaces is mentioned among the problems. Participants have also told that public open spaces are not safe for children and elderly people due to hard surfaces, existence of thorny plants damage cloths, and related problems. Many public open spaces are told that they are in poor condition due to lack of maintenance services. According to participants, public open spaces have problems associated to poor sanitation, lack of amenities, and problem of low attention given to historical relics.

Participants who were interviewed while they are using public open spaces discussed both advantages and problems associated with open public spaces. Opportunity for physical exercises is among many advantages mentioned by participants. Most interview participants were in age group of between 15-25 years and they come from different parts of the city. The users who exercise as professionals come to public open spaces reported that they experienced coming ones or twice a week. They usually come in weekends. These types of users have experiences of using other public open spaces for similar activities. The users who come to the space daily are the ones who live nearby. For instance the reasons given by Meskel Square users include:

- The steps of the square are convenient for runners;
- The space is wide to allow the freedom to perform different activities;
- Presence of other people on the square for similar activities;
- The square is in the center of the city which makes it accessible from many parts of the city;
- Other open spaces are being taken away for constructions; hence the square is the only choice most people have.

The problem associated to Meskel Square as the interviewees described is the low maintenance of the square. The square is not clean and the steps need maintenance as well. The other negative aspect most of them see is the conflict of land use with other users. They are in conflict with people who come to sit on the steps, people biking on the ground level and unemployed people who are seen as security risk on the square. A negative element for the users of the ground level is the hard surface of the square and the wide vehicular street beside it. On the other hand, the second category consists of people using the place for relaxation, meeting people and watching the activities on the place. People come in the morning, at noon and in the evening for this purpose. In the morning, there are more of exercising people. In the afternoon, the square is almost empty except for few homeless people sitting and sleeping on the square . At this time, the only shade on the square is from the big posters on top of the steps. In the evening many people come to the square for the purpose of relaxation.

Therefore, it is now believed that sustainability indicators for urban development should include more parameters about open public spaces, as well as indexes reflecting citizens' satisfaction and perception of their living environments. A number of challenges that confront spatial planners and/or urban designers in creating inclusive open public spaces for contemporary and future use have however been noted (See Figure below).

**Fig 5.4: Meskel Square: Physically poor Quality of Open Public Spaces but accessible**



Among others, Meskel Square has political significance because different political performances are taking place in it. Even the name of the square was what they called Revolutionary Square which means Abiyot Square and later changed to Meskel Square. Social, political, economic and cultural performances, ceremonies and occasions, etc are being hosted on the square. The yearly political festival on the square is the May 28 celebration of the ruling party signifying the day the current took power. There are also other political festivals which are mainly the gathering of people called by government officials. As has been done in previous periods, the government uses this place as a communication place with the people. Other major gatherings are during election periods. The square is used by the government as well as opposition parties during this time to pass their message to their supporters. Thus, the square has now become a symbol of democracy which is the goal of the ruling party. Other uses by government bodies of the square are done by public schools, health bureau and different bodies concerned with different aspects of social functions. Since the place is free to anyone and because of its centrality, many people use the place. Thus it has become an attractive place for the governmental bodies whenever they want to communicate with the public.

The other function is the cultural ceremonies and occasions. These functions include concerts, exhibitions and other gatherings. There are also sport occasions, like car races and athletics. Of these, the famous one is the Great Run of Ethiopia which is prepared by *Haile Gebreselasie* every year. In this race, famous athletes from around the world take part. The inhabitants of Addis Ababa as well as from other cities join the race. The starting and finishing place is *Meskel Square*. Other smaller races are also hosted at different periods by other organization. However the quality of the square is very poor as discussed earlier. Many people come here for exercises. There are those who exercise as part of professional training and there are those who exercise for recreational and health reasons. The ones who practice running use the upper part of the square which is the set of steps. They use the number of steps for estimating the distance they run. For most of them the advantage of this place is that it is challenging for the purpose of the exercise. There are also those who do gymnastics on the steps. Participants reported that they use the ground level as well. People use the fixtures like the light post for exercising purpose. Football is another type of exercise practiced on the ground level. This ground level of the square is seen divided into different groups for different types of games.

### **The Case of Kirkos Sub-City, Woreda 8 (Africa Parks)**

Krikos Sub-city is among one of the selected study sub-cities and it is privileged with modern park named as Africa Park. Though qualities of open public spaces offer a good sense of coherence and identity for those who are living in the cities to make urban life more manageable and meaningful, some of parks are

not serving such purposes because of their poor quality. Open Public Spaces are one of the important components of neighborhood landscape, which provide relief from the chaos of the built environment for residents and communities. They may offer a range of facilities (passive or active) with various opportunities for interaction with nature. According to the Green Infrastructure Standards of Ethiopia), Open Public Spaces should be linked to community pathways and sidewalks, uninterrupted by non-residential roads or other physical barriers, providing easy **access**, especially for children and senior adults, within at least ¼-½ mile service radius from residences. Open Public Spaces will be successful and responsive when they are characterized by the presence of people, in an often-self reinforcing process. That is why **accessibility**, regardless of, if it is measured in time, cost, distance, or population, is the most important variable that one must consider in the early stages of neighborhood planning and design, *which is supposed to taken as one prime indicator of quality open public Spaces.*

It could be argued that accessibility is derived from the transportation system (distance, cost or time) and the attractiveness of the activity centre. Inclusive access to high quality open public spaces is therefore a cornerstone of democracy and social equity and a central issue to make a space responsive. Various forces in society purposefully influence the accessibility order to preserve particular environments. The people who live in nearby neighborhoods' play a critical role in how those open public spaces are perceived and used as well as how well they are maintained depending on their cultural, social and economic status and overall living standard. Beside this, Municipal managers and owners of open public space have various motives for controlling activity, such as their responsibility for maintenance, liability for what may happen within the space, and concern for accessibility. While design strategies can enable and enhance both exclusion and inclusion. Therefore some attributes (comfort and image, access and linkage, uses and activity and sociability) also strengthen the access and responsiveness of open public spaces depending on the neighborhood (planned and unplanned). This study is concerned with those issues that influence the quality of open public spaces like accessibility and success of open public spaces in terms of the key physical design elements so as to evaluate the quality of open public spaces. Accordingly, Authors have tried to evaluate one of the remarkable open public spaces located beside Menelik Avenue, which has been fenced and protected for the communities' at large (*see fig 5.5 below*).

Specifically, an inaccessible open public space in the built environment gives an individual with unpleasant feeling and bad spiritual and psychological comfort and had unique geographic and poor socio-economic characteristics. Many residents living around the ***Africa Park and informants*** have expressed their view as the park is physically the remarkable open space in Addis Ababa, however, it has been faced and protected from the communities and is inaccessible. It is obvious that open public spaces have two scenarios worth noting including public open space versus space users. Otherwise it doesn't give meaning.



Few Large and small open public space facilities were largely dismissed as inaccessible when compared with the standards of open public spaces.

**Fig 5.5: Africa Park: Physically Good Quality of Open Public Spaces but Inaccessible**



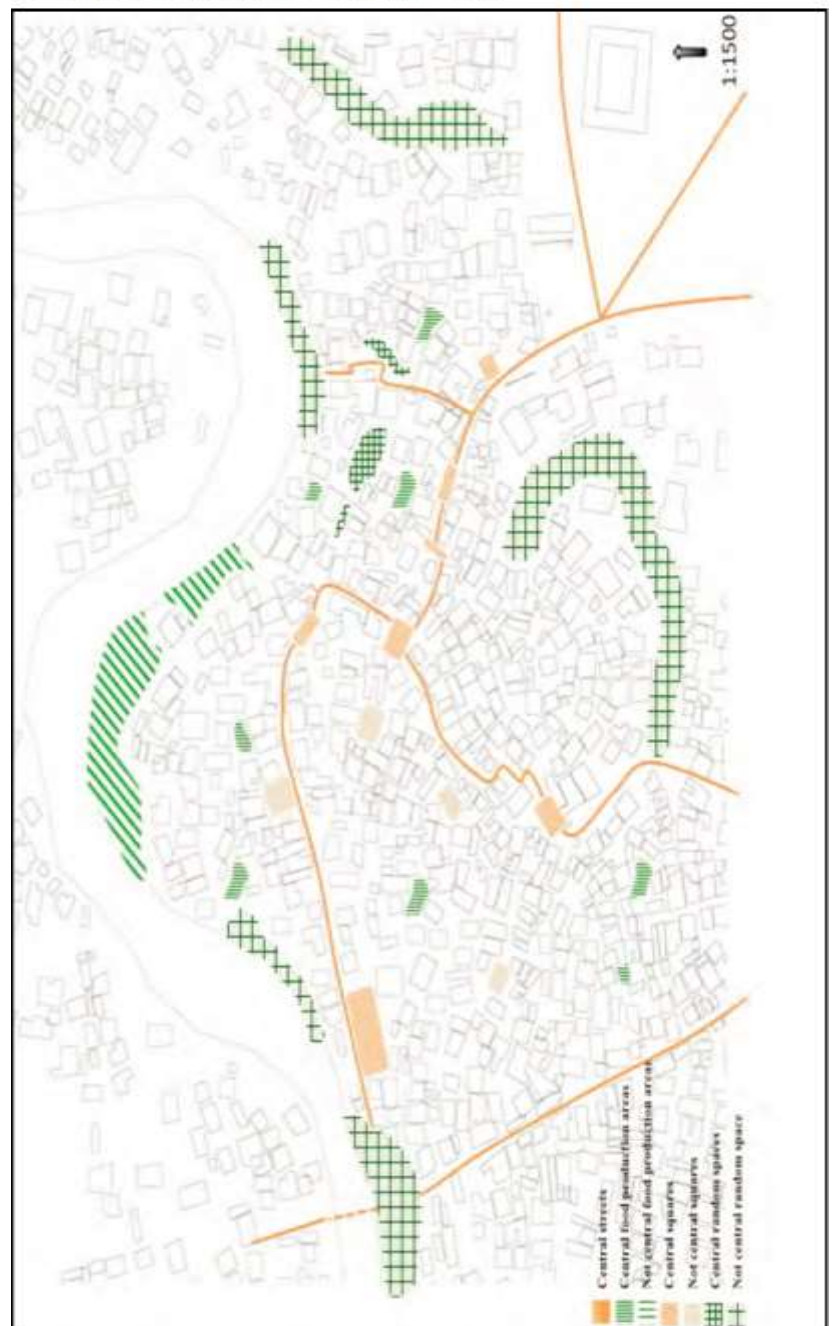
## The Case of Bole Sub-City, Woreda 7

From observations it is seen that the open public spaces in Bole Woreda 7 are in a threatened position. Over time more people have been moving to the area, and more or less every not built area that could fit the size of a house, is transformed into new houses. From casual talks with some of the local people it is explained that the incentive for having an open public space around their house is very little, so they rather sell it to someone to get some money out of it. The reimagining's only smaller open public spaces, which to a certain degree are left aside for good reasons such as being corridors. These small open spaces are in the next section reviewed and analyzed in order to find out if they have some certain characteristics associated with type, use, ownership and value for the residents in the study areas.

From space use mapping, map - and photo studies, observations, casual talks as well as from interviews, four different types of open spaces have been found in study areas. Those types I call streets, squares and random space, where each type may be divided into central or non-central areas according to spatial location. The different types of spaces are illustrated on figure above.

The overall impression of the *streets* in Bole Woreda 7, Gurd Shola is that they are public, of small scale, very narrow and made of soil and gravel. Streets can be observed in Woreda 7, as central streets or non-central streets. The central streets are marked on figure above in the color orange, the non-central streets are any other streets in the area and are therefore not marked on the map. The central streets are defined

Figure. Mapping of the open spaces in Signal Area (Master Plan, 2016)



central, as they are the centrally located main streets through the area, the streets leading one to and from the area and the streets connecting all other open public spaces in the area. Some of the central streets are having trees growing in the side of the street others are defined according to house walls or stalls.

From observations and casual talks it is found, that the spaces are used by everyone for activities such as social interaction, relaxation, economic production and shopping. It is also where the streets are wide enough for a car to pass. The central streets are linking all the non-central streets together, which are winding their way in between the houses and are too small for a vehicle or even a bicycle to pass. They are more isolated, narrower and less known by everyone. From casual talks with some locals and from the guided tour by study teams it is certain that the non-central streets are used very locally and only residents living near the streets are using them for e.g. household activities.

A third type of open space found is the *squares*, which is present on a scale between 30 m<sup>2</sup> and 100 m<sup>2</sup>. They are surfaced with soil and are framed by either houses on the sides or semi-framed with a mix of houses and trees on the sides. Therefore they are not necessarily squared in shape but are typed as squares due to their function and use. The squares are more or less public; some of them are found in the extension of the streets and are therefore central and used by the public, while others are more private and hidden. Via observations and casual talks it is found that the more public and central squares are hosting different activities. Some local people are telling that they are occasionally used for ceremonies such as weddings and funerals, as well as for trading, local meetings and gatherings.

A local woman is explaining that the public, central squares may be privately owned, but that due to the location and practical reasons such as space for ceremonies and access, everyone uses them. It is mentioned that these spaces are much used by everyone, and through informal rules, everyone knows that there cannot be developed houses here.

Other squares in the area are less central and public and more like closed private courtyards, where the households surrounding them are taking ownership of them, although they do not actually own them (figure 38). They are often quite empty only having a couple of trees sporadic standing. From observations it is seen that the more private squares are used for household activities such as cooking, dishwashing, clothes hanging, social interaction among neighbors and children's play, and when walking there you feel more unwelcome and looked at as a stranger who is in the wrong place. When talking with some of the people living next to one of the more private squares they are telling that the square is seen as an outdoor space connected to their houses.



A fourth type of open space is *random space*, which in Woreda 7 (Bole) are the spaces located on the margins of other spaces or houses and are either ignored or not intended for a specific use. In Kazanchis the majority of all open spaces seem like being random space as not many of the open spaces are planned or intentioned. It is observed that the random spaces in the area are either in the outskirts of the area or leftovers in the more central part of Bole. The spaces found in the outskirts are blurred in shape, are surfaced with a mix of soil, wild vegetation and solid waste, and the size of them vary depending on the specific area. Along the riverside there are a few random spaces used for non-organized things such as waste dumping and hang out/smoking/drinking places for young men. When asking some of non-users about the spaces, they explain that since these areas are located on the backside of the area, things are not controlled or monitored by the public, which contribute to the creation of a “free space” for not accepted activities such as dumping waste into the river. The user groups of these spaces are therefore limited to a few people and although the spaces are public, some people might feel unwelcome here, as the men hanging out here may seem a bit unaccommodating when walking by. When talking to some of the men hanging out in the area, they tell that these spaces are the only areas in Bole Woreda 7 where they can be alone and relax with their friends.

The other random spaces more central in study area are small leftovers from house construction and narrow gaps between buildings. Some of them are wildly grown with trees, grass and plants; others are empty and covered by gravel or soil. From observations it is seen that the spaces are used as narrow corridors or for children’s play. Moreover, when talking with discussants they explained that they also function as buffer zones between houses. Therefore they are kept free and public, whereas everyone can use them as they want to. For instance it is observed that some people is relaxing and finding shade underneath a tree standing in the open public space.

The central types of spaces in Bole Woreda 7 and Gurd Shola are highly valued by all the residents in the area as they function as a place to meet up with other people, act as public gathering spaces for the whole community, and function as some of the only places in the settlement with room for a lot of people and activities to gather at the same time. Therefore they are not seen as very vulnerable to be turned into new development, but as they appear now, the spaces could easily be upgraded in terms of green elements and physical condition. Only a few of the central squares and streets are vegetated and covered with trees, and the soil surface is destroyed and lack maintenance after massive amounts of water has been running there. Since the central squares and streets are some of the largest open public spaces in the area and highly used by all the residents, it would be ideal to upgrade these spaces by planting trees or making a pond. This could lower the air temperature in the area, create shady places and create space for the water to run. The local people participating in the workshop are much aware of the ecosystem service from the trees, and as they

can feel the increase in air temperature and bad wind circulation on their own bodies, they are willing to put money in upgrading the area as long as they get some help finding the right trees and guidance to the construction of the pond. Moreover, as all the central squares and streets in the area are surfaced with soil, they create an ecosystem service, where the water during flooding may accumulate, retain for a while and infiltrate into the soil.

The **central random spaces** can resemble Stanley et al.'s incidental space at intermediate level, as they are not intended for any specific use, wildly grown with trees and plants, while others are empty covered by soil. The size and shape of the central random spaces vary according to the specific place and they are constantly changing as the houses around them are converted and redeveloped. The two types of spaces are used as narrow corridors, buffer zones between houses or for children's' play, and they are therefore kept free and everyone can use them. The two types of central spaces are nearly too small to be turned into new development, but they could well become a victim of redevelopment or extension of houses located next to the spaces. However, these spaces could also act as small green patches or belts in the area, as their potential is not fully exploited. A more overlooked function is that the spaces might function as an ecosystem.

#### **4.3.6. Existing Quality of Public Open Space by Types of Open Space**

As the uses of public open spaces have shown variation, quality of public open space is also reportedly varying according to the types. According to the results, 63% of research participants reported that quality of public open spaces is bad and only 34% of participants said as fair both totally 97% which means not more than 3% of the total respondents said that existing open public spaces are in good condition. As discussed above, 57% and 25% of the total participants were reported that they were using neighborhood parks and pocket spaces both accounting for 82% of the total respectively. However 53% from 57% reported that quality of neighborhood parks as bad. From the total users of pocket spaces, 23% out of 25% reported the quality is fair. Even though majority of participants are reportedly using neighborhood parks and pocket spaces for their activities, they found that these spaces in the city are in bad quality. Most of participants reported that the these spaces are poor in their quality. The question is, if so why are they preferred to use them? In this juncture, other factors as accessibility and the like may have contributed for over use of these places. On other hand the quality of other open places are not well evaluated because they are not used by many. Therefore participants do not know about the spaces for which they were not attracted to use them. Generally speaking, though participants reported availability of certain public open spaces, the results have shown that they expressed their dissatisfaction (Table 4.9).

**Table 4.9. Existing Quality of Public Open Space by Types of Open Space**

Existing Quality of Public Open Space		Type of Open Space					Total
		Neighborhood Park	Pocket Space	Small Green Space	Play Ground	Others	
Good Quality	No.	0	0	0	16	0	16
	%	0.0	0.0	0.0	3.3	0.0	3.3
Fair Quality	No.	19	112	7	3	24	165
	%	3.9	23.0	1.4	0.6	4.9	34.0
Bad Quality	No.	257	9	6	0	33	305
	%	52.9	1.9	1.2	0.0	6.8	62.8
Total	No.	276	121	13	19	57	486
	%	56.8	24.9	2.7	3.9	11.7	100.0

Source: Field Survey, 2018

#### **4.3.7. Level of Public Participation for the Provision of Public Open Space by their Type**

Participation of community in all aspects of public works is so important to bring about the desired positive effects. The study result has shown that about 3 in 4 (75%) of respondents reported that participation is the process of provision of public open spaces is poor. In the same manner about 23% of respondents reported that community participation does not exist at all both accounting for 98% of the total share. From the result it is clear that 98% of participants reported either poorly participating or not participating in the provision of open public spaces. Even if neighborhood parks and pocket spaces are the ones used by most of participants (82%), 54% of neighborhood users and 11% of pocket space users reported poor participation of the community. Similarly 3% of neighborhood users and 14% of pocket space users reported that no community participation exist in the provision of public open spaces. The results have implied that community members participate in the provision of neighborhood parks though the participation is reported as poor. But it was reported by majority of pocket space users that community even do not participate at all (Table 4.10).

**Table 4.10. Public Participation for Provision of Public Open Space by Types of Open Space**

Public Participation for Provision of POS		Type of Open Space					Total
		Neighborhood Park	Pocket Space	Small Green Space	Play Ground	Others	
Active Public Participation	No.	0	0	0	0	8	8
	%	0.0	0.0	0.0	0.0	1.6	1.6
Fair Public Participation	No.	0	0	2	0	0	2
	%	0.0	0.0	0.4	0.0	0.0	0.4
Poor Public Participation	No.	261	53	11	19	20	364
	%	53.7	10.9	2.3	3.9	4.1	74.9
No Participation	No.	15	68	0	0	29	112
	%	3.1	14.0	0.0	0.0	6.0	23.0
Total	No.	276	121	13	19	57	486
	%	56.8	24.9	2.7	3.9	11.7	100.0

Source: Field Survey, 2018

#### **4.3.8. Respondent Given Level of Agreements about General Benefits of Public Open Spaces**

Research participants have reported about level of agreements about general benefits of public open spaces. Out of the total 486 participants, 91% of them expressed their agreement of which 69% with agreement and 22% of participants with strong agreement respectively regarding benefits of public open spaces for walking purposes. The figures for level of agreements regarding benefits of open public spaces in respect to serving for the purpose of outdoor activities is 80% agreement and 17% strong agreement where combined giving value of 97% of the total. Following similar pattern the figures to help converse with family are 82%, 7% and 89% respectively. The values to help maintain privacy are reported as 12% for agreement and only 2% for strong agreement both constituting only 14% of the total. This indicates that about 86% of participants expressed their disagreement regarding the value of public open spaces to serve privacy purposes. Therefore it is suggestive that the purpose of open public spaces is not to serve privacy purpose. Participants go to open public places in search of new information. Participants given level of agreements to help get new information are 24% for agreement and 70% for strong agreement totaling 94% agreement which means only 6% of participants expressed their disagreements. Individuals do also go to open public spaces just to change their home environment. In this regard a total of 84% of total participants reported about their agreement (70%) and strong agreement (14%) respectively. Out of the total 86% of research participants reported their strong agreement about the benefits of public open spaces for tourist attractions (Table 4.11).

**Table 4.11. Level of Agreement of Respondents about General Benefits of Public Open Spaces**

Level of Agreement	Walk		Outdoor Activities		Converse with Family		Privacy		Get New Info		Change Home Env		Attract Tourists	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
SD	...	...	19	3.9	13	2.7	391	80.5	12	2.5	42	8.6	9	1.9
D	19	3.9	...	...	...	...	27	5.6	...	...	9	1.9	40	8.2
ND	4	.8	...	...	40	8.2	1	.2	19	3.9	1	.2	20	4.1
A	334	68.7	387	79.6	399	82.1	59	12.1	116	23.9	341	70.2	...	...
SA	109	22.4	80	16.5	34	7.0	8	1.6	339	69.8	93	19.1	417	85.8
Total	466	95.9	486	100.0	486	100.0	486	100.0	486	100.0	486	100.0	486	100.0
MV	20	4.1	...	...	...	...	...	...	...	...	...	...	...	...
Total	486	100.0	...	...	...	...	...	...	...	...	...	...	...	...

Source: Field Survey, 2018

Key: SD, D, ND, A, SA, MV denotes Strongly Disagree, Disagree, No Difference, Agree, Strongly Agree and Missing Value Respectively

#### 4.3.9. Respondent Given Level of Agreements about Personal Benefits of Public Open Spaces

Similar variables with general benefits are evaluated for personal benefits of public spaces. Accordingly a total of 95% from the total participants reported that public open spaces have personal benefits with 27% agreement and 73% strong agreement respectively. From the total 56% of research participants reported their agreement about personal benefits of public open spaces. In this regard significant number of participants (46%) did not give agreement about personal benefits of public open spaces in respect to benefits for walking. The study result has shown that conversation with family is not important purpose to visit public open spaces, hence 43% of them expressed strong disagreement and 46% of them indifference or neutrality both accounting for 89% which in turn means only 11% of the total participants expressed their agreement about personal benefits of public open spaces in regard to conversation with family. However in contrary the value of public open space is so important to help conversation with friends. In this regard 14% of participants have reported their agreement and 82% have told their strong agreement both totaling 96% of the total. Getting fresh air is among most important benefits reported by participants for them to visit public open space. Accordingly, 26% are agreed and 70% have strongly agreed whereby combined agreement signifies 96% of the total participants. Out of the total, 90% of the total participants have reported that tourist attractions are among personal benefits related to public open spaces. Astonishingly almost all (99%) of research subjects have reported that personal benefits from public open spaces are associated to getting new information. Changing home environment as a purpose to go to open

public spaces is agreed by a total of 91% of total participants with 9% agreement and 82% strong agreement respectively (Table 4.12).

**Table 4.12. Level of Agreement of Respondents about Personal Benefits of Public Open Space**

Level of Agrax	Relax		Walk		Converse with Fam		Converse with Friends		Get Fresh Air		Attract Tourists		Get New Info		Change Home Env	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
SD	...	...	...	...	207	42.6	...	...	...	...	20	4.1	3	.6	23	4.7
D	...	...	...	...	...	...	20	4.1	...	...	25	5.1	...	...	...	...
ND	...	...	212	43.6	223	45.9	...	...	24	4.9	3	.6	...	...	20	4.1
A	132	27.2	274	56.4	...	...	67	13.8	124	25.5	420	86.4	389	80.0	43	8.8
SA	354	72.8	...	...	36	7.4	399	82.1	338	69.5	18	3.7	94	19.3	400	82.3
Total	486	100.0	486	100.0	486	100.0	486	100.0	486	100.0	486	100.0	486	100.0	486	100.0

Source: Field Survey, 2018

Key: SD, D, ND, A, SA, denotes Strongly Disagree, Disagree, No Difference, Agree, and Strongly Agree Respectively

#### **4.3.10. Respondent Given Level of Agreements about the Value of Open Public Spaces for Development of Addis Ababa**

Research subjects have reported that public open spaces have multiple advantages for the development of Addis Ababa. Out of 486 respondents, 81 (17%) and 385 (79%) expressed their agreement about the positive value of open public spaces for the development of Addis Ababa. Similarly participants have shown their agreement about the value of open public spaces for the development of Addis Ababa City by way of reducing wastage of land resources. Accordingly 53 (11%) and 413 (85%) of participants reported their agreement and strong agreement about the value of public open spaces in reducing wastage of land resources. Those who told about the contribution of public open spaces for the economic development by expressing their agreement and strong agreement are 362 (74.5%) and 124 (24.5%) respectively. Similarly 384 (79%) and 102 (21%) of participants have shown their agreement and strong agreement in respect to the value of public open spaces in enhancing tourist attractions respectively. The agreements are confirmed, hence 44% expressed their disagreement and other 44% their disagreement both amounting 88% for the question asked about if public open spaces have nothing to do with development of Addis Ababa (Table 4.13).

**Table 4.13. Level of Agreement of Respondents about the Value of Open Public Spaces for the Development of Addis Ababa City**

Level of Agreement	Improve Overall Env		Reduce Wastage of LR		Contribute for Econ Dev		Enhance Tourist Attractions		Nothing to do with Dev	
	No.	%	No.	%	No.	%	No.	%		
SD	...	...	...	...	...	...	...	...	216	44.4
D	...	...	...	...	...	...	...	...	215	44.2
ND	20	4.1	20	4.1	...	...	...	...	...	...
A	81	16.7	53	10.9	362	74.5	384	79.0	16	3.3
SA	385	79.2	413	85.0	124	25.5	102	21.0	39	8.0
Total	486	100.0	486	100.0	486	100.0	486	100.0	486	100.0

**Source: Field Survey**

Key: SD, D, ND, A, SA, LR denotes Strongly Disagree, Disagree, No Difference, Agree, Strongly Agree and Land Resource Respectively

#### **4.3.11. Respondent Given Ranks about the Elements Most Liked Related to Housing**

Research participants have expressed their perception level about what elements of housing they most liked, medium liked and least liked related to housing. When participants asked about the plot size, almost half of them said that they most liked and about half of them expressed that they least liked about the plot size. From the total participants, 48% of them most liked plot size of housing component. Equally important is 47% of participants have said that plot size is least liked by them. Participants reported that 80% of them least liked outdoor space of housing component. Regarding cross ventilation, 84% of the total participants reported that cross ventilation is least liked this component of housing. Regarding privacy aspect of perception of respondents, 83% total participants expressed that they least liked this component of housing. As to Security aspect of housing, 78% of participants said that they least liked it. Similarly 85% of participants mentioned that they least liked this component of housing. In the same manner, 75% of participants expressed that they least liked accessibility component of housing. The research study has shown that research participants least liked almost all aspects of housing elements which indicate about the quality of public open spaces (Table 4.14).

**Table 4.14. Respondent Given Ranks about the Elements Most Liked Related to Housing**

Perception of Respondents	Plot Size		Outdoor Spaces		Cross Ventilation		Privacy		Security		Social Interaction		Accessibility	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Most Liked	234	48.1	72	14.8	54	11.1	54	11.1	99	20.4	48	9.9	94	19.3
Medium Liked	18	3.7	18	3.7	18	3.7	19	3.9	...	...	18	3.7	18	3.7
Least Liked	226	46.5	388	79.8	406	83.5	405	83.3	379	78.0	412	84.8	366	75.3
Total	478	98.4	478	98.4	478	98.4	478	98.4	478	98.4	478	98.4	478	98.4
Missing	8	1.6	8	1.6	8	1.6	8	1.6	8	1.6	8	1.6	8	1.6
Total	486	100.0	486	100.0	486	100.0	486	100.0	486	100.0	486	100.0	486	100.0

Source: Field Survey, 2018

**4.3.12. Respondent Given Ranks about the Elements Most Disliked about Neighborhood**

Respondents told researchers about their impression regarding neighborhood. These elements of comparison are density, accessibility, shopping facilities, drainage, green space and travel distance. As it can be examined from the following table, almost all components are assessed negatively hence respondents said that these components are least liked. Out of total participants, 88% of them least liked the density thinking that the density is higher than required. Poor accessibility and absence of shopping were least liked by 65% and 85% of the total participants respectively. This shows that accessibility is somehow better than other components. Drainage problems, absence of green open spaces and long travel distances were reported by many as they least liked these components. These elements of neighborhood are least liked by 69%, 80% 82% of research participants which calls for a need to address such neighborhood elements (Table 4.15).

**Table 4.15. Respondent Given Ranks for the Elements Most Disliked about Neighborhood**

Level of Disliking	High Density		Poor Accessibility		Absence of Shopping		Drainage Problem		Absence of Green Open Space		Long Travel Distance	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Most Liked	38	7.8	129	26.5	55	11.3	110	22.6	61	12.6	56	11.5
Medium Liked	428	88.1	19	3.9	...	...	22	4.5	18	3.7	19	3.9
Least Liked	466	95.9	318	65.4	412	84.8	337	69.3	388	79.8	400	82.3
Total	20	4.1	466	95.9	467	96.1	469	96.5	467	96.1	475	97.7
Missing	486	100.0	20	4.1	19	3.9	17	3.5	19	3.9	11	2.3
Total			486	100.0	486	100.0	486	100.0	486	100.0	486	100.0

Source: Field Survey, 2018



#### **4.3.13. Respondent Given Responses if They Have Intention to Move from Current Location of Settlement**

More than 72% of respondents told researchers that they do not have intention to leave their current settlement area for other places. However about 28% of them said that they have intention to move other places from their current settlement area (Table 4.6).

**Table 4.16. Respondent Given Response if They Have Intention to Move from Current Location of Settlement**

Intention to Move	No.	%
Yes	135	27.8
No	351	72.2
Total	486	100.0

Source: Field Survey, 2018

#### **4.3.14. Respondent Given Responses if Crime is Associated with Poor Neighborhood Quality**

More than 62% of research subjects reported that they perceive association between crime poor neighborhood qualities. This may be because poor neighborhood quality attracts different individuals or groups with deviant behaviors, hence the security system, infrastructure, social cohesion, accessibility, etc are poorly availed, organized and managed in poor neighborhood. However about 38% of respondents do not agree with this proposition likely thinking in a way that crime even may take place in high quality neighborhood due to other factors.

**Table 4.17. Respondent Given Response if Crime is Associated with Poor Neighborhood Quality**

Crime is Associated	No.	%
Yes	303	62.3
No	183	37.7
Total	486	100.0

Source: Field Survey, 2018

#### **4.3.15. Respondent Given Opinions about the Importance of Public Open Spaces**

According to research participants, public open spaces are more important than other social services. From a total of 486 participants, 385 (79%) of them said that public open spaces are more important whereas some 14% of the total participants said that other social services are more important than public open spaces. Only 3% of participants said that other social services and public open spaces are equally important. This

indicates that a lot has to be done to avail public open spaces for the communities in their respective neighborhoods (Table 4.18).

**Table 4.18. Respondent Given Opinions about the Importance of Public Open Spaces**

Importance of Public Open Spaces	No.	%
They are Equally Important	13	2.7
Other Social Service are More Important	69	14.2
Public Open Spaces are More Important	385	79.2
Missing Values	19	3.9
Total	486	100.0

Source: Field Survey, 2018

#### **4.3.16. Components of Good Quality of Neighborhood**

Participants were asked to compare different components of good quality of neighborhood. Presence of public open spaces got highest score (67%) followed by good physical structure and their arrangements (23%) as a good measure of good quality of neighborhood. Other components like provision of adequate social infrastructure (4%), and absence of solid and liquid wastes (3.3) and less or absence of crime in the neighborhood (2%) got less scores compared to the previous ones. This tells us that presence of public open spaces is critically important though good physical structures and their arrangements are good measures for good quality neighborhood (Table 4.19).

**Table 4.19. Components of Good Quality of Neighborhood**

Components of Good Quality Neighborhood	No.	%
Presence of Public Open Spaces	325	66.9
Good Physical Structures and their Arrangements	112	23.0
Provision of Adequate Amenities	4	0.8
Provision of Adequate Social Infrastructures	20	4.1
Less or No Crime in the Neighborhood	9	1.9
Absence of Solid and Liquid Wastes	16	3.3
Total	486	100.0

Source: Field Survey, 2018

#### 4.3.17. Respondent Rated Opinions about Quality of Public Open Space in Their Neighborhood

Participants of interview and focus group discussants have given information about quality of public open spaces in their neighborhood. The fact that there exist many measures of quality, certain variables related to quality elements are discussed based on opinions from discussants and survey respondents. Of which ground coverage or built-up area ration customarily named as BAR are among important components measure of quality of public open spaces.

As illustrated on the figure 5.11 below, the percentage of ground coverage in the study neighborhood is overwhelmingly above 85% that means the ground coverage from 81 to 90% consisted major proportion of the study settlement, highly occupied by dense built-forms. The figures 5.10 and 5.11 also unveil that the existence of close distance between housing structures and high ground coverage, there are no outdoor spaces to children to play, no amenities, and family members to recreate in the greenery spaces around the building structures. It would create difficulties for the provision of amenities in the plot, parking spaces;

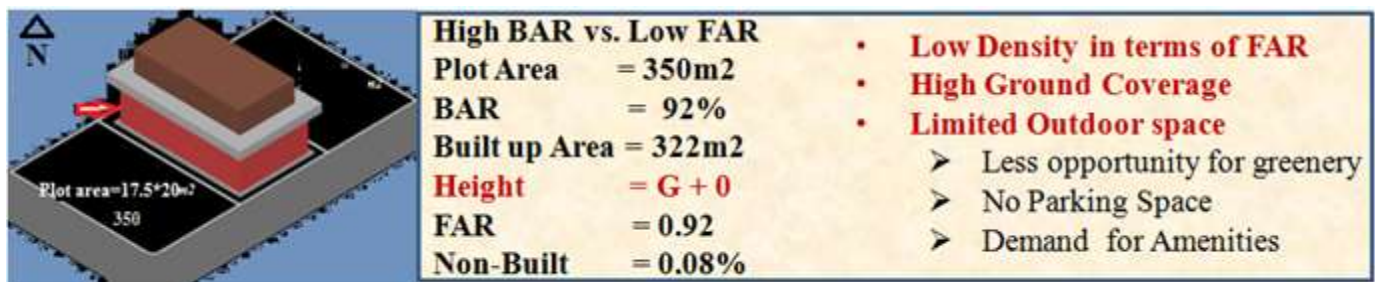


Figure 5.10: Typical Example of high Ground Coverage exceeding the thresholds, no spaces for outdoor, amenities

finally it exerts severe challenges in the private quarters and shortage of quality urban spaces in the neighborhood. (Also refer Fig-5.10: Existing Morphological layout)

It is also important to note that Ground coverage has been used as a measure of spatial coverage of buildings. It provides a sound basis for analyzing “mass” of built spaces in relation to size of plots. Due to the rapid rate of the on-going piecemeal redevelopment processes coupled



Figure 5.11: Morphology shows high ground coverage

with laxity in development control many buildings have been built beyond recommended coverage (<50%)

(Refer figure 5.11). Ground coverage of up to 110% has also been observed. This means that buildings in those plots have been built beyond plot boundaries therefore blocking partly or wholly all sides, front and rear set-backs. Measurements and observation studies in the same blocks for the year 2014 reveals increasing trends in coverage as indicated in the figure 5.11 above.

On the other hand, the ground coverage in Woreda 8 Yeka Sub-City indicates that only 1 out of 26 buildings in Woreda 8 Yeka Sub-City conformed to the building requirements of 50% plot coverage or not exceeding 50%. Although it is understandable that there is need of maximizing the use of land especially in prime areas like Woreda 8 Yeka Sub-City, excessive ground coverage caused by building extensions and reconstruction of buildings often compromise livability attributes discussed so far. Since many houses have exceeded the recommended (<50%) ground coverage, in case of fire accident in one building it is likely to spread to the adjacent ones due to inaccessibility and absence of spaces for circulation.

However, it is important to underline here that although spatial qualities may be viewed to deteriorate as a consequence of excessive ground coverage in Kazanchis. It also points out to the discussion on trade-off between high density and optimal use of land and facilities. In hot humid tropical climatic areas like Addis Ababa, the idea of (<50%) ground coverage was in response to the requirement for enough space between buildings that would allow adequate ventilation and lighting. Although the traditional type of house in Addis Ababa has been criticized on its double-banked design as blocking cross ventilation, the same house type provided adequate spaces for outdoor living and shared outdoor space for the households in the house compared to the new high-rise condominium houses. Besides the fact that the newly developed few multistory condominium houses in Woreda 8 Yeka Sub-City provide ample spaces for residential, and mixed use functions with increased density and therefore optimizing use of prime land, their quality in terms of comfortable living have been relatively increased relatively in spite of some limitations.

As already being explained in the review, “the concept of ground coverage was frequently used to express the relationship between built and non-built land, or used the figure-ground analysis to visually represent coverage as the distribution of (built) mass and open space. It has also been used this representation to decode two opposite doctrines at the core of modern and traditional planning: the first an accumulation of solids in an endless floating void, the other dominated by mass and cut through by voids.” Accordingly, the analysis result shows that the built-form in this study area before 1980s has been low percentage of ground coverage (BAR) whereas the percentage of ground coverage after 1980s to 2014 has been highly increased and the built-form is absolutely changed. The situation leads to poor quality of urban spaces through indiscriminate application of density particularly, built-up density in the built-environment.

As it has been also addressed in the review, the coverage measure was applied to limit the negative effects of solid urban patterns. Ground coverage was actively used even earlier in planning. Here the coverage was restricted to a maximum of 50 percent of the lots to guarantee good hygienic conditions. Therefore, ground coverage is used in zoning plans to regulate maximum utilization of an area in the residential neighborhood. As stated above, in hot dry & semi-humid tropical climatic areas of Addis Ababa, the idea of 50% plot coverage (BAR) was in response to the requirement for enough space between buildings that would allow adequate ventilation and lighting as well as amenities. It is also important to note that the same house type provided adequate spaces for outdoor living and shared outdoor space for the households in the house compared to the new high-rise houses like condominium developments in the residential neighborhood.

Besides the fact that slowly developing new multi-story houses (condominium) in Woreda 8 Yeka Sub-City provide ample spaces for building residential, mixed residential and institutional functions with increased density and therefore optimizing the use of prime land, their spatial quality in terms of comfortable living have been relatively reduced due to inappropriate application of density/ in built-environment resulting high ground coverage/BAR/ and high floor area ratio/FAR/ built-form pattern, which facilitates less possibilities for the provision of green and open spaces, outdoor spaces, poor access to daylight and ventilation as well as it contributes to incidence of crime in terms of safety and security in the built-environment. This circumstances in hot-dry and humid climatic zone would cause harsh living condition for the inhabitants. Comfortable living refers to the fact that due to the hot and humid climatic conditions rooms have to be provided with mechanical cooling devices so as to ensure comfort through extreme cost that low income inhabitants cannot afford. Therefore, the analysis results indicates that there are drawbacks in creating possibilities to have natural ventilation and access to daylight through proper design of built-up density thresholds (BAR: <50%) on the basis floor area ratio/FAR: >2.0). Interviews with residents of Woreda 8 Yeka Sub-City indicate varying opinion with respect to quality of residential neighborhood, the results of the interview, which responded.

Although the above results can be considered subjective owing to the varying value systems different respondents attach to the different elements of a house, yet it provides some insights worth commenting upon. People seem to be most concerned and dissatisfied with the issues of privacy, safety & Security, absence of green and open spaces, dust, inadequate outdoor space, and poor access to daylight and ventilation. Most of the plots are covered by building structures and most residents in majority in low-rise and minority in high-rise buildings expressed dissatisfaction with lack of outdoor space for their children to play. Especially, this is due to the fact that the new high-rise buildings also lack courtyards where available such courtyards have not been designed to function as communal outdoor spaces for living and

for children to play. The question of lack of cross ventilation is rather related to the observed high ground coverage's that lead to blocked ventilation due to absence of building exposures as addressed in plot characteristics above. As commented earlier, the issues of noise and dust are a result of poor road surface conditions in this part of Woreda 8 Yeka Sub-City and the many street activities that take place outside the housing environment. It is indicative therefore that high plots coverage (high ground coverage) (BAR) has broadly contributed to dissatisfaction among residents as far as spatial qualities of urban spaces are concerned in the residential neighborhood.

In fact, BAR or percentage of ground coverage can be said to be a better standard with which to distinguish the spatial differences of this case study neighborhood. However, a part of Plan of Addis Ababa has similar BAR values although the spatial characteristics are remarkably different. The land use plan of the city is composed of small blocks with low rise housing and little public space. Plan of Woreda 8 Yeka Sub-City is composed of rather small blocks with low-rise buildings of one to three storey's, few medium and high-rise buildings and narrow streets. The Author underlines from this that ground coverage is very important design aspects of built-up density together with floor area ratio/FAR in order to determine spatial quality of residential neighborhood, which has weak and haphazard relation to urban patterns of built-forms in this particular study built-environment. In addition to the above quality neighborhood elements, it is the trade-off of negative and positive aspects that will result into densities and the fact that the results of this trade-off have to be socially acceptable by people. When residents of Kazanchis were asked to assess their settlement, the majority expressed discontent with issues of security, outdoor open spaces, circulation spaces and many pointed out the aspect of built-up density.

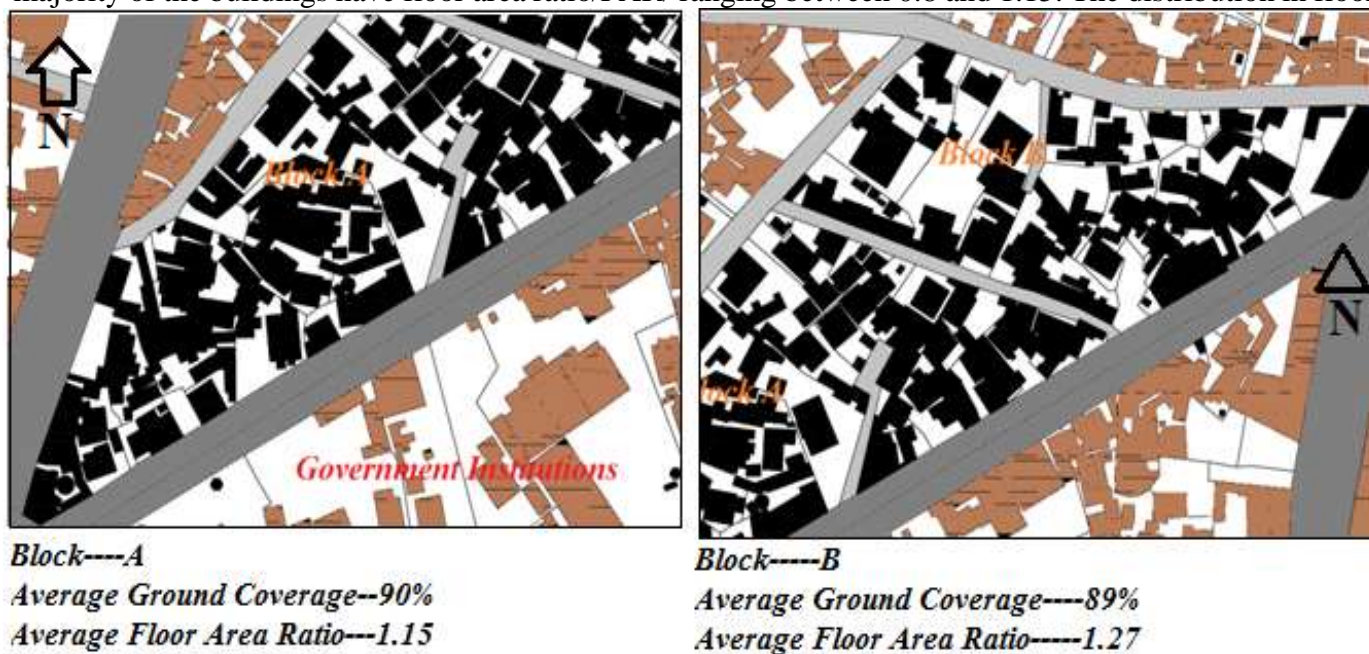
Dissatisfaction with security case has to be related frequent incidence of crime in the area with the kind of activities that take place in Woreda 8 Yeka Sub-City. The congested streets with street vendors and hawkers have resulted into pick-pocketing and other vices. Poor drainage is also a result of increased ground coverage with a poor drainage system resulting in storm water stagnation along the streets. The water supply issue is related to an overloaded system that is old and can no longer suffice the present requirements. Water rationing is frequent in Woreda 8 Yeka Sub-City and water does not reach the upper floors of the newly developed high-rise condominium buildings i.e. in few newly built condominiums housing due to low pressure. Despite the fact that dense environments are desirable in terms of optimal uses of land and services, residents in Kazanchis point to some problems of increasing built-up density (BAR) when this built environment is not properly managed. So, the residents are highly perceived the impact of built-up density in terms of high ground coverage on spatial quality of the settlement to design and plan proper



greenery and open spaces, safety & Security, circulation and mobility, amenity, possibility to outdoor spaces, access to day light and ventilation.

### **Total Floor Area Ratio (FAR) and Open Public Spaces**

Since floor area ratio takes into consideration the height of buildings, it has been frequently used as a tool to regulate built-up density and townscapes or skylines. It has also been used as a tool for formulating space standards for central functions of cities. Two levels have been examined in terms of floor area ratio. The first is at plot and second is the at block as well as neighborhood level. Detailed measurements of floor area ratios at plot level in Kazanchis show some kind of pattern of built-form that is not evenly distributed. The majority of the buildings have floor area ratio/FAR/ ranging between 0.8 and 1.15. The distribution in floor



area ratios for Kazanchis is as summarized in figure above.

The figure 5.12 unveils that the highest frequency in ratio of 0.50 to 1.00 is related to the many single storey houses that are dominant in this area. This floor area ratio is high especially when single storey houses are considered. The high frequency within this range is associated with high plot coverage as noted in the preceding discussion. The kind of even distribution in floor area ratio indicates that buildings have differing heights since plot size in this area does not vary considerably. With the exception of the few condominium building that has 5 storeys, many of the buildings have a heights varying from one to three storeys, when floor area ratio is considered at a block level, thereby including half the width of the surrounding streets.

When floor area ratio at plot level is taken into consideration, the overall result is as high as 1.15. The high floor area ratio is a result of high-rise buildings constructed within the blocks but also the high ground coverage from the low-rise buildings. Apart from the few undeveloped plots in the blocks and an open space

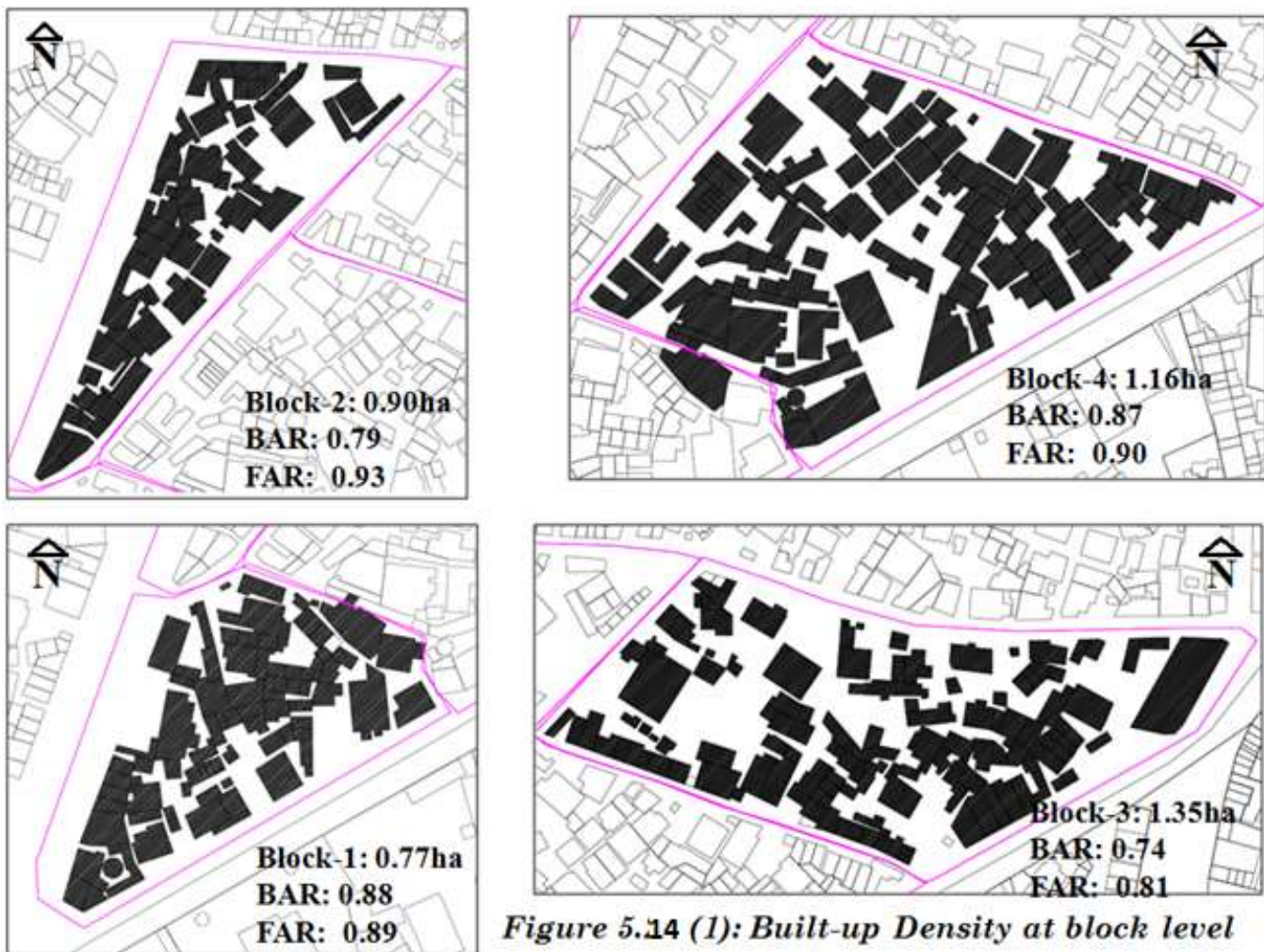
along Kazanchis Street space there are no spaces between buildings that can act as ‘lungs’ to the compact layout with high-rise buildings further blocking ventilation and lighting as a kind of poor spatial quality indicators.

Figure 5.13: Floor area ratios & ground coverage for blocks in Kazanchis. Except for undeveloped plots within blocks, the layout of buildings is too compact to guarantee adequate Ventilation  
Figure 5.13: Aerial view of part of block in Kazanchis. Note the mixed character of low-rise and high-rise and the compact layout. The two variables make Kazanchis one of the densely built settlements in Addis Ababa with high ground coverage and low floor area ratios or high density low-rise with high BAR.

However, poorly managed dense environments have been associated with negative externalities of overloaded amenities and utilities, lack of spaces for playing and socializing, absence of greenery and open spaces, poor livability qualities and problems of resettlement when introducing infrastructure especially in Kazanchis consolidated settlement due to high percentage of ground coverage.

Figure 5.13 (1), on the other hand, the detail block level built-up density computation also reveals that the total floor area ratio (FAR) and built-up area ratio (BAR) are nearly equal and have negligible differences with plot level built up density computations (BAR and FAR) (refer figure below). So this facts clearly unveiled that the built environment is highly occupied by dense built-forms, which is being limited the probability of having adequate circulation spaces, incidental open and green spaces as well as blocking ventilation within the blocks of housing structures. (Refer figure below)





*Figure 5.14 (1): Built-up Density at block level*

### **Building Set-Backs and Open Public Spaces**

The facts and figures in Kazanchis indicate that encroachment of building set-backs is rampant. This section tries to analyze the existing situation of building set-backs encroachments within the residential neighborhood of this case study area; as important aspects of built-forms that determine spatial quality of urban spaces. Figure below illustrates that more than 50% of the buildings have front set-backs less than 0.5m due to encroachments (Front, rear and sides) in the plots and buildings as determinants of built-form patterns and spatial quality. Hence, the residential neighborhood is in loss of the following uses and benefits of set-backs as already being addressed in the review that: privacy between neighbors and reduce property disputes, provide space for daylight access and cross ventilation or air circulation as aspect of spatial quality, it can also provide open spaces for landscaping and recreation, it can give adequate room for emergency vehicles between and around the buildings, provide access for workers to deal with power, water and communication lines, it can also provide space for regular maintenance work of the buildings, set-backs allow space for vehicles to park in front of their buildings without blocking the street, it also improves street visibility and vehicle maneuvering.

The field observation also witnesses that people tend to encroach upon building set-backs with additions and alterations after construction for various reasons. This happens not only in independent houses but also in group houses. Author classifies these changes in to two categories as the observations in the field and assessed data analysis results including horizontal encroachments (front, rear and side setbacks of the buildings) and vertical set-backs (vertical encroachments area constructions of additional floor spaces above the roof level). However, this study would deal with horizontal set-backs of the building in the study area. A building set-back is an important part of zoning regulations and urban local bodies are expected to enforce the set-backs stringently. Usually all buildings are designed as per building bye-laws prevailing at the particular place and time. These bye-laws can be broadly classified into: 1) front, rear and side set-backs for the ground level; 2) building height; 3) total floor area ratio (FAR) permissible for construction and 4) ground coverage or built-up area ratio (BAR) to provide open and green spaces with the plot area.



*Figure 5.15 Narrow Foot Paths: Too Narrow foot Paths make walking uncomfortable and unsafe. When Two building enclose this narrow space due to absence of side set-backs*

Normally urban local bodies like municipality or City Administration does not approve any building plan without conformation to local building rules and regulations. Though this is true on paper, but it is not true on the ground as per the author's field observation and measurements from the plots and blocks in the study area. The analyzed data unveil that people tend to construct violating the local building rules and regulations by pleading ignorance or exhibiting arrogance. Local administrative bodies cannot control these violations. The study area local body alone has the legal right to take any action against these violations, but they tend to ignore pleading dearth of staff out of fear or favor.

As addressed above in figures 5.16 and 5.17, the set-backs including front, rear, and side and neighboring set-backs; however this study focuses with front set-back that has direct relationship with main streets that the buildings are facing. It is also interesting to note that set-back is an important characteristics of plot or building that would highly support circulation and ventilation as well as street side greenery and opens spaces in the built environment as explained above.



*Figure 5.18: Showing absence of set-backs in the neighborhood*

urban spaces in the settlement. Hence, it is strongly believed that absence of enough set-backs would highly affect the provision of greenery and open spaces, circulation and mobility, ventilation, limitation for the daylight access in between neighborhood blocks and building blocks that might promote spatial quality of residential neighborhood. The above figures unveil that the neighborhood has no well planned or very small and substandard front set-backs.

As it is has long been argued that enough set-backs facilitate the provision of greenery and open spaces that promote spatial quality of urban spaces; air circulation and mobility, increases the daylight access, cross ventilation in between neighborhood blocks and building blocks. Therefore, the analysis result made sure that front set-back together with others did not play significant role in bringing good spatial quality in study area considered as one aspect of determinants of built-form and spatial quality of urban spaces.

Research respondents have rated quality of public open spaces in their neighborhood. As the results have shown 375 (77%) and 73 (15%) of respondents have shown strong disagreement and disagreement respectively about outdoor spaces both accounting 92% of the total. Figures for ventilation, accessibility and circulation spaces are 80% and 15% accounting for the total value of 95% for ventilation, 21% and 74% accounting for the total value of 95% for accessibility and 7% and 79% accounting for the total value of 86% for circulation spaces respectively. Similarly the values for density low built up area ratio and density high floor area ratio are 95% and 4% with a total of 99% and 18% and 81% with a total of 99% respectively (Table 4.20a)

The figure shows that the neighborhood has no significant variations or very small in dimensions of front set-backs that can't play significant role in the safety of circulation and mobility, ventilation daylight access, street side greenery and opens spaces etc. As already being explained above, the front set-backs consisting 0.00m to 0.50m are broadly applied in this study area that can't create possibility to install good quality



**Table 4.20a. Respondent Given Level of Agreement by Quality of Public Open Space in Their Neighborhood**

Level of Agreement	Outdoor Spaces		Ventilation		Accessibility		Circulation Spaces		Density Low Built Up Area Ratio		Density High Floor Area Ratio	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Strongly Disagree	375	77.2	387	79.6	102	21.0	36	7.4	462	95.1	85	17.5
Disagree	73	15.0	75	15.4	361	74.3	383	78.8	20	4.1	397	81.7
No Difference	19	3.9	21	4.3	...	...	44	9.1	1	0.2	1	0.2
Agree	16	3.3	...	...	...	...	...	...	...	...	...	...
Strongly Agree	3	.6	3	.6	23	4.7	23	4.7	3	0.6	3	0.6
Total	486	100.0	486	100.0	486	100.0	486	100.0	486	100.0	486	100.0

Source: Field Survey, 2018

Figures for security, building plot exposure, and front set-backs are 76% and 20% with the total value of 96% for security, 6% and 76% with total value of 82% for building plot exposure and 13% and 76% with the total value of 89% for front set-backs respectively. Respondent rated values for shopping, social services and facilities are 5% and 79% with the total value of 84% for shopping facilities, 59% and 20% with the total value of 79% for social services and facilities and 68% and 13% with the total value of 81% respectively (Table 4.20b).

Exposure as quality indicator refers to the number of sides of the building or plot that are contiguous to open public spaces, amenities or street. The significance of plot exposure underlies two basic requirements. First, the requirement that plot exposure provides an opportunity for the building to have main openings to an open area. Second, is the requirement that in hot dry & semi-humid climates like Addis Ababa, plot exposure increases human comfort by providing cross-ventilation and adequate lighting. As it has been



*Figure 5.6 - An informal extension on the backside of a row house. The entrance is blocked by the informal structure creating difficult access and limiting air circulation, a reason for guided densification.*

explained so far, Plot exposure, in this context can be viewed as a measure of amenity and quality. As already being explained in the above, note single exposure plots that are fully built upon would be characterized by poorly lit and badly ventilated interiors. As illustrated in (figure 5.6), Empirical observation from housing Blocks in Woreda 8 Yeka Sub-City shows that the majority of the plots of plots have no exposure, some of the plots have one exposure, and very few plots have two or three exposures. As already been explained above, Plot exposure is very important to allow access for ventilation and access to daylight in between housing and building blocks in relation to open public spaces.

One remarkable feature in Woreda 8 Yeka Sub-City with respect to plot exposure is the fact that the original design of plot layout took into consideration the need of adequate exposure of plots. This is revealed by the provision of the rear alleyway as pedestrian access to the spaces. With the low-rise single storey Addis traditional house type, the level of amenity in terms of exposure was considerably lower compared to the present



*Figure 5.7 : Showing absence of Exposure due to high coverage*

few high-rise condominium development that has blocked rear alleyways and lack courtyard spaces, which further complicating the situation of spatial quality open public spaces. Characterizing the importance of exposure for cross ventilation can further be noted that two or more exposure even if to an alley increase the possibility of cross-ventilation and assure access to natural light for more of the rooms. Two or more exposures may also allow multiple entries to different parts of the house from the street... Multiple plot exposure becomes more important when many people share a single house or when part of the house is rented to another family or is dedicated to commercial use. Single exposure plots with only one entry reduce privacy and increase the amount of interior space devoted to circulation.

This argument is quite relevant when the previous layout with Addis Ababa dwelling type of houses is contrasted with the present developments in Woreda 8 Yeka Sub-City. Observations from Woreda 8 Yeka Sub-City indicate that the majority of the houses have been either extended or redeveloped into high-rise buildings blocking exposure. In old Addis Ababa traditional houses, more rooms have been added for commercial or residential purposes has already been addressed above in building uses. Where such extension or modification to the houses has been made, rear alleyways have been blocked. For multi-storey houses side rooms have been blocked from light and natural ventilation due to high plot coverage/BAR/

and blockage of the rear side walkways due to absence of adequate exposure. Although the Addis traditional type of house has been criticized as poor in terms of cross-ventilation, the high plot coverage high-rise buildings seems to be more problematic because they lack outdoor open public spaces like courtyards that provided outdoor living for the old type of houses. Too narrow side and rear set-backs of the present high-rise building are presently not being effectively used and in many a case they have turned to open spaces where garbage is dumped.

As stated above, this variable is more important in analyzing exposure of buildings in congested or consolidated settlements of Woreda 8 Yeka Sub-City in relation to comfort requirements such as cross-ventilation, adequate sun lighting, site vistas and at times, privacy. In this neighborhood where plot sizes are relatively smaller with extremely high ground coverage, exposure analysis is of much relevance, as almost all buildings are not exposed and therefore facilitates both poor cross ventilation and inadequate sun lighting due to absence of adequate open public spaces. Therefore, Plot characteristics have direct impact on the built-form as well open public spaces quality of residential neighborhoods. In hot dry and semi-humid tropical climates of Addis Ababa (Kirkos Woreda 07), plot exposure is a necessary factor to enhance ventilation. The more the plot is exposed to adjacent open public spaces and to the prevailing winds the more is the comfort users experience in the indoor and outdoor environments. On the other hand, plot exposure as an indicator of amenity was also commented by residents during household interviews. Plot exposure and density are two variables that the residents in Woreda 8 Yeka Sub-City ranked highly in terms of dissatisfaction when evaluated by residents themselves. For instance, these are illustrated by the following response from tenants' interviewees:

Respondent commented that:

They don't like the house because it is so squeezed with other houses due to extreme close distance. There is no open public space for even sitting around the house. Besides, the house has no vehicular access. Houses are overcrowded, not planned that is why some of the houses do not have vehicular accessibility.

Another respondent commented that:

The open public space size for this area is too small and squeezed with other buildings. Rooms are facing each other. The only one window for my room does not provide adequate cross ventilation because too many houses surround it. Although the compact settlement facilitates to meet neighbors, vehicular accessibility in this settlement is very poor with streets traversing only a few metres into the settlement with poor quality open public spaces (see fig 5.8. In contrary, the good qualities of



open public spaces are presented on figs below. On the other hand, there is no open children play fields that they are playing on the streets, prone to accidents.

**Fig: Photographic Illustration of Poor Quality of Open Public Spaces**





**Fig: Photographic Illustration of Good Quality of Open Public Spaces**



These remarks indicate that since the majority of the plots in the study area do not have adequate exposures open public spaces, a comfort characteristic in this area is rather problematic. Both indoor and outdoor open public spaces are not conducive for good living. It has given the fact that the area also has limited internal streets, cross ventilation within and between buildings was also observed to be low. As an



indicator of amenity more exposure enhances view where people inside rooms facing an exposed side of the plot can view the outside environment without necessarily being seen.

Some of residents seem to be satisfied with social contacts but highly dissatisfied in terms of accessibility of open public spaces, ventilation, security, room sizes, plots sizes, plot exposure and outdoor open spaces and degree of privacy within their housing areas. However, issues that registered larger proportions in terms of dislikes or dissatisfaction include noise, cross ventilation, plot exposure, and outdoor open public spaces. The degree of satisfaction and dissatisfaction however differs from one element to another but the general assessment can be considered that people assess their housing characteristics more disliked than liked in this study neighborhood due to poor quality of open public spaces. One of the characteristics respondents disliked most is the issue of inadequate amenities like recreational spaces. This was followed by security, water supply, drainage, accessibility, and built-up density. With regard to plot exposure, some of the respondents associated it with the lack of open public spaces to rest. Therefore, household members are obliged to stay indoors. Another respondent argued that since the windows of the house were too small, it was uncomfortable staying indoors for a long period of time. Also another respondent reiterated that there was no breathing space for the house.

People's assessment of neighborhood elements also indicated dissatisfaction with issues related to density (high built-up density). They argued that the houses within the settlement were too much congested to be well organized. Others related the unorganized pattern to the 'organic characteristics'. Another respondent argued that because of houses congestion, they are disorganized, haphazardly built and spaces between buildings are not effectively used for children to play and not being used by adults. Due to congestion, cross-ventilation is blocked and other houses have been blocked from vehicular accessibility.

In formal settlements, it is unlikely to find plots with no exposure, a situation that was revealed in *Woreda 8 Yeka Sub-City*. This is due to the fact that in such settlements, at least streets provide open areas to which plots can be exposed.

However, the number of exposures does not necessarily mean that the plot provides comfortable living. It has to be linked with the built-forms (especially the layout and height of buildings) and the space between buildings. This situation is evidenced in Woreda 8 Yeka Sub-City where some have no exposure and some plot have at least one exposure but the compact layout of buildings and the close nature of the houses block many of the buildings from cross ventilation and lighting. As densification intensifies in this settlement, this situation is likely to be experienced in the near future. Therefore, *as it has long argued above* with this high density low-rise settlement with high ground coverage, the level of amenity in terms of exposure was considerably far lower compared to the present high-rise condominium development that has blocked rear alleyways and lack courtyard spaces, which is highly complicating the spatial quality of open public spaces.

### **Built-up Density and Spatial Quality**

Participants have also commented on Built-up Density and Spatial Quality Open Public Spaces. This part analyses the influence of built-up density in terms of total floor area ratio (FAR) and percentage of land coverage on spatial quality of urban spaces. The physical characteristics of the whole blocks are the same, hence the need to concentrate on only one side of the block. According to the analysis result above, neighborhood consisted of *low FAR (0.85– 1.15), high Percentage of land coverage by buildings (85% - 110%)*. Similarly, *figure below illustrates* the close distance between the houses and all spaces occupied by housing structures. The houses are very dense in terms of high percentage of land coverage. But in terms of floor area ratio (FAR), it is low because most of the houses are one storied.

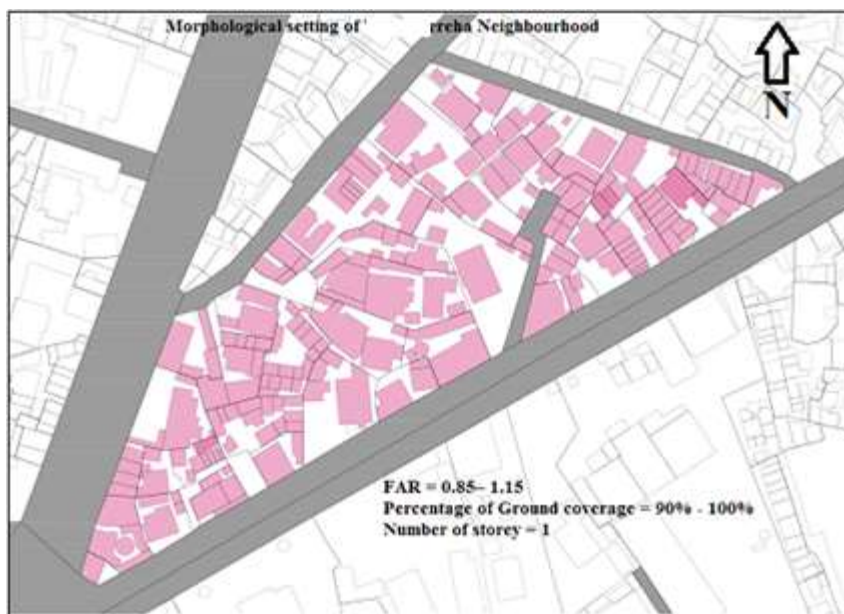


**Figure 5.19:** Houses are very close to each other: source: 2014

The relationship between built-up densities and spatial quality has been further complicated due to high ground coverage with dense built-forms. The relationship is demonstrated as the higher the ground

coverage, the lower spatial quality elements including outdoor spaces, ventilation, daylight access and spaces for circulation in the built-environment. Even though the roads are very narrow they are greatly used by the inhabitants to do their daily activities, because most of the spaces were occupied by housing structures. *Figure 5.19 and 5.20* indicate that the internal streets inside the blocks are very narrow and have limited spaces for circulation.

Therefore, spatial qualities refer to the space usability; safety and security,



**Figure 5.20:** Morphological layout illustrates the close distance among the houses.

possibility to use outdoor spaces, green and open spaces, cross ventilation and provision of daylight inside the block are highly

affected by the high ground coverage as high built-up density characteristics with

low floor area ratio, which have explicitly been addressed in the preceding sections. This section shows the relationship between built-up density and spatial quality of urban spaces including cross ventilation of houses, provision of daylight inside the block, outdoor spaces, green and open spaces in the neighborhood. The photographs like *figure 5.20* shows the poor usability of space inside or surrounding the blocks, very weak availability of cross ventilation in the houses and the provision of daylight inside the block due to close distances between housings and blocks particularly high built-up area ratio (BAR).

Inhabitants are using internal roads to dry their clothes because there is no private or semi private space inside the block. The internal roads are the only open space inside the block. But those roads are being used by the inhabitants to accomplish their daily activities as a result the provision of sunlight inside the block is being hindered. This unveils how far built-up density influences the spatial quality of urban spaces. There is a shortage of private space inside the block due to high ground coverage. Hence, the inhabitants were forced to use the internal narrow roads to do their daily chores. It is also important to note that the usability of outdoor space where a woman is cooking by using soil burner as per the author's field observation. Most of the households in the settlements cook on the narrow alleys by blocking circulation spaces. It is very dangerous because the houses in the Kazanchis settlement are made by earth materials and during cooking a lot of fire hazards are occurring inside the blocks. The above *Figure 5.19* shows the use of footpath surrounding the block. Inhabitants of the settlement are selling their daily groceries in the foot path. There is no communal space inside the blocks including children play spaces, green and open spaces, recreation spaces.

Figure 5.21 illustrates that Children are playing in the *internal road of settlement* due to absence of children play spaces as elements of spatial quality. The space among the buildings or blocks is being used as a communal space because there are no communal open and green spaces inside the blocks. The houses are very close to one another. There is no provision of cross ventilation in the houses. The inhabitants open the roof's tin for cross ventilation during summer (refer figure 5.19 above and 5.21 below). It can be seen from the analysis results, the built-up densities of housing block are very high in terms of percentage of ground coverage that has further



Figure 5.21: Children are Playing on the street due to absence of Playground

complicated the situation of spatial quality of residential neighborhood. On the other hand, majority the houses in Kazanchis settlements are one storey making the FAR value very low. The houses are very close to each other due to the high percentage of ground coverage, which highly hindered the availability of spatial quality elements. There are virtually no communal spaces among the houses and blocks. Residents are using surrounding narrow footpaths or roads for their social interaction and for other needs, hence the functionality of roads are being hindered as aspects of poor spatial quality of Open Public spaces in the residential neighborhood.

### **High Ground Coverage & Spatial Quality Open Public Spaces**

As already being explained in the review, *“The size of plot, the amount of plot which can be built up and the height of the building give the dimensions of the most visible aspect of density: the amount of space which is built”*. Built-up density includes built-up area ratio (BAR) and floor-area ratio (FAR). In the procedure of actual calculations of built-up density including BAR & FAR, actual site, line and Nortek maps have been used. For all sites, coverage of the area are measured and



called “ground coverage”. These are measurements for the “site” which is the actual area of the plot in which a housing complex is built on, and block level calculations in all cases included the addition of half of the width of the surrounding streets. In some cases the presence of public facilities such as small day care centers, or large areas with undetermined uses attached to them have been included, if these have been considered as variables that constitute as being a part of the type under analysis. The calculation comprises: **total floor area ratio/FAR/**: ratio of total built residential area to area of land, **building height**: number of stories and **built-up area ratio (BAR)**: built up area divided by the size of the plot.

However, a naked eye observation on the case study area morphology suffices to retrace the minimal role of planning intervention in ‘urban open space consumption’ over time. This predominance of haphazard development poses a substantial need for re-planning. The high building coverage’s of plot and block contributes for the absence of open and green spaces, circulations & mobility, possibility to use outdoor spaces. Therefore, the analysis results unveil that less attention has been given for developing

appropriate patterns of built form & morphology with proper density thresholds as prescriptions and norms to control quality urban spaces in built-environment. As a result, planning controls were not developed as per prescribed *maximum* allowable densities. Many municipalities and design experts have been less strived to determine the minimum



Figure 5.22 High Ground coverage, Morphology and building height situation in Wube-Bereha

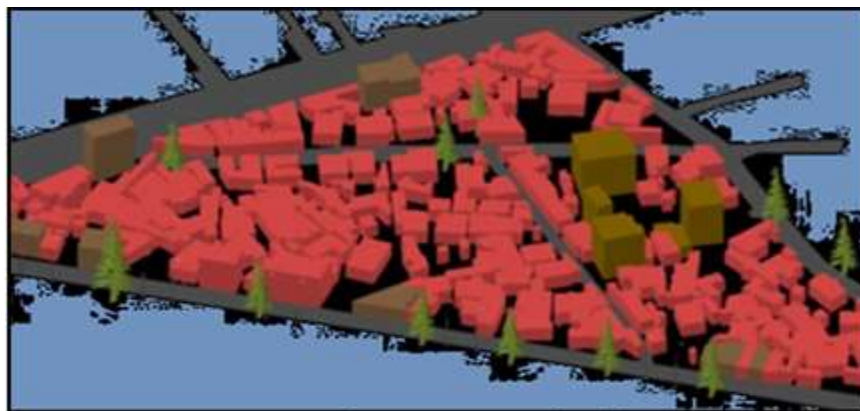


Figure 5.23: 3-Dimensional representation of Building height

and maximum built-up density as '*norms and prescriptions*' to plan and design quality built environment in building better quality urban spaces.

As it has long been argued that high *ground coverage* against *low floor area ratio* is the basic characteristics of developing countries cities like Addis Ababa that leads to less possibility of outdoor spaces, less access to mobility and circulation, create possibilities for incidence of crime, less opportunity to green and public urban spaces in the city. And hence this built-form highly complicates the spatial quality of urban spaces. Kazanchis Case is composed of *high BAR vs. Low FAR* built form as well as few newly built condominium with the character of high BAR vs. High FAR built-form, which have direct or indirect impacts on the spatial quality of residential neighborhood. The built forms at unit level have direct impacts on the neighborhood and block level. For instance, ***High BAR vs. Low FAR*** as stated above illustrates the effect on spatial quality of urban spaces. It is also strongly believed that built form at plot of plot level has influence on the neighborhood scale as illustrated (*figure 5.23*) *below 3-dimensionally*.

The spatial organizations of the plots in the neighborhood is arranged haphazardly as illustrated on the 3D that unveils less intervention of planning and design so as to have better spatial quality in the settlement. The analysis result shows that the area is highly in short of greenery and public open spaces, amenities, possibility to use outdoor spaces, limited ventilation and day light access.

The *figure 5.22 and 5.23* also illustrate that the built up area ratio/*BAR*/ is exceeding 90% or approximately close to 100% that there is no space for greenery, open spaces, outdoor spaces, circulation and mobility, contributes for the incidence of crime in the neighborhood and the surrounding urban environments. The *figure 5.23* above depicts that the ground coverage in plots are almost the same in this case study area, which close to 1 or 100%. Hence, this built environment is highly occupied by building structures fail to accommodate the adequate spatial quality elements as being stated above. Therefore, it clearly shows that built-up density would affect the *urban built form and spatial quality of residential neighborhood*.

On the other hand, *by keeping ground coverage constant*, it is possible to increase floor area ratio, however the demand of amenities and services increases accordingly. And hence, such scenario would influence the spatial quality of residential neighborhood severely. Because when we increase floor area ratio, the population density would increase as the demand of amenities increase. Therefore, the percentage of ground coverage and floor area ratio should be to some extent inversely correlated as floor area ratio increase ground coverage decreases. I.e. if height increases ground coverage decreases in a given particular block or plot in the neighborhood logically so as to increase spatial quality elements at plot, block and neighborhood level.

### **Built Total Floor Area Ratio Versus Open Public Space**

As already being explained in the literature analysis, many practitioners were the first to systematically study the density and spaciousness of the urban environment. In this study, the author introduced the concept of spaciousness, defined as the relationship between *open space and total floor area*, as a measurement of the quality of an urban and city plans. Spaciousness is equivalent to the Open Space Ratio. Open space ratio (OPR) was used as an instrument to stipulate that a development must provide a certain amount of open space on a zoning lot in Kazanchis Neighborhood. However, Kazanchis is highly occupied by housing structures that there are no open space, recreational and play fields as the whole; generally there is high demand of amenities including open and recreational spaces. It can be viewed as an expression of the trade-offs between the desire to maximize the building bulk (program or FAR) and the public and private demand for adequate open space. The analysis result unveils that most of the plots were occupied or covered by building structures, which have failed to accommodate the required elements of spatial quality of urban spaces like non-built urban spaces in the residential neighborhood.

At the level of a plot (or building block), as being addressed in the review, it has been proposed a minimum of **one square meter of open space for every square meter of total built floor area**. According to the review, when this standard was



met, the area could be described as spacious and has adequate open spaces in the area. Built-up areas with less open space were not acceptable and were described as cramped or crowded as Kazanchis is typical example of such kind of urban environment. In Kazanchis, on the scale of the building block and plots, doesn't meet the spaciousness standard proposed at the city and international level. The open space ratio (OPR) unveils that the ratio is below the thresholds of public non-built spaces addressed in the city master plan and international standards as well.

The author can thus underline that OPR contributes much to the understanding of urban built-form. However, it does reveal the character of the areas in terms of pressure on the non-built space. If all of the inhabitants of the dwellings in these houses would go out onto the streets and into the courtyards at the same time, each person would have the same amount of open space at his/her disposal in the samples.

As it has been long argued the concept of open space coverage was frequently used to express the relationship between built and non-built land. The author also used the figure-ground analysis to visually represent coverage as the distribution of (built) mass and open space. The author used this representation to decode two opposite doctrines at the core of modern and traditional planning: the first and accumulation of solids in an endless floating void, the other dominated by mass and cut through by voids, which are very important elements to determine the threshold of open space ratio (OPR) in the built-environment. However, the analysis result unveiled that the existing situation doesn't support the arguments.

On the other hand, the relation between street width, or court size, and building height was also a factor in the studies of various scholars as already being addressed in the review in relation to open spaces. As it has been argued that planning for higher buildings, one could provide more open space without losing out on the number of dwellings *as total floor area ratio increases*. Later, it has also been argued against the few modernist high-rise developments like condominiums, introduced psychological arguments to subject all buildings to height restrictions. Based on evidence from the various sources and experience of carrying out and

analyzing '*Defensible Space*' concepts, was also dealing with *adequate open and green spaces* not only for *recreation* but also for natural surveillances to protect the neighborhoods from crime as one aspect of good spatial quality of urban spaces in the residential neighborhood.

### **Ground Coverage and Circulation and open public Spaces**

Good accessibility and a capillary road network are essential to foster flows of movement which produce vitality, natural surveillance and therefore increase safety. To guarantee continuity of movements, it is thus important to avoid fractures in the road and pedestrian networks as illustrated in figure above. Discontinuity can occur where a new development is not well connected to the city structure as a whole, also where a neighborhood in the city is isolated by infrastructures or other barriers from the surrounding urban fabric. "Gated communities" which are voluntarily segregated from the city belong to this latter category. One of the study informant this neighborhood suggested the following during field survey:

*"I and my families are suffering from absence of enough open public spaces in my house and around my house; my three children are sleeping, studying, and eating in narrow single room, nowhere else to go to relax, to play. They are forced to remain in the room and sometimes stand, sit in the narrow alleys, footpaths for circulation and closed the alley for some other people to pass through. Generally, our block has no enough circulation spaces, no outdoor open public spaces to stay with my families. So I and all my families are desperately enjoying a kind of problem in this neighborhood, (Kazanchis, **Local resident, Male aged 40-45 years**).*

Lack of accessibility in terms of circulation as open public spaces can also contribute to social segregation, and can create enclaves or isolated areas concentrating social problems. The accessibility of an area should consider its links with the existing city structure and functions: connections to jobs, services (schools, hospitals, shops, post-offices etc.), commercial and recreation facilities/amenities. Difficulties for public services to intervene (including services for crime and social prevention) should also be considered. The street network of a new development

should continue the street pattern of surrounding areas in order to avoid interrupting urban flows, which are as important for vitality and natural surveillance as one important aspect of spatial quality of urban spaces. However, the alleys within blocks don't exceed 2 meter dominantly in this study area.

On the other hand the structure and the street pattern of few condominium developments or of an area being regenerated should be planned to avoid creating urban enclaves. These are detrimental because they cut urban flows through them, thus would be creating problems for the surrounding areas; they also generate weak internal movements and mobility. Both factors negatively affect natural surveillance and favor the development of marginal or illegal activities (where people have nothing to do, incivilities are more common). It is also efficiency of service provisions in the neighborhood together with safety might have got very poor. Where enclaves lack circulation spaces, amenities, and services, they may also become places of social segregation and deprivation, where it is difficult to intervene with social and crime prevention services, and where people are isolated and very vulnerable. Hence, avoiding enclaves is essential for *crime prevention* in the neighborhoods.

Therefore, the analysis result unveils that the study area has no adequate circulation spaces to foster the flows of movement, which produces vitality, natural surveillance, strong social interaction, increase safety and security that has further complicated the situation of spatial quality, which is being considered as indicator of poor spatial quality of urban spaces in the residential neighborhood.

### **Evaluation of Qualities of Open Public Spaces and Usability of Spaces**

As already being addressed in the review, different schools of thoughts including Jan Gehl have discussed the components of quality assessment in the use of space or usability of urban spaces. These include quality requirements related to walking, standing, seating, seeing, hearing and protection. Author found these criteria relevant to assess spatial qualities of spaces within Kazanchis based on the above categorization and utilization study in the residential neighborhood. The variables

employed include quality requirements for *walking, standing, seating, and protection*.

### **Walking Open Public Spaces**

The majority of the walking routes in Kazanchis area have poor surface material (earth material) with extremely narrow alleys and paths which become muddy during the rainy season and dusty during the dry season. The service road along Kazanchis Road that was once well surfaced with tarmac has deteriorated with many potholes. The whole stretch of the service road along the Kazanchis Road is not well linked with housing compounds behind this road. Residents have to walk along the streets and get access to the main road through the three main vehicular entrance points.

This creates inconvenience, as residents have to walk a relatively longer distance to the bus terminal and other facilities located along the Kazanchis Road. Unlike Kazanchis where pedestrian linkage is rather even, Kazanchis can be considered as ‘land-locked’ in terms of pedestrian linkage with the main road.

Roadside informal sector activities such as carpentry works, shoe shining, kiosks and car parking have encroached parts of this street limiting its effective use. The streets in the settlements are also poor with pools of water stagnating during the rainy season. The general narrow size of streets limits any attempt to separate pedestrian and vehicular traffic together with street vendors on such narrow alleys. Under such conditions, walking through such spaces is inconvenient rendering the whole issue of quality for walking poor.

### **Standing Open Public Spaces**

Standing as an activity predominantly takes place at open public spaces and occasionally along the streets. Observations within small open spaces showed that standing activity was less frequent in this space. This was attributed to lack of standing supports and the fact that the facades facing Small street side green and open spaces, though irregular in shape, are semi-private in character whereby unknown people might not be welcome. It is therefore important to note that

standing as an activity is limited not only due to lack of supports but also due to the semi-private nature of the space facing this very small or limited open spaces.

### Seating open Public Spaces

Seating requirements include the provision for seating supports such as benches and chairs which should be arranged in such a way to facilitate encounter or interaction. For stretching spaces such as streets, a reasonable interval of distance (like 100 metres) has been considered as a quality requirement aspect for placing seats to facilitate the seating activity. Observations from small open spaces show that putting a bench under a mango tree facilitated seating but sometimes people sat on the ground. Although this open space has not been well provided for with these facilities, a considerable number of people were observed using this mini-square including private house foundations for seating and talking activities (*see figure 5.24*). Despite the fact that Small spaces are semi-private in terms of land ownership, its use portrays a communal character as revealed by the number of activities taking place in this space. However, quality requirements with respect to seating are generally poor. *Due to lack of seating facilities, seating as an activity is less promoted to take place in this private open space along alleys and footpaths. Temporary seats such as benches put in front of the house attached to house foundation are used for seating activity.*



*Figure 5.24 Poor alley and unsecured pedestrian walkway, activities on the alleys (the woman selling wood coal on the street).*

Streets within Kazanchis are relatively narrow (1.5-4 metres wide) to the extent that two way vehicular traffic is almost hindered. Although these narrow streets provide a harmonious feeling of residential

character within the settlement, in some sections, too narrow streets are limited and

disgusting in terms of facilitating nice views and visibility to the surrounding environment. In some areas where plots have been fenced by walls, such narrow streets have limited vehicular flow and create a sense of insecurity for pedestrians, activities on the alleys or narrow streets (the woman selling wood charcoal on the alley as seen in the figure above).

**Figure: 5.25 Summary of Evaluation of quality of Open Public Spaces existing situation in extreme High built-up area ratio (BAR) vs. Low floor area ratio (FAR) Built-Form Kazanchis case study neighborhood (poor Quality Open Public spaces) (Photographic Illustration)**

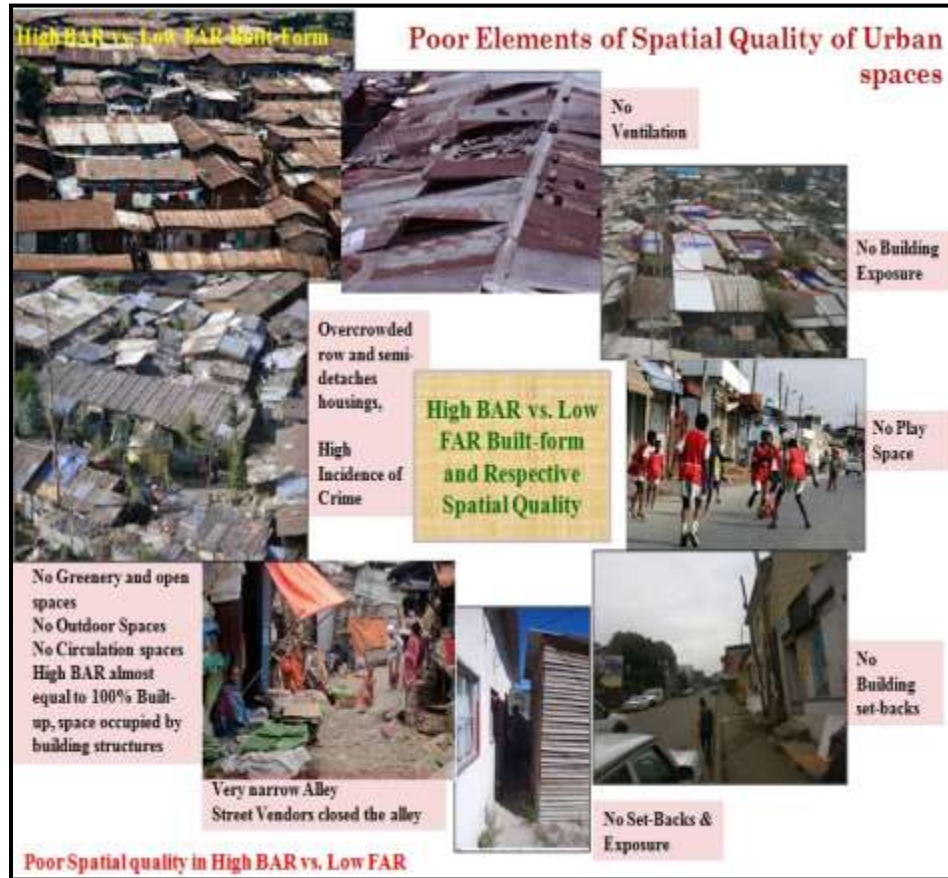


Table 4.20b. Respondent Rated Opinions about Quality of Public Open Space in Their Neighborhood

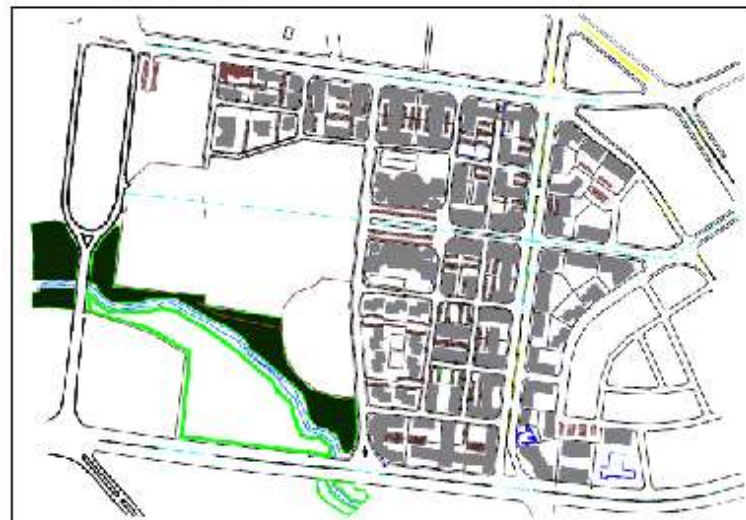
Level of Agreement	Security		Building Plot Exposure		Front Set-Backs		Shopping		Social Services and Facilities		Safety & Travel Distance to Services	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Strongly Disagree	367	75.5	29	6.0	62	12.8	25	5.1	287	59.1	330	67.9
Disagree	95	19.5	368	75.7	371	76.3	385	79.2	97	20.0	64	13.2
No Difference	1	.2	21	4.3	9	1.9	36	7.4	9	1.9	53	10.9
Agree			...	...	21	4.3	16	3.3	30	6.2	...	...
Strongly Agree	23	4.7	68	14.0	23	4.7	24	4.9	63	13.0	39	8.0
Total	486	100.0	486	100.0	486	100.0	486	100.0	486	100.0	486	100.0

Source: Field Survey, 2018

### Urban Morphology and Open Public Spaces in Local Development Program Sites

After understanding urban structure at the city scale, we began to study urban blocks, their occupancy patterns and the private open spaces incidence. For this paper, we brought to discussion the analysis of selected LDP sites in central parts of the city like ECA in Kirkos Sub City Woreda 8. In this analysis, open Public spaces within the blocks are considered more exposed to changes by the private sector. They are regulated by the urban legislation, but, frequently, they are occupied informally, not in a collective way and according to individual wishes. When these spaces are irregularly

Map5.5: showing the ECA LDP completed in 2002



Source: The ECA Local Development Plan, 2002

occupied, the changes affect the density and the conditions of ventilation and insulation and influence the public open spaces system and the demand for them. This influence occurs due to the characteristics of building occupation, resulting from normative regulation, which establishes the limits of building, the possibilities of demographic densification and the needs for more public and private open spaces.

We have concluded that the blocks with more heterogeneous typologies, from 0 % to 15% of open spaces and from 85% to 100% of building occupation, present more potential for real state pressure. We can also consider that the open spaces within the blocks may not give place to high rise buildings, once allowed by the urban legislation and building codes. These situations manifest that there is a gap in the process of setting building regulations and monitoring even on the limited open public spaces allocated in the new proposal for regeneration.

This mapping enables the characterization of the urban tissue patterns and the comparative analysis among Developed neighborhood buildings (subjected to commerce, business, and residential functions), social groups, public policies and legislation rules. Through that study in the city scale, we can point out which areas have more demand for public open spaces and investments and we can also simulate building occupation, growth rates and urban densification. It is important to remark the importance of further analysis, which must take into account the socio-environment issues, in order to have for each neighborhood better responses for local needs concerning the open spaces systems.

As discussed in the literature review, the standards of public open spaces for residents and non residents are clearly shows that 2.0 m<sup>2</sup> to 2.5 m<sup>2</sup> per person is recommend. In this regard the ECA-Kaza-Inchis Redevelopment program was not met the stated standards for the public at large. The current development trend also confirms the same scenario in the site that fails to meet the intended requirements. On the other hand, the gathered information from experts, local and city level authorities of city administration also reinforces that the ECA-Kaza-Inchis LDP lacks the proper design and planning of the quality and standard public open spaces



as per urban open space design principles. Public urban open spaces Assessment (2018) was conducted based on 30 responding authorities and experts confirms that only 13% were described as being in 'adequate' condition, compared to 27% in 'fairly adequate' condition and 60% in 'inadequate' condition. Their assessment of trends in condition is particularly worrying, with 60% of authorities and experts reporting the quality and provision of their open spaces stock as '*poor*'. In their side, they were emphasized that such planning and design mistakes should never be repeated in the future redevelopment programs.

The analysis result also reveals that People have different perceptions of the current state of urban public open spaces in the inner part of the city that it depends on where they live, why they come to the area, what kind of people they are in terms of age, income and other indicators, and on the questions they are asked. With this line, the respondents interviewed were the developers, the neighboring residents, customers of the services in the developed area; those who pass through the area (passive customers) totally 45 respondents were interviewed. The majority of them were described that the ECA-LDP program was not created good opportunity in building adequate and accessible open public spaces in the area. As the result of urban regeneration, the needs and expectations of people and their communities for open spaces are affected by changes in society. Many open spaces' managers and designers have failed to respond adequately to changing demands for open spaces from increasingly diverse urban populations, and to embrace new cultural trends and changes in society as the result the new development in the area. Because of this problem the inhabitants in the study area will lose various benefits including Environmental comfort; physical comfort and; social and psychological comfort.

Therefore, the comfort level of public open space is crucial for their use. On this line of argument Carmona et al (2003) make important distinctions about comfort in public open spaces as: Environmental comfort; physical comfort and; social and psychological comfort. According to him the degree of environmental comfort is one of the factors that affect the uses of urban public spaces and depends on environmental factors such as the effects of climate. In the same manner, Dober (1969 p.295) also described the effect of climate in urban spaces as – "Level of

sunlight; shade; temperature; humidity; rain; snow wind and noise have an impact up on our experience and uses of urban environments.”

Similarly, observations in the case area reveals that soft landscaping in urban areas were not be selected and designed according to a special theme for each area. It does not provide a sense of place in addition to its other amenities. Therefore, planting in public open spaces should be carried out taking account of themes; the climate of the locality; and also soft landscaping of a type and size appropriate to the area should be used. In this regard observations in study area indicated that most of the trees were forgotten and not maintained well for a long period of time. As a result some of these trees were dead, while many others were failed to grow to their full sizes. In addition the sizes & species of these trees and their arrangement in the existing narrow open spaces don't conform to: the setting & context of the park; and the design and layout of other landscape elements in the Park. Consequently, in these parks the sense of order, continuity and indication of the relative importance of the accent of the area is missed.

In this regard, various literature reviews on the issue and real world practices of urban open public spaces in different western countries implicate the importance of these spaces in enhancing the urban qualities of cities. In contrast to this however the study demonstrated that unless they are well planned, designed, maintained and managed these spaces could also reduce or further aggravate the poor urban image of an area or a locality. Another important element raised here is that; people's attachments or memories about urban public open spaces are more related with the activities that are taking place there, rather than the physical environment. This situation implies two important points. On one hand it indicates how activities that are taking place in these spaces are important for the identity and image of the places as per the changes as the result of redevelopment. On the other hand it also indicates that because of the poor quality of the physical environment of the urban space. It has failed to provide symbolic meaning to the area.

#### 4.3.18. Respondent Given Response about High Density High-Rise Housing Forms with Low Ground Coverage

Respondents have given their level of confirmation by answering yes/no question for high density with low ground coverage and high density low rise with high ground coverage. From the total of 486 respondents, 408 (84%) of them answered as “Yes” for high density with low ground coverage. The same amount of respondents said “No” for the high density low rise with high ground coverage (Table 4.21).

Table 4.21. Respondent Given Response about High Density High-Rise Housing Forms with Low Ground Coverage

Response	High Density with Low Ground Coverage		High Density Low Rise with High Ground Coverage	
	No.	%	No.	%
Yes	408	84.0	58	11.9
No	78	16.0	408	84.0
Missing Value	...	...	20	4.1
Total	486	100.0	486	100.0

Source: Field Survey, 2018

Lack of successful plan at city level is among important factors that affect quality of open public open spaces. The fact that the newly made master plan for Addis Ababa was not accepted means that the most recent approved master plan for the city is dating back to 2004. This master plan from 2004 has to some degree been followed and implemented, but as the city is rapidly expanding demographically and spatially, there is a great need for implementation of new overall plans. The open public spaces suffer from the expansion and the lacks of plans, such areas have been considered less important than buildings, roads and other services, and therefore often have been excluded in the planning process at city level.

The situation of not having any proper city planning and regulation, as well as not providing any help to people without a place to live, has led to an illegal and informal encroachment of the open spaces. People settling in these areas are

primarily from rural areas or local people who used to rent a room in a house, but now want to build their own house. As it is now, the urban authorities cannot do much about it, and the failure of handling the population growth and the physical development in the city creates many environmental problems and a steady loss of open spaces. One of the informant argued that the open spaces must be included in the future planning process as the spaces, among other things, can play an important infrastructural role and possibly provide healthy ecosystems. According to earlier mentioned plans, the municipalities and the City Council of Addis Ababa have several times attempted to initiate plans and projects targeting unplanned areas, and these have succeeded to some extent, although the success criteria might vary according to whom you ask.

Urban planner from sub-city office states in the conducted interview that the unplanned settlements gives her headache, and that it is difficult to change much in the settlements. When talking to Planner you kind of sense a form of unconcern for these areas and lack of insight into the lives of the people living in unplanned settlements. You are left with a feeling that the unplanned areas are considered less important compared to the planned areas in the city. Perhaps the urban authorities' negligence of the unplanned areas is the reason why the Sub-City office in study areas, rather inappropriately and unofficially has been assigned several tasks that were previously dealt with by the urban authorities. The urban authorities have somehow given up and transferred the responsibility to the local Sub-ward office, which already has many things to look after. The Sub-ward office is a local voice, who acts on the locals' needs; the people working at the office have been elected by the local population, and live in National Theatre. Therefore they will nearly always be on the locals' side. The Sub-ward office's relationship to the local people and lack of the same to the urban authorities creates a somewhat free zone for the Sub-ward office for them to work independently as no one is watching them. After studying the area it seems like the Sub-ward office might have a rather relaxed relationship to regulations, for instance, concerning housing requirements. Relating to this is the issue that the local people does not trust the urban authorities due to several failures concerning anything from resettlement to unemployment to

flooding issues, and therefore it becomes even more difficult for the Sub-ward office to represent the urban authorities at local community level. This dilemma is further complicated by the fact that the Sub-City office is dealing with the lives and problems of their friends and families, where it is difficult not to be emotionally affected. The lacking recognition of the unplanned settlements and the needs of the people living there, as well as the lack of proper governance, leaves the unplanned settlements on their own, only guided by the Sub-City office and the various Ten Cell Unit Leaders.

Open public spaces are usually susceptible to changes. Open public spaces in the local neighborhood is not mentioned and articulated as neither a good nor a bad value when settling down in the area and it would therefore have been obvious to conclude that the open public spaces do not have a specific importance and value to the people. Furthermore, one might be able to call all the open public spaces in Kirkos Woreda 07 random spaces, as the open public spaces seen in the area are often not intended or planned. However, when studying Kazanchis through observations, interviews and casual talks with the local people, it appears that the open public spaces in the settlement are functioning, used and perceived hardly in different ways, which make them more or less important and susceptible to change. This emphasizes this study's creation and use of new and refined open public space types that fit to unplanned areas in developing countries to obtain a more nuanced picture of the spaces.

**The central streets and central squares** are essential in Gurd Shola as everyone uses them and they link the whole area together, as well as play a critical part of people's livelihood. The **central streets** correspond with categorization of streets at intermediate level as the streets besides being central transport corridors also function as the cultural and functional heart of the area with a diverse use due to the absence of public green spaces. We can state that the transport is forced to share the streets with households, social, recreational and economic activities due to the lack of proper planned open public space for these activities, but in Signal area vehicles and bicycles are rarely seen and the main transportation form is walking, so the clash between different activities is not a problem here. The functions and

use of the **central squares** in Bole Woreda 7 are corresponding with plazas at city level although on a smaller scale, as they are typically used for multiple functions such as central events, ceremonies, local trade and social interaction such as meetings, children's play, and card playing and talking. Therefore the squares also fit recreational space at intermediate level and residence level as they accommodate recreational activities too.

## **5. Conclusions and Recommendations**

### **5.1. Conclusions**

The study is conducted to see the quantity and quality of public open spaces. The study has come with different findings. Accordingly the results public open spaces in Addis Ababa are suffering from multiple problems. Though Addis Ababa is becoming one of international city, it does not satisfy various international standards. Addis Ababa City Administration has made different efforts to help Addis Ababa meet international standards. As part of those efforts, Addis Ababa City Administration has established an organ to take care of urban greenery and beautification.

According to the findings many open public spaces exist in Addis Ababa in spite of their poor management. Out of the total 486 participants 84% of them confirmed availability of public open spaces in Addis Ababa. The study result has also shown that there is a tendency for users to use public open spaces around them compared to those spaces far from them. This is confirmed by 74% of the total participants. Though different types of public open spaces are available, neighborhood parks and pocket spaces are among the most used ones.

Even if availability of various open spaces were confirmed, their quality is negatively assessed. Of total participants, 63% of them said that the existing quality of public open spaces is bad. Some 84% of respondents have also mentioned that existing open public spaces are not pedestrian friendly. Respondent given reasons for bad quality of public open spaces primarily is because of poor management by government which is said by 60% of participants. Explaining factors for bad quality of public open spaces include inadequate outdoor spaces, poor cross ventilation,

poor accessibility, poor circulating spaces, sub-standard in density low built up area ratio, and low standard in density high floor area ratio. Other dimensions of quality problems reported by respondents through expressing their level of disagreements are because of security problems, building plot exposure front setbacks, shopping facilities, social services and facilities related gaps, problems associated with safety and travel distance which all are negatively assessed.

Currently on-going re-development programs are good opportunities to avail standard quality and quantity of public open spaces. However, such opportunities are taken as the missed ones by 83% of participants because re-development programs are not well designed considering public open spaces. As far as existing public open spaces, recreation is the most used activity (reported by 49%) followed by social activities which was supported by 34% both accounting for 83% of the total participants. These activities are taken place basically in neighborhood parks and open pockets.

According to both reported and observed information it could be understood that there are physically good and quality open spaces as Africa Park and the like which are not accessible in one hand and there are open spaces which are accessible but poor in their quality in the contrary. Reports from the study results have shown that community participation is poor for 75% of total participants though 91% of participants reported that public open spaces are beneficiary from different perspectives. Some of benefits from open public services are mentioned by research participants. Research subjects said that public open spaces serve for outdoor activities, to converse with family and friends, to get new information, to change home environment, and to attract tourists as general benefits. Similar benefits are reported as personal benefits to be extracted from public open spaces. However research participants rejected importance of public open spaces to maintain privacy so that participants do not go to public open spaces in search of privacy. Participants have also reported that public open spaces have positive values for the development of Addis Ababa by way of reducing land wastage and enhancing tourist attractions. Research participants have expressed that they least liked situations related to density, accessibility, shopping facilities, drainage, green space, and travel distance

in their respective neighborhood. Besides for 62% of respondents crime is associated with poor neighborhood which implies a need of increasing quality of neighborhood even to prevent crime prevalence. Lastly participants rated the measure of quality of neighborhood by using presence of open public spaces (by 67% of participants), good physical structure and their arrangements (by 23% of participants) both accounting for 89% of the total participants.

## **5.2.Recommendations**

The research results and findings unveil that the Open Public Spaces have serious problems in terms of both physical and functional attributes showing poor quality of Open Public Spaces. Therefore, to reverse such problems and improve quality and usability of open public spaces the following recommendations are forwarded.

### **Local Community**

As the study results have revealed, there exist poor community participation or no community participation. Therefore different mechanisms need to be designed to ensure active community participation. Awareness creation about the values and benefits of public open spaces is suggested to help participation of the community. Community can participate by carrying out the plantation of trees at the streetscape and in front of their buildings with the guidance of proper experts. In addition, community should have a sense of ownership to keep cleanness of the open public spaces as well as protecting and following up of them from illegal use.

### **Addis Ababa Beautification and Sanitation Agency**

Most participants have reported about availability of public open spaces though with bad quality due to poor management by government which calls for serious attention by Bureau of Beautification and Sanitation for Addis Ababa City Administration. Besides it was reported that public open spaces are not pedestrian friendly due to their bad quality. To improve the use of different types of open public spaces it is necessary to improve their quality. Poor quality of open public spaces is attributed to inadequacy of outdoor spaces, poor cross ventilation, poor accessibility, poor circulating spaces in open public spaces. Therefore Addis Ababa



Beautification and Sanitation Agency should focus on improving quality of open public spaces. The administration of the City as decisive factor in enhancing both the physical and functional qualities of open public spaces as well as quality of a city, the level of their awareness and commitment on the matter should be improved through training. So the agency mentioned above should give training to aware on the issue of open public spaces quality and management using high level professionals.

### **The City Administration and all Stake Holders**

Newly running re-development programs are mentioned as golden opportunities to balance deficits about open public spaces. Thus it is recommended that the City Administration and all concerned stakeholders should maximize such opportunities. Some planned and physically good parks like Africa Park should be accessible. Presence alone does not bring the desired usability of the spaces unless they are accessible to their users otherwise. It is strongly believed that the quality of the city cannot be enhanced without quality open public spaces. Hence the successful city administration worries about the City's quality. Therefore, working for the quality of open public spaces should be a prior agenda to improve the image of the city and to satisfy the resident's as well as to make the city competitiveness at global level. Thus the city administration should ensure adequate funding, sound planning, implementation and management on the following physical and functional aspects of public open spaces.

Among the three selected study sub-cities, visual and physical accessibility problem is considered mainly on Africa Park located in Kirkos Sub City, Woreda 8. Therefore, to enhance the visual and physical accessibility, it should be connected with main roads of the City and it should be open always for everyone who needs leisure. In this regard, there is lacks of vista character among the connected roads to the public square. The road that radiate to the neighborhood and the road that leads to the Grand Palace side should be straight enough to enhance visual accessibility of the square. Accessibility brings the quality of the open public spaces and the comfort is the main factor of quality open public spaces. So

in addition to accessibility, pedestrian walkways that connect the open public places and the pedestrians should be enhanced by hard and soft landscaping elements to make the surrounding of the places by city administration and with other stakeholder concerned. Besides comfort is a prerequisite for open public spaces to be habitable and livable which is important expression of open public spaces which should be considered by city administration. Since the end goal is not simply putting open public spaces in a certain places; the researchers strongly recommend the aesthetical as well as functional soft landscaping and hard landscaping should be installed to make the places comfortable for users as well as to fulfill the purpose of the places and the context.

City administration should also consider the size of open public spaces so that they need to be wide enough to attract their guests. In this regard the square should have enough places around the “roundabout” for different activities. Since crime is reported as an indicator of poor neighborhood, city administration should use this input as needed. Generally, quality of open public spaces cannot be achieved by only accessibility and physical elements but also the function of activities, facilities and amenities they possess. The provision of amenities and activities suitable for each place is strongly recommended to make the places usable. Besides, the adjoining uses of the square and Africa Park should accommodate activities like retail sale, mixed use, local business, entertainment (screens) and others compatible uses at its edge to support the functionality of the open public spaces and to attract users. The appropriate coordination between open public spaces and other land uses shall continue to occur at each stage in the planning, design, development, and management process. It is important to enhance social activities in outdoor spaces and optional activities must be provided in front of buildings. The outdoor spaces should be designed and furnished. Amenities provision should also be considered just like as an indoor room as extension of home and creating a clear and lively relationship between indoor and outdoor uses should be considered. Presence of open public spaces, good physical structure and their arrangements are taken as a good measure of quality good neighborhood. Therefore the Agency for Greenery

and Beautification, the City Administration, Municipality, and other concerned stakeholder should consider recommendation forwarded based on the study.

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# **Recalling the Grand Missed Chances in the Modern Ethiopian Political History: Lesson to be learnt for Contemporary Democratic Transition**

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## **Abstract**

*Ethiopia has lost five golden opportunities, often called as 'missed chances' and 'grand failure' by Donald Levine and Merera Gudina respectively. Now Ethiopia has got its six golden opportunities. Nevertheless, do the current democratic transition will success /bring democratic consolidation/ or fail/reversion to authoritarianism/ remains an elusive forever. This article, therefore, attempted to examine the lesson to be taken into consideration from the five successful Grand Failures so as to ensure the successful transition of current political reform the country undergone. The key question addressed are:- What determines the success or failure of a State transitioning to democracy? Do the characteristics and patterns of democratic transitions determine the success or failure of a State to democratic transition? Does the way in which states transition to democracy impact democratic consolidation? What are the factors that affect the success and failure of democratic transition in light of the State's political history? To address these aforesaid questions, the study employed qualitative research approach in which data are gathered through document review and analyzed using critical discourse and historical narrative analysis techniques. The finding of the study shows that in the five consecutive 'Grand Failures', an elite driven nation-building with incessant malign hegemonic aspiration of different kind, a chess game politics, nonentity of principle of compromise, a top-down democratization approach, and never-ending contradictory often conflictual ambition and spirit have 'failed successfully' to create a viable state, rather paradoxically has instigated a contested State: a State in the making. In these missed chances, the transitions have failed and paradoxically created new dictators who are more brutal and repressive than their predecessors. This is an element of continuity be it under 'mandate of heaven', 'garrison socialism' and 'ethnic sanctity' that constitute 'a successful Grand Failure', a failure without taking a lesson to transmogrify the prevailing 'political malady'. The study, therefore, calls that unless we take into consideration the lessons of the lost opportunities of the twentieth century, the current golden opportunity hoped for consolidated democracy is likely to be the six democratic breakdowns and the reversion to authoritarianism. The study identifies that the following lesson must be taken into account: avoiding hegemonic leadership aspiration, politics of Dehumanization, unrestrained claim of competing elites, playing win-win politic instead of a chess game, principled politics, genuine willingness and commitment to compromise, prioritization of national interest and security that Ethnic interest, holding Nation-wide future vision instead of imprecise*

*Ethnic vision. By taking these lessons, institutional and policy reform, brining national consensus towards a new social contract for New Ethiopia are an imperative and only path of survival. More importantly, since the transition so far is a peaceful and negotiated transition it must also take the path of cooperative transition through which democracy is most likely to flourish as the institutions adopted are more inclusive and therefore conducive to competition, a core tenet of representative government. Failing to do so would mean letting the hoped transition-for democratic consolidation and durable peace and development to die from the outset and thereby blessing of the reversion of authoritarianism.*

**Key words:** *Democratic transition, democratic consolidation, Ethiopia*

### **1. Transition to Democracy: Trends, Success and Failures**

There is a debate on political reform, democratic transition and democratic consolidation. The notion of democratic transition implies just the transition from a non-democratic system into a democratic one. Guo and Gray (2014) defined democratic transition as “the process of progressing the state from dictatorship to representative government”. They also argue that a democratic transition is “a defining moment for a new democracy and the mode of transition helps to shape the new democracy and affects its ability to consolidate”. On the other hand, Mohamed (2018) differentiated political reforms from political transition as the former’s aim is “...opening the democratic space of civic participation and involve comprehensive reforms of the state institutions and the constitutional, legal and policy frameworks which shaped the relationship between citizens and the state” while political transition refers to the regime change mainly from military or civil authoritarianism to democratic.

In view of this, a democratic transition has two simultaneous processes: a process of dissolution of the authoritarian regime and a process of emergence of democratic institutions. According to Haggard and Kaufman (1995), the difference between

Authoritarian regimes and their democratic successors is that the rules of the latter guarantee opposition groups the right to challenge incumbent leaders and policies, and to replace those leaders through competitive elections. Such competition assumes broad suffrage rights, free speech and association, and guarantees of basic civil liberties. Democratic transitions can be considered to have occurred

when authoritarian governments are forced to yield power to ones that operate within this set of rules.

States may transit to democracy in distinct ways. Some transitions are violent while others are peaceful. Even though the very essence of democratic transitions is a consolidated democracy, some states may arrive with low cost than others. According to Przeworski, as quoted in Guo and Gray (2014), “the strategic problem of transition is to get to democracy without being either killed by those who have arms or starved by those who control productive resources ... the final destination depends on the path”.

In making a transition to be successful, the political actors in charge of the transition do not have to repeat the mistakes of failed or stalled transitions. Empirical data revealed that between 1974 and 1990s 30 countries have successfully transitioned from authoritarian to democracy. To the contrary, in the mid-1990s, 36 countries have become authoritarian. According to Ibrahim (2003), one of the fundamental challenges facing democratic transition of contemporary Africa is that they are not based on constitutional rule from the beginning.

The recent uprisings in the Middle East, North Africa and Horn of Africa represent the most important development for democracy since the fall of Soviet communism. In Tunisia, Egypt, Libya, Ethiopia and now Sudan, there was mass public protest demanding equality and justice. Tunisia, a country where the so-called Arab revolution or Arab spring has begun in 2010, has fared better. The Tunisia has survived largely due to its success at one of a transition's critical tasks: agreeing on a new constitution. Nevertheless, Tunisia's democracy remains fragile, threatened by political violence, a crackdown on dissidents, and human rights violations. In Egypt, mass protest had removed Hosni Mubarak from power and Egyptians had hoped for a democratic future. Nevertheless, it was failed, led to a renewed mass protest, polarization and violence which led to the coming to power of General Abdel Fattah el-Sisi via military coup.

Thus, what determines whether attempts at democratic transitions will be successful or failed remains controversies? Brazil, Chile, Ghana, Indonesia,



Mexico, the Philippines, Poland, South Africa, and Spain are classical examples for successful democratic transition. According to Anna Louise Strachan (2017), the factors that affect the success or failure of political transitions are the type of regime prior to the political transition, the characteristics of the new leader of the transitional government, and the influence of digital technology. According to him, the actors that have a significant impact on the success or failure of transition processes are military: non-state actors, political parties, elections and international actors.

In this regard, Ethiopia is a classical example for unsuccessful democratic transition since 1960s. In the contemporary political history of Ethiopia, one of the political dilemmas that remain a controversial is incessant hoped-for reform attempts with a successful failure. Since the 1960s onwards, all attempted reforms have failed from the outset. Paradoxically, they created new dictators who are more brutal and repressive than their predecessors. In an article entitled ‘Ethiopia’s Dilemma: Missed Chances from the 1960s to the Present’, Donald Levine echoed the post 1960s failed reform attempts as ‘Ethiopian Dilemma’. For Levine, the five golden opportunities in the post 1960s are the abortive coup of December 1960; the ferment of 1974; the regime change of 1991; the Eritrean war of 1998 and the May 2005 national election.

On the other hand, Professor Merera Gudina (2003), generalized the political history of modern Ethiopia in terms of five grand failures such as the Expansion and Consolidation of the Empire-State: 1850s–1900; The Nation-Building Process during the Imperial Regime, 1900–1935; The Post-war Ethiopian Polity; The 1974 Revolutionary Upheaval; and The Emergence of an “Ethnocratic State” which is the Fifth Grand Failure: The Post-1991 Period.

Now Ethiopia has got its six golden opportunities. The country is in the center of a political transition. However, there is collective fear that the transition will be part of the failed story. Since the 1960s failed coup d’état, hope for a “people’s government” based on their free consent remains an ideal scenario. So, the polemical question is that do the current democratic transition will success /bring

democratic consolidation/ or fail/reversion to authoritarianism/ remains an elusive forever. This article, therefore, attempted to examine the lesson to be taken into consideration from the five successful Grand Failures so as to ensure the successful transition of current political reform the country undergone.

Methodologically, the paper used qualitative research approach in which case empirical data are gathered from secondary data and analyzed through critical discourse analysis substantiated by Antonio Gramsci theory of hegemony.

## **2. Contemporary Ethiopian Political Dynamism: From Contradiction to Contestation**

Despite its continued existence with its own civilization, government system [the monarchy], writing system and literature, Ethiopia has been imagined, assumed and interpreted differently often contradictorily by Orientalists, Africans and Ethiopians too. Not only the country's political history, the country itself is the subject of different arguments and controversies engulfed by myth and reality, tension and mistrust.

On the one hand, Ethiopia is an ancient polity classified among polities that had developed ancient civilization around the Mediterranean and Red Sea, Tigris-Euphrates, and Blue Nile River (Sergew, 1972). Though the 'When and Where' of the origin of Ethiopian ancient civilization was not yet well-known and remains contested, scholars traced its origin back to antiquity, the Axumit period of the 1<sup>st</sup> millennium, with references to the name-Ethiopia-in the Bible and Greek literature (Adejumobi, 2007; Sergew, 1972). On the contrary of its antiquatedness, Ethno-nationalist stretches the history of Ethiopia with Emperor Menilik II, a country with 100 years<sup>46</sup>. To the worst still there are extreme Ethno-nationalist and adherent of

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<sup>46</sup> In 1993 in an interview with reporter, the late Prime minister Meles Zenawi stated his view of Ethiopian history as "Ethiopia is only 100 years old. Those who claim otherwise are indulging themselves in fairy tales". See also his interview with Donald Levin in 1997. Durame (n.d.). *Ethiopia: Top 10 Infamous Meles Zenawi Quotes*. Retrieved October 12, 2018 From <http://www.durame.com/2012/06/ethiopia-top-10-infamous-meles-zenawi.html>

Ethiopian People's Revolutionary Democratic Front (hereafter EPRDF) discourse who views Ethiopia as creation of post 1990's.

Whatever the case, Ethiopia is an ancient polity with unbroken continuity of statehood shaped by myth and realities, stories of inter and intra wars, ups and down, hopes and despairs both at home and regional level. One can observe history of duality: Ethiopia is epitomizer of 'Africans hope' at the same time foreshadower of 'African failure' (Sarbo, 2009), mythologizer of 'African independence and self-determination' from white colonialism, but at home foreshadows of incessant struggle for self-determination and secession as being interpreted as 'black colonizer of black nations'.

Ethiopia is thus a State of myth and reality. Despite its long history of statehood and as well the debate, Ethiopia has been unable to consolidate a viable state and thus remain a contested State: *a State in the making*.

The present-day Ethiopia with its shape and form is largely attributed to be the creation of Emperor Menelik II, formerly king of the province of Shewa. However, his State re-building process is interpreted differently often contradictorily: being viewed as expansionist, State re-builder, colonizer and oppressor. Emperor Menelik's policy of re-building is interpreted on the one hand as policy of African version colonialism, on the other hand as a response to the 'scramble for Africa', and re-occupation of territories long previously subject to Ethiopian empire (Greenfield, 1965). On this account, there exist three contending often contradictory thesis on which the country's contemporary problems are interpreted, present Ethiopia is constituted, solutions are forwarded. The three theses are Nation-Building thesis, National Oppression Thesis and Colonial Thesis.

The three contending perspectives most often differ on the lens they used in looking at and interpreting the process of State building in Ethiopia; the major actors and their implicit and explicit intention, methods and strategies they used and the history itself, and moreover the curative solutions they propose for the country's political-cum-economic problems remains area of controversies.

Using a nation-building lens, the Nation building perspective contends that the south-ward expansion of empire builders, most importantly Emperor Menelik II, is part and parcel of the process of re-unification of Ethiopian frontiers; restoring lost territories back to Ethiopia. In his letter to European countries, Emperor Menelik II wrote that “I shall endeavor if God give me life and strength to re-establish the ancient frontiers of Ethiopia” (as quoted in Greenfield, 1965:74). On such basis, proponent of this thesis strongly contends that Menelik II and other empire builders are ‘not colonizer’, participator of the ‘scramble for Africa’. Rather they bring territories back to Ethiopia that was subject to Ethiopian suzerainty formerly. In the campaign of re-unification, there is neither colonization nor domination.

This is not a view blessed by colonial thesis. To the contrary, colonial perspective contends that empire builder’s expansionist policy is *Africa’s version of colonialism*, black colonizer of black nations. They interpreted Menelik II as participator in the ‘scramble for Africa’. Alemayehu (2014:1112, *emphasis added*) argues that “Abyssinian [a term used to refer northern Amhara-Tigray frontiers] colonialism is the worst of conquest and colonial rule of all territories in Africa...elucidate the development of Oromo national struggle for regaining their lost independence”. At the climax level, they make what they-call ‘Abyssinia Colonialism’ as the source and genesis of Horn of Africa political crisis. In the same way, Asafa (2004: 87, *emphasis added*) contends that “some Habashas (to refer the Northern Amhara and Tigray) settled in Oromia, creating garrison towns and an Oromo collaborative class that helped to maintain Ethiopian colonialism”. Advocators of this thesis forwards independence as a last solution.

The third perspective is national oppression thesis. The narrative of National Oppression came to the political landscape of Ethiopia with 1960s Ethiopian Student Movement which was inspired by Marxism- Leninism philosophy. The Movement used the term to denote their struggle against the old system, the monarchy, in the quest for social justice and ethnic equality. They understood Ethiopia as a museum of peoples, but the system made the country to be “a host of oppressed nations and nationalities who were politically and economically

marginalized and culturally and linguistically dominated” (Zelalem, 2016). In his article entitled ‘On the Question of Nationalities in Ethiopia’, Walleligne Mekonnen (1969), main player behind the student movement, raised the issue of Nationality.

National oppression thesis contends that in the long journey of the nation building process, there is national oppression and subjugation, domination and exploitation on the bases of ethnicity and thereof forwarded an ethnic based polity re-making and re-structuring where the equality of all nations and nationalities assured. The current Ethiopian polity is re-structured on the basis of national oppression thesis. The Ethiopian Student Movement’s ‘nationalities question’ and the ‘national oppression thesis’ are the main political and philosophical underpinnings of the current FDRE constitution

In the trinity of contending thesis, however, midway and mean is non-existent. They are in the path of opposing extremes. Another perspective is Donald N. Levine’s thesis. Donald N. Levine also labeled as Levin *Gebre-Ethiopia*, interpreted Ethiopia as *mosaic of peoples*. He viewed the “evolution of multi-ethnic Ethiopia as an ‘Amhara thesis’, ‘Oromo anti-thesis’ and the ‘Ethiopian synthesis’” (as Quoted in Merera, 2003: n.d.).

My point of departure is the opposing end spectrum narratives epitomizing contemporary Ethiopia problems and the solution being forwarded. The existing theses have failed to take into consideration the genesis of the problem. It doesn’t examine ancient and medieval political history and major events happened that has national significance and impact. Moreover, they are not people centered perspective. All remains an elite centered perspective where principle of compromise and win-win are non-existent instead chess game prevailed.

### **3. The Five Grand Missed Chances: Trends, Causes and Failures**

In the contemporary political history of Ethiopia, one of the political dilemmas that remain a controversial is incessant hoped-for reform attempts with a successful failure. Since the 1960s onwards, all attempted reforms have failed from the outset. Paradoxically, they created new dictators who are more brutal and repressive than their predecessors. In an article entitled 'Ethiopia's Dilemma: Missed Chances from the 1960s to the Present', Donald Levine echoed the post 1960s failed reform attempts as 'Ethiopian Dilemma'. For Levine, the five golden opportunities in the post 1960s are the abortive coup of December 1960; the ferment of 1974; the regime change of 1991; the Eritrean war of 1998 and the May 2005 national election.

On the other hand, Professor Merera gudina (2003), generalized the political history of modern Ethiopia in terms of five grand failures such as the Expansion and Consolidation of the Empire-State: 1850s–1900; The Nation-Building Process during the Imperial Regime, 1900–1935; The Post-war Ethiopian Polity; The 1974 Revolutionary Upheaval; and The Emergence of an “Ethnocratic State” which is the Fifth Grand Failure: The Post-1991 Period.

Despite the different periodization of the grand failures in the modern and contemporary Ethiopian political history, there is communality. In both papers, the elite is considered as a major force behind the failures. For the purpose of the paper, the five missed chances are the 1952 Ethio-Eritrean federation and aftermath dissolution and war, 1960s failed coup d'état, the 1974 revolution, the 1991 regime change, the 2005 national election.

Since the 1960s onwards, the internal and external changes steadily led to the collapse of the monarchical system of government forever. The changing international and regional environment such as the emergence of bipolar system with a competition in the region, the birth of new States in Africa and Middle East as a result of decolonization process, ideological rivalry and the birth of Marxism-

Leninism across the world had overarching impact on the Ethiopian polity. Internally, the modernization process being introduced so far had gradually shifted the balance of interest and power in favor of the new emerging progressive, constructive and destructive, elite which later on stands against the old system. According to Tiruneh (), in the 1960s three center of opposition to the prevailed system had been created: “the rebellion in the Ogaden and Bale, the rebellion in Eritrea and the emergence of opposition at the centre”. All these had created a collective grievance among teachers, students, taxi drivers, diaspora and the peasant at large.

### **First missed chance**

The first-ever thing that challenged the imperial regime was the 1960s December Aborted or failed *coup d'état*. Due to overgrowing grievances in the quest of social and political changes, a groups consisted of the commander of the Imperial Bodyguard Mengistu Neway, and his followers; a few security officials, including the police chief; and a handful of radical intellectuals related to the officials, including Girmame Neway, Mengistu's brother launched the first ever coup d'état on Tuesday December 13, 1960 against the imperial regime while the Emperor was abroad on a State visit in Brazil (Clapham, 1968).

The coup was initially successful in the capital, as they took control of the imperial palace and detained the crown prince Asfa Wosen and cabinet ministers including the Ministers of Commerce, Defense, and the Interior. According to Clapham (1968:496), on the next day, December 14, 1960 “the rebels secured control of most of Addis Ababa and drafted a proclamation, broadcast by Asfa Wasan, who is generally regarded as having acted under duress”.

They announced the formation of a new government under Asfa wosen, and promised the start of a new era. They also issued an 11 point programme of proposed reforms and the newly appointed prime minister. The attempted reform also obtained the support of university students, who demonstrated in Addis Ababa in favor of the coup that promised to institute a new government.

Nevertheless, the coup had failed to achieve popular support due to their inability to neutralize important opponent groups. The counterforce led by the regime loyalists had secured the support of the tank squadron and the air force, and the church. They also issued a letter signed by the Patriarch of the EOTC condemning the rebels as anti-religious and reform traitors and calling for loyalty to the emperor. Consequently, the rebels were outgunned in a fighting that was broke out on Thursday 15, December.

Though the coup was failed, it was a golden opportunity to Ethiopia. First, it was an attempt to change the regime by peaceful means. According to Levine (2013:4), “as one Bodyguard officer boasted to me a month before the coup, ““When a signal for change is given, be-and innenesealan, we shall rise as one.” That was the preference of those who marched from Arat Kilo to the Piazza, with placards that proclaimed, “*Ityopiya le-hulatchn be-selamawi lewet*--Ethiopia for all of us through peaceful change”. Second, it is a reform within promising the establishment of a government that would improve the economic, social, and political position of the general population without eliminating the traditional authority in the person of the crown prince.

Sadly, the coup’s failure promoted the consolidation of imperial power and the outbreak of liberation fronts in the frontiers. Instead of giving solutions to the overgrowing grievances, the regime had rewarded those who defended the status quo and punished the rebels which can be regarded as ‘adding new problems’. In general, the failure of the regime to made reforms had created new forms of organized struggle and question.

## **Second missed chance**

The 1960 aborted *coup d’états* was a clear sign for the need of reform. Though they are too little and too late, there was a reform attempt on the eve of physical extinction of the monarchical system in 1974 revolution. One such an attempt was The 1974 Draft/Aborted Constitution. The constitution promised to the establishment of a constitutional monarchy: to empower the Prime Minister as per



Order 44, to nominate the members of his cabinet; yet, he had to get the approval of the Emperor. This, too, failed to meet the needs of the time. In the eyes of the then elites one of the primordial needs of the time was the establishment of parliamentary form of government maintaining the Crown as a symbol.

Constitutional conference was established to revise the 1955 Constitution as part of the reform measure undertaken by the regime. The Constitutional Conference was mandated to revise the existing Constitution with “the view to making the Prime Minister directly responsible to parliament rather than to the Emperor, and to guarantee further civil rights” The draft was modeled after what would be characterized as Constitutional Monarchy of Western Democracy with separation of power and controlling mechanisms, with the Emperor, as Head of State, had one effective power only – Commander-in-Chief of the army. The draft was not ratified; instead a new government was established by September of the same year – the P.M.A.C. As a result a shift took place: egalitarian economic oriented.

The Constitutional Conference was able to prepare and submit a draft on August 6, 1974 to Prime Minister Endalkachew Mekonnen who by then had been under detention for five days. Because the new draft Constitution grip on state power, the *Derg* rejected it, although the stated reason was that it failed to make reference to the philosophy of “*Ethiopia Tikdem*”

Indeed, the rejection constituted the first piece of legislation issued by the *Derg* after it came near to state power. The rejection of the Draft appeared in the Proclamation that established the Provisional Military Government-Proclamation No. 1/1974 suspended the 1955 Constitution and threw the country in to a constitutional limbo by providing the following as regards the 1974 draft in its sub-article (b):

*The new draft Constitution, the promulgation of which have been demanded by the Armed Forces Council as a matter of urgency shall be put into effect after the necessary improvements are made to include provisions reflecting the social, economic and political*

*philosophy of the new Ethiopia, and to safeguard the human rights of the people ... However, the same proclamation further provided that, the Armed Forces, the Police and Territorial Army Council has hereby assumed full government power until a legally constituted peoples' assembly approves a new constitution and a government is duly established.*

Despite the military initial promise to return to its camps after transferring power to the civilian authority, and ensured the society is stabilized and the prevalence of law and order is assured. In the meantime, the Derg embarked on taking some reform measures of national significance. At domestic level, it declared Ethiopia a “socialist state”, adopted command economic policy and nationalized the commanding sectors of the economy. It passed land reform legislation making rural and urban lands including extra houses the property of the state. To consolidate its grip/hold on power, the military also machine-gunned former government officials. With last measure the revolution that was thought to be peaceful began turn bloody. The civilian left political originations (EPRP and AESM/meisson) that began to surface were gradually but steady removed from the national political scene. The regime that ruled the country for about 15 years enacted the Constitution in 1987 and established the government of the People's Democratic Republic of Ethiopia under the leadership of Mengistu Haile Mariam.

### **Third missed chances**

The major contending issues and questions raised during the 1960s remain unsolved by the military regime. The nationality question is still a prevalent question endangering the continued existence of the country. This has led to the downfall of the military regime and the establishment of a transitional government in 1991.

The transitional government was established by the Addis Ababa national conference. In the transitional charter Ethiopia was recognized as a multiethnic polity and thereof established a defacto ethnic federalism. A year later, the country's first multi-party elections were held. A new Constitution was ratified in

1995 which created FDRE government, an ethnic federalism, parliamentary system of government and multiparty system. Nevertheless, the restructuring of the State along with ethnic lines has become a primary cause for the post 1991 ethnic conflict, displacement and turmoil's. The new regime also lack inclusiveness. The constitution is also unconstitutional from the beginning.

#### **The fourth missed chances: 1952 and 1998**

The other missed chance was the 1952 Ethio-Eritrean federation, 1991-1993 separation and independent statehood, and 1998 brothers' war. According to Ezekiel (2018), "in the wake of the 1998-2000 war with Eritrea, the heightened patriotic commitment Ethiopians displayed could have been used to increase citizen participation in the country's political life. The then prime minister Meles Zenawi exploited the conflict to decimate his political opponents within the ruling party and consolidate personalist power".

#### **The Fifth missed chances 2005: Democratizing Breakthrough**

The other more promising period was the May 2005 election. The election was hoped to be a proof of democratic order. According to Ezekiel (2018),

*the relatively competitive national elections of 2005 was another conjuncture to accept the election results and negotiate transferring to or sharing power with the opposition. Characteristically, the EPRDF leader used the opportunity to obliterate the opposition, encourage political polarization and firmly install an authoritarian regime to rule indefinitely. Windows for the long-awaited democracy were subsequently shattered and turned into occasions for valorization of violence.*

The election remains as disputed elections concluded with violence and bloodshed. Dozens of opposition leaders along with media and civil society activists were arrested. In the post-election period, the regime becomes more brutal and repressive. It enacted laws which are undemocratic and unconstitutional.

#### **4. Current Democratic Transition: Causes, Achievements, challenges and Prospect**

As mentioned above, the country remains a contested State still in the making with unfinished transition to democracy where democratic institutions are pseudo creation of the regime in power. As a result, there was a political upheaval and public demonstration calling for an end of repressive government and imperative of democratic transition and consolidation since April 2006 EC. For this, social media is a commonly used tool by activists, political parties and the youth. They have used social media for political mobilization and participation including dissemination of selected day of protest, demonstration, boycott day and type and slogans. The protest is also framed via social media as ‘the Oromo Protest’ with ‘Qero’ as a principal player and Amhara Protest with ‘Fano’ as a main player. The main question in the protest is political and economic.

The countrywide protest has opened the door to internal political reforms. Prominent among these were the resignation of former Prime Minister Hailemariam Desalegn on February 15, 2018, and Abiy’s election as the country’s prime minister on April 2, 2018. With this, Ethiopia has now got its new golden opportunity: a reform within EPRDF. Ethiopia’s new premier, Dr. Abiy Ahmed Ali, has introduced unprecedented reforms that have not only domestic but also regional implication: state of emergency was lifted, prominent opposition leaders and journalists were released from prison; the infamous detention center, *Maekelawi* Prison closed down; exiled dissidents and banned media outlets returned to Ethiopia; individuals and organizations charged with “terrorism” under the draconian Anti-Terrorism Proclamation have been granted amnesty; nearly two decades of hostility between Ethiopia and Eritrea have ended; and over 264 banned websites and blogs have been unblocked. He did all of this by his political philosophy the so called \_Medemer\_ via preaching of love, unity, and forgiveness. All these have attempted to revive ‘the spirit of Ethiopianism’ and its greatness with an optimistic prospect of peace and democracy. Nevertheless, the transition also faced challenges: political, economic, legal and institutional challenges.

## **4.1. Challenges and Unknowns**

### **Legal and Institutional Challenges**

The government's ongoing political reforms are yet to result in meaningful legal reform and subsequent establishment of institutional frameworks or a new consensus around a national roadmap for resolving inter-group conflicts and grievances. This is creating serious concerns ahead of the forthcoming elections in May 2020. If unresolved, such issues may fuel post-election violence in the country. Thus, there is a need to invest on legal frameworks that focus on leveling an equal playing field. In terms of institution, democratic and security related institutions are not yet reformed up to the need.

### **Still unsolved issues**

In spite of the prime minister's promises and some positive actions thus far, there is skeptical views describing the transition as hijacked or derailed by specific interest groups. On the apex level, it is said that, first, the core demands of the Oromo protests are yet to be addressed. These include: (1) resolving the contested relationship between Oromia and the city of Addis Ababa (known as Finfinne in the Oromo language), (2) making Afaan Oromo a working language of the federal government, in addition to Amharic, and (3) resolving issues of equitable resource distribution and economic questions, including poverty, marginalization, exclusion, and overall development. On the other hand, the question to be resolved includes constitutional amendment, restructuring of the State along with other variants of federalism other than ethnic lines, institutional reform and policy reform. The Prime Minister has so far chosen to remain silent on these demands in his public speeches has led to growing concern. These issues also require more time, strategy and economy. But they are challenging the transitional period.

### **Still Existing Mistrust**

The political history of Ethiopia is full of mistrust, fear, suspicion, tension and anxiety mainly between and among elite and power holders. Ethiopianism Vs. Nationalism is one source of mistrust in the contemporary political landscapes. The prime minister's vision of Ethiopia that overemphasizes "Ethiopianism" has frustrated many ethno-nationalist groups. In many of his public speeches, Abiy

appears to focus mainly on Ethiopia's past "glory," which tends to contradict the views of many nationalists.

### **Conflict and displacement**

Since the reform measure has undertaken, the number of inter-group conflicts and the population of internally displaced has been increased considerably. Peripheral regions, including the Benishangul-Gumuz region, Somali region, Afar region, some parts of the Southern Nations, Nationalities and Peoples' region, some areas in the Oromia region, the Amhara-Tigray border, Gonder and North Shewa in Amhara region and some universities became epicenters of inter-group conflicts. However, the government was unable to respond swiftly.

### **Elite and diaspora polarization**

Since the 1960s Ethiopian politics is framed and marketed by the elite with diaspora sponsored political game. The elite has clash of interest.

### **Contested Political history and prolonged national consensus**

As far as history concerned, there is contestation which has been major source of controversies in the modern Ethiopian political landscape. History is used as a means to certain ends: interest of the elite at the expense of the people's history. In this regard, what is needed national consensus which is now either neglected and not given due attention.

### **Secrecy**

Secrecy is also a perceived challenge that can demise the ongoing hoped-for transition. On the one hand, the on-going dialogue and agreement between the government and OLF is still unknown for the public. On the other hand, with the exception for the peace deal signed so far between Ethiopia and Eritrea, all other negotiations and technical issues are putted secret. As history tells us, secret diplomacy was a cause for WWI and II. A secret diplomacy at regional level, and secret dialogue and agreement at local level may endanger the national interest and wellbeing of the country and its people respectively.

**Ethnic tensions:**

Ethnic-based clashes also threaten the pace and sustainability of reforms, as fear of protracted violence and political instability persist. In the past few months, ethnic and identity-based clashes that flared in Oromia, SNNPR, Amhara, Benishangul Gumuz and Somali regions caused the death of hundreds of civilians and the displacement of more than one million people. The government's efforts to address these incidents are largely reactive.

**Reintegration of armed militia**

Armed members of former insurgent groups are returning home to communities in Oromia, Amhara, Tigray, Somali and other regions following the government's declaration of forgiveness and invitation to participate in peaceful political activities. It is not clear whether these former fighters have gone through proper demobilization, rehabilitation and reintegration processes.

**Electoral reforms**

What is done still know is a promise to make the next elections free and fair. Thus, the government has not yet rolled out its roadmap for electoral reforms.

**A Way Forward**

The current Ethiopia's political and economic reforms have brought unprecedented change even beyond the country. However, the current political reforms in Ethiopia have not yet fully reforming the state institutions and the legal, administrative and policy frameworks. Along this, the hereditary political problems from the 1960s have also prevailed which can make the current reform a cosmetic change. These factors are an elite driven politics, a chess game politics, nonentity of principle of compromise, a top-down democratization approach and history of mistrust and tension. Therefore, there is an imperative to draw a lesson from past failures so as to make current transition successful which includes avoiding hegemonic leadership aspiration, politics of Dehumanization, unrestrained claim of competing elites, playing win-win politic instead of a chess game, principled politics, genuine willingness and commitment to compromise, prioritization of national interest and security that Ethnic interest, holding Nation-wide future vision instead of imprecise Ethnic vision. By taking these lessons, the government should

- ❖ Undertake institutional and policy reform on constitutionals, electoral and democratic institutions aimed at creating equitable and conducive playing fields
- ❖ Brining national consensus which is an imperative and only path of survival.
- ❖ Follow negotiated transition.
- ❖ Expand the democratic space for political participation
- ❖ Enhance the civic engagement as a means of expanding authentic participation in the political
- ❖ Convene Comprehensive National Dialogue (CND) for all major political parties and social forces
- ❖ Working on common aspirations such as political stability, peace, and security as an overwhelming aspiration of all Ethiopians: rule of law as an aspiration of the Ethiopian people, inclusion and representation as an aspiration of ethnic groups, authentic participation and inclusion in the ongoing political reform process as people's aspiration

Failing to do so would mean letting the hoped transition-for democratic consolidation and durable peace and development to die from the outset and thereby blessing of the reversion of authoritarianism.

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# **The Role of Social Capital in Housing Affordability; A case study of Bahir Dar city**

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## **Abstract**

*Housing is a basic need which can affects quality of life of people and places. It is also an important determinant of sustainable development. However, housing affordability problem is growing in urban areas following rapid urbanization and urbanization of poverty. The affordability problem has no straight forward solution so far. The determinants of affordability understood to go beyond cost of housing, which include life style and social capital. Like other urban areas, Bahirdar city has the affordability problem following its recent population growth. In view of that, this study tried to understand the role of social capital for housing affordability in the city. To do so, the study used explanatory research method using secondary and primary data. Both purposive and random sampling methods were used to draw representative household in the expansion areas of the city. Mainly, descriptive statistics and binary logistics regression were used to discuss the data. The results show, most of the household have no own housing. More than 17 and 38 percent of household do not afford housing based on the 30/40 and 30 percent threshold criteria respectively. Further, the logistic regression shows those households who expend on parents have higher probability of affording housing than those who do not. However, other important constituents of social capitals are found to have no significant impact on the affordability. Therefore, the city administration shall provide more formal housing finance sources, as most social capitals proxies are becoming less important to afford a housing. Further, the study implied that the city administration should design new housing schemes to increase home ownership and thus improve housing affordability.*

**Key Words:** *Housing Affordability, Social Capital*

## **1. Introduction**

Housing is a basic need which can influence a community's health, social behavior, satisfaction and welfare (Abimaje, Akingbohunge, & Baba, 2014). It determines the quality of life and welfare of both people and places. Housing is central to sustainable development, in which social aspects such human capital and social capital development are key (UN-Habitat, 2012).

However, there is a growing global housing affordability problem following rapid urbanization. Consequently, the problem is posing a challenge for urban policy

makers (LI, 2014). Since there is no straightforward policy approach to the housing problem, more localized approaches are recommended (Buckley & Kalarickal, 2005).

There are different determinants of housing affordability. Salama (2006) argued considering cost of housing as a sole determinant is a misconception, and suggested other additional determinants including life style of people. Other researches also related a higher housing affordability problem with employment instability and income inequality, and demographic factors such as marital status, number of children and existence of unemployed family member (LI, 2014). In general, since cost of housing is not the sole determinant of housing affordability, other aspects such as social capital, which is central to peoples' wellbeing, came to be considered. Social capital is evidently important in managing collective resources and source of income (Grootaert & Bastelaer, 2001).

Incorporating the social capital issue in the urban policy is a recent phenomenon, and had been less developed (Lang & Hornburg, 1998). It is Yi, Huang, & Fan (2016) brought social capital in housing issues of urban areas, specifically, as a determinant of housing affordability. They have stated social capitals (relations with and characteristic of family, relatives or friends) can significantly determine housing affordability of a household, and supported their proposition using empirical evidence. Other research findings also support this trait of social capital. According to Hulchanski, (1995), it is the social relations that enable households to survive in the complex situations or challenges.

Ethiopia has high rate of urbanization but least urbanized population. The urbanization, population growth and the urban poverty problems aggravates the problems in urban areas, including the housing problem. Ethiopian government remain a key role player in housing sector, particularly in urban areas. The recent integrated housing development program have tried to supply housing for major cities, including Bahirdar. However, the houses remain not affordable to the poor because of down payment and other reasons (UN-Habitat, 2011). Consequently, the housing affordability continue to be the problem urban areas. This has been resulting in a supply side dominated by informal sector or settlements.

Like other major cities of the country, Bahir Dar city has experienced considerable population size which was estimated at 180 thousand in 2007 census and projected to be 360 thousand populations in 2017 (Ethiopia Civil Service University, 2015). As Voith & Wachter (2009) explained a city growth can induce housing affordability problem that Bahirdar city's growth is resulting in the increasing and disproportional housing demand compared to the supply. The government intervened mainly through condominium program, but faced unsustainable financing problem.

Let alone housing and affordability relationship with social-capital, housing issues by itself is not yet well researched in Ethiopia. Besides, a few researches have been conducted on housing but only focused in Addis Ababa only (UN-Habitat, 2011). On the other hand, researches on social capital had non housing perspective so far:

social capital and community efficacy (Kassahun, 2005), social capital and microenterprise development (Kebede, 2017).

There is a housing research which spatially focused on Bahirdar city by Adamu (n.d), even so merely assessed the condominium housing management in the city, not the affordability. Otherwise, to the best knowledge of this research, the subject matter of housing affordability and social capital are yet to be researched in the Bahirdar City, in which this study has tried.

## **2. Concepts and theories**

### **2.1. Definition and Measurement of housing affordability**

There is no agreed way of defining and measuring housing affordability (LI, 2014; Baqutayan, 2016; Robinson, Scobie, & Hallinan, 2006). Beyond the disagreement, the concept of affordability can be explained as the relationship between income and prices. Such concept cannot be brought straightforward, as the affordability concept in housing is slightly different: first the housing purchase requires high income that the income left after is low; second, housing is consumed for long time that cost of the purchase can be distributed for long period of years (Robinson, Scobie, & Hallinan, 2006). The concept of housing affordability can refer also three types of strands: housing affordability for renters, the would-be home owners, and for existing homeowners (Robinson, Scobie, & Hallinan, 2006).

Beyond the conceptualization and definitions, it is worth classifying housing affordability. Li (2014) discusses that affordability definitions being classified as normative, behavioral and subjective. The normative, which has more research attention, follows a defining threshold; the behavioral approach examines household characteristics; and the last one, subjective approach, assess respondents feeling by conducting surveys. On the other hand, Stone, et al (2011) grouped affordability as categorical, relative, subjective, family budget, ratio and residual. In categorical approach affordability is about being able to buy or rent a house. Relative approach also has no independent normative standard but use two or more points to show dwellings relative affordability on average. In the subjective approach, affordability is not generalizable but subjective to the family, who make their own best choices with in constraints they face. The family budget approach tries to establish minimal standard for quality and quantity of items priced and summed to yield total minimal budget before tax, as there is minimal standard in measurement for poverty. The other approach defines affordability by housing cost relative to income, which has longest history of acceptance. The last approach is the residual income approach which states affordability problem is when households have no enough income left for minimal level of other non-housing needs after housing expenditure.

Regarding measurement, there are different measurement indices of housing affordability (Jewkes & Delgadillo, 2010). Most measurements refer the income and purchasing capacity of the household (Robinson, Scobie, & Hallinan, 2006). Conceptually other words, they can be termed as shelter first or non-shelter first. The shelter first approaches assume housing a priority, while the non-shelter first

assume non-housing are the priority that the housing cost is the residual (Burke & Ralston, 2003).

The most common and popular methods of measuring housing affordability are ratio approach and residual income approach, which are discussed here under.

### **2.1.1. Ratio Approach**

This indicator or approach assesses the housing affordability based on the ratio of housing expenditure to income with reference to some level of threshold percentage. It is considered as the 'rule of thumb' in measuring housing affordability. The threshold level of expenditure to income ratio has been varying over time: it was 20%, 25% and 30% etc. This method is valid and reliable in terms of describing household expenditure and analyzing trends and making comparison among different households (Hulchanski, 1995). This method helps to identify locations or areas with higher housing pressure and require additional appropriate housing supply (Whitehead, Monk, Clarke, Holmans, & Markkanen, 2008).

Hulchanski (1995) claimed that, even though the so called 'rule of thumb' is valid and reliable in terms of describing household expenditure and analyzing trends and making comparison among different households, it is not valid and reliable to describe housing need and ability to pay. On the other hand, there are three important critics of the 30 percent income criterion. The first critics, which is termed as shelter poverty critics, is that the method does not consider the amount of income left after 30 percent housing expenditure. There is a possibility the income left cannot cover the cost of important expenditures such as food and health cost. The second critics, area affordability issue, is that housing affordability may be associated with additional cost because of environment, social and transportation cost following relocation to new location. The third critics, physical condition issue, is that housing affordability may offset the quality of housing condition, such as moving to deteriorated housing while the cost remain not higher than 30 percent of the household income (Pivo, 2013).

Following the critics of the 'rule of thumb' housing expenditure to income approach, modified versions of it are emerging. One among these is 30/40 rule or indicator. It is used to assess the housing stress. The 30/40 indicator assess the potentially at-risk households through identifying those households in the bottom 40 percent of the income distribution incurring a housing cost at least 30 percent of their income (Yates, et al., 2007).

### **2.1.2. Residual Income Approach**

The approach measure housing affordability by assessing the level of adequacy of income after housing expenditure is made. That is, a household has a housing affordability problem if it cannot meet the minimum required residual income for other necessities after paying the housing expenditure. This indicator or approach recognizes that housing has distinctive attributes relative to other necessities that its cost or expenditure is the largest and least flexible for most of households. And thus, households consider budgeting for housing first than other necessities. That means, the cost allotted for other expenditures (non-housing) is constrained by the

largest housing expenditure. The residual income approach shows the tension between housing expenditure and income (Stone, Burke, & Ralston, 2011). Since ratio approach is not a valid indicator of housing need (Hulchanski, 1995), the residual income approach is an alternative to assess the housing need through assessing pressure between housing expenditure and income.

Moreover, the residual income approach enables to identify the difference in family size for comparable income households. This means a small household size can spend higher share of income for housing than a comparable household (has similar income) with larger household size can. However, the residual income approach needs a socially defined standard of adequacy for non-housing items. Further, the challenge is that the standard of adequacy for non-housing items cannot be made global (Stone, Burke, & Ralston, 2011).

## **2.2. Social capital and its measurement**

The social capital can refer to institutions, relationships, attitudes and values which govern relationships and thus affect development in the society. The importance of social capital in development has been for long in different disciplines. However, a consolidated consideration and study started since 1990s (Grootaert & Bastelaer, 2001). Further, Grootaert & Bastelaer (2001) have proposed three dimensions in the concept of social capital: scope, forms and channels of affecting development. The scopes can be of three types. micro level and macro level, which are complimentary. The next is the forms of social capital described as structural and cognitive. The channels through which social capital affect development can be seen from information sharing, collective action and decision making.

Furthermore, the traditional approach ignores social capital in economic growth and development. But social capital affects economic growth and development in addition to natural capital, physical and human capital. Unlike physical capital but like human capital, the quality and quantity of social capital increase from its use. Besides it is like a public good and can be under produced because of incomplete collective internalization. Like other capitals, it requires investment, at least in the form of time and management. Related to this is its maintenance requires time, as conflicts can damage trust. Social capital has an asset to be accumulated as a stock. The investment, which is not necessarily money but at least in time and effort, can be considered as the inputs, and the benefits as the outputs of social capital.

Empirical and theoretical evidences show that households can get resources, cash or non-cash, for the basic need from different five economic spheres: domestic economy, informal economy, extended family and cloth acquaintance, social economy, market economy and the state economy (Hulchanski & Michalski, 1994). The extended family and cloth acquaintances, and the social economy is directly related to the social capital of the household.

Different researchers may use different proxies to measure social capital. These may include membership in an existing network, types and number of relationships, extent of participation in meeting and decision making in an association or network, number of collective activities of a community, norms of sharing reciprocity, trust indexes and so on, depending on the context (Grootaert & Bastelaer, 2001). For

example, Kassahun (2005) used density of membership to networks or associations, informal network (with friends, family and neighborhood), trust and reciprocity as proxies of social capital, while Yi, Huang, & Fan (2016) used mainly expenditures on family, relatives and friends networks social capitals as way of paying pack for housing finance.

#### a. Conceptual framework:

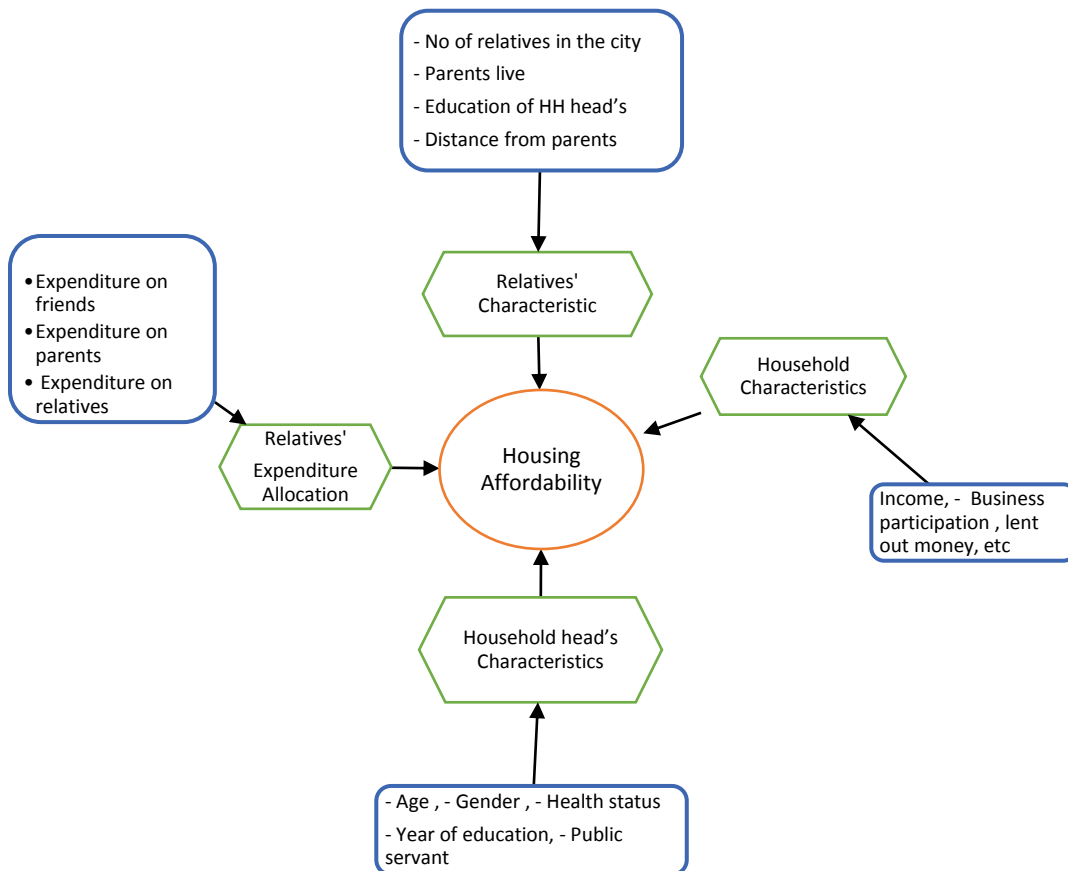


Figure 1: Conceptual framework

In addition to characteristics of the household head and the household itself, the housing affordability is assumed to depend the social capital of a household which proxied by the relationship with parents, relatives and friends. This is presented in the above conceptual framework.

### 3. The Methods

The study is an explanatory research. Both primary and secondary data were used. Sampled household were the main and primary data sources. The main method of data collection was structured questionnaire. Both non-probability and probability sampling were used. The research intended mainly to estimate individuals'



affordability not additional housing supply affordability, that area affordability is not in the scope of the study. Accordingly, purposive sampling, which is a non-probabilistic sampling is used to determine the part of the city where there is high residential housing and the city is expanding. Therefore, purposively the kebeles at the residential expansion of the city which include Keble 11, 13, 14 and 16 are drawn. Then, random sampling is used to draw samples respondents in each Kebele. Accordingly, the sample size is determined using the following formula with the 95% confidence level and 5% of error,  $p=q=0.5$ , which resulted in 377 sample size. That is

$$n = \frac{z^2 pq}{e^2} = \frac{(1.94)^2 (0.5)(0.5)}{(0.05)^2} = 377$$

The housing affordability status of households is computed using two indices. The first index is computed based on the 30:40 housing affordability measurement- 30 percent threshold of housing expenditure to income for the bottom 40 quartile income. The second index is the 30 percent threshold criterion. This index is computed by identifying household whose housing cost is higher than 30 percent of their income, regardless of the income quartile.

Then, the econometric analysis used a binary logit regression model to regress housing affordability status with its determinants. The Logistic regression is stated as follows.

$$L_i = \left( \frac{P_i}{1 - P_i} \right) = \beta_0 + \beta_1 X_i$$

Where

$L_i$  is the odd ratio

$P_i$  is the probability affording a house;

$X_i$  the explanatory variables

$\beta_0$  coefficients

Housing affordability status is the dependent variable. Its proxy was the affordability index, which is computed from the income and cost of housing data, for both home owners and tenants or renters. Analysis is made to identify factors that affect the housing affordability. The factors that can affect the housing expenditure decision of households are used independent variables in the logit analysis. These variables (explanatory) are categorized as household characteristics, household head's characteristics, expenditure allocation and relatives' characteristics. The last two categories involve and proxy social capital of the household.

## 4. Results and Discussions

### 4.1. Demographic Characteristics of Sample Respondents

As shown in Table 1, from the total sample respondents, 45.36 percent (171 respondents) are from Kebele-14, while 20.16 percent (76 respondents) are from kebele 11. The remaining respondents which is 14.06 percent (53 respondents), and 20.42 percent (33 respondents) are from Kebele-13, and Kebele-16 respectively.

Table 1: Sample Households' Location (Kebele)

HH's Kebele	Freq.	Percent	Cum.
Kebele 11	76	20.16	20.16
Kebele 13	53	14.06	34.22
Kebele 14	171	45.36	79.58
Kebele 16	77	20.42	100.00
Total	377	100.00	

Source: Own survey, 2018

The pie chart below describes the Sex of the head of the sample households. Accordingly, 71.35 percent (269 respondents) of the sample households are Male headed while the remaining 28.65 percent (108 respondents) households are female headed. This shows that most of the sample household are Male headed.

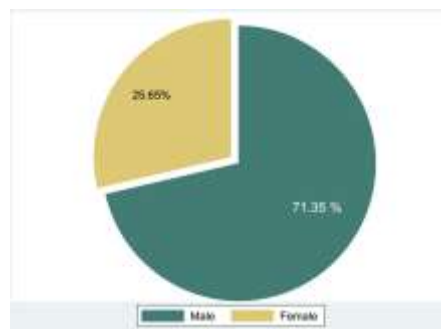


Figure 2: Sample Household, By Head's Sex

Source: Sample Survey, 2018

The study tried to assess whether the household heads have a housing provident fund from their employment. On this regard, most of the household head respondents do not receive housing provident fund, as shown in the table below. Only few, 10.48 percent, of the total respondents' heads receive a full or partial housing provident fund, and thus 89.52 percent of the sample households have no housing provident fund.

Table 2: Sample respondents, by Household head's Housing provident fund

Housing provident fund	Freq.	Percent	Cum.
Full	12	3.81	3.81
Partial	21	6.67	10.48
No	282	89.52	100.00
Total	315	100.00	

Source: own sample survey, 2018

Educational status of households would affect different aspect of the household, including the social capital and housing affordability. This shows that most of the household heads (more than 90 percent) have attended either formal or informal education. The city had 68.5 percent formal education literacy rate based on the recent population census (CSA, 2007), which implies that this literacy average is improving in the expansion areas now a day.

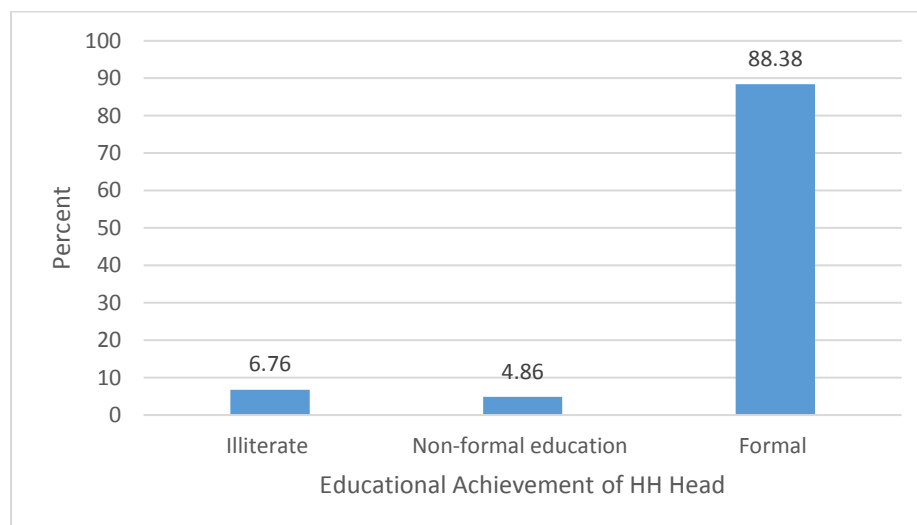


Figure 3: Sample respondents, by Household head's educational achievement

Source: own sample survey, 2018

Most of the household heads, who represent 47.46 percent, have good health status. Only 2.41 percent of the sample respondents have poor health condition. That is, as presented in the table below, most of the household heads have good health status, and no one respondent has a very poor health status.

Table 3: Sample respondents, by Household head's Health Status

Health Status	Freq.	Percent	Cum.	Health Status	Freq.	Percent	Cum.
Poor	9	2.41	2.41	Very good	114	30.48	100.00
Fair	72	19.25	21.66	Total	374	100.00	
Good	179	47.86	69.52				

Source: Own sample survey, 2018

The average household size of the samples is 3.67 members, while the maximum household size is 10 members, and the minimum household size is one members household. On the other hand, households have more female members than male members, on average. In general, the sample household size of 3.67 members is higher than the 2007 census regional and Bahirdar special zone average household size of 3.3 member.

Table 4: Mean Household size

Variable	Obs	Mean	Std.Dev.	Min	Max
HH~_Total	377	3.663	1.887	1	10
HH_MALE	377	1.814	1.124	0	6
HH_FEMALE	377	1.849	1.174	0	6

Source: own sample survey, 2018

The other important aspect worth considering is household's business participation. As the source of income affects the housing affordability, the household's business participation worth consideration. The table below shows that, most of the respondents do participate in the business activity. From the total household respondents, 51.36 percent (189 respondents) had a business participation, while 48.64 percent (179 respondents) had no a business participation.

Table 5: Household's Business Participation

HH participate in business activity	Freq.	Percent	Cum.
Yes	189	51.36	51.36
No	179	48.64	100.00
Total	368	100.00	

Source: own sample survey, 2018

The credit card ownership of households shows that most of the households who represent 61.85 Percent (227 respondents) have credit card, while the remaining 38.15 percent (140 respondents) have no credit card. This shows that most of the households have used the credit card banking

service, in addition to opening bank account. This would increase the financial literacy of the household, as the progress with the financial technology. Ultimately improves housing finance access and thus housing affordability of the household.

Table 6: Household's Bank credit card ownership

The family owns a credit card	Freq.	Percent	Cum.
Yes	227	61.85	61.85
No	140	38.15	100.00
Total	367	100.00	

Source: own sample survey, 2018

Now a day, the formal banks accessibility is increasing in Ethiopian in general that household would access credit card as well easily. The figure is better in urban areas like Bahirdar. For example, by 2016, about 68 percent of Ethiopian adults had banking account (NBE, 2017). This national account ownership and the specific credit card ownership figures imply the formal financial literacy of the households, which nearly close to the context in the Bahirdar city.

The household's relation with the family, relatives or friends would include financial relation. The financial relation also includes lending to the households or people in the social network. In this regard, the sample households' response shows that more than 82.74 percent (302 respondents) of the total households have not lent out money, while about 17.26 percent (63 respondents) of them have lent out money to another person or household. That is, the majority are not lending out money in the social network.

Table 7: Household's Money lending practice

The family has lent out money	Freq.	Percent	Cum.
Yes	63	17.26	17.26
No	302	82.74	100.00
Total	365	100.00	

Source: own sample survey, 2018

The housing ownership status is assessed in way near future plans are incorporated. In that case households' next five-year plan to own a house is considered. As shown in the table below, more than 50 percent of the respondents have no their own housing. However, among those who do not have own house currently, 40.27 percent of the total respondents have a plan to own in the coming five years. On the other side, 17.84 percent of the respondents have not their own housing currently and have not a plan to own in the coming five years as well.

Table 8: Household's Home ownership Status

Home ownership	Freq.	Percent	Cum.
purchased a home	155	41.89	41.89
Plans to buy home in 5 years	149	40.27	82.16
No plan to buy home in 5 years	66	17.84	100.00
Total	370	100.00	

Source: own sample survey, 2018

The table below presents that most of the sample households are living in rental house, which is owned by others. Those households who are living in rental housing shares 53.39 percent of the sample households. On the other hand, those who are living in their own house are 172 household who shares 46.61 percent of the sample households.

Table 9: House ownership: Own or rental

Type of housing ownership	Freq.	Percent	Cum.
Own	172	46.61	46.61
Rental	197	53.39	100.00
Total	369	100.00	

Source: own sample survey, 2018

Considering only these living in rental house, most of the household are living in the rental houses which are owned by private owners. This makes about 87.56 percent of the sample households. On the other side, those households who live in the governmental rental houses are only 12.44 percent of the sample households who live in the rental houses. This implied the limited involvement of government in rental houses.

Table 10: Owner of rental houses

House owner	Freq.	Percent	Cum.
Government	24	12.44	12.44
Private	169	87.56	100.00
Total	193	100.00	

Source: own sample survey, 2018

As shown in the figure below, the maximum room size is 12 while the minimum rooms size is 1. It is important to notice that this minimum room size is in which the second most sample households are living in. Most of the households live in a house which has 3 rooms. In general, the average room size is estimated at 3.28. Comparatively, the average room size has increased

relative to the recent and 2007 population and housing census estimate of average 1.9 rooms in the city (CSA, 2007).

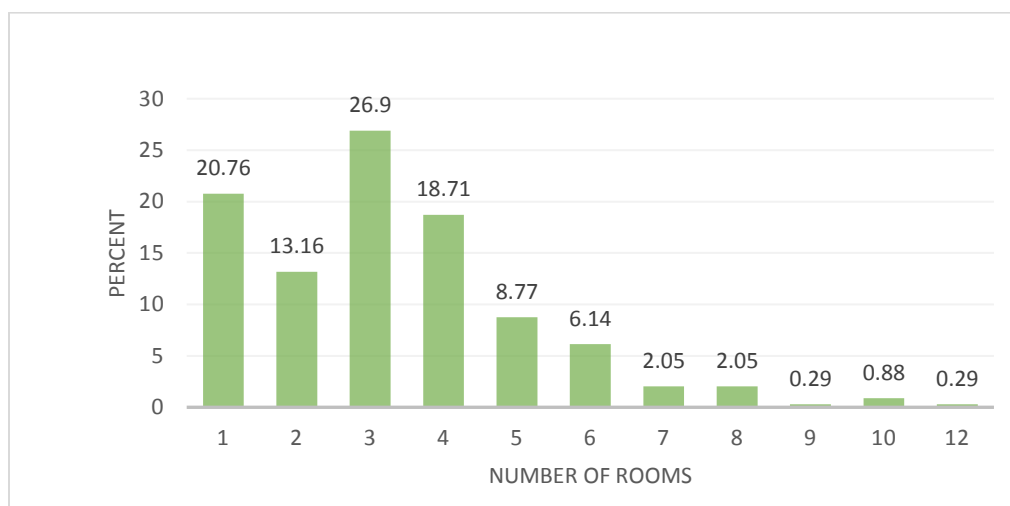


Figure 4: Number of rooms the house households are living in.

Source: own sample survey, 2018

The research classified the source of housing finance in to three: Banks loan, own saving, and relatives and friends. As shown in the table below, most of the sample homeowner respondents (61.15 percent) do not use bank loan as source of housing finance. That means only 38.85 percent of them have used bank loan as source of finance. The limited bank loan usage of sample household would be strongly related to the current unavailability of active mortgage or housing bank in Ethiopia. On the other hand, as presented in the table below, those households who have used their own saving represent the majority among the sample households: 80.89 percent. This agrees with that saving practice is improving and contributing progressively to the Economy in Ethiopia (IMF, 2015). The third possible source of housing finance is the finance from relatives including parents (family), other relatives, and friends. As shown in the table below, most of the sample households do use this as source of housing finance, representing 70 percent of the total sample households.

Table 11: Bank loan as source bank.

	Bank loan			Saving			Relatives/friends		
	Freq.	Percent	Cum.	Freq.	Percent	Cum.	Freq.	Percent	Cum.
Yes	61	38.85	38.85	127	80.89	80.89	47	30.32	30.32
No	96	61.15	100.00	30	19.11	100.00	108	69.68	100.00
Total	157	100.00		157	100.00		155	100.00	

Source: own sample survey, 2018

Social network would require expenditures on parents, other relatives, and friends. The following table shows that the sample households on average expend 2,056.515 ETB on their parents, and

351.0968 ETB on their relatives, and 310.7772 ETB on friends per annum. The maximum expenditure on parents is 48,000 ETB, on relatives 12,000 ETB, and on friends 8,400 ETB. The minimum expenditure in all categories is 0 ETB. That is there are households who do not expend at all.

Table 12: Household expenditure on relatives and friends

Expenditure on	Obs	Mean	Std.Dev.	Min	Max
Parents	373	2056.515	4984.338	0	48000
Other Relatives	372	351.097	1249.649	0	12000
Friends	377	310.777	1091.747	0	8400

Source: own sample survey, 2018

The sample households on average have 9 relatives in Bahirdar city. However, the maximum relatives of the sample household would be extending to 100 or more relatives, and the minimum relatives of the sample households would again decrease to null. This is presented in the following table.

Table 13: Household relatives in BahirDar

Variable	Obs	Mean	Std.Dev.	Min	Max
Number of relatives in Bahirdar	374	9.358	12.198	0	100

Source: own sample survey, 2018

For most of the household head's, at least one of their parent (s) is/are live. This is evidenced by those household heads who responded that their parents are alive being 81.87 percent. Comparatively those household heads whose parent (s) is/are not alive represent 18.13 percent. This is shown in the table below.

Table 14: household Head's Parents alive

At least a Parents is alive	Freq.	Percent	Cum.
Yes	307	81.87	81.87
No	68	18.13	100.00
Total	375	100.00	

Source: own sample survey, 2018

The study tried to assess whether the father of the household head had formal, non-formal education or no education at all. The table below shows that the 41.85 percent of the sample



household head's father have attended no informal or formal education. On the other had 21.79 percent of the sample households' father have attended non-formal education, which includes religious and traditional educations. However, its only 26.26 percent of the sample households' father who have attended a formal education.

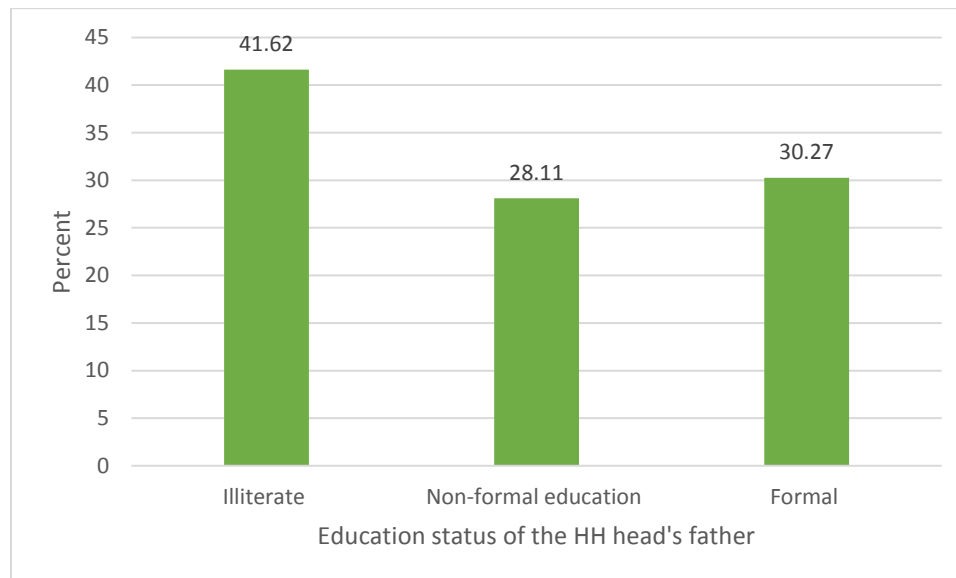


Figure 5: household Head's father educational achievement

Source: own sample survey, 2018

Most of the sample households consider the distance from the parents as fair. They represent 36.14 percent of the sample households. The least percent, which is 3.31 percent, of the sample household heads consider their parents live too far from them.

Table 15: Household's distance from parents

Distance from parents	Freq.	Percent	Cum.
Too far	18	5.23	5.23
Far	50	14.53	19.77
Fair	120	34.88	54.65
Near	75	21.80	76.45
Very Near	81	23.55	100.00
Total	344	100.00	

Source: own sample survey, 2018

#### a. Regression results:

The study used logistic regression analysis to show the impact of social capital proxies on the housing affordability of households. Accordingly, the summary statistics of variables in the model are given as follows.

Table 16: Descriptive summary of regression variables

Variable	Obs	Mean	Std. Dev.	Min	Max
Affordability_30	377	0.381963	0.486513	0	1
Affordability_30_40	377	0.824934	0.380529	0	1
Sex_Head	377	1.286472	0.452714	1	2
age_head2	375	1529.381	1030.48	324	8100
Education_Formal	362	11.38674	5.30088	0	18
public_servan	377	0.342175	0.475068	0	1
Head_health	377	0.785146	0.411267	0	1
ln_annual_income	372	10.71493	0.86392	7.78322	13.9978
household_size	377	0.281167	0.450166	0	1
proportion_18	377	0.207599	0.227378	0	2
Participate_In_Business_Activity	368	1.486413	0.500496	1	2
The_Family_Credit_Card_Ownership	367	1.381471	0.486411	1	2
The_Family_Has_Lent_Out_Money	365	1.827397	0.378422	1	2
parents_expend	377	0.339523	0.474177	0	1
relatives_expend	377	0.124668	0.330782	0	1
friends_expend	377	0.137931	0.345286	0	1
relatives_BDR	377	0.912467	0.28299	0	1
PARENTS_ARE_ALIVE	375	1.181333	0.385809	1	2
HEADS_FATHER_EDU_FORMAL	375	2.890667	5.121131	0	18
ln_distance	261	4.583123	0.883742	1.94591	6.84907

Source: Own computation

As shown in the above table, the regression used housing affordability status based on 30percent/40 quartile and 30 percent criteria as the dependent variable, and 18 independent variables. The first are characterizing the household head. The variables refer household head's sex, age, formal education, public servant status, and health status. The second category refers households' characteristics including household annual income, size, proportion of age less than 18, business participation status, credit card ownership, and family's money lending status. The

third category refers households' social capitals proxied by households expending status on parents, relatives, and friends, household heads' relatives in the Bahirdar, household head's parents-alive status, household head's father formal education, household heads parents distance from Bahirdar.

The table below shows the rate of housing affordability in Bahirdar City based on the 30/40 and 30 percent housing affordability criterion. Accordingly, 17.51 percent of the household were not able to afford, and thus the remaining 82.49 percent of them were able to afford the housing in the city. This shows that most are able to afford the housing cost in the city. On the other hand, based on the 30 percent criterion, those have afforded the housing cost represent 61.8 percent of the sample respondents. That is about 38.2 percent of the households do not afford the housing as their housing cost exceeds 30 percent of their household income. This implies more households do not afford housing cost in the 30 percent criterion than 30 percent/40 percentile criterion.

Table 17: Housing affordability status, by 30/40 criterion and 30 criteria

Housing affordability 30_40	Freq.	Percent	Cum.	Housing affordability 30	Freq.	Percent	Cum.
Afford	311	82.49	82.49	Afford	233	61.80	61.80
Do not afford	66	17.51	100.00	Do not afford	144	38.20	100.00
Total	377	100.00		Total	377	100.00	

Source: own computation

As shown in the following table, and further from the overall significance, the model one, based on 30/40 criteria, logistic regression result shows that Age of household head (age\_head2), annual income(ln\_annual\_income), family's money lending status (THE\_FAMILY\_HAS\_LENT\_OUT\_MONEY), household's expending on parent's status (parents\_expend), household head's father formal education (HEADS\_FATHER-EDU\_FORMAL) are found to affect significantly the house affordability status of the household at 95 percent degree of confidence. Household head's health status (head\_health) and household's credit card ownership status (THE\_FAMILY\_CREDIT\_CARD\_OWNERSHIP) are found to have significant effect on housing affordability status of the household at 90 percent degree of confidence. All the other variables are found to have no statistically significant effect on the household's housing affordability status.

In second model logistic regression result shows that 8 of the independent repressor variables do significantly affect the housing affordability status of a household: household head age squared (age\_head2), expenditure on parents (parents\_expend), and distance from parents (ln\_distance) at one percent; Household heads formal educations achievement (EDUCATION\_FORMAL), household annual income (ln\_annual\_income), expenditure on friends (friends\_expend) at five percent; and Further, public servant status of the household head (public\_servan) and household head health status (Head\_health) at ten percent.

Table 18: Binary logistic regression result

Independent variables	Dependent variable	
	affordability_30_40 (Model 1)	affordability_30 (Model 2)
Sex_Head	.228 (.792)	-.529 (.419)
age_head2	.003***(.001)	.001*** (.0002)
Education_Formal	.171 (.116)	.119** (.047)
public_servan	-.941 (1.061)	-.721* (.436)
Head_health	1.668* (.894)	.744* (.416)
ln_annual_income	5.326*** (1.142)	.601** (.256)
household_size	-1.028 (1.063)	.562 (.452)
proportion_18	-3.415 (2.529)	.162 (.763)
Participate_In_Business_Activity	.189 (.828)	-.031 (.37)
The_Family_Credit_Card_Ownership	1.804* (.957)	-.066 (.404)
The_Family_Has_Lent_Out_Money	-2.702** (1.325)	-.014 (.473)
parents_expend	3.042*** (1.142)	1.371*** (.363)
relatives_expend	-.465 (1.489)	.346 (.573)
friends_expend	5.093 (4.428)	-1.147** (.523)
relatives_BDR	-.429 (1.262)	-.343 (.539)
PARENTS_ARE_ALIVE	-.966 (1.082)	-.005 (.497)
HEADS_FATHER_EDU_FORMAL	.306** (.122)	-.052 (.039)
ln_distance	-.291 (.458)	-.68*** (.214)
_cons	-54.730*** (12.608)	-6.39** (3.201)

\*(10%), \*\*(5%), \*\*\*(1%); values in the bracket are standard errors

Based on the 30/40 criterion, age and health status of the household head's characteristics have positive and significant coefficient indicating the significant impact on the housing affordability status of the household. As the age of the household increase, the probability of the households housing affordability status improves, as the positive coefficient indicates. The same is true regarding the health status of the household head: as the household head become healthier, the probability of household's housing affordability also increase.

On the other hand, household's characteristics including income and credit card ownership, and money lending out status have statistically significant coefficients. Household's income and credit card ownership status have positive, while money lending out status has negative coefficient. Therefore, the probability of household's housing affordability status increase as household

income increases, as the household own a credit card, and as the household does not lend out money.

Expending on parents has positive and statistically significant impact on the probability of affording housing for a household. The positive coefficient implies that as a household expend more on parents, it is highly probable that it can afford the housing in the city. On the contrary, expending on relatives and friends is found to have not statistically significant impact on the housing affordability status of the household. The same is true for having relatives in Bahirdar or not, and whether household head's parents are alive or not: Both have no statistically significant impact on housing affordability status a household. The other related variable was distance from parents. As shown in the table above, distance from parents has also no statistically significant impact on housing affordability status of a household. The other variable which has statistically significantly was household head's father formal education. As shown in the table above, as a household head's father attend more formal education, the probability that the household affords the housing in the city improves. This is evidenced by the positive and statistically significant coefficient of the independent variable.

Based on the 30 percent threshold criterion, age and health status of the household head, household's income and expenditure on heads parents affect the housing affordability status positively. As the age of the household head increase, the household probably affords housing the city. So, does when health of the head is good. More age rewards experience and thus productivity and better income. A good health also increase presence in work and better productivity, which can be translated to better income. A higher income earning household also has better housing affordability status. A household earning more can easily cover the cost of housing, and thus the housing cost proportion falls below the 30 percent threshold. An important to social capital variable, household expenditure on parents, has positive association with housing affordability. That signifies that a household expending more on parents have higher possibility that their housing cost less than 30 percent of their income.

On the other hand, when the head become a public servant, households' expenditure on friends and distance from the heads parents affects the status negatively. This implies public servants have less probability of having a housing cost less than the 30 percent threshold relative to their counter parts, those who are not public servants. Household head expending more on friends also has less probability of affording housing cost. That is, friendship financial expenditures and thus friendship social capital do not pay back in housing costs. Finally, as household head's parents live at farther distance, the household less probably afford the housing cost. This strengthen the above assertion that parent's social capital is relevant for housing affordability. This implies, a farther distance from parents' weakness the important role social capital form parents.

## **5. Conclusion and Recommendation**

### **5.1. Conclusion**

Most of the household are found to have no their own housing currently. And among those who do not own, many still have no plan to own in the coming 5 years, holding the current circumstances. This makes the home ownership a tough challenge in the city of Bahirdar. Furthermore, based on the 30/40 ratio and 30 percent threshold housing affordability measurement, not negligible percent of them are not able to afford the housing cost in the city. Based on this assessment, about more than 17 percent of the household have not been able to afford the housing cost, as their income is the 40<sup>th</sup> quartile and their housing cost is 30 percent or more of their income.

Households make expenditure on parents, relatives and friends. However, the logistic regression result shows that only expending on parents have significant impact on the expending household's housing affordability status, i.e. expending on relatives and friends were not having statistically significant impact. Those households who expend on parents have higher probability of affording housing in the city than those who do not. Besides this, households who lent out money to other have less probability of affording housing than those who do not.

Regarding the parent's/relative's characteristics, except household head's father formal education attendance, all other characteristics had not significant impact on the housing affordability of a household: formal education attended father increases the probability of his child's family housing affordability.

In general, expending on parents and not lending out money to others can improve the housing affordability of a household. On the other hand, expending on relatives and friends, having relatives in Bahirdar city, distance from parents and related factors, which are important constituents of social capital of a household, do not affect the housing affordability status of a household.

## 5.2. Recommendation

The important constituents of social capitals are found to have no significant impact on housing affordability. Besides, households do expend on relatives and friends, but most home owners are not using finance from the parents/relatives and friends as their source of housing affiance. Further lending out money to other affects housing affordability negatively. Therefore, using finance from social capitals such as relatives/friends to housing would tend to decline in the future that other formal housing finance schemes should be facilitated in the city.

Principally, the study shows that there is low home ownership in the city, and many still predict difficult to own in the near future with the exiting condition of the city. Besides, those who own a house are able afford the housing than who do not own. Therefore, the Bahirdar city should evaluate the current housing schemes and complement the existing schemes with additional ones, to improve housing affordability.

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# **The Role Reform Tools Implementation in Preventing Rent Seeking Practices in Bahir Dar City: The case of Land and Tax Bureau's**

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## **Abstract**

*Ethiopia has introduced reform and reform tools to eliminate the mal practices faced by its public sectors. This study investigated the role of implementing reform tools in preventing rent seeking practices in Bahir Dar city and particularly in land and tax bureau which identified by the government of Ethiopia were rent seeking practices are rampant. To achieve this objective, a total of 384 questionnaires and 12 key informant interviewees were included in the study. Concurrent mixed method design that combines both quantitative and qualitative data analysis were employed. The findings of the study indicated that although, implementation of reform tools brought some changes and facilitated the provision of service, it is far from what was expected. It was reported that vision, mission and values of the sectors were not properly instilled in employees mind, lack sense of ownership and commitment, resources are not adequately and timely available, leaders are not committed to channel the required resource, performance measurement result are not credible, citizen charter are not communicated properly, service are not provided based on the standards, inability to give prompt service creates a fertile ground for rent seeking practices. Moreover, it has been found out that rent seeking practices is very rampant in the land Bureau. Thus, strengthening support mechanism, grievance handling and reform working unit, performance evaluation and reward system, Effective IT implementation and integration, are some of the recommendations forwarded to averse the rent seeking practices of the sectors.*

**Key Terms:** *Reform, Reform tools, Public sector and Rent seeking*

## **1. Introduction**

Almost all African countries are caught in the web of public sector reform. Good governance and efficient public administration are regarded as a wishful thought without public sector reform. Also, accountability, transparency, and merit-driven public service are thought to be unachievable and programs of public sector reform are drawn up (Mutahaba & Kiragu, 2002).

According to Omoyefa (2008, p.2), efficiency, effectiveness, and responsiveness of government to the desire of its citizens could only be gauged through the lenses of the public sector reform, which have taken place in Africa during the last two decades. The civil service reform program of Ethiopia, as one of the national capacity building program, was initiated in 1997 in response to weak administrative system that challenges the public service delivery system so as to ensuring effectiveness, efficiency and ethical behavior in performance and service delivery.

Consequently, Ethiopia has achieved one of the fastest growing economies in the world for the last ten consecutive years. Based on developmental state paradigm, the ruling party has been able to design a pragmatic developmental strategy which is tailored and adjusted to the country's unique socio-economic structure. The experiment has resulted on unprecedented mobilization of resources and outstanding economic performance in the country's history. However, the staggering double digit economic growth success story is accompanied with another shadow story of endemic/pervasive rent-seeking practices which becomes the greatest threat to the nation's steadfast economic growth and national security. (Wolde Gabriel, 2017)

Rent seeking has severely poisoning the wellbeing of nations across the world. Nowadays, both developed and developing countries across the world are suffering from it. The impact of rent seeking is very devastating especially for developing countries like Ethiopia. Furthermore, rent seeking affects negatively the quality of service delivery which in turn affects the overall sectors. According to Ministry of Civil Service Report (2013), reform in general is against the rent seeking behavior, as it creates accountability, transparency and the promotion of public interest. Therefore, the environment where there is no clear accountability, transparency and complex in the provision of public service delivery is a fertile ground for rent seekers.

Rent seeking has adverse impact on the wellbeing of the society at large and the stability of the country to address the needs and demands of the people. It causes political instability, negatively affects the performance of the economy, erodes the trust of the public on government, promote absence of good governance, causes waste of resources, results in income inequality and injustice. (MOCS, 2013).

The Ethiopian government has also admitted that rent seeking practices are becoming destructive to the economy and this argument can be substantiated by The Ethiopian herald (2015),

“In its recent 10th congress the ruling EPRDF identified the destructive effect of rent-seeking and to design effective strategy and tools to contain rent-seeking mentality and that the leadership has to emphasize unequivocally the urgency and the threat that rent-seeking poses to the wellbeing of the nation.

Cognizant to the problem, the government of Ethiopia has taken a strong policy measure that would facilitate the fight against rent seeking mentality and practice through reforms. However, the roles of reform tools implementations in preventing rent-seeking practices are less empirically studied. Therefore, the study examines the role of reform tools implementation in preventing rent-seeking Practice in Bahir Dar City a case of tax and land administration bureau and answers the following research questions, How does the rent- seeking practice look like in tax and land administration bureau? What major change has reform tools brought towards institutional change in general and rent-seeking practices in particular? And what are the major factors for exhibiting rent seeking practices within the Bureau’s?

## **2. Concept and Theories**

### **2.1. Public Sector Reform**

The phrase public sector reform is defined as;

- a “deliberate change for the design and delivery of public services” (Boyne et al., 2003);
- the process of “...strengthening the way that the public sector is managed” (Schacter (2000); and
- “...[a] deliberate changes to the structures and processes of public sector organizations with the objective of getting them to run better”(Pollitt & Bouckaert, 2000, p.3).

### **2.2. Reform Tools**

#### **Business Process Reengineering (BPR)**

Davenport (1993), defines it as the analysis and design of workflows and processes within and between organizations. Accordingly, business activities should be viewed as more than a collection

of individual or even functional tasks; they should be broken down into processes that can be designed for maximum effectiveness, in both manufacturing and service environment (Davenport (1993) cited in Wanna, 2010). Besides Hammer and Champy(1993), defined BPR as a fundamental rethinking and radical redesign of business processes to achieve dramatic improvements in critical, contemporary measures of performance, such as cost, quality, service, and speed.(p. 32).

### **Balanced Scorecard (BSC)**

According to Kaplan & Norton (1996), an effective strategic learning process requires a shared strategic framework that communicates the strategy and allows all participants to see how their individual activities contribute to achieving the overall strategy. The BSC provides a representation of the organizations' shared vision. It provides a holistic model that links individual efforts and achievements to business unit objectives.

The Balanced Scorecard (BSC) intends to reflect the necessity of balance between the traditional financial perspective and the three non-financial elements of customers, internal business processes and innovation/improvement. BSC translates an organization's mission and strategy into a comprehensive set of performance measures to provide the necessary framework for a strategic measurement and management system. The BSC enables companies to track short-term financial results while simultaneously monitoring their progress in developing the capabilities and acquiring the intangible assets that generate growth for future financial performance (Kaplan & Norton 1996 cited in Wanna Wakie, 2010:41).

### **Citizen Charter**

Citizen Charter is a policy term which shows an organization's commitment to the customer concerning the quality of its services that the customer can expect. In practice, it is also called service guarantee or service standard (Practitioners Handbook, nd). It symbolizes the commitment of the organization towards standard, quality and time frame of service delivery, grievance redress mechanism, transparency and accountability. It represents a major shift in thinking about how services are delivered in public sectors of a country—a shift that saw the interests and perspective of service users given much greater prominence.

## **Change Army**

Change army is an important tool, which has been introduced to the civil service organizations as a new face of modernization. The distinctive features of change army are building a change army team and down that to craft teams with a one to five arrangement. The ambition is to create a strong team work which acts as a stand by armed force (MoCS 2014, cited in, Gebre and Nigussien, 2015).

### **2.3. Rent Seeking**

Tolson (1982, p. 578) cited in Mushtaq H. K and Jomo K. S .p 33, 2000) describes rent-seeking as 'the expenditure of scarce resources to capture an artificially created transfer. Rent-seeking is an activity, usually implying the expenditure of scarce resources, to cause and capture artificially-created rents as well as transfers which are not part of society's intended income redistribution. Strictly speaking, rent-seeking behavior can be explained according to the system of property rights within which the economy operates (socialist or free market). The allocation of substantial support to parastatal companies for instance, may then only be seen as rent-seeking if the benchmark was a free market economy, but not if it was a socialist economy (Mushtaq H. K and Jomo K. S .p. 294, 2000).

The idea of rent seeking is simple but powerful. People are said to seek rents when they try to obtain benefits for themselves through the political arena (David R. Henderson, 2012). According to Roger D. et al., (2008), the pursuit for rents has always been part of human behavior. People have long fought and contended over possessions, rather than directing abilities and resources to productive activity. Thus, Rent has been part of human behavior in such a way that, people have been engaged in rents to get benefit out of it without value adding to it.

## **3. The Methods**

### **3.1 Research Approach and Design**

To secure relevant information, the study used concurrent mixed methods approach involving a combination of both qualitative and quantitative data from different sources. And a descriptive research design is employed so as to describe the role of reform tools implementation in preventing rent seeking practice in the selected bureau's.

### 3.2. Target Population and Sample size determination

The targeted population of the study included leaders, executive managers, middle level managers, and employees and service users. To select sample from the target population both probability and non-probability sampling method were employed. The study purposively selected two public sector organizations (tax and land administration) where rent-seeking practices are very rampant. The sample sizes of employees were determined by using the following formula by Krejcie & Morgan (1970).

$n = \frac{z^2 pq}{d}$ , where: n = the desired sample size, z = standard normal deviation, p = the proportion in the target population, q = 1-p, d = the level of statistical significance set.

$$n = \frac{(1.96)^2 (.5)(.5)}{(0.05)^2} = 384$$

Therefore, the desired sample size of employees for the study are 384 at 95% confidence level and degree of freedom (df) is 1 and  $z^2 = 6.635$ . Moreover, 12 key informant interviews held with leaders.

### Data Source and Methods of Data Collection

*Both primary and secondary data were used to collect data from key informant, employees and service users. Data were collected using questionnaire with Likert scale and interview (structured and semi-structured questions).*

### Methods of Data Analysis

In the case of quantitative data, a survey obtained from employees was entered into statistical package for social science (SPSS.V 21). Descriptive statistics (percentage, frequencies) were used. On the other hand, qualitative data were transcribed and categorized into emerging themes and sub-themes and used for triangulation purpose.

## 4. Result and Presentation

### 4.1. Response Rate

For the purpose collecting relevant information 400 questionnaires were disseminated and 384 questionnaires found valid for the study. So, the overall response rate for this research is 96%.

### 4.2. Respondent Background Information

From total of 384 employee's respondents, 147 were females and 237 were males. Regarding respondent' age distribution, 39.1% ,34.5%, 18.3%, 4.8% and 2% of sample employee respondent

fall under the age group 20-30, 31-40, 41-50, 51- 60 and 61-70 years respectively. With regard to level of education of employee's respondent 16.5%, 72%, 11.3%, 0.6% replied Diploma, First Degree, Second Degree and Above Second degree respectively. Concerning work experience of employees 28.8%, 32.9%, 14.9%, 8.5%, 4.8% and 4.6% replied 1-5, 6-10, 11-15, 16-20, 21-25 and above 26 years of experience respectively.

### 4.3. Rent-seeking practices in the sector

**Table1: Rent-seeking manifestation**

Item	Bureau	if low	if medium	if high
How do you rate rent seeking practices in your Bureau?	<b>Tax</b>	42.5%	31%	26.5%
	<b>Land</b>	34.7%	29.6%	35.7%
		<b>disagree</b>	<b>I don't know</b>	<b>agree</b>
Usage of Public Resources	Tax	60.7%	27.3%	12%
	Land	54.3%	31.1%	14.6

**Source:** Field survey June, 2017

When we see the status of rent seeking practices in each bureau, compare to tax bureau (26.5%), land bureau (35.7%) status of rent seeking practice is high. This shows that comparatively rent seeking practices is rampant in the land Bureau. This can be substantiated with finding from the qualitative data and one key informant explained that: *.....land bureau was very much exposed to rent seeking practice.....Even after reform implementation there is still rent seeking practice in the bureau and it is impossible to eradicate it due to the nature of the sector (land is a scarce resource so everyone want to have it by any means.* However, the qualitative analysis from the top management and demand said that, *employees rent seeking behavior manifested in terms of action “ They made us to come repeatedly, Providing strange answers, Asks money and benefit, kinship tie, Lack of good governance, disrespecting us, Stealing working hours, not clearly informing the requirements, not providing on time services , not able to provide basic information e.g where to go, gap in auditing, hiding files, not serving customers based on the standards, lack of transparency of working systems and Rights of customers are limited and some customers are getting phone services without waiting their turn, nepotism....etc” and ...illegal... practices are also perpetuated by tax payers like printing similar receipt pad”.*

Besides, the above table indicates that, 60.7%, 54.3% employees and leaders of tax and land bureau respectively disagree that employees and leaders uses public resources for their personal gain. However, these bureaus are open for rent seeking practices (Ethiopian herald, 2015) and one of the manifestations for such practices is usage of public resources for personal gain According to Mukum Mbaku (2010), illegal appropriation of public resources for personal gain by the civil servant and nepotism are manifestations of rent seeking practices. Moreover, a study from the World Bank shows that, corruption is systemic. (The world Bank Group 1997)

To substantiate the above facts, according to a key informant from Land Bureau said that:

*“Rent seeking practice is systematic and done in secret for this reason employees in these bureau might not know the practice in the ground.”*

#### 4.4. Effect of Reform Tools

**Table3: Effects of reform tools Implementations**

	<b>Item</b>	<b>Disagree%</b>	<b>I don't know%</b>	<b>Agree%</b>
1	Reform brought structural change in my organization	51	19.3	29.7
2	The sector has well established system which facilitate transparent and consistent service provision	39.3	19.7	40.9
3	Activities are taken place with a top to bottom approach	47.8	23.6	28.6
4	Resources are adequately and timely available	57.1	19.8	22.6
5	Service are provided with the standard of the citizen charter	50.4	20.4	29
6	Service providers' make decision which complies with the law	31.1	20.4	47



7	necessary or required information provided for service recipient	32.7	16.7	49.2
8	Customer feedback used as an input	39.5	16.9	42.2
9	Reform tools has helped me to do my jobs effectively and efficiently	43.6	17.5	39
10	Introduction of reform has paved the way to do my job in transparent way	41	15.5	43.2
11	Leaders instill vision, mission and values of the sector to employees mind	47.1	25.0	28
12	There is monitoring mechanisms to control the rent seeking behavior and practices	32.9	24.4	41.4
13	operational grievance handling and readdress mechanisms	36.5	23.6	39.4
14	There is clear appeal procedures	29.5	21.8	46.4
15	Performance measurement result is credible	43.1	24.6	31.2
16	Citizen charter is well communicated	51.2	22.8	24.6
17	Continuous meeting with a relevant agenda held with employees	53.0	17.3	28.0

**Source:** *Field survey June, 2017*

In the above table, 51% of the total respondent disagreed that the implementation of reform tools brought structural change in the sector and about 40.8% of the respondent confirmed that the sector has well established system which facilitate transparent and consistent service provision. On the other hand, data obtained via interview and open ended questions revealed that reform allow us to identify gaps on the structure and working system of the organizations, it solves problems on logistic and inputs, brought structural change but a lot should be done to bring the required

structural change in the sectors which are very significant to improve the day to day activities tackle the rent seeking behavior and practice in the sectors.

About 45.6% of the respondent agreed that activities are not taken place with a top to bottom approach and 57.1 of the respondent don't agree that resources are adequately and timely available in the sectors. Similarly, the qualitative data indicate there is shortage of the required resource and leaders are not committed to channel the required resource on time. Besides, due to purchase procedures we can't access the required resource on time and this create gaps on the service provision.

47% of the respondent agreed that service providers' make decision which complies with the law and Information obtained via interview reveled that there is a culture of accountability otherwise they will be liable for the deviation. On the other hand, 50.5% of the respondent agreed that service are not provided with the standard and interview participant revealed specially in the land sectors service are not provided with the standard due to the nature of the task, there are activities without standard time or required more time, complicated issues, too much service demand, limited execution capacity, attitude of employees and leaders and the like.

49.2% agree that the sector provide the necessary information to service recipients and the sectors have full filled the preconditions for service including information desk so, service user can access at least basic information related to the service. 42.2% agreed that customer feedbacks used as an input to improve service provision and interview participant indicate that service recipient's feedback taken as an input to take corrective action.

43.6% of the respondent disagreed that reform tools facilitate to do their jobs effectively and efficiently and 42.2% also disagreed that introduction of reform has paved the way to do their job in transparent way. But qualitative data indicated employees don't own the implementation of reform tools and leaders consider it as an extra burden rather than owning the process. Therefore, a lot should be done to enjoy the benefit of reform tools implementation in expected level.

47.1% of the respondent disagreed that Leaders instill vision, mission and values of the sector to employees mind and Information obtained via open ended questions show that some leaders exhibited superiority (dominance) on employees rather than building a smooth work relationship which encourage employees to develop sense of ownership and commitment, despite leaders are

trying to instill the vision by various means, employees were not satisfied. About 41.4% agreed my organization has set monitoring mechanisms to control the rent seeking behavior and interview participant confirmed the result though a lot of effort required to make it operational and tackle the current escalated rent seeking practice,

39.4% of the respondent agreed that the sectors have an operational grievance handling and redress mechanisms in the sector though there is no significant difference those who agree and disagree on the issue. While interview participant argued there is a system for handling customer grievance and most grievance focus on delays on treatment of service taker by race, kinship and the like. But the offices have less power to address all the complaint that service recipient rose. So, the city compliant handling and redress office are closely working with these sectors. The result confirmed that there is an operational compliant handling and redress office but still it needs support and freedom to boost its execution capacity.

53% believed that there is no continuous meeting with a relevant agenda held with employees. The qualitative data revealed that change army and 1 to 5 meeting brought some improvement through crating a platform for experience sharing, evaluating individual and group performance and, shape the attitude and behavior through feedback, fighting rent seeking and bad governance though there is no continuous meeting with a relevant agenda, a single employee fabricate the report without having a meeting, bad image (politicization of the tool). so we can't say that we are using the tool properly.

### **4.3. Major Factor for rent seeking**

Based on the data from open ended question and interview the following are major factor for flourishing of rent seeking behavior and practice in the sector

- Nature of Work and nature of the sector
- Lack of Clear Guidelines for service provisions
- Delay in service provisions
- Availability of loopholes on the existing rules and regulations
- There is a collaboration problem on carrying out mutual activities with consistency
- Poor Consultation and participation of citizen and stakeholders

- Gap in promoting and raising awareness on new or revised rules, regulations, and proclamations.
- Shortage of the required input, limited execution capacity of the sector, capability of employees and leaders, Attitudinal problem of employees and leaders
- Lack of awareness of service recipients, the existence of illegal brokers and service recipient who are interested to gain extra benefit via providing rent
- Limited Technology usage
- Lack of continuous monitoring, evaluation, support and control mechanisms.
- There is no strong Measures taken on those who engaged in rent seeking practice in the sector.

## **5. Conclusion and Recommendations**

### **5.1. Conclusion**

Ethiopia has introduced reform and reform tools to eliminate the mal practices faced by its public sectors. This study investigated the role of implementing reform tools in preventing rent seeking practices in Bahir Dar city and particularly in land and tax bureau which identified by the government of Ethiopia were rent seeking practices are rampant. To achieve this objective, a total of 384 questionnaires and 12 key informant interviewees were included in the study. Concurrent mixed method design that combines both quantitative and qualitative data analysis were employed.

Based on the finding the researcher concluded that rent seeking practice rampant in the land sector compared to tax sector and it is manifested via Stealing working hours, hiding files(land sector), customers are getting phone services without waiting their turn, nepotism, asking money and other benefits, kinship tie, not clearly informing service requirements, not providing on time services, using public resource for personal gain, leaders influence the decisions of service providers to benefit others/themselves, and illegal practices are also perpetuated by tax payers like printing similar receipt pad. The implementation of the tools in the two bureau were not as expected specially in the land sectors because employees don't own the implementation of reform tools and leaders consider it as an extra burden rather than owning the process. Therefore, a lot should be done to enjoy the benefit of reform tools implementation in expected level. Besides, The nature of work, taking too much time to provide the services , lack of clear guidelines for service provisions, leaders influence over the decision of service providers to get benefit or benefit others have been identified as predisposing factors for the manifestations of rent seeking practices. In

short, due to poor implementation reform tools, its role to tackle the rent seeking behavior and practice found minimal in the sectors.

## 5.2. Recommendation

The researchers forward the following recommendation based on the finding:

- The government should allocate adequate resource on time, work to improve public Participation and stakeholders collaboration, Strengthening Monitoring, evaluation and support Mechanisms in the sectors
- Establish an independent grievance handling unit and reform unit and Strengthen the offices
- Strengthens performance evaluation and reward system:
- Use change army meeting as a platform to share experience, to evaluate group and individual performance, to shape the behavior of employees
- Assign competent, committed and experienced leaders:
- Leaders should instill the vision, mission and values of the sector
- Effective IT implementation and integration.
- Serious measures should be taken on leaders who influence service providers and to employees who take bribes.
- Service standards needs to be revised to close the loopholes for flourishing of rent seeking practices
- Implementations strategies to follow up the service should be set
- Set controlling mechanism in regards to service provision to avoid any bias

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# **Interest Free Banking Services in Ethiopia and Lessons from International Experiences**

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## **1. Introduction**

### **1.1 Background of the Study**

Ethiopian economy has seen strong growth and gradual shift in the structure of the economy over the last decade. The country has embarked on five-year growth and transformation plans starting from 2010/11. The major objective of GTP is to serve as a spring board towards realizing the national vision of becoming a low middle-income country by 2025 (National Planning Commission, 2016).

During the first GTP (2010/11-2014/15), real GDP growth rate averaged 10.1 percent. This overall real GDP growth rate is accounted by agriculture, services and industry sectors with respective annual average value added growth rate of 6.6 percent, 10.8 percent and 20.2 percent, respectively. One of the key features of this growth is the accelerating growth of the service sector which overtook agriculture in the GDP composition. In 2016 GDP share of agriculture, industry and service sectors was at 36.2%, 17% and 46.8% respectively (National Planning Commission, 2016).

The financial market is one of the drivers of the leap in the service sector in the country economy. Currently, there are 16 private and 2 public banks with total branch network of 3187(NBE, 2016). The total capital of the banking system reached Birr 43.0 billion by end June 2016. The number of insurance companies stood at 17 (1 public and 16 private) with their branches rising to 426 in



2016. At the same time, the total capital of insurance companies reached Birr 3.6 billion. The number of microfinance institutions remained at 35 while their total capital and total asset increased significantly by 23.5 and 20.0 percent and reached Birr 8.9 billion and Birr 36.7 billion, respectively.

Due to ambitious GTP II, total government expenditure is projected to reach ETB 2.2998 trillion (National Planning Commission, 2016). The goal of GTP II is to finance at least two-third of gross domestic investment from domestic saving. To this end, target is set to increase the share of gross domestic saving in GDP from 21.8 percent in 2014/15 to 29.6 percent by 2019/20. The government has already understood the gap between demand for funds and the current supply in the economy and it is undertaking massive schemes for resource mobilization. Bank branches are expected to expand from 2,868 in 2014/15 to 5,736 by 2019/20, and microfinance institutions are expected to expand their financial services to at least 50 percent of rural areas. Saving for housing program, saving for investment equipment scheme, social security saving, and health insurance saving are meant to achieve this goal of enhanced resource mobilization.

Although efforts have been made to expand the service, there are many people excluded due to socio-cultural and religious reasons. In 2008, the Ethiopian banking business proclamation (592/2008) was amended to include a provision for interest free banking /IFB/. In 2011, the NBE issued a directive to authorize the business of IFB (SSB/51/2011). Currently there are 8 commercial banks that have started IFB windows. So far, IFB makes up less than 1% of total deposits. This study, therefore, aims at investigating the impacts of IFB service provision in Ethiopia and what Ethiopia learns from the experience of other countries.

## **1.2 Statement of the Problem**

Financial resource mobilization depends on many factors including the provision of services that meet demands of potential customers and the willingness of customers to use these products. IFB services are meant to deal with the problems of those that are excluded from banking services by conventional banks due to religious/ethical grounds.

Studies indicate that there is pent-up demand among Africa's Muslim population for interest free banking services. There are also strong evidences that many African Muslims are shying away from conventional banks for religious reasons (The Economist). A World Bank study found that

an African Muslim is less likely to have an account or save than a non-Muslim. The NBE has stated that there has been increasingly strong public demand for interest free banking products in Ethiopia in its 2011 directive.

However, the introduction of IFB services in to Ethiopian financial market was barred by controversies as an attempt by local investors to launch fully-fledged interest free banking service was aborted by NBE directive for IFB (SSB/51/2011) which permitted only IFB windows under the conventional system. Since then commercial banks, both public and private, are opening IFB windows. Currently, there are 8 commercial banks that have started IFB windows. Data on number of types of products, active accounts, total assets raised, loans disbursed, and the like are not available as no significant research has been done so far. The NBE has not started to present performance of IFB services in its annual reports and the few information on this sub sector is in the form of news reports. Study by ZainebSefiani indicate that due to the inexistence of relevant and binding legislation, each bank has adopted their own methodology, models and benchmarks for launching IFB products with little coherence or commonality in the market. NBE does not currently have internal experts to review and monitor IFB windows to make sure that they comply with NBE directives. The lack of regulatory framework on the Sharia compliance question means that the products are at high risk of not complying with authentic Islamic principles (Sefiani, 2014).

In Ethiopia, the distribution of financial institutions is highly skewed towards the urban areas. About 34.4 percent of bank branches and 53.5 percent of insurance branches were situated in Addis Ababa. The reach of commercial banks beyond Woreda towns is very limited which left the vast majority of rural poor excluded from banking services. The problem of exclusion is worse for Muslim areas as the willingness to use conventional services is very little. The launch of IFB windows was partially aimed at solving this problem of exclusion, both in rural and urban areas.

This paper is therefore devoted to analyze potentials of existing IFB services for domestic resource mobilization and their impact on livelihood of pastoral/semi-pastoral areas. In addition to that, this paper will present best international experiences and lessons for the sector.

### **1.3 General Objectives of the Study**

To assess the potential of fully fledged of interest free banking services in Ethiopia with special focus for livelihood and resource mobilization, and drive some policy recommendations.

## **2. Review of Related Literature**

### **2.1 Basic Concepts & Principles of Islamic Banking**

The very purpose of Islamic banks is the same as banks do in the conventional system, but that the need for them to carry out their transactions in accordance with the rules and principles of Islam. Muslims believe (Al baqaarah 275) Allah has permitted trade & has prohibited interest.

Five reasons have been named by the Islamic scholars for the prohibition of the interest: it is unfair; it corrupts society; it implies improper appropriation of other people's property; its ultimate effect is negative and finally, it demeans and diminishes human personality (Hyder, 2013 as cited in Chong and Liu, 2009). Islamic banking service practice does not allow people to earn money on money to prevent capital owner becoming rich on the cost of the borrowers. Six categories of ethical principles such as truthfulness, trust, sincerity, brotherhood, science and technology and justice that can be applied to marketing activities have been named by Islamic scholars. Prohibitions on interest are also embedded in Hebrew and Christian scriptures, according to Ellen Brown (2014) the point is that, Catholic monks in the medieval period believed interest rates were "particularly devastating to the poor." So Franciscan monks offered loans on which they made no profit. It's not only Muslims who want alternative and ethical investing options. Housby (2013) demonstrates that many secular institutions, for instance, offer "ethical" mutual funds, which refuse to invest in tobacco or weapons. He reminds us also that this sector is perceived by many non-Muslims as an option for an alternative to ethical banking.

The lack of access to finance is a key reason why the poor remain poor (Cited in Umair Ahmad Riaz (2015). The Islamic economic system is based on the Shariah principles of equality and fairness. That Islamic banking is a subset of an Islamic economic system that endeavors to achieve a fair and just society according to Shariah rules. Islam encourages individuals to engage in economic activities so as to pursue a happy life. The need for setting boundaries on interest comes from the Holy Quran (Chapter 67, Verse. 2), which states that: "Allah has created life and death to test human beings and He tests them by prohibiting certain things". According to the Islamic economic as it is written in (Kuran, 2004), the consumption of Riba (Interest), gambling and Gharar are strictly prohibited in order to promote social justice and equality within society. In Islamic finance, Mudarabah, Musharakah and Murabahah are examples of resource mobilization financing products. In Mudarabah financing underlines the profitability of the project rather than its ability to pledge collateral, therefore providing an effective way for banking to redistribute wealth from

the rich to poor and achieve social justice (Ahmed, 1991). In addition, Khan (1994) explains that Islamic banks can finance corporations involved in infrastructure projects like water supply, roads, schools and energy projects needed in order to eliminate poverty.

in Islamic finance practice, as indicated In UK Trade & Investment News magazine, 2014, Strict due diligence is needed to assess the viability of a business proposal before funding is agreed and any proposed venture must be certified as Sharia compliant by an expert (Scholar) of Islamic law. Conversely, investment based on the core values of promoting social justice and the economic prosperity of the whole community is encouraged under Islamic banking. Ljerkaet. el (May, 2017), Interest-free banking doesn't mean banking without profit, but a more stable and secure ethical alternative, because instead of interest, Islamic banks receive fees and commissions for their services, participate in a profit(loss)-sharing with their clients and they are protected with contracts.

According to Hassan and Lewis (2007), the functions of Islamic banks can be summarized as: the achievement of broad social-economic benefits by investment policies that reflect the needs of the population. The same text argues that Islamic banks must favor projects in housing, health services and the food sectors, and should lend so as to ensure an adequate and affordable supply of goods and services. The second objective focuses on job creation within the economy. The main emphasis of lending according here should be on those sectors which add value, such as agriculture and technology-intensive activities because of their potential for job creation and education. The third suggested objective for lending by Islamic banks is the promotion of entrepreneurship through Profit and Loss risk-sharing (PLS) mechanisms using Mudarabah and Musharakah contracts. Financing must be specific to each firm's economic and financial conditions and smaller enterprises must be given priority; banks should also advise borrowers. The fourth important objective is the promotion of social justice and equality, as well as the alleviation of poverty, through the establishment of Zakat. Islamic banks should facilitate the collection of this tax and aid in the distribution of funds to the poor. The final objective of banks is to promote regional balance by channelling money to areas where there is underinvestment.

The work of Umair Ahmad Riaz(2015) ,Scholars within the Muslims traditions have identified two Islamic banking models of operations . First Chapra model; this model promotes the idea that Islamic banks have a socio-economic purpose rather than a profit orientated goal. others advocate

the Islamic banking model of Ismail, which argues that Islamic financial institutions, like conventional banks should aim to maximize their profit as long as its activities comply with Shariah law. Some academics assert that there is no difference between these two models as both suggest that Islamic banks must act in a socially responsible manner. In practice, the difference relates to the emphasis placed on social goals, although, Satkunasegaran (2003) asserts that Chapra's (1985) model is more relevant in situations where a large Muslims majority exists, whereas the other model is more appropriate for multi-faith religious countries.

## **2.2 Role of Islamic Banking towards Economics Developments and Financial Inclusion**

Islamic finance growing rapidly, outpacing the growth of the conventional finance industry and even grabbing market share from it. This success has been driven in part by the internationalization of Islamic finance as it reaches beyond its core markets of Middle East, North Africa and South-East Asia, and into new ones such as Europe and the Americans, including Canada (Canada Islamic finance outlook, 2016).

As stated in work of Hussain GulzarRammal (2007), the Islamic finance industry has demonstrated its potential with a steady growth of 15–20% during the last two decades. Islamic finance is a growing industry almost everywhere. The key regional hubs of Islamic finance include the Middle East, South Asia, East Asia and Europe. The industry is growing at a rapid pace and now it has presence in Africa, Central Asia and North America.

argued that Islamic finance is more stable than conventional finance, because: (i) Islamic finance involves prohibitions against speculation; (ii) financing is asset-based and thus fully collateralized; and (iii) it is founded on strong ethical precepts. Moreover, Islamic financial institutions (IFIs) are considered to be a good platform for increasing access to financial inclusion, including access to finance for SMEs, thereby supporting growth and economic development.

This trend continued all over Europe, as full-fledged Islamic banks or branches of established Islamic banks emerged in different countries. According to Ahmad Alharbi, (2015) there are several reasons for the growing interest in Islamic banking across Europe. First, the numbers of Muslims in Europe are growing and large enough to attract financial-service providers. Second,

demand is growing for ethical products and socially responsible services. Another reason is that some countries wish to attract investors from Islamic nations. Yet another reason is diversification: Many investors are looking for new instruments, products, and asset classes that are unrelated to existing products and services to diversify their portfolios. Finally, the current financial crisis has played a role by reducing the relative strength of the conventional banking system. Islamic banks have managed to avoid the effects of this crisis, which has strengthened their position and financing model. This why Many countries in Europe are considering issuing laws to promote Islamic banking industry. Countries like France, Germany, and Italy are taking positive steps to implement Islamic finance on it. Demand for Shariah-compliant banking increases 449 percent in UK The demand for Shariah-compliant banking is at an all-time high in the United Kingdom. The Islamic banking industry has surge 449 percent since 2012 and it is becoming an established part of British banking system. The most impressive growth is being seen in the areas of Home Purchase Plans and Buy- to-Let Purchase Plans. In fact, Islamic home finance in the UK was at an all-time high in 2016.( Islamic Banking Bulletin,2017).

Recently Ibrahim AbdikadirAdan (2017) conduct study on factors influencing growth of client base of fully fledged Islamic banks in Kenya. His finding reveals, Shari'ah compliance, financing options, customer satisfaction, and product quality are strong determinants of growth of Islamic Banking in Kenya. World Bank group (May 2015) indicates, Islamic finance principles support socially-inclusive, environmentally-friendly and development- promoting activities. The group has identified five tracks through which Islamic Finance could support efforts to achieve the agenda of Sustainable Development Goals (SDGs): financial stability, financial inclusion, reducing vulnerability, social and environmental activities, and infrastructure finance. As stated from the same source above, financing for development focuses on four foundational pillars: domestic resource mobilization, better and smarter aid, domestic private finance, and external private finance. In this context, Islamic finance has the potential to play a major role in supporting all four of these pillars. Given the magnitude of the SDGs and the important role that can be played by Islamic finance in supporting their implementation and ensuring more robust and inclusive growth, the opportunity to more closely link Islamic finance with sustainable development cannot be missed. More importantly, interest free banking will play great role in creating access to finance for financially excluded citizens. For instance, 350 million Africans do not have a bank account. An IMF Working Paper(2015) notes that in Sub-Saharan Africa, only one in four adults

has a formal bank account. In other developing countries, twice as many people do. The paper further notes that in Sub-Saharan Africa households' micro-enterprises, and small and medium enterprises lack access to credit, which "is a major obstacle in promoting growth and employment".

as indicated in the article of *Ademola Bello*(2017 )the study made in Nigeria revealed that in 2010, 54.4 percent of the excluded population were women, 73.8 percent were younger than 45 years, while 34.0 percent had no formal education, and 80.4 percent resided in rural areas. Northern Nigeria is further disadvantaged, with 68 percent of adults excluded in both the North-East and North-West regions. In Ethiopia cited from The guardian (October 2017) page Nationally, only 14 % of the adult population has access to formal credit and savings products but this rate drops to 1% in rural areas. And, until recently (2011), there were no financial institutions catering to the large population requiring Islamic-compliant products.

The World Bank Group and the Islamic Development Bank published the first Global Report on Islamic Finance, which details the prospects for the global Islamic finance industry and its potential to help reduce worldwide income inequality, enhance sharing prosperity, and achieve the Sustainable Development Goals. Subtitled "A Catalyst for Shared Prosperity", the report provides an overview of trends in Islamic finance, identifies major challenges hindering the industry's growth, and recommends policy interventions to leverage Islamic finance for promoting shared prosperity.

The potential of Islamic finance for infrastructure projects The OECD has said that there is a financing gap of over US\$1 trillion per annum in infrastructure investment in the emerging economies of Asia, Africa and the Middle East, many of which have growing Islamic economies. Funding is needed for schools and hospitals, transport, water and sanitation, power plants and telecommunications, all vital to ensure that development takes place in line with the UN's Sustainable Development Goals to improve the lives of billions of people by 2030. Islamic Banking Bulletin January-March 2017.

Christine Lagarde, Managing Director of the International Monetary Fund, has said that: "Islamic finance's underpinning principles of promoting participation, equity, property rights and ethics are all universal values." She said regards inclusivity and stability as the main reasons behind the

appeal of Islamic finance and noted its potential to support an underserved population, SMEs, start-ups and infrastructure investments. Lagarde has also highlighted the risk-sharing and asset-backed features of Islamic finance that help to reduce leverage and contribute to greater stability.(World economic forum page).

According Mohammad (2014), an Interest free financial system has played a vibrant role in the economic development of countries having Muslims in majority by mobilizing inactive savings that are being deliberately kept out of interest-based financial system. A sound and well-functioning interest free financial system can pave the way for the regional financial integration of the countries involved. It can also contribute to their economic and social development, by financing the economic infrastructure and creating job opportunities in future.

There are more than 50 Islamic finance institutions across Africa. Despite the growth of interest free/ Islamic banking worldwide, as the others African countries Ethiopian banking industry was continued to conduct most of their banking transactions using conventional banking system. In accordance with Article 22(2) of Banking Business Proclamation (BBP) No. 592/2008, the NBE through the BSD No. SBB/51/2011, authorized the business of Interest-free banking under the umbrella of the conventional bank which is limited scope. Interest-free financial products and services offered by Commercial Bank of Ethiopia under separate windows are Wadiya Amanah account, Qard account, Mudaraba account, Bai Salam mode of financing, Istisna mode of financing, Ijarah mode of financing.

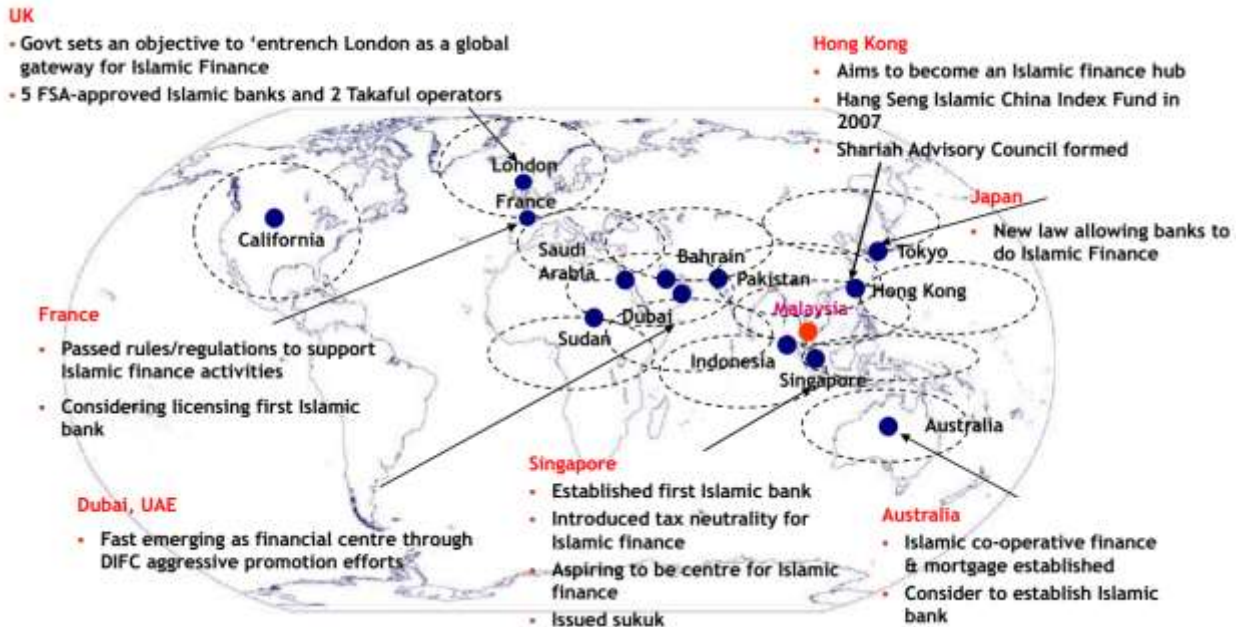
Zaineb Sefiani (2014) in-depth diagnosis of Ethiopian case shows that despite efforts to develop the IFB offering, the lack of an adequate legal framework, the scarcity of skilled Islamic banking professionals and the limited awareness of Islamic finance products have been hinder progress in this field. and also Mohammed (2012) has studied the “Prospects, Opportunities and Challenges of Islamic Banking in Ethiopia” and his work has identified the potential challenges as: lack of awareness, regulatory and supervisory challenges, institutional challenges, lack of support and link institutions, gap in research and development in Islamic studies, lack of qualified human resource as well as wrongful association with specific religion and the global terrorism is holding back the development IFB in Ethiopia.



Paul Mason, reported on the guardian news page ,regarding IFB practice In Ethiopia, he stated , the challenge is now for the National Bank of Ethiopia to develop a comprehensive and transparent legal framework to grow confidence in this sector. What's most challenging about interest-free banking in Ethiopia is not progressing at the same pace as market demand. This is due to a lack of knowledge around regulations, Banks are unclear how to solve legal disputes that arise from interest-free finance, and there is a still a gap in knowledge about how to design appropriate products to meet user demand.

Challenges in Ethiopian & beyond still more which includes, Misconception against Islamic Banking, Many still has wrong understanding or misconception against Islamic Banking which among the thoughts are: Islamic Banking is only for Muslims; Islamic Banking is not profitable because no interest is charged, and Islamic banking is only offered in the Middle East. Lack of uniformity between Shariah's views.

## 2.3 Development Experiences of Countries with a Substantial Islamic Financial Sector



source: UK trade & investment news magazine, 2014

The origin of Islamic finance dates back to the dawn of Islam 1,400 years ago. Historical books written during the early years of Islam indicated that during the 1st century of Islam (AD 600),

some forms of banking activities existed that were similar to modern banking transactions. Modern Islamic banks have undergone three phases of development.

Phase 1. Interest-Free Banking as an Idea(early 1900s)

Phase 2. The Emergence and Establishment of Islamic Banks (1963–1976)

Phase 3: The Spread of Islamic Banks, 1977 to Present

Today, the development of the Islamic banking industry is moving at a fast pace, and almost every country now has some form of Islamic financing. This section will give a brief description about the development, Lessons & Experiences of the Islamic banking industry in selected country for Benchmarking.

### **2.3.1 Luxembourg**

The Grand Duchy of Luxembourg, a landlocked country in Western Europe (i.e. like Ethiopia), having financial sector as leading contributor to its GDP occupies a special place in global financial market. Luxembourg is not only a leading world business centre but also the second largest investment fund centre along with being the world leader in the cross-border distribution of retail investment funds. With respect to Islamic Finance, Luxembourg is recognized as leading European Centre for Islamic finance.

History of Islamic finance in Luxembourg goes back to 1978 when it became the first country in Europe to host an Islamic finance institution (Islamic Banking System Holdings Limited Luxembourg) and since then the country has played a significant role in growth of Islamic finance; Luxembourg Stock Exchange was the first exchange to list a sukuk, the first Eurozone country issuing a sovereign sukuk and third largest Islamic fund centre with Saudi Arabia and Malaysia at first two positions. Luxembourg is the first European country that became member of the International Islamic Liquidity Management (IILM) while Luxembourg's Central Bank (BCL) is the first European central bank to become member of the Islamic Financial Services Board (IFSB). Moreover, Luxembourg considers its wide investment treaty network with over 80 countries including Saudi Arabia, Malaysia, and Turkey etc as boosting factor to its Islamic finance credentials.

## **Legal & Regulatory Framework**

With the aim to become a global hub for Islamic finance, Luxembourg has taken major steps to extend conducive legal and regulatory framework for Islamic finance industry. Luxembourg tax laws are considered the most efficient and dynamic laws to cater to changing needs of evolving industry like Islamic finance. All major modes of Islamic finances are realized in tax efficient manner. Contracts like fiduciary contracts also allow the distinction between legal and economic ownership ensuring the compliance with the principles of Islamic finance.

As Luxembourg tax law is based on the economic approach and substance over form principles, Islamic investment can easily be accommodated under this law. Therefore the wide range of regulated investment vehicles, semi-regulated investment vehicles and unregulated holding companies by Luxembourg accommodate the requirements of Islamic finance. Moreover, it is also allowed to appoint Shariah Board at any type of regulated vehicle while purification of income is commonly accepted by Luxembourg authorities and service providers. Furthermore, favorable legal framework in Luxembourg allows issuance of sukuk from all types of entities under various forms.

**Sukuk:** Luxembourg offers variety of investment vehicles that may be considered suitable for issuance of sukuk. The securitization has proven to be specifically beneficial for innovative sukuk structures. Favourable Securitization Law for listing of sukuk signifies Luxembourg as a prime location for listing of sukuk. Sukuk issues have a choice between two markets: a regulated market, designated as the Bourse de Luxembourg, and a multilateral trading facility, Euro multilateral trading facility (MTF).

## **Shariah Compliant Investment Funds**

Luxembourg is ranked fifth by Ernst & Young's Islamic funds and investments report. There are currently almost 40 Islamic funds in Luxembourg making it one of the world's largest place of domicile outside of the Islamic world. Luxembourg has also developed alternate structures like hedge funds, private equity and real estate funds which offer Shariah compliant services.

In order to become a global hub for Islamic finance, it is of paramount importance that all related stakeholders are knowledgeable in Islamic finance and therefore Luxembourg has taken significant

steps in this regard; Diploma in Islamic Finance is a proof to this which is being offered with the partnership between Luxembourg Banking Training Institute (IFBL) and the ICMA centre of the University of Reading and a further partnership between Luxembourg School of Finance (LSF) and INCEIF (Malaysian leading university in Islamic finance)

Given a business oriented environment, a proactive financial supervisory authority in addition to efficient tax system Luxembourg is spearheading global Islamic finance transaction. Despite all these efforts Luxembourg remains in the shadow of several other jurisdictions continuously favored by Islamic investors. However, all players in Luxembourg market are committed to make the country essential for future expansion of Islamic finance.

Sources: Islamic Banking Bulletin January-March 2017.

### **2.3.2 Pakistan**

In 1980, Pakistan made legislation changes such as the enactment of Mudaraba Companies and Mudarabas Ordinance (MCMO), 1980, to introduce Islamic finance. However, these changes had very limited success due to the unavailability of adequate infrastructure, lack of trained human resources and a ruling by Federal Sharia Court (November 1991) declaring the procedures adopted by banks as un-Islamic. In 2000-2001, Islamic banking was successfully re-launched gradually allowing Islamic banks to operate in parallel with conventional banks. A comprehensive Islamic law compliance framework was introduced to ensure Islamic banks operations were in conformity with Islamic law principles.

The growth of Islamic banking during the last decade has catalyzed the development of Islamic capital markets, mutual funds, Takaful companies and Islamic social finance through Zakat. In 2012, Pakistan had 5 Takaful operators and approximately 30 Islamic mutual funds. In 2011, mobilization of Zakat is estimated to have grown by 40% in Pakistan from 2008 to 105 million in 2011. Zakat is deducted from all bank accounts (except current accounts) having a particular sum of money (announced every year). Zakat is redistributed towards social welfare such as education (20-30 %) and healthcare (10-20 %).

Pakistan's new 5-year plan from 2014 to 2018 for Islamic banking, which Pakistan aims to see increased from 10% to 15% of total financial sector assets by 2018, prioritizes the broad based

distribution of economic gains by using Zakat and Awqaf. To promote greater economic equality, Pakistan's 5-year Islamic banking plan focuses on housing, SMEs, exports and agriculture.

Recently, Mr. Riaz Riazuddin, Deputy Governor, State Bank of Pakistan SBP, addressed to 5th Global Forum on Islamic Finance (2017) participants, said *the re-launching Islamic banking in 2001-02, in parallel to conventional banking, has worked well, as reflected by the increasing share of Islamic banking in overall banking system of the country. Islamic banking industry has posted an impressive annual growth rate of over 20 percent over the last five years. By end December 2016, the share of Islamic banking has reached to 11.7 percent in terms of assets, while in terms of deposits its share is 13.3 percent, with a network of 2,322 branches of 21 Islamic banking institutions in 112 districts across the country. Given the strong growth momentum owing to overwhelming demand, supportive government and the central bank, future outlook of the industry looks positive* he said.

In Pakistan, the network of IBI consisted of 21 Islamic Banking Institutions; 5 full-fledged Islamic banks (IBs) and 16 conventional banks having standalone Islamic banking branches (IBBs) by end March, 2017. Branch network of IBI was recorded at 2,317 branches (spread across 116 districts) by end March, 2017. Province/ Region wise breakup of branches reveals that Punjab and Sindh jointly account for 77.2 percent share in overall IBI's branch network. The number of Islamic banking windows operated by conventional banks having Islamic banking branches stood at 1,239 by end March, 2017. Profit after tax (PAT) of IBI was recorded at Rs.3.8 billion by end March, 2017 compared to Rs.2.9 billion last years. ROA and ROE of IBI were recorded at 0.8 percent and 12.2 percent, respectively during the 2016/2017.

Pakistan's Modaraba sector has been witnessing a sustained growth level in recent times as it benefits from the Securities and Exchange Commission of Pakistan (SECP)'s efforts to strengthen corporate governance, investor protection and Shariah compliance by overhauling the regulatory infrastructure for Modaraba. According to the SECP, the Modaraba sector currently has low leverage levels and healthy dividend payout, due to the recent regulations put in place by the regulator. There are now 25 Modarabas with total assets of PKR38.8 billion (US\$365.14 million) and profits of PKR1.18 billion (US\$11.1 million).

### 2.3.3 Kenya

Population	48.462 million	<b>GDP per capita</b>	1678\$
Legal system	Common law & African Customary Law		
Key Islamic finance Legislation	Banking Act Sect 12 amendment (exempting on restrictions trading & holding fixed assets) , 2006		
	Banking Act Sect 16 amendment (introducing concept of return) , 2009		
	Finance Act Sect 45 amendment, 2010		

**source:**(Updated From Sefiani, 2014)

Kenya is an East African nation with a population estimated at 48.462 million and GDP per capita 1678\$ ((The World Bank, 2017). Kenya has positioned itself as the hub of Islamic finance in eastern and central Africa (Islam Mohamed Salim, 2017).

Islamic banking and finance in Kenya are represented by establishment of full- fledged Islamic banks, Islamic windows, and Takaful insurance. Currently, in Kenya three Islamic banks as well as insurance company. a further five conversional banks offer Sharia compliant through dedicated Islamic windows . The economics (2018) in December 2018, Kenya joined the Islamic financial service board, Malaysia based regulatory body.

Based on the 2015 report by the Central Bank of Kenya, GAB and FCB have 17 and 18 branches respectively spread throughout the country. Islamic windows have also been increasing exponentially.

Islamic banking emerged when Section 12 of the Banking Act restricting trading and holding of fixed assets was amended in 2006 to exempt products from trading and holding of fixed assets restrictions. Barclays launched Islamic banking products during the same period.

First Community Bank, Kenya first Islamic bank opened in 2007 followed by Gulf African Bank, in 2008. Later on, conventional banks such as Kenya Commercial Bank and Standard Chartered Bank opened Islamic windows to offer Islamic finance products.

In 2009, the Kenyan authorities amended Section 45 of the Central Bank of Kenya Act to allow the Central Bank to recognize the payment of a return rather than interest on government securities, to encourage interest free investments in the country. At the end of 2013, Islamic banking

represented 2 % of the total banking assets in Kenya. In 2014, Kenya's Capital Market Authority developed a separate regulatory framework to promote interest free finance by focusing on corporate governance, information disclosure, a policyholder compensation fund and responsible and pricing.

In the insurance market, Takaful Insurance of Africa, the first Islamic insurance company in the country, was launched in 2011 as an alternative to conventional insurance aimed at increasing insurance penetration and improving the perception and image of Insurance locally. The model was designed to serve people of all faiths and backgrounds, despite reference to Islamic laws.

In the insurance sector, Takaful Insurance Africa became the first sharia- compliant insurance operator to be issued license in Kenya. Since its establishment in 2011, the company remains the only fully-fledged Islamic insurance provider in an industry highly dominated by conventional counterparts. Takaful stands for shared responsibility or mutual undertakings by the members. . Islam Mohamed Salim(2017) while studying Lessons from Islamic Finance Sector in Kenya he made interview with the Business Daily, the National Treasury Secretary indicated that Kenya is targeting to raise cash from the oil rich Middle-East countries through the issuance of the first Islamic bond (sukuk) in Kenya (Ngigi, 2015). The secretary also highlighted the plans by the Treasury to establish a National Shariah Supervisory Council to advice on development of products that are compliant with the Shariah law. The Insurance (Amendment) Act 2016 signed into law by the Kenyan President is set to enhance Kenya's position as the premier Islamic financial hub on the African continent. The move came a week after the Capital Markets Authority (CMA) was admitted by the Council of the Islamic Financial Services Board (IFSB) as an associate member of the board. (Islamic Banking Bulletin (2017).

In the Kenyan, the IFIs in operation all have Shariah boards made up of both local and international scholars. Their role is to: Supervise and approve the development of Shari'ah compliant investment and financing products; supervise and approve the development of Shari'ah compliant procedures; analyze, advise and direct the bank on new situations reported by different departments, branches or customers to ensure Shari'ah compliance before the Bank implements new products or procedure; certify Shari'ah compliance of Bank's product documents, contracts and agreements; recommend, as necessary, on administrative decisions, issues and matters that require the Board's approval; supervise Shari'ah training programs for the bank's staff; and

prepare an annual report on the bank's Shari'ah compliance. The presence of active and vibrant Shariah boards in Kenya's IFIs is a lesson to be emulated because a substantial segment of the community considers the Shariah Boards as a source of trust and confidence leading to banking with IFIs. Market players agree that a National Shariah Supervisory Council will set the stage for standardization and convergence of products, with a great positive impact on Islamic financial markets.

Kenya was the first country in eastern and central Africa to amend the banking laws to accommodate Islamic finance. Initially, the Banking Act only made reference to 'interest'. The Banking Act was subsequently amended in 2008 by adding the phrase "or a return in the case of an institution carrying out business in accordance with Islamic law" when referring to interest chargeable on a savings account.

Kenya also nominated members of the Capital Markets Master Plan Implementation Steering Committee which is tasked with the overall responsibility of oversight in the implementation of the Kenya Capital Markets Master Plan. Its duties include, among others, facilitating the alignment and establishment of Kenya as the heart of capital markets financing and investment in Africa and the supervision of the establishment of a platform within the capital markets for Islamic compliant financial products.

The successful implementation and growth of Islamic financial services in a Muslim minority country like Kenya provides useful lessons for the enhancement of such services in other African nations like Ethiopia. The first of these lessons is the importance of implementing a holistic perspective of compliance culture with particular reference to Sharia governance. IFIs in Kenya have been keen in adopting the Sharia board or committees tasked with overseeing all financial transactions in the light of Islamic law. Similarly, the presence of a niche market in Kenya is a key factor in the success of implementing the Islamic financial services. This factor paves way to formulating products that match with specific needs of the target customers in the region.

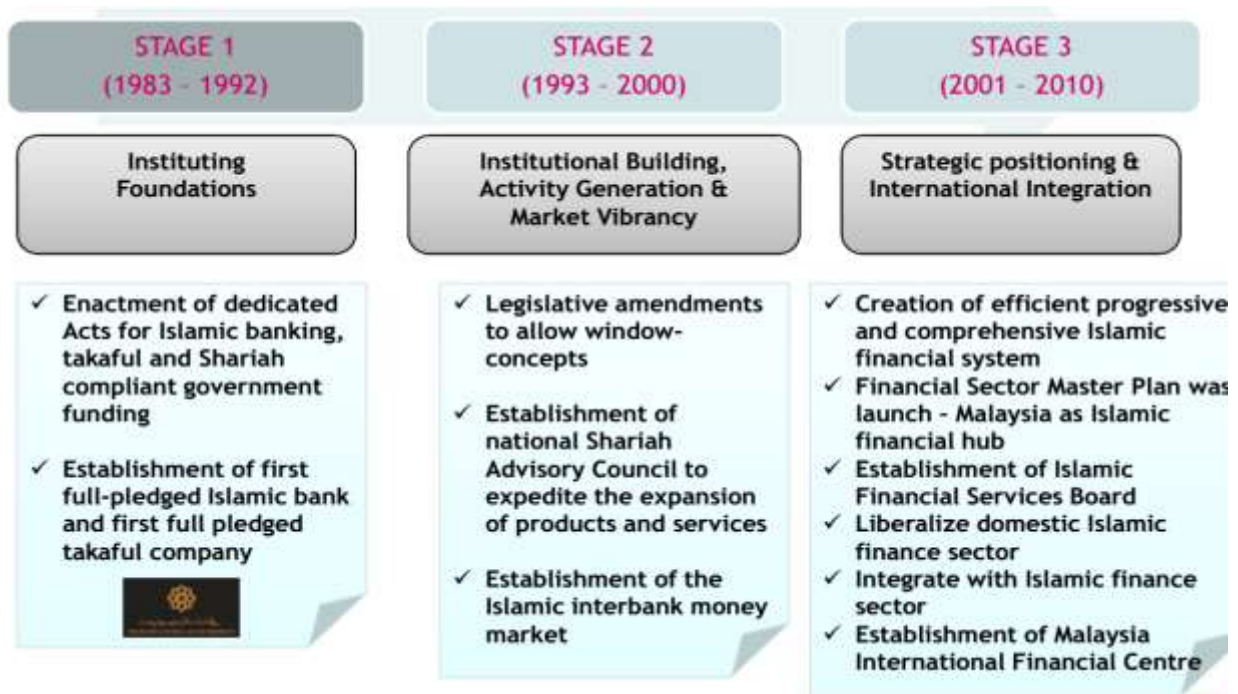
Finally, the availability of a regulatory environment that caters for the operation of Islamic financial services is playing an instrumental role in the country in which majority of its citizens are not Muslims. Despite the operational challenges that face IFIs in Kenya as a result of their unique model of business, the Kenyan government is at the same time providing an ideal forum



for Muslim-state interaction on such cutting-edge issue of commerce as the Islamic banking and finance.

### 2.3.4 Malaysia

Going to Malaysia country with above 32 million populations, GDP per capital of 9660 \$, which considered as a hub of the Islamic finance industry. The first Islamic financial institute in the country was Tabugn Haji (August 1962) as a pioneering effort to give Muslims the opportunity to invest their money in interest-free bank accounts. Currently, Islamic financial institutions operate alongside conventional financial institutions in the country, but the country has separate legislation and regulations for each.



source: dato' sri zukri samat

Islamic banking in Malaysia is not new as it had started in 1983 when the Government enacted Islamic Banking Act. On the same year, the Government established the first Islamic bank, known as Bank Islam Malaysia Berhad (BIMB). From that point onwards, Islamic banking can be operated side by side with their conventional counterparts. Bank Negara Malaysia (BNM) issue two different licenses for operating Islamic banks and conventional banks.

In 2000s the Government allows banks to set up their full Islamic banking companies either by formation of a new subsidiary for that purpose or by transformation of their conventional operations into Islamic banking operations. In terms of operations, all financial institutions in Malaysia are subject to legal provisions stated in Banking and Financial Institution Act and Companies Act 1965. Apart from that, Islamic banks and financial institutions are also subject to legal provisions enforced by Islamic Banking Act 1983 and Islamic Financial Services Act 2013. In Malaysia, Islamic banking and financial institutions are required to form a Syariah Advisory Board to give advice and oversee the adherence to Islamic principles in Islamic banking and financial institution operations. International Islamic Banking licenses were issued to Unicorn International Islamic Bank, First Islamic Investment Bank Ltd (owned by PT. Bank Muamalat Indonesia) and Deutsche Bank Ag (2010), allow the bank to provide Islamic commercial and investment services denominated in foreign currencies in 2010: 5 new Islamic banking licenses to foreign banks (BNP Paribas SA, PT Bank Mandiri, National Bank of Abu Dhabi, Mizuho Bank and Sumitomo-Mitsui Banking Corporation) and the establishment of “Mega Islamic Bank”.

Total assets of the Islamic banking industry grew by 8.3% in 2016 (2015: 11.5%) to account for 28% of the overall banking system (2015: 26.8%). Intermediation activities expanded with encouraging growth in investment intermediation. The takaful industry also sustained its growth as reflected in higher net takaful contributions of RM7.5 billion in 2016 (2015: RM6.8 billion) to account for 14.6% of total industry premiums and contributions.

Another important development in Malaysia is priority is trade finance facilitation, where business opportunities have remained largely untapped by the Islamic banking industry. Drawing from the intrinsic principles of Shariah which encourages trade and entrepreneurship, the Islamic banking industry is particularly well-placed to support the sustainable growth of productive economic activities. There is significant growth potential for trade finance facilitation, to support halal exports which can be seen through the increasing participation of SMEs in the halal economy, initiated by Malaysia government, to meet the strong demand for halal products and services globally.

### **2.3.5 United Kingdom**

The UK is located in north-Western Europe, the country does not have a written constitution and its Governance is based on the statute of common law and traditional rights. Islamic Finance first came to the UK in the 1980s, with the introduction of Murabaha transactions. The first UK Islamic bank, Al Baraka International, launched in 1982. This was followed by the growth of bespoke Sharia-compliant products in trade finance, leasing and project finance. In the early 2000s the UK Government started to take a serious interest in Islamic Finance, and developed a work programme to make the UK’s financial services regulations compatible with the growth of Islamic Finance.

Changing the tax treatment, to ensure that Islamic and conventional finance transactions with an equivalent purpose resulted in equivalent tax bills, was also an important step to allow the market to grow. At the same time, there has been significant growth in the offer of retail Islamic Finance services, providing choice to Muslims resident in the UK.

as reported by bank of England (2017) there are five fully Sharia-compliant banks in the UK namely: Abu Dhabi Islamic Bank, Al Rayan Bank, Bank of London and The Middle East Gatehouse Bank and QIB UK are the examples. These firms have an aggregate balance sheet of approximately £3.5. There are also over 22 conventional banks in the UK operating Shari'ah compliant windows, and numerous investment management, advisory and insurance sector firms.

In 2007, the UK Department of Trade & Investment (UKTI) established a subgroup to produce a strategy for the promotion of the UK as a centre for the provision of Islamic financial services. The FSA (financial service authority) policy in this regard was to fit Islamic banking into the current regulatory system; the FSA saw no obstacles to this and followed a non-discriminatory regime, where all sectors would be treated similarly. More importantly UK has built a framework for Islamic Finance that allows all schools of thought to operate.

In 2013, Islamic Finance Task Force (IFTF): IFTF is a Ministerial-led Task Force set up to promote the UK as an Islamic financial center and to attract inward investment. The sub group consisted of 15 practitioners and representatives from the UKTI and HM Treasury. Four private sector working groups were set up to feed into the sub-group; banking & Insurance, Legal, Accountancy and Education, Training and Qualifications (HM Treasury report, 2008).

UK's Islamic Finance offered has attracted investment in prestige infrastructure and regeneration programmes, including iconic buildings such as the Olympic Park, the Shard and Battersea redevelopment. Recently, Gatehouse Bank, a Sharia-compliant bank based in Kuwait, committed to develop a program of social housing offered for rent.

The Islamic Bond (Sukuk) market in the UK started in 2007, and has continued to grow. In 2014, the United Kingdom Government became the first Western government to issue sovereign Sukuk, over 11 times oversubscribed. By 2015, 57 Sukuk had been listed on the London Stock Exchange, with a total value of \$51bn. With strong Islamic insurance, fund management and banking sectors, the UK has also developed expertise in the supporting professions, with business advisory and

legal forms building up bespoke Islamic Finance practices. More lesson was In 2015, the UK credit guarantee department provided guarantees for a \$913m Sukuk to finance the purchase by Emirates Airlines of 4 Airbus A380 aircraft. This deal has shown the world how a strong Islamic Finance offering can lead to significant export wins for UK.

More lesson from UK, To solve the problem high growing demand of Islamic finance professional, a wide scale programme of professional education and training in Islamic Finance developed in UK. At present, four professional institutes and nearly 70 universities and business schools offer qualifications in Islamic Finance. The universities and business schools offering Islamic finance in the UK are: Aston Business School, Bangor Business School, Cambridge Judge Business School, University of Dundee, The Centre for Islamic Finance at The University of Bolton, Durham University and Business, School ICMA Centre Henley, University of Reading, Glamorgan University, London School of Business and Finance, Newcastle Business School, The Oxford Centre for Islamic Studies, University of East London's Royal Docks Business School, Salford Business School (UKIFS).

the challenges for UK as indicated By Umair Ahmad Diaz (2015), the majority of Muslims are unhappy and unsatisfied by products and services of Islamic banks, the criticisms include: concern about the cost of products to conventional ones; a lack of advertising, focus on the rich in society and the "twisting" and "rebranding" of the names of products to produce Shariah-compliance; the absence of efforts to achieve social justice and equality in the society; and employing the same Shariah scholars across Shariah- boards. The Muslims taking part in this study also showed a strong need for 'Ijtihad' by Islamic and Shariah scholars in order to remove any doubts and easy understanding of Islamic financial products.

## **2.4 Lesson from Fully Fledge Islamic Bank of Britain (IBB):**

The Islamic Bank of Britain (IBB) entered the increasingly competitive UK Islamic banking market in February 2004, offering a full range of Shariah-compliant banking services. The IBB was the nation's first independent Islamic bank to operate is, authorized by the FSA in August 2004. The bank currently offers its products and services to UK Muslims via five branches. The bank states that it runs its operations based on four moral values; trust, faith, value and convince, and has its own Shariah Supervisory Committee to ensure that all transactions and operations remain Shariah-compliant. The bank's initial start-up capital came from a group of investors from

the Gulf region who had an interest in and knowledge of the UK and believed that the bank could be successful it dedicating itself to the needs of UK Muslims (Housby, 2011).<sup>46</sup> In October 2004, the bank listed on the London Stock Exchange, raising capital of (up to £38.5 million net of expenses) via an initial public offering (IPO). Notwithstanding these issues, in personal banking IBB offers three products, aimed at both Muslims and non-Muslims: personal current accounts, savings accounts and home purchase plans. The personal current account is a basic day-to-day account that is free from interest accruals.

Funds can be withdrawn anytime from any branch through an ATM<sup>47</sup>. The funds deposited are kept in accordance with Shariah principles and the customers receive regular statements. There is no handling fee for running the account, and since interest is neither charged nor given, the account does not incur any additional fees. The savings accounts offered by the IBB are products where the banks accept customers' monies with the intention of investing and generating profit that is shared with customers and shareholders. In the Islamic terminology outlined earlier, such an arrangement is a Mudarabah contract. In addition to the standard savings accounts, the bank also provides a Wakala Treasury Deposit Account. This is operated under the conditions of an agency agreement. Where, the bank acts as an agent and attempt to achieve an agreed rate of profit for an agreed time period. If the bank is unable to achieve the expected profit, then it terminates the contract by returning the initial deposit with profit accrued at the rate formerly agreed.

The issue of conflict between (i) the Islamic principle of reward being dependent on risk and (ii) the FSA deposit guarantee has been brought to the attention of Islamic scholars. They reacted by arguing that if the pool of funds returns a loss, the bank must make good any shortfall as required by current UK banking regulation, but anyone who does not accepts the offer will not be complying with Shariah principles (Housby, 2011). The Wakala Treasury Deposit account benefits consumers via growth in capital and reduction in the risk of loss. However, on the downside it requires an investment

The bank provides a debit card to be used in the branch; however it charges a fee to withdraw money from the cash machine. of at least £50,000. The Shariah supervisory board has approved the IBB's home purchase plan. This product is based on the diminishing-Musharakah concept discussed above, whereby with each installment paid by the customer reduces the bank's share and increases the customer's share.

In terms of business banking, IBB provides three types of products: business current accounts, business savings accounts and general business finance. Business current accounts encourage business customers to deal with large sums of deposits, allowing them to access foreign currency and travelers' cheque services. The deposited money is invested in Shariah-compliant companies. The 'Business on Demand Savings Account' allow investors to deposit their money through Shariah-compliant activities to generate halal profits, which are then distributed among depositors and shareholders at a formally agreed rate. The business finance function of the IBB is based on Murabahah principles and allows businesses to generate required amounts of cash from trading in commodities; customers can claim finance up to the value of £20,000.50.

However, not all commentators see Islamic banks as having progressed to a point at which they might be seen as becoming a part of the mainstream, and have argued that IBB is at only on the fringe of a market, dominated by global banks such as HSBC and Lloyds TSB that offer 'Islamic-windows' (Umair Ahmad Riaz,2015) .

### **3. The Methods**

#### **3.1. Research Design**

There are two basic approaches to research: quantitative and qualitative. The former involves the generation of data in quantitative form which can be subjected to rigorous quantitative analysis. While, qualitative approach to research is concerned with subjective assessment of attitudes, opinions and behavior; and it generates results either in non-quantitative form or in the form which are not subjected to rigorous quantitative analysis through focus group discussion, depth interviews, observation, etc. Since the research problem stated in the interest free banking service provision is dynamic, this research applies mixed method descriptive and causal design that combines both quantitative and qualitative approaches.

#### **3.2 Population and Sampling**

The target population of this study includes conventional customers, IFB account holders, staffs of separate window, as well as the banks' branch managers in Commercial Bank of Ethiopia (CBE), Oromia International Bank (OIB) and United Bank (UB) in Addis Ababa city administration, Oromia region, Dire Dawa city administration and Somali region. The reason for including the three banks is that the three banks received license for IFB windows from National Bank of Ethiopia earlier than others. Customers are targeted so as to know their perceptions

towards IFB and the impact of the service in their livelihoods; because they are the main stakeholders for which the service is to be adopted. Therefore, IFB account holder of bank clients in Oromia region (Jimma, Adama and Sendafa), Somali region (Shineli), Dire Dawa city administration and Addis Ababa city were considered as sample frame of this research. In addition, the front-line employees and branch manager of the banks also targeted to know the intentions of customers towards use of interest free banking; because they are one that participating on implementing and promoting the products and services provided by the bank to its customers. The total population (total number of IFB account holders) is estimated to be 86, 0000 (15,000 in Oromia international Bank, 70,000 in Commercial bank of Ethiopia, and 1,000 in United bank). Therefore, the sample size is calculated as follows:

$$n = \frac{N}{1 + NE^2}$$

Where, n= sample size

N= the size of the population

E= the margin of error (0.05)

$$n = \frac{86,000}{1+86,000(0.05)^2} = 400$$

A survey was conducted using 400 IFB account holders and 200 conventional account holders for the control group. A total of 600 sample size was used in this study from the two regions and two administrative cities. Within each region/administrative city a proportion of sample size was randomly selected for the survey as follows with the proportion of 3, 2, 1 for CBE, OIB, UN respectively:

Table 1: Sample proportion

Region	IFB account holders				Non-IFB account holders			
	CBE	OIB	UB	Total	CBE	OIB	UB	Total
Addis Ababa City administration (Ayer Tena, Gerji and Meri branches)	60	43	27	130	30	20	12	62
Oromia region (Jimma, Adama, Sendafa branches)	60	43	27	130	30	20	12	62
Dire Dawa City administration	40	23	7	70	20	10	8	38
Somali region (Shineli)	40	24	6	70	20	10	8	38
Total	200	133	67	<b>400</b>	100	60	40	<b>200</b>

Source: Researchers' Calculation

However, a total of 24 front-line employees and branch managers were selected purposively to fit the data to the purpose of the study. Some 10-12 NGOs and religious associations involving in activities related to interest free banking were also be purposively selected and included in the focus group discussion in Addis Ababa, Jimma and Diredawa/Shineli.

### 3.3 Data Type and Source

For the purpose of this study both quantitative and qualitative type of data from both primary and secondary sources were used. The primary data source were from conventional customers, IFB account holder, staffs of separated windows and branch managers of selected Commercial bank of Ethiopia branches in Addis Ababa city; some selected cities in Oromia and Somalia regions. Secondary data were collected from published and unpublished reports of Commercial Bank of Ethiopia and purposively selected private banks that are providing interest free banking services. Mainly secondary sources were used to review the experiences and lessons learnt from different countries.

### 3.4 Methods of Data Collection

In this study survey and key informants interview as well as focus group discussion were used to gather data from different sources.



### **3.4.1 Survey**

A formal survey was conducted with the help of structured questionnaire, with open ended and closed-ended questions using well-trained enumerators. The questionnaire covered different topics to capture relevant information on conventional and IFB account holders' characteristics, their perception; major constraints, opportunities and impacts of using interest free banking service, etc. The questionnaire were prepared and pre-tested before its full implementation.

### **3.4.2 Key Informants Interview**

Primary data were collected through key informants' interview from front line employees and branch managers. For each actor a separate interview guide were prepared and administered to respondents.

### **3.4.3 Focus Group Discussion**

Primary data was also collected through Focus Group Discussion with selected NGOs, religious associations and experts in the area. A total of three Focus Group Discussion (FGD) were conducted in the selected research sites (1 FGD in Addis Ababa, 1 FDG in Jimma and 1 in Diredawa/Shineli). Focus group discussion guide was prepared in line with the thematic areas that were covered in the study.

## **3.5 Methods of Data Analysis**

The data collected from different sources was analyzed using descriptive statistics and econometric models. For most of the data that were obtained from survey; such as conventional and IFB account holders' characteristics, their perception on the service, etc. were reported by using simple descriptive statistics such as mean, standard deviation, frequency, rank and percentage. However, for the impacts of interest free banking service on the livelihoods of users, logistic regression and Propensity Score Matching/PSM/ method were used. Qualitative information was supplemented to the quantitative data to enrich the study.

### **3.5.1 Model specification**

The propensity score matching (PSM) model is used and applied with binary logit model, because of that as Gujarati (2003) explains "the logit models is not so bounded and one can add as many regressors as may be dictated by the underlying theory".

**Logit Model;** is used to estimate propensity scores using a composite of pre-intervention characteristics of the sampled households and matching of the participants and the non-participants

are done by PSM. When we estimate the probability of participation vs. non-participation, logit and probit models usually yield similar results. However, the logit distribution has more density mass in the bounds based on stronger assumption than probit. Probit is computationally more difficult and has two shortcomings; 1<sup>st</sup> as the number of options increases, the number of models to be estimated increases disproportionately and 2<sup>nd</sup> in each model only two options at a time are considered and consequently the choice is conditional on being in one of the two selected groups, which may cause model misspecification (Lechner, 2001).

### **3.5.2 Propensity Score Matching (PSM) Model**

In the impact evaluation PSM is the most commonly used methods when there is a lack of baseline survey and random assignment of treatments to subject is not feasible. PSM refers to the pairing of treatment and control groups with similar values on the propensity score, and possibly other covariates (Rubin, 2001). In this impact evaluation only what happens to beneficiaries who are receiving benefits is observable, but in which what would happen to the same households if they did not receive benefits will did not observed; which is called problem of the counterfactual. On the other hand, Assessing the impact of PSNP is measuring impact as the difference in mean outcomes between the households involved in the PSNP and those not involved even controlling for program characteristics, may give a biased estimate of program impact. This bias arises if there are unobserved characteristics that affect the probability of participation in the outcome of interest. There are Two important sources of this selection bias include targeting of the program to recipients based on characteristics unobservable to the researcher and self-selection into the program by qualified recipients (Gilligan & Hoddinott, 2007).

Matching is a Non-Parametric technique: it avoids potential miss-specification of  $E(Y(0) | X)$  and allows for arbitrary heterogeneity in causal effects  $E(Y(1) - Y(0) | X)$  Grilli and Rampichini, (2011). The propensity score matching helps to control for these sources of selection bias and provides reliable; low-bias estimates of program impact provided sufficient control variables relevant to modeling the program participation decisions are used (Heckman *et al.*, 1997). Mainly the PSM is going to apply in two steps. First the probability of participating in the program is calculated based on several observed covariates (the propensity scores): the probability of participation in PSNP was going to calculate by using a logit model. Second, each participating household is going matched to a non-participating household (control household) with similar propensity score in order to estimate the average treatment effect of the PSNP.

In the context of a Randomized controlled trials (RCT), one expects that, on average, the distribution of covariates will be similar between treatment groups and residual differences in

baseline covariates may exist between treatment groups, it require Regression adjustment. However, we can directly compare outcomes between treated and untreated subjects within the propensity score matching sample (Austin, 2011).

There are several practical reasons for preferring the use of propensity score based methods to regression based methods (Austin, 2011). First, it is simple to determine whether the model has been adequately specified in relating treatment assignment and baseline covariates to the outcome has been correctly. The PS is a balancing score (conditional on the propensity score, the distribution of measured baseline covariates is similar between treated and untreated subjects). Second, it allows one to separate the design of the study from the analysis of the study. Third, there may be increased flexibility when outcomes (when binary or time-to-event in nature) are rare and treatment is common (Braitman & Rosenbaum, 2002). Fourth, we can explicitly examine the degree of overlap in the distribution of baseline covariates between the two treatment groups.

According to Khandker (2009) PSM is method assign observations in to two groups that receive treatment (participate in IFB) and control group that did not receive treatment (not participate in IFB but participate in conventional banking). Assuming that only observed characteristics (X) is affect program participation the estimated PSM model; the researcher estimate the propensity score for participation in the program by a logit model using observable variables in the survey that include both determinants of participation in the programs and factors that affect the outcome.

$$P(x) = \text{pr}(Z=1/X) = E(Z/X) \text{-----}1$$

Propensity score is the conditional (predicted) probability of receiving treatment, given pre-treatment characteristics X.  $E(Z/X)$  is expected outcome

$$P_i = \frac{e^{Z_i}}{1+e^{Z_i}} \text{-----}2$$

Where  $p_i$  = probability of participation in IFB

$$Z_i = \alpha_0 + \alpha_i x_i + u_i \quad i = 1, 2, 3 \dots n$$

$\alpha_0$ = intercept     $\alpha_i$ = regression coefficient to be estimated

$X_i$  = pre-intervention characteristics,     $U_i$  = error or disturbance term

The probability of household do not participate in the program is;

$$1-P_i = \frac{1}{1+e^{Z_i}} \text{-----} 3$$

The cumulative logistic probability model can be specified as;

$$P_i = f(Z_i) = \frac{1}{1+e^{-(\alpha + \sum \beta_i X_i)}} \text{-----} 4$$

Where,  $X_i$  is independent variable,  $\alpha$  and  $\beta$  are regression parameter to be estimate and  $e$  is base of natural logarithm.

To ease for interpretation of coefficients logistic model to be written in terms of the odd ratio and log odd; Odd ratio is the probability of individuals participate in IFB ( $P_i$ ) to a probability of individuals not participate in IFB (participate in conventional banking) ( $1 - P_i$ ), that is ( $\frac{P_i}{1-P_i} = e^{Z_i}$ ) and taking natural logarithm to this formula become

$$\ln\left(\frac{P_i}{1-P_i}\right) = Z_i = \alpha + \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_n X_n, \text{ then}$$

$$Z_i = \alpha + \sum_{i=1}^n (\beta_i X_i + U_i) \text{-----} 5$$

Estimating the impact of IFB program on the livelihoods using PSM as methods of estimating counterfactual outcome for participants;

Let  $P = \Pr(Z = 1/X)$  is the probability of participating in the program, i.e., the propensity score. PSM constructs a statistical comparison group by matching observations on IFB users to non-participants on similar values of  $P$ . Propensity score matching estimators are based on two assumptions: *where  $Z$  is indicator variables,  $Y_1$  is outcome of participants and  $Y_0$  outcome of non-participants*

Matching assumes that conditional on  $P$ , non-participants have the same mean outcomes as participants would have if they did not receive the program:

$$E(Y_0 | P, Z=1) = E(Y_0 | P, Z=0) = E(Y_0 | P) \text{-----} 6$$

Valid matches can be found for each program participants:  $P < 1$

If assumptions (a) and (b) are satisfied, then, after conditioning on  $P$ , the  $Y_0$  distributions observed for the matched non-participant group can be substituted for the missing  $Y_0$  distribution for participants. Under these assumptions, the mean impact /outcome of the program will be evaluated as;  $\Delta Y = Y1 - Y0$

$$\begin{aligned} ATE &= E(\Delta Y) = E((Y1 | x, Z = 1) - (Y0 | x, Z = 1)) \\ &= E(Y1 | Z = 1) - EP|Z=1 \{EY(Y0 | Z = 1, P)\} \\ &= E(Y1 | Z = 1) - EP|Z=1 \{EY(Y0 | Z = 0, P)\} \end{aligned}$$

The first term on the right-hand side of the last expression estimated from the treatment group and the second term from the mean outcomes of the matched (on  $P$ ) comparison groups. ATE is important since the treatment and control group are selected randomly it is not biased.

**Kernel matching methods;** Each treated observation  $i$ , matched with control observations  $j$ , weights inversely proportional to the distance between treatment and control observations with matching based on propensity scores. Asymptotically all PSM estimators should yield the same results, because with growing sample size they all become closer to comparing only exact matches (Smith, 2000). However, in small samples the choice of the matching algorithm can be important (Heckman et al., 1997), where usually a trade-off between bias and variance arises. The performance of different matching estimators differ case-by-case and depends largely on the data structure at hand (Zhao, 2000). In this study there are a lot of comparable untreated individuals, it is worth using more than one nearest neighbor (kernel matching) to gain more precision in estimates. The major advantage of these matching approaches is the lower variance which is achieved because more information is used (Marco & Sabine, 2005).

## 4. Results and Discussion

### 4.1 Response Rate

In this study 330 Interest Free Banking users and 170 conventional bank users were contacted from Commercial Bank of Ethiopia, Oromia International Bank and United Bank in Addis Ababa, Oromia, Dire Dawa and Somalia regions. Out of the 500 questionnaires distributed to three banks for IFB and conventional customers, 474 (a response rate of 94.8%) have been collected. In addition to the questionnaire survey, data was collected through interview and Focus group discussion. A total of 24 key informant interviews and 3 focus group discussions were conducted.

### 4.2 Reliability Test

A reliability test using Cronbach's alpha (Cronbach, 1951)<sup>47</sup> was run to determine internal consistency and reliability of the items in a questionnaire used in this study to measure the level of awareness, role of IFB and motivating factors. Nunnally (1978)<sup>48</sup> has suggested that instruments used in basic research should have reliability (the Cronbach's alpha coefficient) of .70 or better. Table 4.1 below shows this statistic.

Table 4.1: Reliability and Consistency Test

Variables	Cronbach's Alpha	Number of Items
Awareness related factors	.700	5
Role of IFB related factors	.901	11
Motivating factors to use IFB	.798	9

### 4.3 Background of the Respondents

In this section, the profile of respondents such as sex, marital status, age, education, occupation, religion, family size, family income and saving have been summarised as follows.

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<sup>47</sup>Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika*, 16(3), 297-334.

<sup>48</sup>Nunnally, J. C. (1978). *Psychometric theory* (2nd ed.). New York, NY: McGraw-Hill.

Table 4.2: Respondents by Sex, Marital Status and Age

Characteristic			Banking			Total
			IFB	Conventional	Both	
Sex	Female	Count	93	51	5	149
		% of Total	19.6%	10.8%	1.1%	31.4%
	Male	Count	201	117	7	325
		% of Total	42.4%	24.7%	1.5%	68.6%
Total		Count	294	168	12	474
		% of Total	62.0%	35.4%	2.5%	100.0%
Marital Status	Married	Count	201	110	6	317
		% of Total	42.4%	23.2%	1.3%	66.9%
	Single	Count	83	55	5	143
		% of Total	17.5%	11.6%	1.1%	30.2%
	Divorced	Count	8	2	1	11
		% of Total	1.7%	0.4%	0.2%	2.3%
	Widowed	Count	2	1	0	3
		% of Total	0.4%	0.2%	0.0%	0.6%
Total		Count	294	168	12	474
		% of Total	62.0%	35.4%	2.5%	100.0%
Age by category	10-20	Count	14	1	0	15
		% of Total	3.0%	0.2%	0.0%	3.2%
	21-30	Count	131	82	7	220
		% of Total	27.6%	17.3%	1.5%	46.4%
	31-40	Count	86	48	3	137
		% of Total	18.1%	10.1%	0.6%	28.9%
	41-50	Count	38	28	1	67
		% of Total	8.0%	5.9%	0.2%	14.1%
	51-60	Count	22	8	1	31
		% of Total	4.6%	1.7%	0.2%	6.5%
	> 61	Count	3	1	0	4
		% of Total	0.6%	0.2%	0.0%	0.8%
Total		Count	294	168	12	474
		% of Total	62.0%	35.4%	2.5%	100.0%

Source: Survey data, 2017

Table 4.2 shows that from the total of 474 respondents, the majority of customers (68.6%) in all the conventional, IFB and both categories are males and the rest (31.4%) are females. This shows that both males and females are well represented in this study. Moreover, this study clearly shows that even though financial services in both IFB and conventional banking are male dominated, significant numbers of females are also using the banking services in the study areas. However, as females are half of the population in the country in general and in the study areas in particular, it is fair to argue that both IFB and conventional banks should attract females as males.

The same table depicts that the majority of the respondents (66.9%) in both categories are married and 30.2% of them are single, while the rest 2.3% and 0.6% are divorced and widowed. However, there is no significant variation between IFB and conventional banking service users based on their marital status.

Regarding age, Table 4.2 reveals that the majority (46.4%) are between age 21 and 30 which shows that most of the customers in the existing banking services are young and 28.9% of them are in the age category of 30 and 40. About 20 % of the customers are over 40 years old. Overall, there is no significant variation between IFB and conventional banking service users based on age categories.

Table 4.3: Respondents by education

Education		Banking			Total
		IFB	Conventional	Both	
Masters	Count	15	10	1	26
	% of Total	3.2%	2.1%	0.2%	5.5%
Bachelor	Count	78	55	6	139
	% of Total	16.5%	11.6%	1.3%	29.3%
Diploma	Count	36	36	2	74
	% of Total	7.6%	7.6%	0.4%	15.6%
Secondary	Count	84	46	1	131
	% of Total	17.7%	9.7%	0.2%	27.6%
Primary	Count	67	19	2	88
	% of Total	14.1%	4.0%	0.4%	18.6%
No Education	Count	14	2	0	16
	% of Total	3.0%	0.4%	0.0%	3.4%
Total	Count	294	168	12	474
	% of Total	62.0%	35.4%	2.5%	100.0%

Source: Survey data, 2017



Table 4.3 shows the educational background of the respondents and 16 (3.4%) of them do not have any formal education in their entire lifetime, 88 (18.6%) of the respondents have some primary education, 131 (27.6%) of the respondents have completed high school education while 239 (50.4%) of the respondents have some tertiary level education (i.e. university degree or college certificate). From the data, it is fair to conclude that the overall respondents' educational background is relatively good to provide reliable data.

Table 4.4: Respondents by occupation and customer category

Occupation		Banking			Total
		IFB	Conventional	Both	
Government	Count	99	93	3	195
	% of Total	20.9%	19.7%	0.6%	41.2%
Private	Count	158	68	9	235
	% of Total	33.4%	14.4%	1.9%	49.7%
Housewife	Count	11	1	0	12
	% of Total	2.3%	0.2%	0.0%	2.5%
Student	Count	16	6	0	22
	% of Total	3.4%	1.3%	0.0%	4.7%
Unemployed	Count	9	0	0	9
	% of Total	1.9%	0.0%	0.0%	1.9%
Total	Count	293	168	12	473
	% of Total	61.9%	35.5%	2.5%	100.0%

Source: Survey data, 2017

Table 4.4 shows the occupational status of the respondents. Of the total of 474 respondents, the majority 235 (49.7%) are private employees and business owners while 195 (41.2%) of them are government employees. Housewife, student and unemployed represent about 10% of the respondents. This means those who have better access to banking services are private and government employees.

Table 4.5: Respondents by religion and customer category

Religion		Banking			Total
		IFB	Conventional	Both	
Muslim	Count	277	43	11	331
	% of Total	58.4%	9.1%	2.3%	69.8%
Orthodox	Count	15	96	0	111
	% of Total	3.2%	20.3%	0.0%	23.4%
Protestant	Count	1	28	1	30
	% of Total	0.2%	5.9%	0.2%	6.3%
Catholic	Count	0	1	0	1
	% of Total	0.0%	0.2%	0.0%	0.2%
Others	Count	1	0	0	1
	% of Total	0.2%	0.0%	0.0%	0.2%
Total	Count	294	168	12	474
	% of Total	62.0%	35.4%	2.5%	100.0%

Source: Survey data, 2017

Table 4.5 shows that of the total 474 respondents of IFB and conventional banking users, 331 (69.8%) are Muslims and 111 (23.4%) are Orthodox Christians. The rest (6.7%) represent other religions such as Protestant, catholic, Wakefeta, etc). If we see the respondents in their customers' category, out of 62% of the IFB respondents, the majority (58.4%) is Muslims and only 3.5% are Orthodox while of the total of 35.4% respondents of conventional bank users, the majority (20.3%) are Orthodox religion followers. This clearly shows that IFB service is left for Muslims regardless of the intention that any religion followers can use it.

Table 4.6: Respondents by household size, monthly income and saving

Variables	Banking							
	IFB		Conventional		Both		Total	
	Mean	Count	Mean	Count	Mean	Count	Mean	Count
Household size	4	294	3	168	5	12	4	474
Monthly Income	4994.19	294	4993.81	168	5427.27	12	5004.78	474
Log income	8.12	294	8.21	168	8.46	12	8.16	474
Saving	28082.57	294	26950.50	168	29622.22	12	27688.75	474
Log saving	8.75	294	8.61	168	9.66	12	8.71	474

Source: Survey data, 2017

Table 4.6 reveals that the average household size for IFB customers (4) is greater than the conventional costumers (3). But the average household size for both categories is 4 which is lower than the national average. The data shows that there is no much difference between average monthly income of IFB and conventional customers. However, there is little difference in saving between the two categories. Overall the variation between the two categories in household size, monthly income and saving is not statistically significant.

#### **4.4 Current Status of IFB Service Provision**

Interest-free banking industry is a relatively recent development as compared to the conventional banking system in Ethiopia. The government of Ethiopia has started the provision of interest free banking services in both public and private banks since 2011. In both private and public banks, National bank of Ethiopia has authorized IFB business to be undertaken through window model. The qualitative data from CBE officials shows that the bank provides the deposit related IFB banking services in its branch throughout the country but the credit or fund utilization product has only been availed in its head office. In the case of Oromia international bank, however, both deposit and credit financing are provided at branch level.

In the last 5 years the industry is growing fast as compared to the conventional banking industry. As confirmed by the CBE officials, the window service is profitable. This is because large group of Muslim population of the country has been demanding interest free banking products for several years. The adoption of an interest free banking can further be justified in terms of creating a strong economic relationship with Islamic jurisdictions; it is one of the country's foreign economic policy to have such a strong financial and trade service with Muslim Countries. Therefore, the introduction of sector into the country's financial system has a strong potential of attracting international investors who need Islamic financial infrastructure for their investment. Furthermore, there is also a variant practice across jurisdictions with respect to the level of institutional adoption of the sector.

Table 4.7: Years of experience and services in banking

		Banking					
		IFB		Conventional		Both	
		Count	Column N %	Count	Column N %	Count	Column N %
Experience of customer in their banks	<1yr	74	25.2%	17	10.1%	0	0.0%
	1-3yrs	87	29.6%	53	31.5%	4	33.3%
	3-5yrs	51	17.3%	42	25.0%	6	50.0%
	>5yrs	82	27.9%	56	33.3%	2	16.7%
Relationship with the bank	Saving	111	38.1%	18	37.5%	4	33.3%
	Current	171	58.8%	28	58.3%	4	33.3%
	Investment	1	0.3%	0	0.0%	0	0.0%
	All	8	2.7%	2	4.2%	4	33.3%
	Total	291	100.0%	48	100.0%	12	100.0%

Source: Survey data, 2017

Table 4.7 shows that the majority (about 50%) of customers in both conventional and IFB have less than 5 years experiences. However, conventional customers have more experience than IFB banking services. Most of the customers' relationship with the banks is for current account followed by saving services. But in terms of basic service provision, there is no much difference between the two.

#### 4.5 Legal and Procedural Issues

The government of Ethiopia via the national bank defined the interest free banking service from the narrow perspective and decided to give it in one window service by rejecting the full-fledged interest free banking service. According to bank officials, this decision was due to the capacity gap and lack of awareness regarding the interest free banking. However, some other interviewees argue that the government intentionally rejected the full-fledged banking and banned the establishment of Zemzem bank by private initiatives aiming for similar purpose.

Most of the participants in interview and FGD argue that the regulatory and institutional challenges hinder the operational performance of the existing IFB service provision and its future expansion. Most agree that there is no appropriate banking policy regarding IFB service provision. The available policy is not complete and doesn't consider the experience of other countries. They argue that the government should benchmark the practice of some African, Middle East and European countries and fit the practice to our country context. It is only in this way that the service can be provided productively.

According to some religious leaders, mainly Muslim population in the country deposits their money in the conventional banks in their current accounts bearing no interest. This being the intention of the population, however, the mobilized fund from the non-interest-bearing deposits of

the conventional banks will inevitably be used to finance consumers or entrepreneurs in return for interest. Hence, the very caution of the depositors not receive interest will be defeated in so far as the money is utilized to fund transactions which are prohibited (Haram) including interest bearing loans. Financing an interest-bearing activity is forbidden as much as receiving interest as per the Sharia.

#### 4.6 Awareness about IFB services

In interest free banking service, awareness matters for the successful utilization of the available product. Survey respondents were asked to respond to the awareness questions and awareness problem has been identified as one of the major challenges which negatively affected the utilization of IFB products. Table 4.8 shows the level of understanding about the IFB service between IFB and conventional customers.

Table 4.8: Participants Knowledge on IFB

Items	Customers category								
	Conventional			IFB			Total		
	N	Mean	St.Dev	N	Mean	St.Dev	N	Mean	St.Dev
I know properly the Islamic compliance interest free banking services currently offered by commercial banks (CBE, OIB and UB) in Ethiopia.	168	3.39	1.213	294	3.50	1.300	474	3.46	1.262
I know the differences between IFB and conventional financing very well.	168	3.41	1.205	294	3.73	1.182	474	3.61	1.202
Commercial Banks (CBE, OIB and UB) do better on marketing of their IFB products and services to the public.	168	3.13	1.192	294	2.83	1.247	474	2.94	1.239
I know that Interest free banking service is offered to Muslim and non-Muslim communities.	168	2.91	1.178	294	2.70	1.374	474	2.78	1.309
I know how and for what purpose I use the interest free banking services provided by the commercial banks.	168	3.10	1.236	294	3.43	1.214	474	3.31	1.233

Source: Survey data, 2017

Table 4.8 shows that there is no response variation between the two categories regarding the question whether customers know properly the Islamic compliance interest free banking services currently offered by commercial banks (CBE, OIB and UB) in Ethiopia. The average response is a mean of 3.39 for conventional and 3.5 for IFB users. Although most agree that the IFB service is sharia compliance, the average is still low showing that there is doubt. This has strong policy implication in the future mobilization.

The same table also shows that the level of understanding between conventional (mean of 3.41) and IFB (3.71) users regarding the difference between IFB and conventional financial services is not that much significant. This means that the bank is not promoting the IFB service in a better way. This was also confirmed by the respondents in Table 4.8. The response regarding the marketing and promotion activities of the IFB products and services to the public is below average (2.94 for both Conventional and IFB customers).

As stated in Table 4.8, respondents were asked their awareness whether IFB is offered to Muslim and non-Muslim communities. Accordingly, the response in both categories reveals that the level of understanding is below (2.91 for conventional and 2.7 for IFB users). This means that most do not know whether interest free banking service is offered to Muslim and non-Muslim communities. The qualitative information also confirms the fact that most customers consider IFB service as a banking service for only Muslims. Although the window service is for both Muslims and non-Muslims, there is no non-Muslim customer in all studied banks. This clearly shows that there is misconception regarding IFB service provision in Ethiopia.

Table 4.8 depicts that the level of awareness regarding the purpose of using IFB services provided by the commercial banks is above average (mean of 3.10 for conventional customers, mean of 3.43 for IFB customers and mean of 3.31 for both customers). However, there are still problems regarding the intention and use of IFB services by the customers. Qualitative data from interviewees and FGD confirmed that customers do not know the purpose clearly. As a result most people do not use the service regardless of the availability of the service at every branch level.

Table 4.9: Awareness variation among customers Vs their religion

		Conventional			IFB		
		Awareness_Average			Awareness_Average		
		Mean	Minimum	Maximum	Mean	Minimum	Maximum
Religion	Muslim	3.42	1.40	4.80	3.24	1.00	5.00
	Orthodox	3.14	1.40	5.00	3.17	2.80	3.40
	Protestant	3.03	1.40	5.00	3.20	3.20	3.20
	Catholic	2.80	2.80	2.80	.	.	.
	Others	.	.	.	3.40	3.40	3.40

Source: Survey data, 2017

The level of awareness regarding IFB is better for Muslims as compared to other categories. However, the response variation is not significant. This means that there is no significant variation in their level of awareness.

As clearly shown in Table 4.8 and Table 4.9, there is an implication that IFB services should be supported by research and development activities for the purpose of developing new IFB products and attracting more customers. There is also a need to develop the capacity of workers for better IFB service provision and resource mobilization. Most agree that lack of trained human resource is the challenge to create more awareness. The service is provided so far based on short term training by own staff and were not communicated well about the available IFB products. In addition, there is also lack of professionals in the field of sharia advisory board members. In our country there are religious persons who have better knowledge on the religion but have no business knowledge. To be a member of sharia advisory both knowledge is mandatory. The result indicates that in order to implement the genuine service there is a need to appoint sharia advisory boards who have knowledge on the business as well as the religion to give direction by understanding the common concepts of banking.

#### **4.7 Service Providing Capacity of the Banks**

The success and failure of any business depends on the capacity to deliver the products and services to its customers. Capacity could be any resource that facilitates the delivery of financial services such as adequate and experienced human power, IT infrastructure, availability of various IFB products and adequate IFB branches and windows. Key informants and FGD participants were asked to reflect on the capacity of banks to provide IFB service. According to the participants, in all the three banks (CBE, OIB and UB), there is a serious problem of human resource. Most of the participants agree that these banks have no adequate and well trained, skilled and experienced human power. Most of them give service with no adequate training on IFB.

The participants, however, revealed that there is relatively better capacity in Oromia International Bank as compared to CBE and UB when it comes to IFB service provision. Bank workers who are providing IFB services do have training on the principles and treat customers better. It was also confirmed that in OIB, there are better IFB products as compared to other banks. However, in CBE and UB, there is no special training provided so far for IFB service providers. The number of products provided is very limited.

Most of the FGD and Key informants agree that the three banks tried to open branches and establish the necessary infrastructure to provide IFB service to customers. The serious problem, however, is that there is no adequate human power to provide the service in all these banks. In addition, in some branches there are no adequate IFB service users. In some other branches there are no adequate windows to provide IFB services. These inconsistencies have created administrative and technical problems to provide IFB services in the three banks.

#### 4.8 Perception of Customers on the Role of IFB

Perception can make or break business activities particularly in the banking sector. Survey respondents were asked regarding their perception on the role of interest free banking services in Ethiopia. Table 4.10 shows the result on the perception of customers in both conventional and IFB services regarding the role of IFB.

Table 4.10: The Perception of IFB users and non- users on the Role of IFB

Items	Customers category								
	Conventional			IFB			Total		
	N	Mean	SD	N	Mean	SD	N	Mean	SD
Full-fledged IFB has more advantages than the current window based IFB	168	3.21	1.24	294	3.88	1.18	474	3.65	1.23
To attract IFB customers it is better to increase the quality and quantity of IFB products	168	3.40	1.07	294	3.93	1.05	474	3.75	1.08
Full-fledged IFB can narrow the gap between the rich and the poor	168	2.72	1.10	294	3.22	1.12	474	3.06	1.14
Full-fledged IFB can help to mobilize and collect non-bankable money in to the system	168	3.13	1.19	294	3.66	1.10	474	3.47	1.16
IFB promote job creation for unemployed	168	3.03	1.10	294	3.51	1.19	474	3.34	1.17
IFB can attract more customers in to the banking system	168	3.09	1.24	294	3.65	1.21	474	3.46	1.25
Full-fledged IFB can provide alternative banking products and help to control banking risks	168	3.09	1.11	294	3.47	1.16	474	3.34	1.15
Full-fledged IFB helps to bring health and sustainable growth in the country	168	2.96	1.08	293	3.53	1.05	473	3.33	1.09
Full-fledged IFB help to bring more remittance and foreign exchange	168	2.80	1.05	293	3.33	1.14	473	3.15	1.13
IFB is better than conventional because it focuses on sharing benefits and costs in the banking system	168	2.82	1.12	294	3.09	1.23	474	3.01	1.20
Opening Full-fledged IFB is crucial for both lenders and creditors	168	2.96	1.14	294	3.39	1.20	474	3.23	1.20

Source: Survey data, 2017

As shown in Table 4.10, the respondents in both categories believe that Full-fledged IFB service has more advantages than the current window based IFB service. This was also supported by the key informants and FGD participants. According to the key informants and FGD participants, the current IFB service is limited to saving and there are no options for various financing services. Above average respondents (3.4 for conventional and 3.94 for IFB users), therefore, confirm that to attract IFB customers it is better to increase the quality and quantity of IFB products.



Table 4.10 confirmed that, as perceived by the respondents, full-fledged IFB can narrow the gap between the rich and the poor. This was also confirmed by FGD and Key informants. According to the respondents, in conventional commercial banks, short, medium and long-term finance is provided via interest bearing bonds and equities in addition to saving. However, in IFB, there is no such service. If the banks make the service full-fledged, it will help to provide supportive financial services that will help the poor.

The same table conforms that Full-fledged IFB can help to mobilize and collect non-bankable money in to the system. This was also supported by key informants and FGD Participants stating that almost 40% of the population in Ethiopia is Muslim. This population needs interest free financial service because of religion. However, the coverage in the whole country is less than 14%, which is very low in African standard. Therefore, according to the respondents, expanding the IFB service will help reach those who are out of the financial service. IFB can attract more customers in to the banking system which in turn mobilize and collect non-bankable money in to the system.

The respondents perceive that IFB can promote job creation for unemployed. This is to say that those who can save can invest and create more jobs for the unemployed. However, there is no response variation between conventional and IFB service users.

Respondents confirmed that Full-fledged IFB can provide alternative banking products and help to control banking risks. This was also supported by the key informants and FGD participants. Most perceive that full-fledged IFB helps to bring healthy and sustainable growth in the country. As we know, the main role of bank is to play as a financial intermediary by mobilizing fund through saving and utilizing the mobilized fund by investors through financing products that the bank provides for the market. If the mobilized fund not being utilized by the investor the economic development role that is expected to be played by banks may not be achieved. From the qualitative data, it was confirmed that IFB service gives emphasis on saving and not on financing. This will be materialized by the bank through developing a variety of IFB financing products/services that meets its customer need, promoting the existing one and work within and outside the bank to create an environment that would enable the best delivery and utilization of IFB products/services.

Some also believe that the full-fledged IFB help to bring more remittance and foreign exchange. This is to say that those who live outside the country will have a saving and current bank account and send their money back home in the form of remittance and this will increase the foreign exchange reserve of the country. Respondents also confirmed that IFB is better than conventional because it focuses on sharing benefits and costs in the banking system. Opening Full-fledged IFB is crucial for both lenders and creditors.

Overall, the perception of respondents regarding the role of IFB is positive. However, the recent application and implementation of IFB service in Ethiopia encounter challenges in the research and development, human resource availability of sharia advisory board for financing (lending) activities of the banks and attracting of the deposits from those far from the conventional banking service.

#### **4.9 Motivating factors on the use of IFB service**

One of the issues that the researchers address in this study is the motivating factors for the use of IFB services in Ethiopia. As indicated in Table 4.11, the motivators in their order of importance is customer knowledge (average mean of 3.56), peer pressure (average mean of 3.53 ), type of product (average mean of 3.29), infrastructure (average mean of 3.29), staff quality (average mean of 3.26), the flexibility in transferring the money (average mean of 3.20), compliance with Sharia principles (average mean of 3.18), government support (average mean of 2.94), and convenient branches and windows (average mean of 2.85).

Table 4.11: Motivating factors for the use of IFB services

Items	N	Min	Max	Mean	Std. Dev
I can easily transfer my money from IFB using technology and e-banking	293	1	5	3.20	1.379
Government support on expanding the banking alternatives in the form of IFB motivated me to use	294	1	5	2.94	1.206
My knowledge on IFB helped me to use the service	294	1	5	3.56	1.081
My families and friends influenced me to use the service	294	1	5	3.53	1.292
Commercial banks provide IFB that satisfies by interest	293	1	5	3.29	1.196
The banks have experienced and ethical manpower to provide interest free banking	294	1	5	3.26	1.192
The banks have the necessary IT infrastructure to process, delivery and let use the customer the products and services of interest free banking	294	1	5	3.31	1.069
The banks provide their interest free banking products at convenient branches and adequate windows with the customer expectation	294	1	5	2.85	1.130
The banks provide the IFB service in compliance with Sharia principles <sup>49</sup>	294	1	5	3.18	1.364

Source: Survey data, 2017

The qualitative data from key informants and FGD participants confirm that the service is not in line with sharia principle. This does not create confidence among most of the users from the Muslim community. On the other hand, there is also misconception from non-Muslim community regarding IFB services. They believe that IFB service is for Muslims only. Although the government directive clearly states that IFB service should comply with sharia law; this was not to say that IFB is for Muslims only. Both Muslims and Non-Muslims can use it productively. The assumption is that sharia law is driven by ethical values that are good for mankind; hence, it is well accepted by not only Muslims but also non-Muslim communities. However, the rhetoric is different from the practice.

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<sup>49</sup>The Directive clearly states under Article 2(2.2) that interest-free banking business is a business that is “undertaken in a manner consistent with „Islamic“ finance principles and mode of operation”

#### 4.10 Types of products provided

The successes and failures of banking services depend on the type of products the banks provide to their customers. Survey respondents were asked to reflect on the type of IFB products provided by the three banks namely CBE, OIN and UB. Table 4.12 shows the types of IFB products provided in Ethiopia.

Table 4.12: Types of IFB Products Provided by the Commercial Banks

Types of IFB products	Count	Column N %
Wadia	207	74.2%
Kard	54	19.4%
Mudaraba	5	1.8%
Murabah	1	0.4%
Salam	1	0.4%
Istihana	1	0.4%
others	9	3.2%

Source: Survey data, 2017

Of the total IFB customers, the majority (74.2%) of them are Wadiamanah product users followed by Kard (19.4%) and Mudaraba (1.8%). Although banks advertise the availability of various products in their banks, only few products are being provided so far. Information from the qualitative source confirmed that fund mobilized through these products is increasing from time to time. For the majority of interviewees and FGD participants, it is not only the fund that increases but also the customers that indicate the availability of demand for IFB deposit products.

Some argue that even before the introduction of IFB, the banks were providing based on special demand deposit with no interest. With this service most had no confidence. But now they have a relative confidence since it is officially accepted by the banks in the form of IFB. In both (IFB and special demand deposit service) cases costumers are served with no interest but their difference according to bank professionals is that special demand deposit does not comply with Sharia law. But IFB is supposed to be governed by Sharia law.

Qualitative information from the interviewee and FGD participants confirmed that the IFB service is supposed to be guided by sharia principles. However, there is doubt from customers saying that IFB is basically similar with conventional banks and the service is not basically different from it.

Most of the time, the service is provided by the same person and there is a mix between the two which violates the religious principle.

From different sources, researchers concluded that banks currently provided limited IFB products (Wadia, Kard, Murabaha) as compared to the internationally renowned major IFB products (Mudaraba, Murabaha, Musharaka, Istisna, Ijarah, Salam). This is due to internal and external factors that hinder banks to provide IFB services. Internal factors are related to 1) lack of commitment and preparedness of the banks to deliver various types of IFB financing product, 2) lack of relevant experience on the job as IFB business is new to the bank even to the country, 3) Lack of Shariah advisor which confirms the products and every transaction of the bank is in line with the Shariah requirement, 4) Lack of risk management mechanism has led the bank to avoid some of IFB products which has high risk level, etc. externally, The country's tax system, IFB involves buying and selling transaction which resulted in double taxation and lack of appropriate IFB policy are some of the challenges affecting the expansion of the services.

These are some of the reasons why the existing IFB services focuses on some selected simplest and less risky type of IFB products- such as WadiaManah and Murabahathough there is request for the other types of IFB products/services.

#### **4.11 Benefits and Impacts of the Service**

The benefits or the potential that the interest free banking system holds in light of the overall financial and economic system of the country must be noted based on practical evidences. Accordingly, respondents were asked to reflect on the benefits they are getting from IFB services provided in both government and private banks. Table 4.13 shows that the majority (40.6%) of IFB service users' benefit from saving followed by assets accumulation (20.3%) and improvement in health (18.4%). However, 11.1% of the respondents perceived that even though they use IFB service, they are not benefiting from it.

Table 4.13: The Benefits of Being the Customer of IFB

Benefits	Count	Column N %
Saving	84	40.6%
Income	10	4.8%
Health	38	18.4%
Child Education	5	2.4%
Food Security	5	2.4%
Assets	42	20.3%
No Benefit	23	11.1%

Source: Survey data, 2017

As shown in Table 4.13, most respondents confirmed that their IFB service do not benefit them to improve their income, child education and food security. However, during the focus group interview, it was reported that IFB service has multiple benefits such as creating assets, supporting beneficiaries to get out of poverty, and improve their social wellbeing.

The researchers were interested to see the impact of IFB service on the beneficiaries' poverty status as compared to conventional banking users. This was done based on the standardized measurement of progress out of poverty index developed for Ethiopia (see Annex). The descriptive statistics is summarized in Table 4.14.

Table 4.14: Progress out of poverty index

Items	Customers Category							
	Conventional				IFB			
	Mean	Min	Max	St. Dev	Mean	Min	Max	St. Dev
PPI score (family size)	<b>25.93</b>	.00	45.00	15.02	<b>19.74</b>	.00	45.00	15.06
PPI score (child education)	<b>1.68</b>	.00	3.00	1.44	<b>1.57</b>	.00	3.00	1.40
PPI score (housing)	<b>1.52</b>	.00	5.00	1.97	<b>1.75</b>	.00	5.00	2.14
PPI score (housingconstruction materials)	<b>4.32</b>	.00	5.00	1.72	<b>4.52</b>	.00	5.00	1.48
PPI score (access to latrine)	<b>4.81</b>	.00	9.00	3.81	<b>4.84</b>	.00	9.00	4.03
PPI Score (energy use)	<b>4.35</b>	.00	5.00	1.67	<b>4.45</b>	.00	5.00	1.55
PPI score (mattress and bed)	<b>4.91</b>	.00	5.00	.66	<b>4.86</b>	.00	5.00	.81
PPI score (radio and TV)	<b>5.50</b>	.00	6.00	1.66	<b>5.43</b>	.00	6.00	1.76
PPI score (watch)	<b>2.80</b>	.00	5.00	2.49	<b>2.74</b>	.00	5.00	2.49
PPI score (animals' ownership)	<b>1.43</b>	.00	10.00	3.51	<b>1.56</b>	.00	10.00	3.64
PPI score (Jewelry ownership)	<b>.79</b>	.00	2.00	.98	<b>.79</b>	.00	2.00	.98
Overall PPI	<b>5.30</b>	1.82	8.45	1.49	<b>4.76</b>	1.45	8.91	1.47
Food expenditure (log)	<b>7.46</b>	4.61	9.55	.77	<b>7.47</b>	4.61	9.21	.77
Non-food expenditure(Log)	<b>6.71</b>	3.91	10.13	1.00	<b>6.69</b>	4.61	9.90	.90

Source: Survey data, 2017

As revealed in Table 4.14, there is no significant variation between the IFB and conventional users in their progress out of poverty based on the ten indicators used to measure it. However, during the qualitative discussion, it was mentioned that Muslim community is economically disadvantaged due to the fact that they do not have alternative financial services that are in line with their religion and that it will affect their social mobility, progress and affluence in the long run.

#### **4.12 The Impact of IFB on the Beneficiaries: Propensity Score Matching**

Binary logit model was used to estimate the propensity scores of respondents which help us to perform matching algorithm between the treated (IFB users) and control groups (conventional banking users) in the study areas. In estimating the propensity scores, data from both groups were pooled such that the dependent variable takes a value of 1 if the household was IFB user and 0 otherwise. The outcome variables used in PSM model are PPI score, saving, income, and food and non-food expenditure.

To calculate ATTs different matching algorithms are available, among them the one with best estimates of propensity score should be selected. The choice of matching method involves a trade-off between matching quality and its variance. The most usually used matching methods with the PSM model include the nearest neighbor matching, radius (caliper) matching, and kernel matching estimators. According to Caliendo, M., and S. Kopeing (2008) the final choice of a matching estimator was guided by three basic criteria such as balancing test, pseudo-R<sup>2</sup> and matched sample size. Specifically, a matching estimator which balances all explanatory variables (i.e., results in insignificant mean differences between the two groups), bears a low R<sup>2</sup>-value and results in large matched sample size is the most appropriate estimator. Of the mentioned matching methods, kernel matching fulfills the requirements and used in this study.

Kernel matching connects the outcome of the treated groups (IFB users) with the matched outcome that is given by a kernel-weighted average of all control groups (conventional banking service users). Since the weighted averages of all conventional banking users in the control group are used to construct the counter-factual outcome, kernel matching has an advantage of lower variance because more information is included in the analysis (Heckman *et al.*, 1998).

##### **4.12.1 Average Treatment Effect on the Treated (ATT)**

Average treatment effect on the treated is the average of the difference between the outcomes of participants and matched control individuals. The main purpose of the propensity score estimation is not to obtain a precise prediction of selection into treatment, however, to balance the

distributions of relevant variables in both groups. Table 4.15 shows the ATT result estimated based on kernel matching method.

Table 4.15: ATT estimation with the Kernel Matching method

Varibales	Mached sample		ATT	Std. Err.	t
	Treated	Control			
PPI score	295	137	-0.555	0.206	-2.708**
Saving	295	135	0.232	0.230	1.011
Income	295	134	0.173	0.120	1.440
Food experndutre	295	136	0.071	0.111	0.642
Non-foodexperndture	295	137	0.151	0.140	1.081

Source: Survey data, 2017

Table 4.15 shows that IFB users are getting out of poverty better than conventional banking users. Although it is too early to judge, the reason could be due to the fact that IFB services supported users to improve their social and economic wellbeing. However, the program effect on saving, income, food, and non-food expenditure is insignificant though it is positive. This shows that there is no significant variation between IFB users and conventional banking users.

#### 4.12.2 Future Prospects of IFB Service Provision

The future prospect of the IFB service is perceived as good by most of the focus group discussion and interview participants. Most argue that interest accepting prohibition by religion makes some customer to avoid using conventional banking services. IFB service provision started to reach those customers who don't want interest. However, the overall financial service coverage in Ethiopia is only 14% and significant portion of the population is not using the banking service. It was also mentioned that close to 40% of the population in the country are Muslims and they need the IFB service due to their religion and this is huge opportunity to exploit. Almost all participants agree the significant Muslim population and relatively high population growth in the country is the confirmation for the future prospect of IFB service in Ethiopia. As noted by many, the non-availability or inadequacy of the existing IFB services excluded many from financial service mainly due to reasons of their faith. But now this is a good opportunity to promote inclusive financial services in the country.

#### 4.13 Experience of Other Countries and Point of Departure

Various countries in the world have adopted Islamic Banking based on different policy motivations. For instance, UK allowed Islamic banking with the aim of promoting and contributing for the development of its financial system. In other words, the positive economic and financial role of the industry underlies the policy decision. While others such as Tanzania, Kenya and South Africa have



recognized Islamic banking so as to respond to the needs of their Muslim community for the Sharia-compliant banking structure (see Song and Oosthuizen, 2014). Some countries like Malaysia and Saudi Arabia allowed the service to be offered either by stand-alone Islamic banks or through a window service in the conventional bank structure (Song and Oosthuizen, 2014); while others like Ethiopia have permitted the service to be offered only by the conventional banks through their interest free unit or window.

In the other end of the spectrum, however, there are also some jurisdictions that have prohibited the delivery of Islamic banking products by Islamic windows (e.g. Kuwait, Jordan and Iraq) (Song and Oosthuizen, 2014). This variation of approaches regarding the type of institution that will conduct Islamic banking could be justified differently according to the level of development of a country's financial system, the demand and awareness of the general public towards the products and services of Islamic banking industry and other relevant factors. Hence there are no rigid stages of introduction of Islamic banking into an already operating conventional banking system (Sole, 2007). To say more on the window choice of the Ethiopian government, it can be justified on the basis of the smallness of the demand and scanty level of awareness and inexperience about the sector from the customers, practitioners and supervisor's perspective. Therefore, it is proper to start from the window service and move on its way towards a full-fledged Islamic banking and other Islamic financial services. The level of awareness of the Ethiopian Muslims regarding the modern Islamic banking framework and the products/services offered by Islamic banks as distinguished from the ordinary banking is very low. Hence, the policy preference taken by the government is appropriate, according to the researcher, taking the above-mentioned factors into consideration. In fact, there are also some noted disadvantages of Islamic windows by supervisory authorities of some jurisdictions that have prohibited the conduct of Islamic windows. These are firstly reputational risks in the sense that the commingling of assets and liabilities of the window service with the conventional bank. The users of the service might lose confidence about the Sharia compatibility of the products offered by the window due to the fear of mix of funds or transactions. This may create a doubt in the mind of the depositors and they may withdraw their money from the window which is referred to as withdrawal risk (Alejandro López et.al. 2014).

The other demerit of window service is in relation to the corporate governance structure of the conventional bank which might not take the inherent risks and unique demands of the Islamic window into consideration. It is pointed out that even the SSB and internal oversight committee for the protection of IAHs of Islamic windows are made to be accountable to the Board of Directors of the CB

in some jurisdictions. This governance process has the potential to pose the risk of not catering for the needs/risks of the window. E.g. the Board might be loose in enforcing the fund segregation requirements. Moreover, proper financial statement might not be prepared properly which could hinder the effective oversight of their financial activities by the regulatory authority and deny the access of basic data about the operation and performance of the window to the various stakeholders (Alejandro López et.al. 2014).

#### **4.14 Key Challenges in IFB Service Provision**

The researchers summarized some of the key challenges identified during focus group discussion, Interview and survey as follows:

##### **Policy challenges**

- Most of the respondents mention that regulatory and supervisory challenges are the obstacles to provide interest free banking services. The supervisory body's directives is the same for both the IFB and the conventional banking except related to interest rate.
- The NBE directive (SBB/12/1996), IFB directive (SBB/51/2011) and tax system of the country are limited in promoting flexible IFB services and this make IFB product users less competitive.

##### **Awareness problems**

- Both qualitative and quantitative data confirmed that IFB service users lack awareness about the types of IFB products and their rules and regulations.
- In principle IFB service does not allow direct receipt of cash as financing and the cash is used to buy assets by the bank and later the bank will sell the asset to its customers. However, customers are not familiar about this procedure.

##### **Capacity problems**

- In all the three banks lack of qualified human resources at managers and customer service positions are the key challenges. In the three banks, it was confirmed that the employees were inadequate, not well trained theoretically and practically regarding IFB, and no experience in IFB. In addition, lack of relevant experience, lack of Shariah advisor/board and lack of the required infrastructure facilities and technologies are the challenges in the three banks. Even though the IFB directive clearly states that the IFB service should comply with Sharia law, in some banks there are no sharia

advisors. This is due to the fact that it is difficult to find well educated persons in both sharia and business.

- The banks lack the necessary preparation to deliver various types of IFB products. On the one hand, the IFB products and services are inadequate; on the other hand, there is no marketing and promotion effort to introduce the available products.

#### **Institutional problems**

- Most believe that there is no independent institution established for the provision of IFB products and services as required by customers. Although internationally IFB services are being provided through full-fledged Islamic banks, the existing institution for the provision of IFB service in Ethiopia is based on window model in the existing conventional commercial banks. Some recommend an independent bank for IFB and others recommend a branch to separately provide IFB service.

#### **Lack of leadership commitment**

- Most of the participants in focus group discussion and Interview argue that IFB service is a new model for Ethiopia and it requires attention and commitment from top officials and various stakeholders. However, according to the respondents, the practice shows that the IFB business does not receive the required attention and commitment from top leadership. There is no commitment from the government at national level and from the banks at the top to lower level. They do not give attention to the structure, policy, human resource, product types, promotion activities and the like.

#### **Lack of Trust and Confidence in Window Model**

- Most agree that customers lack trust and confidence as to the banks' capacity and commitment to deliver Shariah compliant IFB product and services. Per the response customers believed that there is mixing of IFB and conventional banking transaction and the bank is not even committed to give truly IFB services this has eroded the customers' trust.

## **5. Summary, Conclusion and Recommendation**

### **5.1 Summary of Findings**

- The majority of customers in IFB services are Muslims whereas conventional banking users are Orthodox Christian followers. This clearly shows that IFB service is left for Muslims regardless of the intention that any religion followers can use it.
- There is no much difference between IFB users and Conventional banking users in terms of household size, average monthly income, saving and other livelihood outcomes.
- IFB service is growing in the last 5 years and this effort has a strong potential of attracting international investors who need Islamic financial infrastructure for their investment. However, the process is constrained by lack of capacity, institutionalization and lack of clear legal provision.
- The impact analysis shows the effect of IFB services on saving, income, food, and non-food expenditure as compared to conventional banking service users is insignificant though it is positive. This means there is no significant variation between IFB users and conventional banking users. But the effect on overall poverty reduction is positive and significant on IFB users as compared to conventional users.
- The findings show that the future prospect of the IFB service is good because of the low coverage of financial services, high demand from the Muslim population and high rate of growth of the population in the country.
- IFB service users can deposit or use the financing product in both conventional and IFB windows. However, the products are very few such as Amana from deposit and Qard and Mudaraba from financing. This need to be expanded given the available demand in the country.
- Various countries in the world have adopted Islamic Banking based on different policy motivations. Some allowed Islamic banking with no Sharia compliance; others recognized Islamic banking so as to respond to the needs of their Muslim community for the Sharia-compliant banking structure. Some allowed the service to be offered either by stand-alone Islamic banks or through a window service in the conventional bank structure. In Ethiopia, the service is allowed to be offered only by the conventional banks through their interest free unit or window model.

- Key Challenges identified in this study regarding the provision of IFB Service in the study areas are: policy challenges, awareness problems, capacity problems, institutional problems, lack of leadership commitment and lack of trust and confidence in window model.

## **5.2 Conclusions**

The development of Sharia compliant interest free banking service in the last five years in Ethiopia in general and in the study areas in particular is significantly moving up. However, the available products are limited and do not fulfill the interest of the wider Muslim community. Though the banking regulations and directives promote Sharia compliant financial products, the rhetoric is different from the practice. The IFB service provision is in a narrow window model that doesn't satisfy the interest of the majority. The existing IFB services do not have significant impact on customers as compared to conventional banking users. The overall aim of mobilizing financial resources and attracting customers in to the banking system is not successful.

## **5.3 Recommendations**

This particular section presents recommendations based on the findings and conclusions which believe to enhance the delivery and use of IFB products in Ethiopian banking market.

- Sharia compliance interest free banking service is used to attract those who are not interested in conventional banking system due to religion. This option gives opportunity to bring the unbanked groups to the banking system for better utilization of the idle money in the economy. However, the existing modality, types of IFB products, the capacity of providing IFB services and the process of service provision do not satisfy the customers. This will affect the IFB service to play its role as expected. Therefore, the government, both public and private commercial banks, national bank and other stakeholders should work together to minimize the challenges and improve the IFB service provision in the country.
- The adoption of INF service in the country is not based on best experiences of other countries and the existing regulations and directives (SBB/12/1996 and SBB/51/2011) are becoming the challenges to be flexible in the implementation of IFB businesses in both private and public commercial banks. Therefore, the government together with other stakeholders must revise the existing policies and create favorable policy environment.

- It was evident that there is huge demand (mainly by the Muslim community) for the IFB products. To utilize this opportunity, both public and private commercial banks have to devise risk management mechanisms, acquire facilities which are necessary to deliver IFB products, hire/develop knowledgeable and experienced manpower and provide the service at least in a branch model.
- One of the challenges mentioned by the respondents was the fact that the practical IFB service provision is not based on Shariah standard. The national bank of Ethiopia and the commercial banks together with Shariah council and other concerned stakeholders should work together to align the service provision with Sharia standards. For this to happen, banks can closely work with qualified Shariah advisors to build trust and confidence and work to satisfy the interested of the Muslim community.
- Banks should improve their capacity to provide the financial services with relatively better quality. So far the capacity is limited in terms of human resource, technology, and the type of product or service they provide. Therefore, they should develop their capacity by hiring qualified and skilled manpower, by providing training for the existing staff, by improving the required facilities and infrastructures that enable them to provide the service in a better way.
- Banks should learn from each other based on experience sharing and best practices within and outside the country. It is also important for the public and private banks to benchmark the IFB products, models of provision and customize it to fit to our country banking system.
- IFB service is new to our country and the study shows that the level of awareness is relatively low. Therefore, the banks together with media or other means of communication should promote the business. This will create awareness to the general public and reduce misconceptions about IFB products and services.
- In general IFB service is a good opportunity for Ethiopia. However, to exploit this opportunity banks should focus on strategic issues and increase the accessibility and availability of IFB services in various modalities.

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# **Impact of International Remittances on Household Expenditure Behavior: Evidence from Urban Ethiopia**

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## **Abstract**

*For countries south of the Sahara including Ethiopia migration and hence remittances are intensifying. However; it is ironic in that its effects are not well documented. Specifically; the extent to which expenditure patterns of Ethiopian households are affected by receipt of migrant remittances is only poorly understood. Therefore, the key policy question of the study is: to understand effect of remittance and gender on household expenditure behavior in the context of urban Ethiopia. To this end a unique representative household survey data was collected from four major urban areas of the country. Two findings emerge. First, controlling for selection and endogeneity, expenditure patterns for households in receipt of remittances is not statistically different from those that do not receive such transfers. The same is true for the impact on marginal spending behavior. Second, though not strong there is a slight difference in expenditure patterns when the effect is further disaggregated by gender of the remitter or receiver. That is on average households with female remitters, and female headed remittances receiving households tend to spend slightly more on human capital goods such as education and health combined compared to their counterparts. Therefore, at least in the context of Ethiopia, remittances are treated just as any source of income and hence are not channeled towards investment. Accordingly, the finding of this study can be used as an input to formulate policies to channel remittances towards investment than consumption.*

**Key Words:** Migration, Remittance, Gender, and Household Expenditure, Engle's Curve

## **1. Introduction**

In the 21st century international migration is one of the vital factors influencing economic relations between developed and developing economies. According to World Bank's Migration and Remittance Fact book 2016, 250 million people live outside their countries of origin of these 23.2 million people are from Sub-Saharan Africa (SSA) (World Bank, 2016). From the same source, international remittance to SSA in 2016 is expected to reach 36.4 billion USD with a 22.5 % increment compared to remittance inflow in 2010. Moreover the inflow to developing countries is more than three times official development aid; and even bigger than foreign direct investment.

Accordingly, from the standpoint of economic development, looking at the impact of international migration and remittances on left behind households' welfare outcome in particular, and how these remittances are spent or used by households in origin countries is central to any attempt made to evaluate the overall effect of migration and remittances on developing countries.

Nevertheless, studies are few the findings are mixed. Studies by Adams (2006) in Ghana; Ahmed (2000) in Somaliland, Adams & Cuecuecha (2010) in Guatemala found remittances to be spent proportionately higher on investment type goods such as on education, health, and housing than on consumption goods. In contrary to this study by Chamital et al., (2003) among others found the converse; where remittance income are spent proportionately more on consumption goods such as on food and luxury goods than investment on human and/or physical goods. Moreover; another strand of literature including a study by Admas et al., (2008) found no discernible differences in the marginal spending behavior of remittance receiving households. In addition to this; no study including the above studies used a gender disaggregated frame work to understand if gender of the remitter/receiver matters whilst assessing the effect of remittances on source household's expenditure behavior.

Consequently, with appropriate methodology studying the effect of migration remittances on household expenditure patterns and moreover looking it via gender perspective in the context of Ethiopia has a paramount importance in understanding the overall effect of migration and in informing policies related to migration and remittances.

Thus we had two rationales for this study. First, despite a raise in rate of migration and thus remittances many researchers in the area argued that a little attention has been paid to examining the economic impacts of these transfers on households in developing countries. This may be partly due to lack of household survey data on international migration and remittances which is the case at least for Ethiopia. To our knowledge, studies of this nature are few in SSA and even scantier in Ethiopia.

Finally, the key methodological issue in migration studies is accounting endogeneity. Since migrants self-select and migration is generally not random thus finding a valid instrument is challenging in non-experimental data. It becomes difficult to determine whether migration is causing the outcome of interest or not (McKenzie, 2012). To solve the issue of self selection in achieving its objectives a valid instrument is ascertained.

In this respect the Ethiopia case is interesting for two main reasons. Firstly; Ethiopia's diaspora is estimated to be around two million is one of the largest in SSA (Frouws 2015 as cited by Carter and Rohwerder, 2016). Moreover, the amount of international remittances to Ethiopia has been recently increasing at phenomenal rates. According to Ethiopian Foreign affairs office (2016), international remittances to Ethiopia have been increased sharply from 1.5 billion in 2012 to 3.7 billion USD in 2015, which is three times the size of export earnings of the country for the same period. This excludes remittance inflows through informal channels which is tantamount. This shows how external remittances are becoming important source of foreign exchange earnings for the country. With this amount Ethiopia is one of the highest remittance receiving countries in the region.

It is therefore timely and relevant to answer the following research questions using the Ethiopian case.

1. What is the effect of remittances on expenditure behavior of those who receive remittance

compare to those not? What other factors are responsible?

2. Is there a systematic difference in expenditure patterns among remittance receiving households emanated from gender of the remitter? If so are these differences attributed to the gender of the remitter?
3. What policy measures should be taken to transform remittances into investment channels?

To meet objectives of the study, it proceeds as follows. The next section briefly reviews the literature on remittances and expenditure patterns. The third section deals with data and descriptive statistics. The fourth section focuses on empirical and estimation strategy. The fifth section is devoted to results and discussion. The last section winds with conclusion and policy implication.

## **2. Theoretical and Empirical Review of the Literature**

Remittance refers to the money that is sent by the migrants (who are living outside their origin) to their family or relatives (Ratha, 2005). For most developing countries, remittance is becoming the largest share in their economy. In the last two decades, remittance and its impact has been a topic of interest and it drew the attention of researchers. In the literature, the effect of remittance were done on both micro and macro levels and some studies show that remittance affect: 1) poverty and income inequality (Wagle, 2012; Portes, 2009; Clement, 2011, Adams 2006; Wouterse, 2008; Adams & Cuecuecha 2010, Lisa 2012); 2) human capital (Mim and Ali 2012, Bansak and Chezum, 2009; Kroeger and Anderson, 2011); 3) household consumption behavior (Clement, 2011; Adams, 2010; Yameogo, 2014; and others); 4) inflation and exchange rates (Ball et al., 2013; Bayangos and Jansen, 2009; Saadi-Sedik and Petri, 2006); 5) investments (Adams, 1998), 6) consumption (Chami et al., 2008; Pushpangadan, 2003), and overall economic growth (Nishat and Bilgrami, 1991; Ratha 2005, Pablo and Kennedy, 2009 Kireyev, 2006; Stratan et al., 2013; Karagoz, 2009; and others).

The relationship between remittance and household expenditures can be explained theoretically by treating remittances as a source of income of the households receiving them. There is, however, a growing interest on how remittances are spent and whether their use impacts the economic development (Adams and Cuecuecha, 2010). The role that remittances can play, at the household level and the consequent effects on the local community, depend on how remittances are perceived by the household. This is because the household is the first unit which takes decision on the use of remittances and therefore, in essence, it determines the role remittances play in the development process of the receiving country. Remittances are received under imperfect information, uncertainty and with different regularity (Seshan, 2012; Chami et al., 2005), therefore how they are perceived by the households is not straightforward. Based on the previous empirical studies, the impact of remittances on household expenditure decision has been interpreted mainly according to three different views.

The first view see remittance as a transitory income and can be used for productive activities such as investment, housing, education, health and other human and physical capitals. According to this view, remittances have a positive effect on the growth and development of remit receiving

country. Some empirical studies that support this argument are summarized as follows:

**Table 1** Summary of literature Review

<b>Study</b>	<b>Conclusion</b>
Edwards and Ureta (2003)	A household survey in El Salvador concludes that remittances have a larger positive effect on school retention both in urban and rural areas
Kifle (2007)	Using a household service in Eritrea, the study concludes that remittance has a positive impact on child education
Castaldo and Reilly (2007)	HHs who receive remittance in Albania spend more on durables and spend less on food, as compared to HHs who do not receive
Airola (2007)	The study concludes that HHs who receive remittance in Mexico spend more of their total income on investment goods like housing, healthcare and durable goods.
Yang (2008)	Receiving more remittance income is associated with a positive effect on the ownership of various types of durable goods, hours worked in self-employment and investment in the capital-intensive enterprises like transportation, communication and manufacturing.
Taylor and Mora (2006)	This study in Mexico concludes that HHs who receive international remittance spend more on investment, those who receive internal remittance spend more on services, health and housing as compared o those who do not receive remittance.
Adams and Cuezuecha (2010)	A national survey in Guatemala concludes that households receiving internal and external remittances spend more on human capital and investment goods - like education and housing - and less on food.
Tabuga (2007)	A cross-sectional survey in Philippines shows that remittance receiving households invest more on education, housing, medical care and durable goods.
Rivera and Gonzalez, 2009	Health, education and Capital investment
Adams (2006)	A survey in Ghana concludes that remittance-recipient householdsspend less on consumption but more on education than non-recipient households
Nair (2009)	This study in Nepal concludes that those households which receive remittances, shows that the budget share devoted to schooling, health and durable goods increases, and that devoted to food decreases, when remittances both are sent and received by women.
Randazzo and Piracha (2014)	A study in Senegal concludes that international remittances

	have a significant negative impact on the expenditure on food and a positive impact on durables, investment and education.
Mahapatro et.al (2015)	A study in India found that compared to non-recipient households, households receiving internal and international remittances spend less on food and more on education and health care.

The second view is a more pessimistic view and sees remittances as compensatory income. Those who support this view argue that remittance is spent more on consumption than investment goods and has no significant positive effect on the development of remittance receiving country. A study by Chami et al. (2005) find out that remittance are negatively correlated with GDP but contributed to smooth consumption. A study in Indonesia by Adams and Cuecuecha (2010) concluded that remittances affect positively the marginal expenditure of food consumption but affect negatively on the marginal expenditure of investment goods like housing. Clement (2011) in Tajikistan show that international remittances significantly increase the household consumption level but have a negative impact on investment expenditures. Three studies in Ethiopia by Andesson (2012), Berhe (2012) and Mosisa (2012) support this view. Andesson (2012) concludes that remittances have positive impact on poverty and consumer asset accumulation, but no effect on productive assets. Similarly, Berhe (2012) survey in urban Ethiopia concludes that remittances have positive impact on poverty. Mosisa (2012) study in Ethiopia Using ERHS data two-part model estimated within Engle's Curve framework concludes that remittances have positive impact on consumption expenditure but not productive investment expenditures.

The third view sees remittance as a fungible income (just as any other source of income) and therefore there is no difference in the expenditure behavior of households. According to this view, if a dollar of income of remittances is treated by the household as a dollar of wage/salary income then migrant's transfers do not produce any change in how the household allocate its expenditure. For example, Adams et al (2008) in Ghana concludes that remittance income is treated just like any other source of income and households marginal spending pattern does not depend on remittance income. Similar conclusion has been made by Castaldo and Reilly (2007) for Albania and Ang et al. (2009) for the Philippines. However, studies by Tabuga (2007) in Philippines, Sherpa (2010) and Dhakal (2012) in Nepal show mixed results. They found out that remittances were the main source of income and they were spent on consumption (food) and productive activities (such as education, health, housing, investment goods).

A possible explanation for these views varies regarding remittance could be due to differences in the level of development and investment opportunities. It seems that in African studies including Ethiopia, the literature supports the non-productive use of remittance as compared to others. The reasons given to this is that remittances create a moral hazard problem where some governments in developing countries are negligent and careless to impose necessary economic reforms when remittances not used in a productive way. Remittance also deteriorates the economy if the money

spent for the purpose of destabilizing and helping the conflict making groups in the country (Ghosh, 2006). The financial flow or funds are diverted from development activities to achieve an opposite repressive, political and ideological objective at home. Remittances are also an important mechanism to support terrorism, civil wars and liberation struggles (Sheffer, 2007; Bamyeh, 2007). But our study will be used to see the impact of remittance on household expenditure and saving behavior and add to the existing knowledge based on the case of Ethiopia.

To explore how the remittance behavior of women and men differ and what the impact of these differences may be, one strand of literature mainly examines the remitting behavior of migrants abroad. Because female migrants tend to earn lower incomes and often have lower rates of labor market participation in the host country, it might be expected that they would remit less than their male counterparts. However, a key question is not the amount, but the share of income that is remitted to the origin family. On this criterion, Osaki (1999), analyzing the data from the Thai National Migration Survey, finds that female migrants remit a relatively higher proportion of their income than do male migrants. Abrego (2009) comes to a similar conclusion for Salvadoran migrants in the United States. Interviews with children in El Salvador indicate that a much larger proportion of children in mother-away households are thriving economically, than in father-away households. A study by Eloundou-Enyegue and Calves (2006) with a representative sample of 3,369 women from Cameroon, Benin, Malawi, Mali, Rwanda, Uganda, Zambia, and Zimbabwe, investigates whether women in this sample remit in significant amounts and whether the remittance amount differ in their level of education. The findings from multivariate logit model show that women have a substantial capacity to remit and this remittance increases with their education level.

Another strand of literature picks up on this latter theme, focusing on the impact of gender on the use of remittances by recipients based in the origin country. Researchers have examined whether female recipients channel a larger fraction of received remittances into health, nutrition and educational investments for the origin family and whether they are more likely to maintain social ties with their origin families, which tends to be associated with future remittance flows. Rahman and Fee (2009) interviewed 100 Indonesian domestic workers in Singapore, Malaysia and Hong Kong to explore on how gender affects remittance sending, receiving, control and use and the resultant implications for development. The study finds that among temporary migrants from Indonesia to the Asian tigers and Malaysia, female recipients used remittances to invest in human capital, whereas male recipients invested more in physical capital.

### **3. The Methods**

#### **3.1 Data Source and Method of Collection**

To attain objectives of the study secondary and primarily sources were used. Secondary sources include both published and unpublished materials related to the study. More importantly a primarily data collected randomly from selected urban households in the country is used. The sample includes households who receive remittances in the last twelve months who have migrants

abroad and those who do not receive the same and have no migrant members are used for the study.

Unit of analysis for the study is remittance and non-remittance receiving urban households selected from four major urban areas of the country. These are Addis Ababa, Mekelle, Gonder and Hawassa. A rich primary data was collected from randomly selected urban households in these cities. To this end a combination of non-probability and probability sampling design was used. More specifically cities were selected using purposive sampling based on migration prevalence and population size. However, to select sub cities, *woredas (kebeles)*-lowest administrative areas as per Ethiopia's administration hierarchy-, and households simple random sampling technique was applied. Thus a total of five kebeles from the four cities were selected randomly. All households in the selected kebeles were interviewed if they have a family member/s outside of Ethiopia and whether he/she remits or not using filter questionnaire before administering the main questionnaire. The data collectors made door to door survey and put a code at the household's main gate that stated the household received international remittances and an 'X' mark to indicate the household did not receive any international remittances. This coding system helped the data collectors for their second visit to administer the main questionnaire. Based on the filter questionnaire, sampling frame consists of households that received an international remittance from abroad was constructed from this first visit. From this remittance receiving households were selected using simple random sampling technique where appropriate and otherwise all the households in the sampling frame were interviewed. To maintain randomness, once remittance receiving households were interviewed, the nearest households with no international remittances were approached for comparisons. When two or more households were found at the same distance to the households that receive remittances, one household was randomly selected and interviewed.

Using the above method a total of 665 remittance receiving and non receiving urban households from a total of five *woredas* were selected for the study. Proportional to their population size and prevalence of migration; total sampled households were divided among the purposely selected cities. Of the total sampled households 220- around one third- are from Addis Ababa. The remaining three cities Mekelle, Gonder and Hawassa each have a sample of 181, 142, and 122 households respectively. However, with an average 10 percent non response rate; of the total sampled households 605 of them were interviewed between October and end of November 2017. To avoid any bias; households with returnee migrants are excluded from the sample as they might differ from other households.

The questionnaire was designed to fit into the objectives of the study. The data collectors were trained by the team of this study. Before starting the survey a half day training was given to the data collectors, and the household were briefed about the purpose of the study, the significance of the study and were also asked orally to get their consent of the participants in the study so that the participants could be willing for the interview.

To check the reliability and validity of the questionnaire and to familiarize it with the data collectors, pre-testing of the questionnaire was conducted in Hawassa before the survey had been carried out. At all times close supervision was taken by the researchers to avoid flaws and mistakes

and took on site visits and timely correction as much as possible. This helped us to check the relevance of the questionnaire to the local conditions, households' expectation and level of understanding. The questionnaire includes detailed questions about the migration and remittance experiences of the household. In addition, questions related to household head characteristics, human capital, income, consumption expenditure and well-being of the households were included.

## 3.2 Empirical and Estimation Strategy

### 3.2.1 Empirical Strategy

Among others; effect of remittance on household welfare depends primarily on how remittances are spent. This study aims to examine whether households who receive remittances have higher expenditure share on human capital investment such as education and health, compared to non remittance receiving households. To understand clearly effect of remittance it is inaccurate to directly look at where incomes from remittances are spent. This is because remittances may not directly invest but can reduce liquidity constraints, and thus income from other sources may be invested in physical and/or human capital. Thus, one has to examine the aggregate expenditure of the household.

To explore the impact of international remittance on spending patterns of households who receive remittance, a proper functional form is desirable. In this regard the Working-Leser curve relating budget shares linearly to the logarithm of total household expenditures is popular (Working (1943); Leser (1963)). In general the model can be written as:

$$W_{ij} = \alpha + \beta \ln(X_i) + \varepsilon_i \quad (1)$$

Where  $X_i$  is per capita total household expenditure,  $W_{ij}$  is household  $i$ 's expenditure share of good  $j$  (i.e., expenditure on good  $j$  divided by total household expenditure) and  $\varepsilon_i$  is error term.

Equation (1) above is extended by including other covariates which affect budget shares of different expenditure categories such as household characteristics and our variable of interest-dummy for receipt of international remittances-. The equation is therefore given by:

$$W_{ij} = \alpha + \beta_{1j} \ln(X_i) + \beta_{2j} Z_i + \beta_{3j} R_i + \varepsilon_i \quad (2)$$

Where  $W_{ij}$  and  $X_i$  are as defined above,  $Z_i$  is a vector of household level variables such as human capital, demographic and location variables.  $R_i$  is dummy variable for whether a household receives international remittances or not.

The literature on migration and remittances indicates remittance receiving households are not drawn randomly from the whole population. As a result estimating the above expenditure share equation using OLS give biased result due to endogeneity. To solve issue of endogeneity we need an instrument for  $R_i$  : a variable uncorrelated with  $\varepsilon_i$  but highly correlated with  $R_i$ . For this goal the following estimation strategy is followed.



### 3.2.2 Estimation Strategy

#### Issue of Endogeneity:

Endogeneity is evident in estimating equation (2) above. This is because remittances may be correlated with unobserved variables not included in the equation. To tackle this issue of endogeneity and thus avoid biased estimates an appropriate instrument should be used. In a sense we need to select an instrument variable which is highly correlated with the probability of migration and hence remittances but uncorrelated with the dependent variable -budget share ( $W_{ij}$ ). For example a similar study in Nigeria by Nnaemeka & *et al* (2012) used ‘ethnicity’ and ‘religion’ as instrument for migration and remittances. Similarly Berhe (2012) used ‘religion’ in his study in Ethiopia while Adams (2005) used ‘age of household head’ in his study in Ghana. As a source of identification, in this study, “Remittances in the community in 2013/14” is constructed from the 2013/14 second round of Ethiopian Socio-economic survey. It is defined as the proportion of remittance receiving households in the community of the study areas. The justification is that historical migration developed networks that can promote future migration, however; it is unlikely to have a direct effect on current consumption of households. To allow variability at household level it is interacted with a dummy variable for older household head where it takes a value of 1 if the household head is  $\geq 50$  years. This is because other things remain constant ‘older household heads’ will have more household members as adults in the age 15 to 30 category which creates higher possibility for migration and hence remittance as well. However, it is believed that age of household head has no direct impact on household expenditure after controlling all other variables such as demographic, human capital, and location variables.

To address issue of endogeneity similar to studies by Mora and Taylor (2006) and Grigorian and Melkonyan (2008) and others this study used 3-stage least square estimator.

In the first stage, a probit is estimated for the receipt of remittances,  $R_i$ , which equals 1 if the household receives remittances and otherwise 0. The endogenous explanatory variable ( $R_i$ ) therefore can be written in terms of the instrument  $I_i$  and other exogenous variables as:

$$R_i = \alpha_0 + \alpha_1 \ln(X_i) + \alpha_2 Z_i + \alpha_3 I_i + \tau_i \quad (3)$$

Where  $X_i$  and  $Z_i$  are as defined above, and  $I_i$  is an instrument variable which helps to identify  $R_i$ , and  $\tau_i$  is a disturbance term.

The key identification condition is that after partialling out  $X_i$  and  $Z_i$ ;  $R_i$  and  $I_i$  are still meaningfully correlated. This can be tested by estimating equation (3) above and  $\alpha_3$  should be different from zero and statistically significant. With this OLS is biased hence instrumental variable regression is applied.

In the second stage, a probit for household’s participation in each budget expenditure equation is estimated. The dependent variable takes a value equal to 1 if  $W_{ij} > 0$  and 0 if reported expenditure on the category equals 0. This equation will take the form of equation (3) with the exception that

$W_{ij}$  is a dummy variable instead of  $R_i$ , the remittances predicted fitted values -  $\bar{R}_1$ - estimated from equation (3) are used. The results are then used to construct a selection term- inverse-Mills ratios- which helps to weight the expenditure equations in the system. Therefore the equation to be estimated in the second stage is given by:

$$W_{ij} = \alpha_j + \beta_{1j} \ln(X_i) + \beta_{2j} Z_i + \beta_{3j} \bar{R}_1 + \varepsilon_i \quad (4)$$

In the third stage, the inverse-Mills ratios are included as independent variables in the expenditure equations hence OLS is applied to:

$$W_{ij} = \alpha_j + \beta_{1j} \ln(X_i) + \beta_{2j} Z_i + \beta_{3j} \bar{R}_1 + \beta_{4j} IMR_{ij} + \varepsilon_i \quad (5)$$

Where  $W_{ij}$  is budget share of good  $j$  in household  $i$  which is continuous variable.  $Z_i$  is household characteristics,  $\bar{R}_1$  is the fitted values of  $R_i$ ,  $IMR_{ij}$  is the inverse mills ratio, and  $\varepsilon_i$  is an error term. Equation (5) above will be used to analyze the impact of remittances on households' budget allocation using the whole sample of 568 remittance receiving and non receiving urban households in the study area.

To further investigate if there is relevant difference in marginal expenditure behavior among remittance receiving and non receiving households. A dummy variable for remittance is interacted with the logarithm of total expenditure in order for both the intercept and the slope of the Engel functions to be affected. Equation (5) is therefore given as:

$$W_{ij} = \alpha_j + \beta_{1j} \ln(X_i) + \beta_{2j} Z_i + \beta_{3j} \bar{R}_1 + \beta_{4j} \ln(X_i) \bar{R}_1 + \beta_{5j} IMR_{ij} + \varepsilon_i \quad (6)$$

Using equation (6) above we compute marginal budget shares and expenditure elasticities for remittance receiving and non-receiving households. This helps to capture if there is significant difference in expenditure behavior emanated from remittance status for both groups of households.

Furthermore, to analyze gender specific impacts of remittances on expenditure patterns. More specifically we focus on whether the gender of the remitter or receiver matters on household expenditure patterns. In this case, instead of the household the remitter is the unit of analysis which helps to examine whether or not, on average, the households to which women send remittances allocate their expenditures differently than the households to which men send remittances. Therefore, the analysis focuses only on a sub sample of 238 remittance receiving households. An additional covariate used is 'female remitter dummy' a dummy indicating whether the sender is female or not. Similarly to investigate the impact of gender of the receiver on expenditure patterns a dummy for female headed household is included. Including this dummy helps to capture the impact of being both a female headed household and receiving remittances on expenditure patterns.

## 4. Results and Discussion

### 4.1 Data and Summary of Descriptive Statistics

Table 2 below shows annual remittance income from the primary data collected, disaggregated by gender. Average per capita remittance per annum is found to be 8,984 birr (around 332 US\$) for remittance receiving households. Comparing this figure with GDP per capita income of around birr 17,500 (648 US\$) during the same period shows it is more than 50 percent. This implies how big income inflows are from remittances. Equally, this also initiates the argument that international remittances figures of Ethiopia are underreported as tantamount of it is received through informal channels.

Moreover, the same table shows on average 54 percent of total household expenditure of remittance receiving households is covered by remittance income. This figure should not be taken as national average as it only represents major urban areas of the country. However, with recent intensification of migration and remittances the income from this source is also expected to grow.

Further comparing male (female) migrant households; male migrant households have slightly more average per capita remittance though remittance as a percentage of total household expenditure is more or less the same for both groups of households.

Table 2 Summary of Gender disaggregated annual international remittances for Urban Households in Ethiopia in 2017 EC (in birr)

	All Migrant HHs.	Female migrant HHs.	Male Migrant HHS	t-test d/c means b/n male & female migrants
Average remittance, HH level	29,838.1 (32,185)	30,062.9 (29,107)	29,581 (35,514)	-0.115*
Average Per capita Remittance	8,984 (9,651)	8,927 (8,184)	9,049 (11,164)	0.097*
Remittance as % of total HH Expenditure	53.65%	53.66%	53.65	-
Number of Observations	238	127	111	

Source: Authors' computation based on the primary data collected in 2017

NB: Standard deviations are in brackets

Table 3 below depicts aggregate expenditure categories based on the survey data. These categories include two consumption categories (food and housing), two categories of human capital investment (education and health) and one 'other' category (miscellaneous). These categories constitute more 90% of the consumption aggregate that has been constructed by the World Bank and used as the main welfare indicator for most developing countries. These are the broad categories of budget shares used for the empirical analysis as shown in the following table.

Table 3

Dependent Variables: Expenditure categories

Category	Category Description
Food	Purchased products, Food eaten outside home
Housing	Real estates, rent with related costs
Health & Education	Education & health expenses such as school fees, books, doctor fees, medicine etc
Other/Miscellaneous/	Durable, non durable goods, luxuries etc

Source: Authors' analysis based on the data source

Below table 4 summarizes average budget shares for the four categories of goods (food, housing, education & health, and others) by remittance status and further by male (female) migrant households. The entries in the table reveal that of the total household expenditure the lion share of it – not less than 80%- allocated to food and other/miscellaneous/ goods such as clothes, shoe, entertainment and others irrespective of households status (remittance receiving or non receiving households). This kind of expenditure behavior is expected in countries at their lower stage of development like Ethiopia.

Yet of interest is to note if there are discernible differences in average budget shares between remittance receiving (non receiving) and moreover male (female) migrant households. The table depicts average budget shares for food and human capital investment goods (health and education) are pretty much the same for remittance receiving (non receiving) households. However, the share of housing is higher for non remittance receiving households but have lower share for other-miscellaneous- goods. The converse is true for remittance receiving households as shown in column (1) and (4) of the same table. Moreover column (2) and (3) displays expenditure shares for male (female) migrant households which one could notice that there is no clear difference between these groups of households. However, these averages alone may not be particularly meaningful. Once we account for other control variables such as household size, human capital variables, expenditure per capita, location etc the results will be more consistent though such descriptive analysis prelude to our discussion.

Table 4 Annual Average Budget Share Expenditures by gender of the remitter

Expenditure Share	(1) All Remittance	(2) Female Migrant HHS	(3) Male Migrant HHS	(4) Non-Remittance Receiving HHs	T-test b/n remittance & non
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	receiving HHS				remittance receiving HHs
Annual total household Expenditure (in birr)	74,293 (46,683)	72,687 (46438)	75,935 (47313)	69,106 (48432)	-0.981
Food Share	0.544	0.548	0.541	0.523	-0.925
Housing Share	0.068	0.072	0.063	0.117	3.78***
Health & Education Share	0.080	0.088	0.071	0.078	-0.362
Miscellaneous/Other-expenses share	0.337	0.351	0.322	0.295	-2.300**
Observations	238	127	111	330	

Source: Computed from own survey data, 2017

**NB:** Standard Deviations are in bracket

Table 5 below displays summary statistics of explanatory variables used for regressions. On average remittance receiving households have less proportion of children below the age of 15, less household size and lower proportion of educated adult in the cycle of primary and secondary education compared to non remittance receiving households. Nevertheless, proportions of adults with tertiary education are higher for remittance recipient households compare to their counterpart.

Households with female heads are larger for recipient groups and also have older heads on average though the level of education for the household head is similar in both groups. This similarity supports our previous argument that older heads are not necessarily expected to be educated.

A control variable for city differences in prices was introduced for the capital city Addis Ababa. This is because the living cost is a bit higher as a result relative prices compare to the regional cities such as Mekelle, Hawassa and Gonder. Table 1A in the appendix section shows description of variables used in the regression.

Table 5 Descriptive Statistics

	Remittance Receiving HHS	Non Remittance Receiving HHS	T-test d/c b/n receiving & non receiving HHS	Female migrant HHS	Male Migrant HHS	T-test b/n Female & Male
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						migrant HHS
Sex of household head (1=female)	0.298	0.184	-3.18***	0.315	0.283	0.534
Married (1=yes)	0.668	0.703	0.886	0.666	0.669	-0.042
Head completed secod. educ. (1=yes)	0.537	0.506	-0.746	0.549	0.527	0.338
Propo. of adults >= 15 with prim. educ.	0.340	0.490	2.13**	0.378	0.307	0.659
Propo. of adults >= 15 with secd. educ.	0.303	0.387	3.46***	0.246	0.352	-2.86***
Propo. of adults >= 15 with tertiary educ.	0.404	0.299	-3.90***	0.410	0.399	0.249
Propo. of children <15 years of age	0.160	0.191	1.56	0.190	0.135	1.74*
Log of household size	1.25	1.36	2.12**	1.316	1.199	1.56
log of total household expenditure	11.02	10.93	-1.68*	11.04	11.01	0.334
Old age head(1=yes)	0.466	0.375	-2.16**	0.549	0.393	2.42***
Old age of head (1=yes)*migration Prevalence	0.186	0.151	-2.05**	0.214	0.161	2.08**
Mekelle	0.294	0.272	-	0.414	0.188	-
Gonder	0.201	0.20	-	0.207	0.196	-
Hawassa	0.180	0.178	-	0.09	0.251	-
Addis Ababa	0.323	0.348	-	0.279	0.362	-
Observations	238	330		111	127	

Source: Computed from own survey data, 2017

## 4.2 Regression Results

### 4.2.1 Effect of remittance receipt on expenditure Patterns

Table A2 in the appendix section presents results of the first stage remittance equation based on equation (3) above. The regression output illustrates coefficient of the instrument used for remittance has the expected sign and strongly correlated with the endogenous regressor implying that the instrument used is relevant.

The result suggests that variables such as per capita expenditure positively affect the probability of migration and thus remittances. May be this is because migration is an expensive activity hence wealthier households can afford it. However, unlike other studies migration selects negatively on education implying that less educated people are migrating. This may be a typical case for Ethiopia where the main destination for international migrants (the Middle East) primarily attracts unskilled laborer for domestic work. Moreover; looking at remittance location wise; compared to our control region -Addis Ababa- households from Gonder have higher probability of receiving remittances this may be due to the relatively pervasiveness of migration in the former.

Table 6 below displays results of the three stage least square estimates (3SLS) of the budget share equations based on equation (5). At least a good number of the variables have the expected signs and prove to be significant. Based on the results household characteristics such as household

size, educational status, marital status, number of children and log of total household expenditure, and location seem to affect the expenditure behavior of households. In line with our expectation increase in log of household size is associated positively with higher budget share on food and human capital goods (education and health) approximately by 15 and 8 percentage points respectively but a decline in housing share by 30 percentage points. Similarly share of food budget is affected by number of adults and the location of household. Against our expectation, budget share of food increases by 11 percentage points with an increase in the proportion of adults with university education compared to households with similar level of education but less number of adults. Though this appears to be counter intuitive it also seems to fit to urban households in Ethiopia. This may be because with high level of youth unemployment; adult household members may not be engaged in income earning activity rather be depend on the household for their living. Compare to households from Addis Ababa (our control region) households from Mekelle and Gonder have higher budget share on food approximately by 16 and 9 percentage points respectively. This may be probably due to proximity of Addis Ababa to surplus agricultural areas compared to Mekelle and Gonder.

The share of human capital investments (education and health combined) increases with human capital variables such as education of household head, proportion of children, and with log of household size. However, share of housing decreases with human capital variables (proportion of household members with primary and secondary education), log of household size and marital status of the household head. More importantly the selection term (IMR) is positive and significant for the category 'housing' shows that selectivity in unobservable components matters. In other words, estimations ignoring the selectivity part of the model would be biased.

Lastly increase in log of total household expenditure is associated with a decrease in the share of food but rise in the share of investment type goods such as housing. This is in line with the Engle's law which state that as household income (expenditure) increases the share of necessity goods such as food decreases but the share for non-food and investment goods increases.

Turning to our variable of interest which is the effect of international remittances on household expenditure patterns; one can see that estimated coefficient corresponding to the variable capturing the receipt of external remittances is not statistically significant at a conventional level in all category of goods except for housing which is found to be negative.

Table 6 Results of three stage least square method (3 SLS estimation)

Variable	Food	Housing	Health & Educ.	Others
Household Receive remittance (1=yes)	-.017 (.078)	-.369** (.172)	.042 (.034)	.003 (.071)
Household head is married(1=yes)	.026 (.023)	-.058** (.029)	-.016 (.010)	-.030 (.021)
Household head completed secondary school (1=yes)	.021 (.024)	.003 (.015)	.025** (.010)	.022 (.022)
Log of per capita total hh expenditure	-.175***(.033)	.184** (.079)	.011 (.015)	.007 (.030)
Log of household size	.149*** (.041)	-.304*** (.110)	.079*** (.032)	.015 (.037)
Proportion of children with age <15 in the household	-.109* (.060)	-.036 (.044)	.062** (.030)	.031** (.055)
Proportion of adults age >=15 with primary education	.009 (.066)	-.139** (.065)	.027 (.030)	-.080 (.060)
Proportion of adults age >=15 with secondary education	.055 (.074)	-.216** (.095)	.033 (.033)	.010 (.068)
Proportion of adults age >=15 with tertiary education	.111** (.057)	-.018 (.037)	-.013 (.028)	.040 (.052)
Location (A.A, control region)				
Gonder	.158*** (.043)	-.140* (.072)	-.116*** (.069)	-.158***(.023)
Mekelle	.089*** (.035)	.014 (.031)	-.073*** (.023)	-.022 (.031)
Hawassa	.011 (.029)	.053** (.023)	-.017 (.013)	.020 (.026)
IMR	-	.334* (.181)	.060 (.050)	-
<b>Cons</b>	2.13*** (.326)	-1.73** (.853)	-.143 (.178)	.238 (.297)



Observations	563	563	563	563
R-Square	30.8	11.9	12.2	7.8

To analyze if remittance status affects marginal spending behavior for each groups of commodities considered. Table 7 below based on equation (6) displays estimated coefficients for logarithm of household expenditure and its interaction with remittance status. Except for the budget share housing the interaction term is insignificant which our results are more or less similar to the regression out of table 6 above. Estimates of other control variables are omitted from the table as we do not use them to calculate the marginal spending behavior shown in table 7. For further explanation on the calculations of marginal budget shares and corresponding elasticities see appendix section.

**Table 7** Estimation of Budget Share Equations with Interaction terms (selected variables)

	Food	Housing	Health & Educ.	Others
Log of total expenditure	-0.176*** (.033)	0.144* (.079)	0.012 (.015)	0.008 (.030)
Log of total expenditure* remittance dummy	-0.002 (.006)	-0.013*** (.004)	0.001 (.002)	0.007 (.006)
Observations	563	563	563	563
R-squared	30.8	13.1	12.2	7.9

*Notes:*

- (1) This table reports only the 3SLS coefficients for the log of total expenditure and its interactions with dummy for remittance status. The other coefficients of the equation are omitted from the table
- (2) Robust standard errors in parentheses, \*\*\* p<0.01, \*\* p<0.05, \*p<0.1

In table 8 below; based on households' remittance status marginal budget shares and their respective elasticities for each category of expenditures are displayed. Estimates for the marginal budget shares reveal that for every additional birr (Ethiopian currency) earned, on average and *ceteris paribus*, households in receipt of external remittance spend nearly 0.020, 0.003 and 0.050 of a birr more on food items, on health and education combined, and on other goods respectively compared to non receiving households. Contrary to this, non remittance receiving households spend nearly 0.060 more on housing than their counterparts. Moreover the expenditure elasticities for each category of goods for both groups of households are pretty much the same. This shows remittance status of a household did not affect how they consider goods as -necessity, normal or luxury goods-.

Therefore, from the results one can interpret that there is no discernible difference in marginal

spending behavior between remittance receiving and non-receiving urban households in Ethiopia. This finding is in line with a study by Adams et al., (2008) in Ghana where remittances are treated like any other source of income and thus their marginal spending pattern does not depend on remittance income. However; unlike to studies such as Calero *et al* (2009), Soruco *et al* (2009) and Amuedo-Dorantes and Pozo (2011) who found that international remittances positively affect education, health and housing spending. Thus, how remittances are spent by remittance receiving households according to our survey seems to fit to the dominant argument in the literature that remittances are spent like any other source of income and thus are fungible.

Table 8 Marginal Budget Shares and Expenditure Elasticities, Comparison of Remittance Receiving and Non-Receiving Households

	Food	Housing	Health & Educ.	Others
Marginal Budget Shares (Remittance receiving HHs)	0.366	0.199	0.093	0.352
Marginal Budget Shares (Non-Remittance Receiving HHS)	0.347	0.261	0.090	0.303
Elasticity for Remittance receiving HHs	0.672	2.92	1.12	1.04
Elasticity for Non Remittance receiving HHs	0.663	2.23	1.14	1.02

Notes:

- (1) The marginal budget shares and the elasticities were derived from the OLS estimates of the 3SLS estimator reported in table 6 & 3 above.
- (2) Percentages in marginal budget shares might not sum to 100 due to rounding

#### 4.2.2 Gender differential effect of Remittances on household Expenditure patterns

Table 9 & 10 below presents results of gender-specific impacts concerning expenditure patterns of urban households in Ethiopia. Unlike overall effect of remittances discussed above; when the effect is further disaggregated by gender of the receiver (remitter) strikingly; though the magnitude is small the result reveals including a gender perspective-gender of remitter and gender of the receiver- is essential in fully capturing the effect of remittances on source households' expenditure patterns.

Table 9 displays results of effect of gender of the receiver on expenditure behavior. Accordingly female headed households that receive remittances have slightly a different expenditure pattern than male headed households. Compared to male headed households, female headed households on average spent around 3 percentage points higher on budget share allocated to human capital

goods-health and education combined-, but more or less similar expenditure pattern on the other category of goods. Similarly as shown in table 10; households with a female remitter tend to spend proportionately 2 percentage points higher on education and health combined compared to households with male migrants -male remitter-. A possible explanation for this could be with missing or incomplete social security in most poor countries like Ethiopia coupled with higher life expectancy of women than men. Women may tend to rely more on their children for old age security. Thus it is rational that female remitters/receivers prefer their remittances to be spent more on education and health. However, this result does not account the principal-agent issues where the remitter may not enforce his/her preferences about how remittances should be spent due to his/her absence. Thus, this finding could be reversed or even more intensified once appropriate variables are used to proxy remitters' capacity to follow up the intended use of the remittances.

In conclusion unlike the literature on remittances and gender which suggest including a gender perspective is crucial. However, our findings similar to Kristin Gobel (2013) disagree with this perception in that the gender specific effects are rather small in Ethiopia.

**Table 9** Gender Differential effect of remittances on household expenditure patterns-Based on Gender of the Receiver

Variable	Food		Housing		Health & Educ.		Others	
<b>Female headed household(1=yes)</b>	-.061	(.044)	.005	(.018)	.025*	(.012)	-.016	(.041)
Household head completed sec. school (1=yes)	.024	(.048)	.038**	(.018)	.000	(.014)	.035	(.045)
Log of per capita total HH expenditure	-.303***	(.041)	.023	(.017)	.042***	(.015)	-.045	(.039)
Log of household size	.254***	(.044)	-.067**	(.023)	.066***	(.022)	.016	(.041)
Proportion of children with age <15 in the household	-.117	(.097)	-.002	(.036)	.065*	(.033)	.055	(.090)
Proportion of adults age >=15 with primary education	-.002	(.102)	.008	(.037)	.003	(.032)	.177*	(.060)
Proportion of adults age >=15 with secondary education	.079	(.098)	-.042**	(.027)	-.004	(.029)	.021	(.091)
Proportion of adults age >=15 with tertiary education	.159	(.102)	-.048	(.038)	-.021	(.034)	.070	(.095)
Location (A.A, control region)								
Gonder	.108*	(.065)	-.001	(.051)	-.113***	(.040)	-.200***	(.062)
Mekelle	.065	(.056)	-.009	(.022)	-.085***	(.029)	-.030	(.052)
Hawassa	-.001	(.056)	.021	(.020)	-.030*	(.016)	-.026	(.052)
IMR	-		-.025	(.067)	.107*	(.062)	-	
<b>Cons</b>	3.46***	(.459)	-1.27	(.862)	-.472**	(.179)	.796*	(.413)
Observations	238		238		238		238	
R-Square	31.0		13.0		18.8		5.0	

Table 10 Gender Differential effect of remittances on household expenditure patterns- Based on Gender of the Remitter

Variable	Food	Housing	Health & Educ.	Others
<b>Remitter is female (1=yes)</b>	.034 (.040)	-.001 (.014)	.020* (.011)	.035 (.037)
Household head is married(1=yes)	.035 (.047)	-.010 (.029)	-.015 (.013)	-.019 (.044)
Household head completed secondary school (1=yes)	.028 (.050)	.041** (.015)	.001 (.014)	.046 (.046)
Log of per capita total HH expenditure	-.297***(.042)	.023 (.017)	.041*** (.015)	-.044 (.039)
Log of household size	.250*** (.048)	-.065*** (.022)	.069*** (.024)	.029 (.045)
Proportion of children with age <15 in the household	-.118 (.097)	-.001 (.036)	.066** (.033)	.055 (.090)
Proportion of adults age >=15 with primary education	-.004 (.102)	.009 (.037)	.005 (.032)	.178* (.095)
Proportion of adults age >=15 with secondary education	.055 (.074)	-.042 (.037)	-.015 (.029)	.009 (.092)
Proportion of adults age >=15 with tertiary education	.164 (.103)	-.050 (.038)	-.031** (.034)	.061 (.096)
Location (A.A, control region)				
Gonder	.108 (.068)	-.008 (.072)	-.128*** (.040)	-.207***(.063)
Mekelle	.067 (.057)	-.012 (.022)	-.075** (.029)	-.030 (.053)
Hawassa	.011 (.029)	.021 (.023)	-.031* (.016)	-.035 (.052)
IMR	-	-.016 (.181)	.104 (.062)	-
<b>Cons</b>	3.33*** (.450)	-.072 (.853)	-.451** (.202)	.771* (.420)
Observations	238	238	238	238
R-Square	30.5	14.8	18.7	4.9

## 5. Conclusion and Policy Implications

### 5.1 Conclusion

With intensification of migration and the resulting external remittance inflow to the country; overseas remittances are now taking an important position in the Ethiopian economy. Effect of these transfers on development of origin countries among others depends on how remittances are perceived and used by recipient households. To this end this study examines: first effect of remittances on household budget allocation; and second how gender of the remitter or receiver shapes these allocations. To ascertain these objectives Working- Lesser model derived from the Engle's curve was employed aside descriptive evidence. To address issue of endogeneity and self selection we employed a three stage least square (3SLS) method.

In line to the descriptive evidence the empirical analyses reveal that except for housing budget category the average impact of remittances is indiscernible. That is there are no noticeable differences in the expenditure patterns between both groups of households- remittance receiving and non receiving-. Moreover in terms of the impact of remittances on marginal spending behavior we did not find a very significant role played by remittances. Thus this finding seems to agree with the dominant literature in the area that remittances are fungible and hence spent like any other source of income. On the other hand when the effect of remittances are further disaggregated by gender of the remitter (receiver), which the literature on remittance suggest is crucial, our findings, however, show the gender specific effect to be rather small.

Therefore our findings, at least in the context of urban Ethiopia, do not support the view of remittances as a valve for development. A possible explanations for why remittance are not spend more at margin on investment type goods are: first, households from low income countries like Ethiopia perhaps value income from remittances just as wage income thus use them primarily to fulfill their basic necessity goods -such as food, utility and other durable and non durable goods-. This perception and role of remittances may change once households able to fulfill their minimum level of satisfaction in the basic commodities. Second, based on our survey data the average amount of remittances received by remittance receiving households are relatively small and more over there is high variability in the inflow of remittances.

In general, findings of this study could even be further extended by disaggregating the broad category 'other goods' in to utility, durable and others so that one can have a more detail result. Even so, the contribution of this study is worthwhile as there is research gap in investigating the role of Ethiopian migrants' remittances at household level. Thus, studies of this nature are important to understand how households behave in response to remittances so as governments could facilitate the transfer of remittances and their channeling to productive uses. The following policy implication is worthwhile.

## 5.2 Policy Implications

Following the conclusion; the policy intervention focuses on ways external remittance could be channeled to productive investment in one hand and how recipient households and their families abroad can have less costly and easy access to send money back home. Therefore, the following interventions are of a higher priority:

1. **Remittance Policy:** given the recent intensification of international remittances to Ethiopia and its multiplier effect on production, income and employment. The Ethiopian government should have a specific remittance policy that aims at maximizing the impact of these flows on growth and development. The experience of a number of Latin America and Asia countries such as El Salvador, Nicaragua, Honduras, Guatemala, India, and Pakistan shows the importance of having remittance policy. It helps to devise mechanisms aimed at mobilizing remittances for investment through higher interest rates on term deposits, foreign currency denominated banking accounts, and tax incentives. Though there are similar initiatives in Ethiopia but having a coherent and clear cut remittance policy will further help the country to benefit from overseas remittances.
2. **Discourage informal channels of remittances via further enhancing competitiveness in the remittance service market and by promoting use of financial technologies:**

The financial infrastructure for remittance in most SSA countries including Ethiopia is at its infant stage. Hence, a significant amount of remittances go through informal channels which discourages their use for savings and investment.

Studies on remittance service providers in the country indicate that Western Union, Dahabshiil and Money Gram are among the few dominant money transfer operators in the country. It is likely that limited competition among remittance service providers' results in higher costs and less access to remittance service providers. Hence, responsible bodies in this sector should push further reforms so as to expedite the process of obtaining a license to operate in a money transfer business, lowering the capital requirement needed for new entrants to the remittance service industry, encourage small & micro finance institutions to deliver this service in collaboration with banks. Moreover encouraging use of financial technologies could facilitate remittances. In this respect the partnership between the local company Kifeya financial technology and MasterCard is worth mentioning. This and other policy reforms could further reduce cost of remittance services and thus discourage informal channels of remittances and consequently support remittances to be channeled to savings and investment.

3. **Training programs on Management of Remittances:** Policy makers should arrange a mechanism for training on management of remittances for migrants before departure and after returning back home. This could be in the form of capacity building and campaigns to encourage better use of international remittances. Financial institutions such as banks and



money transfer operators can bridge this gap by at least providing leaflets and short explanations/documentaries on the available investment options in the country. In this regard the experience of Latin American countries indicates that providing training programs for returned migrants, and schemes to use seed money for migrants' start-up businesses helps to channel remittances to investment.

Furthermore to redirect some of the remittances to investment the experience of migrant countries indicates that: creation of social funds, as well as savings and credit plans to finance home purchases and small business start-ups is found to be crucial. Moreover the experience of Philippines showed that provision of technical assistance programs to develop small-scale productive projects to promote productive use of remittances among poor households is found to be useful. In this respect, the Philippines based NGO; "UNLAD KABAYAN" is worth mentioning. It mobilizes and pools migrant savings together, identifies appropriate investments, and facilitates credit applications with the objective to create jobs through sustainable business.

4. **Creating enabling business environment:** Improving overall business environment through better quality of public service, institutions, promoting infrastructure, reducing uncertainty among others help foster a more productive use of remittances by channeling it to investment. This will in turn create job opportunities, growth, and enhances Ethiopia's competitiveness.

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# **Determinants of Category C Taxpayers' Dispute over their 2017 Tax Assessment in Ethiopia: The Case of Addis Ababa City Administration and Surrounding Oromia Zones**

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## **Abstract**

*This study examined the determinants of category C taxpayers' grievance with their tax assessment of the year 2017. Its objective, hence, was to identify factors that are responsible for the taxpayers' dissatisfaction with their daily income estimate and thereby their assessed tax for the year. Data for the study were gathered through a cross-sectional survey administrated to category C taxpayers in Addis Ababa and some surrounding Oromia zones. A hierarchical multiple regression and PROCESS macro regression analyses results revealed that taxpayers' intention to voluntarily comply with tax obligations depend on their perception of distributive justice and their emotional attachment with the tax authorities. Moreover, procedural justice was found to be a moderator of the effect of distributive justice on intention to voluntarily pay taxes.*

**Keywords/phrases:** *Procedural justice, distributive justice, intention to pay taxes voluntarily, affect-based trust.*

## **1. Introduction**

### **1.1. Background of the Study**

Taxation is important to governments not only because of the revenue governments generate from it but also because of its ability to uphold the bond between the government and its citizenry (e.g., Prichard, 2010; Traxler, 2009; Wahl, Muehlbacher, & Erich, 2010). In most countries in Africa, among which Ethiopia is one, nevertheless it seems to miss the second attribute, namely upholding the connection between the government and the citizenry (see Fjeldstad, Schulz-Herzenberg, & Sjursen, 2012; Fjeldstad & Therkildsen, 2008). This means that African governments care more about the money they generate via taxation even at the expense of any form of hostility it could cause between them and their citizens (see Fjeldstad, 2001; Gobena & van Dijke, 2016, 2017; Tanzi, 2006).

The recent phenomenon in which the vast majority of category C taxpayers throughout Ethiopia have been aggrieved (as reported by the government mass media) is anecdotally considered to be one manifestation of loose bond between the government and the taxpayer citizenry. Taxpayers claim that the tax assessors did not properly track their business activities and arbitrarily assigned lump sums they cannot afford to pay at any rate. This paper attempts to identify the factors that are responsible for majority of Ethiopian Category C taxpayers, who used to comply with the standard assessment by the tax authority, to defy the assessment for the year 2017.

## **1.2. Statement of the Problem**

The problem of tax evasion has adverse consequences such as widened government budget deficits, inequitable distribution of income among citizens, and impairment of government-provided goods and services (Alm, 2012; Chang & Lai, 2004). One customary function of taxation is redistribution of income between the poor and the rich (Joumard, Pisu, & Bloch, 2013; Longoni & Gregorini, 2009) though it practically appears in Ethiopia that the poor pay taxes to finance government-supplied goods and services, majority of which are utilized by the rich (Abdella & Clifford, 2010; Bekana, Gobena, & Yibrah, 2014). The imposition of high assessed taxes on the ones who strive to win their daily breads, if true as the taxpayers claim, would be a manifestation of the poor paying for the luxury of the rich. From the perspective of fairness, people should pay for common goods in proportion to their extent of use of the nation's resources to generate income (see Falkinger, 1995; Kazemi, 2009; Verboon & Goslinga, 2009).

The standard tax assessment system has an inherent problem of tax assessors' intentional and inadvertent unfairness as it is often based on personal judgments of the assessors (Indira, 1995; Slemrod & Yitzhaki, 1994). Since the taxpayers who are subject to standard assessment cannot afford keeping accounting books and related records, they tend to be vulnerable to judgments by assessors (see Alm, Martinez-Vazquez, & Schneider, 2004; Slemrod & Yitzhaki, 1994; Smulders & Naidoo, 2013). Because of the uncommon nature of standard tax assessment in developed nations of the world and little attempt in Ethiopia to identify the causes of seemingly high dissatisfaction of Category C taxpayers with their assessed taxes, it seems that both the taxpayers and the tax authority lack mutual understanding about the tax. Hence, identifying determinants of the dispute between the tax authority and the taxpayers is of very crucial importance.

## **1.3. Objectives of the Study**

The general objective of the study is to identify factors that are responsible for Category C taxpayers' unusually heightened grievance against the tax assessment of the year 2017. To attain this general objective, the study will attempt to address the following specific objectives:

1. To identify factors that aggrieve Category C taxpayers with their assessed tax,
2. To examine the effects of the factors that aggrieve category C taxpayers with their assessed tax on their intended compliance,
3. To examine the interactive effect of procedural and distributive justice on taxpayers' intention to pay their taxes voluntarily, and
4. To explore policy relevance of the factors that aggrieve Category C taxpayers with their assessed tax.

#### **1.4. Research Questions**

This study will answer the following research questions:

1. What are the factors that aggrieve Category C taxpayers with their assessed tax?
2. What are the effects of the factors identified as aggrieving Category C taxpayers with their assessed tax on their intended compliance?
3. What is the interactive effect of procedural and distributive justice on taxpayers' intention to pay taxes voluntarily?
4. What is the policy relevance of the factors that aggrieve Category C taxpayers with their assessed tax?

## **2. Review of Related Literature: Theoretical and Conceptual Frameworks**

Taxpayers' compliance with their tax obligations is conditioned on a variety of factors that the taxpayers consider before they decide to comply or evade (see Wenzel, 2002, 2003). One of these factors is whether they perceive the tax authority (and the entire government system) as an institution that can be trusted not to abuse their power (Feld & Frey, 2002; Kirchler, Hofmann, & Gangl, 2012; Kogler et al., 2013; Tyler, 1998). Citizens' trust in government emanates from their feeling that government is there to organize citizens' resources and efforts to keep their nation secure and well-functioning (Alm & Gomez, 2008; Aryee, Budhwar, & Chen, 2002; Braithwaite, 2003). Taxpayers also value tax authorities' perceived professional capability to handle their jobs with due care (i.e., basing their decisions on accurate and reliable information) and ability to avoid self-interest in administering the tax system are inherent attributes in why taxpayers trust the authorities (see Gobena & van Dijke, 2016; van Dijke & Verboon, 2010).

The second important factor that the extant literature widely acknowledges for shaping taxpayers' compliance behavior is the perceived procedural fairness of the tax authority as judged by the taxpayers (see Farrar, 2015; Murphy, 2003). Procedural fairness of an authority—the perceived fairness of decision-making processes that would lead to distribution of outcomes and

resolution of disputes—is often evaluated in light of six criteria (Leventhal, 1980). These criteria are consistency, bias suppression, accuracy, correctability, representativeness, and ethicality as elaborated hereunder briefly. A consistency criterion requires the allocative procedures be applied consistently among different individuals at all times. In other words, no one should be given privileges over another. In addition, the consistency criterion requires the allocative procedures to remain stable. Frequent changes made to the procedures may lead to a breach of the consistency rule. When the consistency rule is breached perceptions of procedural fairness turn down (Saad, 2011). A bias suppression criterion solicits that prejudice should be avoided in allocative procedures. Allocative procedures which promote preferential treatment or personal self-interest violate a bias suppression rule and as a result, procedural fairness is impaired (Murphy & Tyler, 2008). The accuracy criterion necessitates that allocative decisions be based on accurate information. Thus, accuracy should be maintained in order to uphold a positive perception of procedural fairness (Hasseldine, Hite, James, & Toumi, 2007). Correctability entails the possibility to revise faulty decisions employing a valid channel of modifying decisions; the representativeness rule positing that the allocation process must represent the concerns of all recipients to ensure greater acceptance of the procedures (Saad, 2011). The final criterion, ethics, seeks that allocation procedures be based on prevailing moral and ethical standards (see Colquitt, 2001 for overview). The absence of the ethics rule might lead to the feeling by impacted bodies that procedural fairness is unwarranted and thus their fairness perceptions decline (see Colquitt, 2001). Whether taxpayers can voice on tax policies through their representatives or directly can also be taken as an element of procedural justice (for empirical analyses of these criteria in the context of tax compliance, see Saad, 2011).

An influential theory that explains why trust and procedural justice stimulate cooperation with authorities is fairness heuristic theory (Lind, 2001). Fairness heuristic theory notes that decision recipients, in their encounters with group authorities, are faced with a fundamental social dilemma. This dilemma results because the decision recipients have to choose between two possibilities. The first one is cooperating with the authorities (for example, by paying their taxes voluntarily) in which they attain belongingness to the nation and patriotism. The other possibility is refusing to cooperate with the authorities in fear of being taken advantage of by abusive and rejecting authorities. When followers are unsure about their leaders' trustworthiness, procedural justice information gives them a clue that the authorities can be trusted not to abuse their power (Lind, 2001; van Dijke & Verboon, 2010).

A third factor that taxpayers view as important in their decision to comply with authorities is distributive justice of the tax system (Wenzel, 2002, 2003). Distributive justice in general refers to the extent to which decision outcomes (such as rewards and burdens) are perceived to be in line with implicit norms such as the equity rule (Adams, 1965; Thibaut and Walker, 1975; Verboon and van Dijke, 2007). The equity rule entails that individuals should receive benefits proportional to their contributions. Research has shown that individuals reciprocate more positively when decision outcomes are perceived as fair, rather than unfair (e.g., Bianchi et al., 2015; Brockner, 2002). Particular to tax compliance context, studies have shown that individual taxpayers are more likely to voluntarily pay their taxes when they perceive the distribution of tax burdens and benefits across

individuals, groups, and society as a whole as fair (e.g., Saad, 2011; Verboon and Goslinga, 2009; Wenzel, 2002, 2003).

A relevant inherent factor embedded in distributive justice of a tax system is the equitability of the exchange between taxpayer citizens and the government (Alm, Jackson, & McKee, 1993; Rablen, 2010). Exchange equity refers to the notion that over the long run, taxpayers receive appropriate value for the taxes they pay (see Bird & Zolt, 2008; Tanzi, 2006). In fact, in less democratic nations throughout Africa, Asia, and Latin America, taxpayers get less information over how their governments spend the tax money while it is unquestionable that exchange equity fosters voluntary tax compliance (Fjeldstad & Therkildsen, 2008; Leder, Mannetti, Hölzl, & Kirchler, 2010; Moser, Evans, & Kim, 1995). In this paper, the individual and joint effects of the aforementioned variables on the compliance behavior of Category C taxpayers in Ethiopia will be explored by using multiple regression method by modeling the relationship between the variables of interest and controlling for relevant demographic factors as shown in figure 1 below.

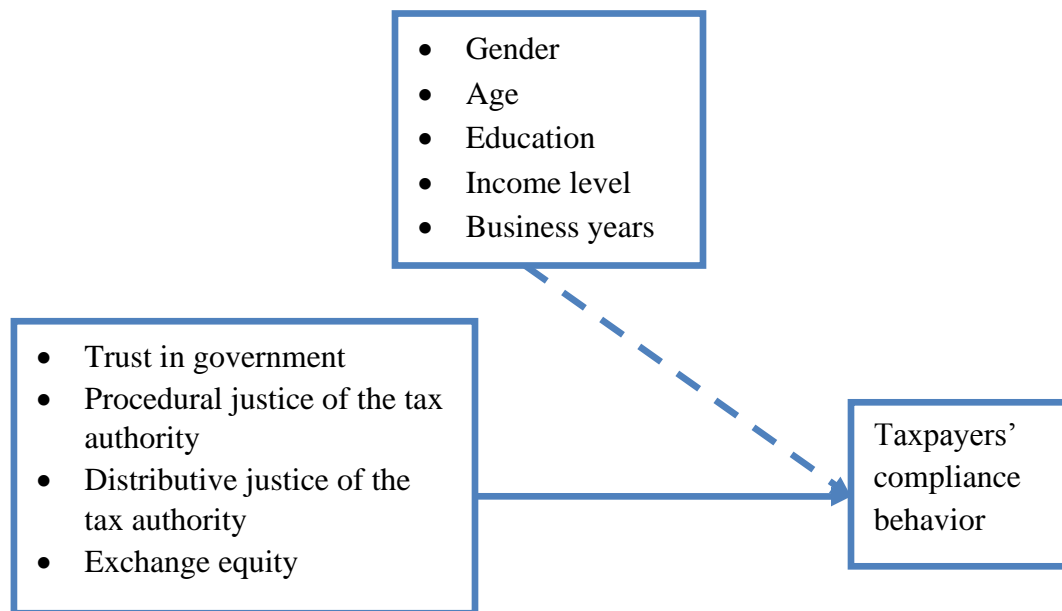


Figure 1: Conceptual Framework of the Study

Accordingly, an equation representing the conceptual model in figure 1 will be as follows:

$$TCB = \alpha + \beta_1 TG + \beta_2 PJTA + \beta_3 DJTA + \beta_4 ExE + \varepsilon$$

Where

TCB stands for taxpayers' compliance behavior;

$\alpha$  represents the constant of the model;

$\beta_i$  (i ranging from 1 through 4) represents the coefficient of each factor in the model;

TG stands for trust in government;

PJTA stands for procedural justice of the tax authority;

DJTA stands for distributive justice of the tax authority;

ExE stands for exchange equity; and

$\varepsilon$  represents the residual error of the model.

The variables in the upper most box in figure 1 such as gender, age, income level, and education of the respondents are control variables that likely affect both the dependent and independent variables.

An interesting additional effect to explore in to the multiple regression that examines the main effects of all the study variables is the interactive effect of the two most acknowledged components of justice (i.e. procedural and distributive justice). While the interactive effect of procedural and distributive justice on decision recipients' reactions to authorities' decisions has extensively been documented in organization behavior, the extant literature offers little in the tax compliance arena. This is despite the fact that omission of the interactive effect of these two predominantly documented determinants of cooperative behavior adversely affects the findings of their main effects (Bianchi et al., 2015). A framework that guides the analysis of the interactive effect of the abovementioned two elements of justice is the sense making analysis of justice (Brockner and Wiesenfeld, 1996; De Cremer, 2005).

The sense-making process can be elaborated as follows: Individuals interpret and assign meaning to events and encounters, particularly in response to negative, unexpected, or ambiguous circumstances (see Jones and Skarlicki, 2013; Weick, 1995). Before they assign meaning, however, people consider other related aspects of the situation. For instance, unfair (vs. fair) outcomes are perceived as negative; this makes people want to make sense of their surroundings and entails them to ask a question: "Can I understand something about why this negative experience materialized and how bad the future will look like?" Procedural justice provides a partial answer to this question, in the sense that low procedural justice conveys the information that unfair outcomes result from a deliberate unfair decision-making procedure and are thus likely to continue into the future. Fair procedures, on the other hand, communicate that the unfair outcomes result from chance, or at least from a less stable factor, and are therefore less likely to continue into the future. This results in a relatively strong positive effect of distributive justice on responses to authorities when procedural justice is low (vs. high). As a result, this study examined the interactive effect of procedural and distributive justice on the intention of category C taxpayers in Ethiopia to voluntarily pay taxes. Figure 2 below depicts the proposed relationship between Procedural Justice, Distributive Justice, and Intention to Pay Taxes Voluntarily.

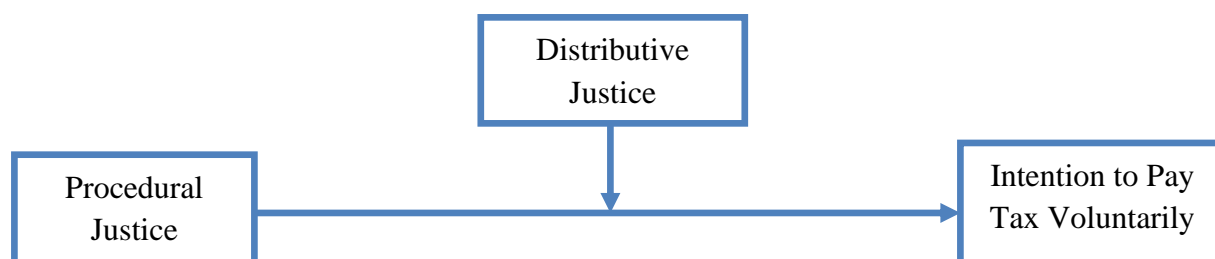


Figure 2. How Distributive Justice Moderates the Relationship between Procedural Justice and Intention to Voluntarily Pay Taxes



### 3. The Methods

As Kothari (2004) notes, research methodology may be conceived of in terms of the research philosophy subscribed to, the research strategy employed, and the research instruments utilized in answering the research questions or attaining the research objective(s). In other words, it elucidates the various steps that are generally adopted by a researcher in studying her/his research problem along with the logic behind them. Important components of this section that are worth discussing include: population of the study, sampling techniques and sample size, data sources and data gathering instruments, and methods of data analyses.

#### 3.1. Population of the Study

The population of this study comprises all Category taxpayers in Ethiopia. Getting access to the list of these taxpayers may be difficult for two reasons: (1) tax officials think that it would be offensive to disclose taxpayers' profile to third parties and (2) the number of taxpayers is not constant as entrants and leavers often change the number. As a result, no attempt was made to portray the total population for this study.

#### 3.2. Sampling Techniques and Sample Size

Given the impossibility to access taxpayers' information and the difficulty to get hold of the number of Category C taxpayers, it was possible to use probability sampling techniques. Consequently, a convenient sample of 812 taxpayers (412 from Addis Ababa City administration and 400 from Oromia zones around Addis Ababa) will be drawn to fill a self-administered questionnaire and conduct interview with. In respect of the risk of non-representativeness of the sample, the large sample size and the fact that behavioral studies often utilize convenience sampling without serious threat to their conclusions (see Leary, 2012) guarantee the validity of the results drawn from this study.

The study sample consisted of 761 category C taxpayers in the Ethiopian capital, Addis Ababa and Oromia zones surrounding Addis Ababa, namely Lege Tafo, Sululta, and Burayu. A questionnaire prepared in English and translated into Amharic language was administered to the respondents. Of the respondents, 53.5% were male, 37.8% were female, and 8.8% did not indicate their gender. Respondents were between 20 and 60 years of age ( $M_{\text{age}} = 39.8$ ,  $SD_{\text{age}} = 8.23$ ). With regard to the highest level of education, 23.5% had completed elementary education only, 21% had completed high school education, 21.8% had a 2-year college diploma, 13.3% had a bachelor's degree, 2% had completed a master's degree and above, and 18.4% did not indicate their highest level of education. With respect to their annual earnings, 42.6% of the respondents reported that they had annual earnings of 20,000–40,000 Ethiopian Birr, 12.8% had earned 40,000–60,000 Birr, 9.7% had earned 60,000–80,000 Birr, 7% had earned 80,000–100,000 Birr, 8.7% had earned 100,000–120,000 Birr, 6.4% had earned more than 120,000 Birr, and 12.8% did not indicate their annual earnings. Among the respondents, 24.8% reported that they had less than 2 years of experience with the tax authority, 27.8% had 2–6 years, 20% had 6–10 years, 12.1% had 10–20 years, 9.1% had more than 20 years of experience, and 6.2% did not disclose their years of experience with the tax authority. The demographic control variables were coded as: (a) income

range of respondents, 1 = 20,000-40,000 Birr, 2 = 40,000-60,000 Birr, 3 = 60,000-80,000 Birr, 4 = 80,000-100,00 Birr, 5 = 100,000-120,000 Birr, and 6 = more than 120,000 Birr; years of experience with the tax authority, 1 = less than 2 years, 2 = 2-6 years, 3 = 6-10 years, 4 = 10-20 years, and 5 = more than 20 years; highest level of education attained, 1 = completed elementary school, 2 = completed high school, 3 = completed college diploma, 4 = completed first degree, 5 = completed master's degree, and 6 = completed a PhD.

The study employed a printed questionnaire and unstructured interview to collect data. The data were collected over a period of three months, January-March, 2018. A total of 800 questionnaires were distributed to category C taxpayers in Addis Ababa and three Oromia zones surrounding Addis Ababa. Accompanying the questionnaire was a cover letter that explains the intent of the study and guarantees strict confidentiality of responses. Seven hundred and ninety-six questionnaires were returned (a response rate of 99%). Of these, thirty-five respondents skipped a significant number of questions and were therefore removed from the dataset. Accordingly, a total of 761 usable questionnaires were included in the analysis.

### **3.3.Data Sources and Data Gathering Instruments**

This study gathered data from primary data sources; i.e., Category C taxpayers. Data for this study were gathered by distributing a self-administered questionnaire to 800 Category C taxpayers and interviewing 12 key informants.

### **3.4.Methods of Data Analyses**

Data gathered from the sample respondents was first entered into SPSS and checked for accurate filling and identification of missing values. They were then analyzed in a hierarchical multiple regression model representing the conceptual model portrayed as figure 1. Demographic factors such as age, gender, income level, and educational background of respondents were controlled for in the analyses. The interactive effect of the two types of justice—procedural and distributive—was analyzed by using the PROCESS macro (Hayes, 2013) regression model.

## **4. Results and Discussions**

### **4.1.Response Rate**

Self-administered questionnaire was distributed to 800 category C taxpayers (400 in Addis Ababa and 400 in Oromia zones surrounding Addis Ababa) and 796 were filled and returned. Of these, 35 respondents skipped a significant number of questions and hence were removed from the dataset resulting in only 761 responses included in the analyses.

### **4.2.Descriptive Statistics**

Table 1 below shows that all the variables of interest in this study (i.e. distributive justice, procedural justice, affect-based trust, and cognition-based trust) except exchange equity are associated with respondents' intention to pay taxes voluntarily with procedural justice only moderately related to it. These associations are in line with prior findings (see, for instance, Wenzel, 2002, 2003; Gobena and van Dijke, 2017 for association of procedural and distributive

justice with voluntary tax compliance, and Murphy, 2004; Gobena and van Dijke, 2016, 2017 for correlation of trust with voluntary tax compliance). Of the demographic control variables, only gender is significantly related with intention to pay taxes voluntarily, female taxpayers exhibiting more voluntarism compared to their male counterparts. This is in line with a prior finding documented by Wenzel (2002).

Table 1. Study Variables' Means, Standard Deviations, Correlations, and Reliabilities

	Mean (SD)	1	2	3	4	5	6	7	8	9	10	11	12
1. Gender													
2. Age Range	1.99 (1.07)	.03											
3. Education	2.38 (1.13)	-.01	.03										
4. Annual Income	2.38 (1.69)	-.04	.54**	.14**									
5. Years of Experience	2.50 (1.28)	-.03	.56**	.03	.50**								
6. Distributive Justice	3.12 (0.80)	.01	-.01	.01	-.02	-.01	.51						
7. Exchange Equity	2.68 (1.22)	.05	.05	-.04	-.01	.06	.33* *	.75					
8. Procedural Justice	2.44 (0.91)	.06	-.02	-.03	-.04	.13**	.30* *	.49* *	.81				
9. Affect-based Trust	2.81 (1.11)	.01	.09*	.03	.01	.16**	.31* *	.42* *	.41**	.79			
10. Cognition-based Trust	2.69 (0.81)	-.03	- .13**	-.08	- .13**	-.07	.32* *	.45* *	.39**	.41* *	.75		
11. Enforced Tax Compliance	2.64 (0.87)	-.01	- .16**	-.10*	- .17**	- .16**	.31* *	.28* *	.36**	.20* *	.30**	.78	
12. Voluntary Tax Compliance	3.88 (0.68)	- .12**	-.05	.05	.01	.02	.22* *	.02	.09*	.23* *	.11**	.10**	.77

N = 796

Reliabilities (Cronbach's  $\alpha$  coefficients) are on the main diagonal for multi-item scales.

\*:  $p < .05$ .

\*\* :  $p < .01$ .

### 4.3. Regression Analyses

Two regression analyses were conducted in order to examine the main and interactive effects of the variables identified as determinants of category C taxpayers' 2017 grievance with their assessed tax. The first is a multiple regression in which all the independent variables were included in the analysis and regressed on the intention of the responded taxpayers to voluntarily comply with their tax obligations. Table 2 below depicts the results of the regression analysis.

Table 2. Hierarchical Multiple Regression Output Consisting of All the Study Variables

Model		Standardized Coefficients	t	Sig.
		Beta		
Step 1 $R^2 = .71$	(Constant)		31.41	.00**
	Gender	-.10	-2.25	.03*
	Education	.05	1.18	.24
	Age	-.15	-2.56	.01**
	Income	.03	.53	.60
	Business Years	.12	2.17	.03*
Step 2 $R^2 = .74$	(Constant)		32.10	.00**
	Gender	-.09	-2.08	.04*
	Education	.01	.27	.79
	Age	-.13	-2.27	.02*
	Income	.05	1.03	.31
	Business Years	.11	1.95	.05
	Distributive Justice	.11	2.21	.03*
	Procedural Justice	-.03	-.57	.57
	Exchange Equity	-.10	-1.96	.05
	Affect-based Trust	.11	2.20	.03*
	Cognition-based Trust	.01	.08	.94

\*:  $p < .05$ .

\*\* :  $p < .01$ .

As table 2 shows, gender, age, and years of business experience, considered separately, significantly predicted intent to pay tax voluntarily. Of course, while gender and age negatively affected intent to voluntarily pay tax, years of business experience positively predicted it. The negative coefficients of gender and age mean that female respondents reported to have greater intention to voluntarily pay their taxes than their male counterparts and older respondents have lesser intention to voluntarily pay their taxes than their younger counterparts. The positive coefficient of years of business experience means that the longer a responded was in business, the more s/he intended to voluntarily pay

their taxes. Contrary to the anecdotal claim that the taxpayers complain about their assessed tax because it is beyond what they can afford to pay, the income of the taxpayers did not significantly predict their intention to voluntarily pay tax. Of the variables of interest, distributive justice and affect-based trust significantly predicted the intention to pay taxes voluntarily positively.

The second was regression with PROCESS macro (Hayes, 2013; model 1) which was meant to examine the interactive role of procedural and distributive justice on the taxpayers' intention to voluntarily pay their taxes. Table 3 depicts the interactive effect of the two elements of justice on intention to pay taxes voluntarily.

Table 3. The Effect of Procedural  $\times$  Distributive Justice Interaction on Intention to Voluntarily Pay Taxes

Dependent Variable Model				
		Outcome Variable: Intention to Voluntarily Pay Taxes		
		B (SE)	t	p
Distributive Justice		.14(.02)	6.02	.00
Procedural Justice		.03(.03)	1.32	.19
Distributive Justice $\times$ Procedural Justice		-.06(.02)	-2.78	.01
Conditional indirect effect at specific levels of the moderator				
Moderator: Distributive Justice			LL 95% CI	UL 95% CI
		Indirect effect		
	-.99 (-1 SD from the mean)	.09	.02	.17
	.00 (0 SD from the mean)	.03	-.02	.08
	.99 (+1 SD from the mean)	-.02	-.08	.03

Table 3 shows that while distributive justice of the tax authority was sufficient to stimulate the intention to voluntarily pay taxes in its own right, the main effect of procedural justice did not predict the intention to voluntarily pay taxes. The interactive effect of procedural and distributive justice, which is of paramount interest to this study, negatively stimulated the taxpayers' intention to voluntarily pay taxes. The negative sign of the interaction effect means that procedural justice predicts intention to voluntarily pay taxes only when distributive justice of the tax authority is perceived to be low in the eyes of the taxpayers. When distributive justice is at its high, taxpayers do not need to look back on to the procedures (i.e., the decision-making processes) that led to the distribution of the favorable outcomes, namely tax burdens and tax-funded benefits. This finding is in line with the argument in the sense-making analysis of justice that people tend to look around for justifications of negative and unfavorable encounters to learn what the future holds (see Brockner & Wiesenfeld, 1996 for overview). This result concurs with many findings documented in organization behavior (e.g., Shapiro, 1991).

#### 4.4. Discussion

Taxpayers' compliance with relevant tax laws often involves a fundamental social dilemma in which the taxpayers may decide to voluntarily cooperate with the tax authorities' decisions (for example, by paying their taxes) presuming that the tax money would be used by the government

for mutual benefits with their fellow citizens. Alternatively, taxpayers may fear abuse of power by the tax authority (or the entire government) in which case the tax money would be used for non-productive government expenditure and may even be embezzled (see for instance, Alm, Jackson, & McKee, 1993). The effect of this dilemma is heightened by citizens' lack of information on whether the tax authority (and the entire government system) can be trusted not abuse their power. In such circumstances, taxpayers often resort to procedural fairness information that they use a heuristic to guide their decisions to comply with or evade taxes (see Van Dijke and Verboon, 2010; Gobena and van Dijke, 2016, 2017). This study examined (1) the main effects of trust in the tax authority, procedural and distributive justice of the authority, and exchange equity of the authority and (2) the interactive role of procedural and distributive justice on intention to voluntarily pay taxes. The main effects of distributive justice and affect-based trust affected intention to voluntarily pay taxes. The interactive role of the two justice components—procedural and distributive—also stimulated intention to voluntarily pay taxes. In the following sections, implications and limitations of the research are discussed.

#### **4.4.1. Theoretical and Practical Implications**

This study revealed that it was not what category C taxpayers anecdotally cite as a major determinant factor for their grievance over their 2017 tax assessment, namely their income falling short of the amount they are assessed to pay in taxes. Instead, their perception of distributive justice and emotional attachment with the government stood as stimulators of intention to voluntarily pay taxes. In addition, the interactive effect of procedural and distributive justice on intention to pay taxes voluntarily was significant. Owing to the significant interactive role of procedural and distributive justice on intention to pay taxes voluntarily, this study contributes a noble finding to the tax compliance literature extending the interactive role of the two types of (i.e., procedural and distributive) justice that has extensively surfaced in the organization behavior studies. As to the knowledge of the author, this finding has never been documented in the tax compliance context by any prior study and is hence a new significant contribution.

This study also contributes to tax administration and tax policy design. One tax administration as well as policy implication of the study is that female taxpayers reported that they are more compliant with their tax obligations than their male counterparts, as a result of which enforcement efforts need to be geared toward male than female taxpayers. A second practical contribution of the study is that older respondents indicated that they have lesser intention to voluntarily pay their taxes than their younger counterparts, and this informs tax authorities and tax policy makers that more needs to be done to get the willingness of elder people to pay their taxes voluntarily. A third contribution is that perceived fair distribution of tax burdens and tax-funded benefits (i.e., distributive justice) and emotional attachment of taxpayers with the tax authorities are associated with high level of intention to voluntarily pay taxes.

A fourth and more pervasive contribution of this study is that tax authorities would be informed about the interactive effect of two justice components—procedural and distributive justice—in stimulating voluntary cooperation of citizens with authorities. Specifically, a perceived low level of distributive justice of the tax authority is shown to be buffered by a high rather than low procedural justice.

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# Dynamics of LULC Change of Addis Ababa Nexus Its Effects on Urban Green Infrastructure and Sustainable City Resilience

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## Abstract

*Urbanization is leading to significant land use changes in Africa recent decades. Addis Ababa is one of the fast-growing cities in the continent. Therefore, detection of land use change is very important to identify its effect on greenspace and ecosystem services. The study used Landsat images to detect and generate land use, land cover (LULC) change map for the city. The normalized difference vegetation index (NDVI) is used to detect the major changes of vegetation cover occurred between 1996 and 2018 as a result of LULC change. In the city, the analysis of Landsat images has shown that settlement areas were increased by 17,607.33 ha (33%) and 800 ha/year within the last 22 years. In contrast, the forest land and crop land were declined from 291.13 ha (12.13%) and -397.40 ha (16.85%) respectively. In addition, the trend of the NDVI analysis map shows significant decline from 0.63 - 0.31 and the rate of 0.0167 per year. If the scenario continues as business usual by 2040 almost all GS will be replaced by settlements. Moreover, the present study asserted that unevenly distribution pattern of green space in Addis Ababa. Further analysis of the results showed that the problems of institutional arrangement (32%), conversion of green space into other land use types (30%), the absence of city level green space policy (27%), and lack of awareness (11%) were the main cause of instability and depletion of green spaces. The results show deterioration of green spaces and shrinking the total ecosystem supply and demand of the city. A better understanding of the dynamics of urban growth and its associated effects in the urban greenspace can help form a basis for sustainable managing of future developments in areas experiencing urban expansion.*

**Keywords:** Addis Ababa, Green Infrastructure, LULC, NDVI, Resilience

## 1. Introduction

Land changes, commonly referred to as urban expansion, coupled with the rapid expansion of sparsely populated suburbs in formerly rural areas and the creation of exurbs, urban or suburban areas buffered by underdeveloped countries, have implications for the key aspects of the Earth system (Spaliviero & Cheru 2017; Halefom *et al.* 2018). Whereas land cover states to visible evidence of land use that has both vegetative and non-vegetative characteristics, while land use can be defined as human land use, usually with a focus on land use (Abebe & Megento 2017; Kindu *et al.* 2018). It is the second most important anthropogenic influence on climate beside the emission of greenhouse gases (Arsiso *et al.* 2018a). The pattern of land use and land cover of a most ecosystem are the result of natural and socioeconomic factors and their use by humans in time and space (Halefom *et al.* 2018). According to Arsiso *et al.* (2018a) urbanization is leading to significant land use changes in Africa since the continent is undergoing rapid urbanization and population growth in recent decades. Addis Ababa is one of these fast growing cities in the continent (Assaye *et al.* 2017).

Urban ecosystems contain a myriad of natural, constructed and hybrid spaces, where the combination of each is unique in every city and town (Threlfall & Kendal 2018). Moreover, urban ecosystems provide fundamental ecosystem services such as provisioning, supporting, regulating, and cultural services for urban residents (Tolessa *et al.* 2017; Xie *et al.* 2018). However, evidences are showing that global and regionally both natural and urban ecosystems are facing an environmental crisis on account of heavy deforestation (Sloan and Sayer, 2015), growth of urban population density (Siddiqui *et al.* 2017), urban expansion which is land-use change process that transforms non-urban land into urban land (He *et al.* 2016). In addition, urban expansion affects ecosystem processes by changing biogeochemical circulation patterns (Jin *et al.* 2017; Xie *et al.* 2018), which leads to simultaneous losses of ecosystem services (Zhang *et al.* 2015; Zhang *et al.* 2017). On the contrast, growing human populations that accompany urban expansion also demand greater levels of ecosystem services (Jin *et al.* 2017; Xie *et al.* 2018).

Greenspaces represent an important environmental asset of the urban ecosystem that covers all open spaces primarily covered by vegetation which is directed (e.g. active or passive recreation) or indirectly (e.g. positive influence on the urban environment) available for use (Taylor & Hochuli 2017; Xie *et al.* 2018). They are often natural or semi-natural in nature and defined by land use, such as public parks, residential gardens or street tree networks, allotments, wetlands, trees, crop land and forests (Taylor & Hochuli 2017; Threlfall & Kendal 2018). The benefits of urban green spaces range from physical and psychological health to social cohesion, ecosystem service provision and biodiversity conservation (Fuller & Gaston 2009; Abebe & Megento 2016; Anguluri & Narayanan 2017; Astiaso Garcia 2017). Urbanization has negative impacts on urban greenspaces by exerting pressure on and shrinking in many cities in Europe, North America, South America, Asia and Africa with the situation in Africa is critical (Arsiso *et al.* 2018a). However, predictions of the consequences of rapid ongoing urbanization for human well-being require information on how green space provision will change as cities grow (Arsiso *et al.* 2018a). According to Mensah (2014a), in many cities of Africa, urban green spaces constitute less than 10% of the land area and globally, in the past two decades urban green spaces are fast disappearing or being destructed at an alarming rate in urban areas.

Addis Ababa is one of these fast growing cities in the continent (Arsiso *et al.* 2018a). The consequences of rapid urbanization on the development of green spaces is alarming (Mensah 2014b). Urban cropland and forest have been destroyed or degraded due to rapid population growth of the city. The green space in Addis Ababa is covered only 14.6 per cent of the total land area. According to Spaliviero and Cheru (2017) Addis Ababa's green areas and the urban ecosystem in particular remain far below desirable standards. In addition, the built up areas are increasing at a speed of 4-5 km<sup>2</sup> per year. The scarce green areas and poor ecosystem in the city negatively affected pollution mitigation (Nowak & Dwyer 2007; Arsiso *et al.* 2018a), run-off regulation (Boulton *et al.* 2018) and the provisioning of clean water (Graça *et al.* 2018) and the benefits of an adequate ecosystem (Wolch *et al.* 2014; Razzaghmanesh *et al.* 2016). However, the dynamics of land use land cover change and its impact on urban greenspace of the last twenty years of the Addis Ababa is not well study and analyzed. Thus, this work is initiated to assess the dynamics urban LULC, its effect on greenspace ecosystem and ecosystem services provided and the scenario of change.

## **General and specific objectives**

The general aim of this work is to assess the dynamics of LULC change of Addis Ababa and its effects on urban greenspace ecosystem services.

### **Specific objective**

- To map the trend of LULC change of Addis Ababa using two decades remote sensing satellite imagery
- To evaluate the extent and degree of change on urban green infrastructure ecosystem by using twenty years NDVI analysis
- To identify the causes and trends of LULC change of over the past two decades
- To assess the effects of LULC dynamics on the urban greenspace ecosystem
- To indicate the business as usual scenario of the change and its effect on the greenspace ecosystem

## **2. The Methods**

### **2.1. The Study Area**

Addis Ababa, the capital city of Ethiopia, is one of the largest urban centers in the Sub-Saharan Africa. It is located between latitudes 8°49'N - 9°5'N and longitudes 38°38'E - 38°54'E, covering a total area of 51,957.92 ha. Altitudinal zones of Addis Ababa range from 2054 m to 3023 m asl., situated in the foothills of the Entoto Mountains, spread across many wooded hillsides and gullies, cut through with fast flowing streams. At present, the city is divided in to 10 sub-cities and 116 woredas (administrative districts). Long-term mean annual maximum and minimum temperatures of the city are 24.4°C and 7.2°C, respectively. The wettest months are June to August and the months from December to April are dry. A review of climate over one century reported by Conway *et al.* (2004) shows an increase of minimum and maximum air temperatures of 0.4 °C/decade and 0.2 °C/decade, respectively. The total population of Addis Ababa is 3,275,348, which is about 60% of the total urban population in Ethiopia (Assaye *et al.* 2017).

### **2.2 Data collection Method**

In order to achieve the aim of this work two types of data sources were used. Such as, Landsat images (1996 and 2018) and all images were georectified to a common UTM coordinate system. Primary data from the Addis Ababa environmental protection authority purposively selected key informants by conducting oral interviews and secondary data from desk appraisal of different journals, articles. The secondary data were collected by using search engine Scopus open for scientific articles from the ISI Web of Knowledge based on the term “urban greenspace”, “urban ecosystem services”, ‘urban land use land cover’, “urbanization” and ”NDVI”. These terms included words from the titles, abstracts and keywords (Vihervaara *et al.* 2010; Jiang 2017).

### **Data pre-processing**

Before LULC classification, remotely sensed data preprocessing techniques were employed. Various false color composite raster band combinations in Red-Green-Blue order, contrast enhancement, histogram equalization and principal component analysis image enhancement

techniques were employed. Image enhancement is predominantly concerned with the modification of images to optimize their appearance of the visual system.

## Image classification

LULC map for 1996 and 2018 were produced by supervised classification using the maximum likelihood classifier. In supervised classification, three activities were done such as collecting spectral signature, evaluating signature and classified images using maximum likelihood classification. The images were interpreted or classified into seven LULC classes, namely built-up, urban forest and vegetation, crop and grassland, water bodies and bare land. Post classification comparison and Normalized Difference Vegetation Index (NDVI) were used in this study. Producer's accuracies result from dividing the number of correctly classified pixels in each category (on the major diagonal) by the number of training set pixels used for that category (the column total). The Kappa coefficient of agreement was used to test LULC classification accuracy.

## 2.3 Data Analysis

After the data were collected from various sources, they were analyzed by using Arc GIS 10.3 and ERDAS Imagine 2013. The cross tabulation in the spatial analyst module of the ArcGIS was employed to drive the change matrix. The changes from 1996 to 2018 and for the whole entire period from 1996 to 2018 were tabulated in matrix. The primary data were analyzing by using descriptive analyses method. Land use change: The extent and direction of the city's expansion (LULC change) for the years 1996- 2018 were analyzed by overlaying the different time-series maps and by calculating the corresponding areas in a GIS environment. Annual rate of urban area expansion for the periods: 1996 -2018 was calculated using the following relationship (Haregeweyn *et al.* 2012; Arsiso *et al.* 2018a). The changes could be the transformation of land cover to land use or vice versa. The rate of LULC change, R (km/year) as given by

$$R = (A_t - A_{t-p}) / P$$

Where  $A_t$  is recent area of LULC (i.e., LULC at time  $t$ ) in  $\text{km}^2$ ,  $A_{t-p}$  is previous area of LULC (i.e., LULC at earlier time  $t - p$ ) in  $\text{km}^2$  and  $p$  is the interval between recent and previous period in years. Analysis of vegetation change: the data obtained from Landsat images (Landsat images 4-5 TM since 1996 and Landsat 8 OLI for 2018) used to analyze or calculate normalized difference vegetation index (NDVI) and to identify the major changes of greenspace vegetation cover occurred between 1996 and 2018 as a result of land use and land cover change and compared for the anomaly of NDVI. The NDVI is then calculated based on spectral responses of vegetation (reflectance) in the NIR (near infrared) and RED bands. It is a normalized transform of the NIR and RED reflectance ratio (Pettorelli *et al.* 2005; Yengoh *et al.* 2015; Arsiso *et al.* 2018b). The NDVI algorithm takes an advantage of the fact that green vegetation reflects less visible light and more NIR, while, sparse or less green vegetation reflects a greater portion of the visible and less near-IR (Yengoh *et al.* 2015). NDVI is expressed as a function of reflectance and calculated using the algorithm in equation 1:

$$\text{NDVI} = \frac{\text{NIR} - \text{red}}{\text{NIR} + \text{red}}$$

Where *NIR* is near infrared band for a given pixel, *RED* is the red band response.

The range of values obtained from the algorithm is between -1 and +1. Only positive values correspond to vegetated zones. The higher the index value the greater the chlorophyll content or greenness of the target and vice versa. NDVI has been successful for monitoring inter-annual vegetation growth and their phenological changes. The rationing of NIR and RED bands also reduces multiplicative noise (illumination differences, cloud shadows, atmospheric attenuation, and certain topographic variations) which is apparent in multi-band and multi-date images (Yengoh *et al.* 2015). Furthermore, primary data was collected from purposely selected environmental sector experts to assess professional perspectives about the cause and effect of LULC change on urban green space spatial and temporal distribution and ecosystem services benefits and sustainability resilience.

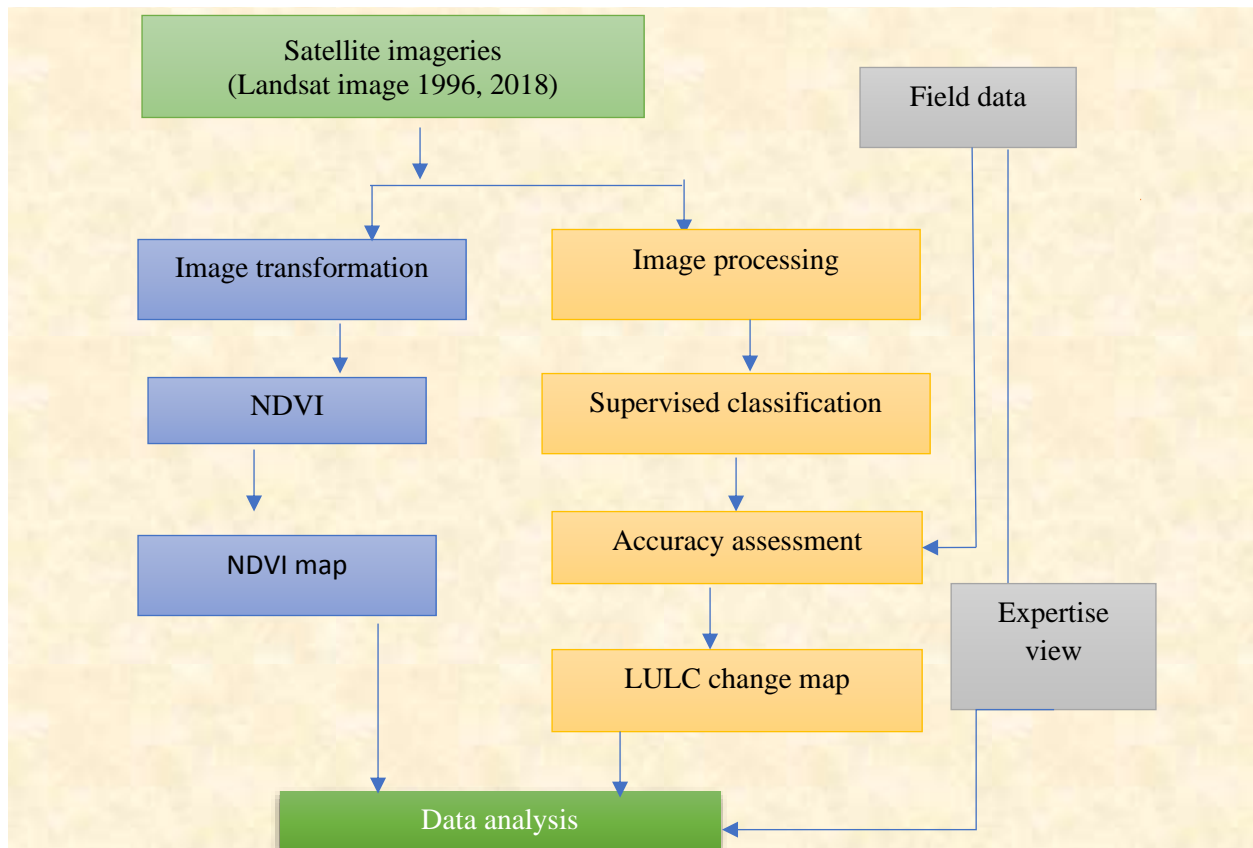


Figure. 1 Image classification process

### 3. Result and Discussion

#### 3.1 The cause of green spaces depletion in Addis Ababa

According to Addis Ababa EPA respondents the proximate cause of GS depletion were problems of institutional arrangement (32%), conversion of green space into other land use types (30%) instability and depletion of green spaces were absence of city level green space policy (27%) and lack of awareness (11%) in that order. Furthermore, this result supported by different scholars, for example; Spaliviero and Cheru (2017) explain an appropriate institutional arrangement is vital for the implementation of green space policy, strategy and programs. Moreover, the greenspace development has been administered by different institutions including: Addis Ababa Environmental Protection Authority, Beautification, Parks

and Cemetery Development and Administration Agency, the office for Urban agriculture, the Ethiopian Heritage Trust and more recently the Gullele Botanic Garden (Abo-El-Wafa *et al.* 2017). These institutions seem to put some duplication efforts in the management of green spaces (Fetene & Worku 2013).

The respondents also asserted that the principal causal factors for green spaces depletion were ascribed basically to supplanting green spaces for built up area, especially for expansion of settlement for accommodating high urban population, infrastructural development and utilization of the biomass as energy resource. The present work align with the finding of Mensah (2014a). In addition, the urbanization and house development strategy not concede to the master plan of the city and not answered the main questions like, how are urban green types distributed in Addis Ababa in relation to socioeconomic patterns, and how does this distribution affect urban ecosystem services provision?, Which structural variables of the vegetation differentiate the urban green types, and how do they impact urban ecosystem services delivery?

Furthermore, during the past 20 years, urban land has, on average, expanded twice as fast as the urban population (Seto *et al.* 2012), and conversion of green space into other land use types, which has negatively affected ESs at different scales (Seto *et al.* 2012; He *et al.* 2016; Tolessa *et al.* 2017). In contrast, there is no green space management policy and the forest development, conservation and utilization policy and strategy of Ethiopia issued in 2007 does not consider the role of urban forest at meeting the public demand in forest products and foster the contribution of forest in enhancing the economy (Abebe & Megento 2016).

Urban green spaces such as public parks, domestic gardens or wasteland provide many ecosystem services, and consequently their potential to contribute to human wellbeing in cities is being increasingly recognized (Yengoh *et al.* 2015; Graça *et al.* 2018). Vegetation holds a great potential to enhance urban resilience. It is, however, necessary to better understand the ecological impacts of vegetation type and structure in cities (Bowler *et al.* 2010). In addition, structural variables of the urban green space vegetation such as tree density, size and condition affect ecosystem functions such as air pollution removal, carbon sequestration and rainfall interception, thus influencing UES supply (Nowak & Dwyer 2007).

Urban expansion is a land-use change process that transforms non-urban land into urban land (Mensah 2014a; He *et al.* 2016; Zhang *et al.* 2017). In addition, this process directly causes substantial losses of natural habitats and ecosystem services (e.g., food production (FP), freshwater provision, and carbon storage) due to the loss of natural vegetation and increase in impervious surfaces (Bowler *et al.* 2010; Mensah 2014a). On the other hand, it indirectly influences the delivery of ecosystem services (e.g., water retention (WR), climate regulation, and nutrient retention) by altering the hydrologic cycling, atmospheric circulation, and nutrient cycling processes (Zhang *et al.* 2017). According to He *et al.* (2016) during the past 30 years, globally urban land has, on average, expanded twice as fast as the urban population, which has negatively affected ESs at different scales.



## 3.2 Land use land cover change and trends of greenness in Addis Ababa

### 3.2.1 Accuracy assessment of the classification

Classified LULC maps from remotely sensed imagery may contain some errors. Therefore, accuracy assessment was employed to find out those errors so as to ensure reliability of the produced LULC maps. The classified maps have to be assessed and compared with a referenced data and ground truth using an error matrix. The overall accuracies for the three reference years 1996 and 2018 are 87%, and 89% with the Kappa statistics of 81% and 83%, respectively.

The present result show, the LULC classification in terms of crop / grass land, settlement, water body, forest land and bare-land from the Landsat images taken in 1996 and 2018. Moreover, in 1996, the city's land use and land cover were dominated by forest cover in the northern and northeastern parts of the city while crop/ grasslands dominated the southern and southeastern area. The present result is aligned with the finding of (Arsiso *et al.* 2018a). Figure 1 shows the settlement area was concentrated on the central part of the city. Further, land use and land cover maps of the 1996 and 2018 show an expansion of settlement areas leading to the shrinkage of the forest and crop lands in all parts of the city (Figure 2 & 3). The present work classify greenspace in to two as forest land and crop land. In contrast, other scholars classified as field crop, vegetable farm, public recreational parks, riparian vegetation, plantation forest, institutional forest (mixed forest), street plantation, and grassland (Abebe & Megento 2016; Spaliviero & Cheru 2017; Arsiso *et al.* 2018b).



Figure 2. LULC maps for the year 1996

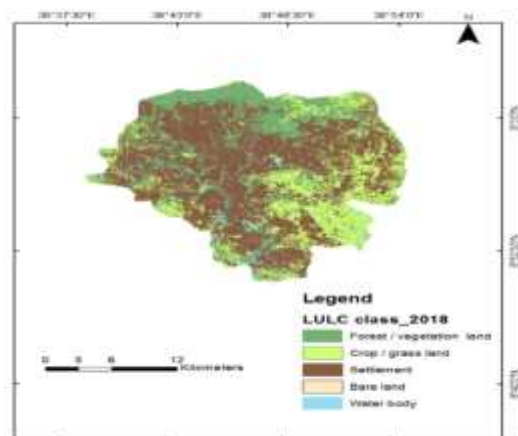


Figure. 3 LULC maps for the year 2018

The LULC changes that occurred during the period under consideration is summarized in Table 1. About 17.19% and 4.87% of the total area were under forest cover in 1996 and 2018, respectively. The bare land covers were about 17.99 % and 9.47 % of the total geographical area of the city in 1996 and 2018, correspondingly (Table 1). These figures show that there has been a steady increase in urban settlement areas in contrast to almost proportional decrease in greenspace (forest and crop land) over the city; moreover, there is also substantial increase in water body in contrast to a decrease in crop and vegetation cover. In general, the analysis of the satellite images have shown that the settlement areas have increased by 17,607.33 ha within the 22-years period. This result concedes with other authors report, for example, the horizontal expansion took place in all directions of the city, where both legal and squatter settlements were established and a total of 94,135 housing units built (Melesse & Hanley 2005). However,



a critical look at the situations in 1999 and 2014 shows that the built-up area increased from 13,700 to 20,000ha. This implies that the city is consuming the ecosystems at a speed of 450 ha annually. Such a rapid decrease of the urban ecosystem impacts negatively on the supply of urban ecosystem services (Spaliviero & Cheru 2017).

Table 1. LULC changes of Addis Ababa from 1996 - 2018

LULC types	1996		2018	
	Area (ha)	Area (%)	Area (ha)	Area (%)
Forest / vegetation land	8,935.50	17.19	2,530.00	4.87
Crop / grass land	18,499.50	35.62	9,756.00	18.77
Settlement	10,305.67	19.83	27,913.5	53.73
Water body	4,870.33	9.37	6,838.00	13.16
Bare land	9,346.00	17.99	4,919.00	9.47
Total	51,957.00	100	51,957.00	100

The rate of change for forest lands and crop/grass land were negative, which implies a decline in areal coverage, whereas settlements and water body increased their areal extent at the expense of the forest, crop and bare lands. Over the study period, the extent of settlement areas has increased by 800 ha per annum against 38% decrease of greenspace (Table 2). The above figure on expansion per annum is based constant growth rate which does not reflect variability from year to year. In addition, Spaliviero and Cheru (2017) report shows the green space has been reduced to 9835 ha in 2014; a loss of 5476 ha, largely due to conversion of the field crop land to residential (condominium) and manufacturing and storage land uses. However, the past two decades trend analysis indicated that the type and size of urban greenspaces ecosystem of Addis Ababa were declined by the rate of plantations (82.1%), forestland (62.1%), grassland (78.8 %) and cultivated land (65.8 %) (Abebe & Megento 2017).Whereas, built-up and transport areas increased at annual rate of 5.7% and 1.3% and consumed 419% and 47% of the city's total area respectively (Spaliviero & Cheru 2017).

Table 2. Changes rate during 1996-2018

LULC types	Changes during 1996-2018		
	Extent		Rate
	(ha)	(%)	(ha/year)
Forest / vegetation land	-6,405.5	-12.32	-291.13
Crop / grass land	-8,743.33	-16.85	-397.40
Settlement	17,607.33	33.9	800.00
Water body	1,967.67	3.79	89.45
Bare land	-4,427	-8.52	-201.22

### 3.4 Effects of LULC dynamics on the UGS ecosystem and sustainable city resilience

A total of 20 respondents of AAEPa were asserted that the change or conversion of greenspace to other type of land use have major effect on the total ecosystem supply and demand of the city. They were listed seven major effects of LULC change as illustrated figure 4. This result aligned with Cavan *et al.* (2014) finding, for instance, anthropological activities and on-going urban growth are threatening and alter LULC types and affected urban greenspaces ecosystem services, functions and sustainable city resilience (Bowler *et al.* 2010; Cavan *et al.* 2014).

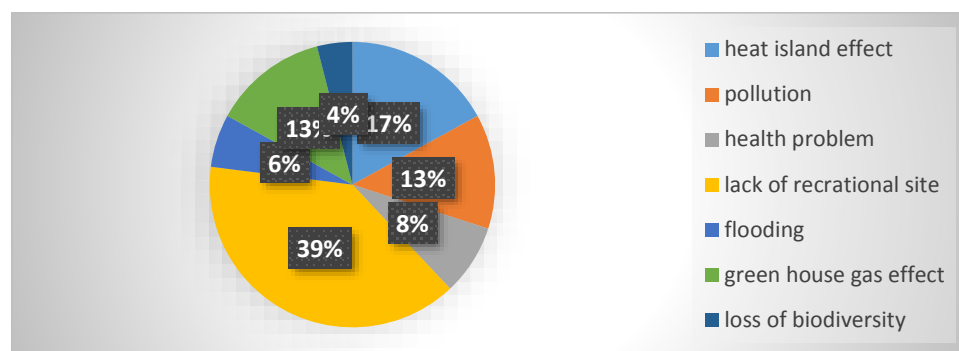


Figure 4. Effects of LULC dynamics on the urban greenspace ecosystem

Furthermore, Spaliviero and Cheru (2017) report the city ecosystem service carbon sequestration, carbon storage, air pollution removal, runoff mitigation and local climate mitigation highly affected and declined due to urbanization. All are the benefit of green area of land coverage (Bolund & Hunhammar 1999; Crossman *et al.* 2013). Moreover, it is evident that the major ecosystem service supply takes place far from the city centre (Bolund & Hunhammar 1999; Herslund *et al.* 2017). The center of city was dominated by urban built and some open space (McPhearson *et al.* 2013). As indicted figure 1 and 2 the green space of Addis Ababa mainly located in the North, Southeast and a few in the West part of the city. This is due to urban land use land cover change (Abebe & Megento 2017; Herslund *et al.* 2017) and population growth (Spaliviero & Cheru 2017). Cavan *et al.* (2014) Report the important role of urban greenspace in temperature regulation in Addis Ababa, Dar es Salaam, and Bobo-Dioulasso, however, due to urbanization highly affected the quality and quantity of the services. Additionally, comparing carbon sequestration, air pollution removal and local climate mitigation with carbon storage and runoff mitigation, it emerges that not all ecosystems are providing ecosystem service supply to the same extent (Spaliviero & Cheru 2017). While carbon sequestration, air pollution removal and local climate mitigation are mainly supplied in the North, carbon storage and runoff mitigation are supplied in a more homogeneous way within the city boundaries. This implies that on the other side of the city there is high level of land use land cover change and this dynamics are highly affected the urban green space ecosystems (Spaliviero & Cheru 2017).

#### 3.4.1 The fate of greenspace as if the scenario is business usual nexus intervention

Under this scenario, current growth trajectories and levels of resource consumption are assumed to continue unabated. The settlement growth of Addis Ababa continues at a rate of 800 ha per year, by 2040 consuming almost all greenspace while the remaining ecosystems

become ever more polluted and supply of ecosystem services will be declined. The threshold value of minimum green space per capita has been defined by the World Health Organization as 9m<sup>2</sup> per capita. Addis Ababa scores poorly in this respect with between 0.4 and the 0.9m<sup>2</sup> per capita (Spaliviero & Cheru 2017). The rapid disappearance of urban green space will bring with it huge transaction cost for individuals, communities and private sector enterprises alike. There is evidence that the disappearance of green space is responsible for 40% of the flooding and landslides in the city (Spaliviero & Cheru 2017) and Recurrence of flooding is already costing ETB 0.21 million per event (and expected to be ETB 0.34 million per year) for emergency assistance at the city administration level. In addition, the lack of green space also has social consequences. These are the spaces where people meet and socialize; relieve stress, satisfy their recreational needs and build social bonds within their respective communities. In a rapidly changing city where the state of sanitation and waste management is very poor or inadequate, the rapid disappearance of open green space as the only ‘oasis’ can have serious social and psychological impacts on the residents. However, if there an intervention in different level and time to restoring the damaged ecosystems and enhanced urban ecosystem services the scenario will be changed and effective (Table 2).

Table 2. Intervention to restoring the damaged ecosystems

Types of restoration ecosystem	Ecosystem services	Benefit	Reference
Street trees	pollution mitigation	14% of tree cover improves the quality of air up to 4% during the year, Up to 10% during traffic hours	(Escobedo <i>et al.</i> 2009)
Parks	pollution mitigation	100% tree coverage sequester 0.3Kg of Carbon/m <sup>2</sup> per year	(Bolund & Hunhammar 1999)
Urban forest	carbon sequestration	100% tree coverage can capture 7.4 g/ m <sup>2</sup> of PM10 per year.	(Nowak & Crane 2002)
Urban agriculture	carbon sequestration	50 km <sup>2</sup> of urban agriculture, by avoiding import from rural areas, would reduce the CO <sub>2</sub> of 100-000 tons per year 50 km <sup>2</sup> of urban agriculture can produce 200.000 tons of crops per year	(Lee <i>et al.</i> 2015) (Pulighe <i>et al.</i> 2016)
Gardens		a garden with more than 60% trees can lower the temperature up to 4°C	(Bowler <i>et al.</i> 2010)
green roof	Local climate regulation	the area of 82 ha // production on 12495 t of vegetables per year // 77% demand for Bologna	(Orsini <i>et al.</i> 2014)

### 3.5 NDVI analysis of urban greenspace ecosystem of Addis Ababa

The present work asserted that, the pixel values of 1996 NDVI image ranged from - 0.31 for not very vegetated surfaces to values of 0.70 for vegetated surfaces (Figure 5). This result agree with the finding of (Abebe & Megento 2016). For 2018, the pixel values for the NDVI images ranged from -0.17 for not very vegetated surfaces to 0.56 for vegetated surfaces (Figure 6). This result also agree with the finding of (Assaye *et al.* 2017). For anomaly NDVI of 1996 - 2018, the pixel values for the NDVI image ranged from -0.44 for none and not very vegetated

surfaces to 0.27 for vegetated surfaces with mean -0.18 (figure 5). The reason for the relationship of NDVI to vegetation is due to the property of green leaves to reflect 20% or less in 0.5 to 0.7 micro-range (green to red) and about 60% in 0.7 to 1.3 micro-range (near-infrared). Normalized difference vegetation index itself varies between -1.0 and +1.0. Negative values of NDVI (values approaching -1) correspond to deep water. Values close to zero (-0.1 to 0.1) correspond to bare land areas of rock and sand. The nature and extent of these changes show variations across time and space.

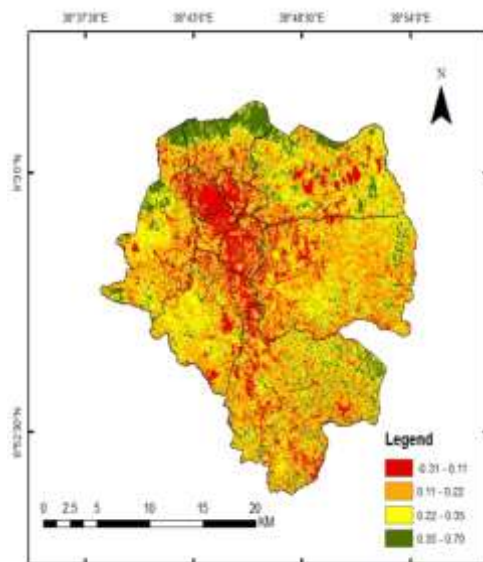


Figure 5. NDVI of 1996 of Addis Ababa

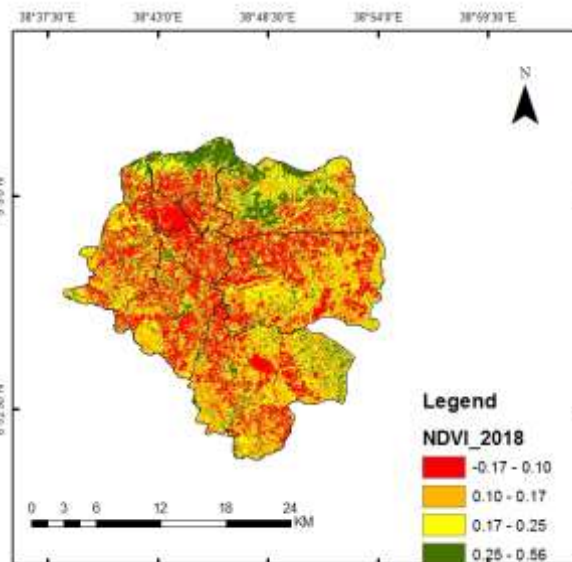


Figure 6. NDVI of 2018 of Addis Ababa

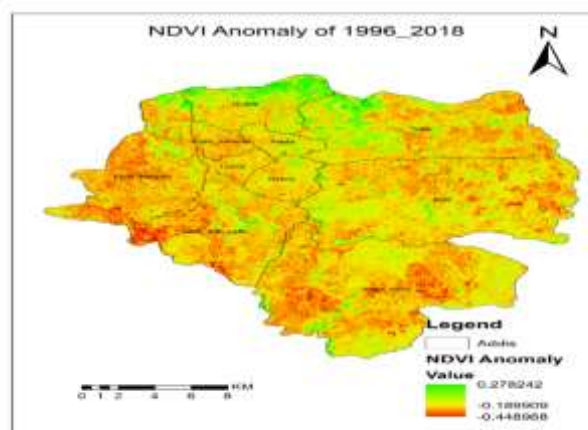


Figure 7. Anomaly NDVI of 1996 -2019 of Addis Ababa

Regarding the green space distribution patterns in Addis Ababa city Yeka and Gulele sub-cities have relatively good of green area status, Akaki-Kality sub-city, Nifassilk-Lafto and Bole have only less than green area. Arada Kirkose and Lideta sub-cities hold too low green areas and Addis Ketema sub-city has almost no vegetation cover while Kolfe Keranio has green area (Figure 3,4,&5). More ever, the trend of NDVI analysis of green space of Addis Ababa show the decline tendency by the rate of 0.0167 per year (Figure 8). This change has crucial effect

on the ecosystem services of the city. This finding was similar result with (Assaye *et al.* 2017; Spaliviero & Cheru 2017).

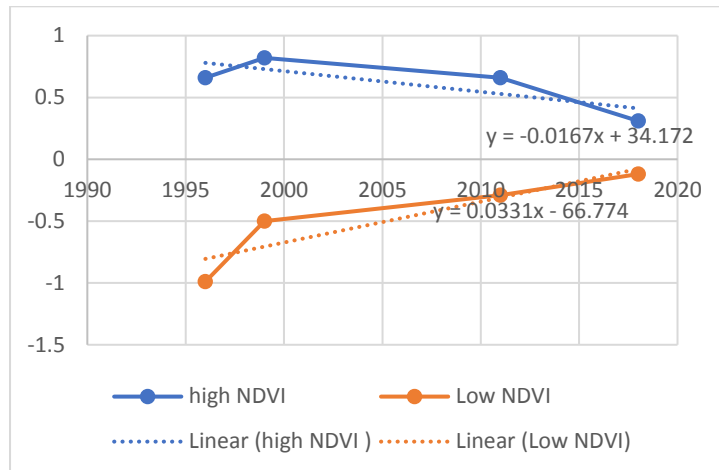


Figure 8. Business as usual trend of NDVI of Addis Ababa green space

#### 4. Conclusion and Recommendation

The study examined dynamics in LULC over Addis Ababa city using Landsat images taken in 1996 and 2018. The study also investigated the effect of LULC on greenspace ecosystem services. The results indicated that settlement areas increased by 17,607.33 ha (800 ha/year) over the 22 years since 1996 while forest land and crop lands exhibited a sharp decline. In addition, Anomaly NDVI of 1996 - 2018 values -0.49 for none and not very vegetated surfaces to 0.36 for vegetated surfaces confirmed that the decline of greenspace area. Moreover, the green space of Addis Ababa mainly located in the North, Southeast and a few in the West part of the city. Further analysis of the results showed that the problems of institutional arrangement (32%), conversion of green space into other land use types (30%), the absence of city level green space policy (27%), and lack of awareness (11%) were the main cause of instability and depletion of green spaces. This rapid dynamic of the urban green spaces impacts negatively on the supply and demand of urban ecosystem services. Therefore, it is recommended that future studies should include more parameters and ground-based data to provide a holistic view of the changes in greenness of the city and to try to mitigate adverse effects and depletion of greenspace in the city. City administration expertise and policy makers can thus make decisions towards a more sustainable city featuring green areas, which correspond well as a key factor in determining as sustainable city resilience.

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# Urban Planning Practice for Tourism Development: The Case of Bahir Dar City and Its Surroundings

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## Abstract

*Tourism as global phenomenon has different range of impact which might include among others economical, socio-cultural and environmental aspects. Both developed and developing countries are relied upon tourism related development activities as tourism has a potential of generating substantial economic benefits such as employment, foreign exchange, income and tax revenue. Particularly, developing countries such as Ethiopia are embarked upon tourism related development policies. The tourism policy of the country seeks to expand the tourism sector aiming at poverty eradication strategy and building the image of the country by introducing Ethiopian cultural, historical and natural heritage to the world. There is a need to develop planning frameworks that address tourism development within the broader context of regional and national development goals in Bahir Dar City Administration and its vicinities. Therefore, the overall purpose of this research is to examine the tourism development status vis-à-vis its integration with urban planning practice. Spatially, the study focuses in Amhara National Regional State, Bahir Dar City Administration and its surrounding. This area is one of the main gateways to the historic route of the northern tourist attraction of the country. The study has deployed both qualitative and quantitative research approach in identifying the status of tourism development and in assessing the integration between the urban planning practice and tourism development in the study area. The results of the study showed that the status of tourism is good both in tourist inflow and revenue generation. The tourist (both domestic and international) flow is increasing from time to time. Regarding the level of integration between urban planning and tourism development the results showed that there is lack of such integration endeavor. The findings further indicate that there is lack of integration not only among different sectoral entities of different nature but also lack of the same among similar sectors such as urban and tourism. However, tourism and planning by their nature are trans-sectoral and require high integration and collaboration among different sectors and/or actors. Thus, the study recommends the adoption of an integrated tourism planning and development that would facilitate the sustainable tourism development in Bahir Dar City administration and its surroundings.*

**Key Words:** *Tourism Planning, Integrated Urban Planning, Sustainable Tourism Development*

## 1. Introduction

As Gunn (1998), described, tourism is one of the biggest industries in the world today, and its importance continues to grow. He further explained that tourism as economic and social circumstances continue to change, and it will evolve. When describing the magnitude of the industry in worldwide perspectives, Gunn (1998) declared that in recent years, the industry has become even more global in scope, functioning as a crucial economic sector in an ever-expanding number of countries. This idea is also supported by United Nations World Tourism Organization (UNWTO) reports that marked that one billion tourists have travelled the world in 2012, marking a new record for international tourism. According to UNWTO's report this sector accounts for one in every 12 jobs and thirty percent of the world's services exports.

As stated by Christian (2012), tourism can be sustainable, but it is not self-sustainable. This means that the sustainability of tourism does not result only from tourism entrepreneurs,

managers, and good environmental intentions, but depends extensively on the maintenance of a balanced resource-base, adequate infrastructures, sound environmental management, trained personnel, complemented by an overriding environmental policy and adequate investment capacity.

Clare (n.d) cautioned that planners increasingly must consider environmental concerns and ecological issues in tourism planning. Thus, the overall accepted objectives of integrated land-use planning are setting the framework for sound development, to respond to the above issues. However, our national experience shows that tourism development is more often the result of haphazard and traditional tourism planning than the legitimacy of sound integrated (spatial, social and economic) planning policies. In addition, most attractive tourism places are increasingly occurring in less developed areas where the economy is extremely fragile and where the ecological resource –base is rich and diverse but often extremely sensitive and easily disrupted, and where the proactive nature of planning is still often inexistent. The best example in this regard is the two-satellite towns of Zegie and Tis-aby, which are the tourist destination sites in the study area. According to Frew (2006), Bahir Dar as a leading administrative, academic, and tourist city include the nearby towns of Tis Abbay, Zegie, Meshenti, and Zenzelima with an extended service area of 20-25km radius established as a metropolitan city administration.

Tourism play very important role in any nations' economy. In the Bahir Dar city administration and its surroundings, tourism directly provides jobs for local people. In addition, it offers excellent prospects for growth. Tourism also helps the development of urban and rural hinterlands in the area. It can create many new jobs and contributes to the preservation and development of local cultural and natural heritage. As stated in the tourism policy document of Ethiopia (2009), the country possesses vast potential and various historical cultural and natural attractions. Of these potentials, most of them are located on the historical tourism route in which Bahir Dar city administration and its surroundings have the greatest share.

While Bahir Dar city and its surroundings has good potentials to compete in tourism industry still the development of tourism do not match with its potentials. In this context, there are some limitations especially in basic tourism supply in terms of destination development, products and services offered, and expansion of infrastructure and tourist facilities in the study area. In addition, there are shortages in number and type of tourist facilities at tourist destinations areas. Further, there is a disparate urban development scenario between Bahir Dar and the two satellite towns (Zegie and Tis Abay). Being a tourist destination sites, these two towns should have been given due emphasis towards their overall development endeavor. However, the Integrated Development Plan of Bahir Dar that was prepared in 2006 by Federal Urban Planning Institute (FUPI) ignores to incorporate these satellite towns spatially within Bahir Dar city administration at least to promote the physical urban-urban linkages. In addition, tourism development process in Bahir Dar city administration and its surroundings is not supported by strategic city marketing, which is an important and crucial strategy for the tourism development.

In Ethiopia, in almost all development endeavors, the issue of integration is what can be seen as a huge gap. Therefore, the only way towards a long-term sustainable tourism for the country in general and that of Bahir Dar City Administration and its surroundings is a form of tourism planning and urban planning that works in a holistic and an integrated manner.

In line with the above background of the study and problem statement; the aim of the study is to evaluate the tourism development process in relation to planning practice and management in Bahir Dar and its surroundings. Specifically, the study tries to review the status of tourism development vis-à-vis planning practice and management in Bahir Dar and its vicinities; assess the level of integration between urban planning practice and tourism development in the study area and lastly, is aims to investigate the effectiveness of planning practice for city marketing with due emphasis on tourism development purpose.

## **2. Review of Related Literature**

### **2.1. Definitions of key terms**

- **Tourism**

No one definition of tourism has gained universal acceptance. For the purpose of this study, the officially accepted definition by the World Tourism Organization's (WTO, 2002) is used as working definition. According to the UNWTO, *"Tourism comprises the activities of persons travelling to and staying in places outside their usual environment for not more than one consecutive year for leisure, business and other purposes"*

- **Place/City Marketing**

Ashworth and Voogd (1990) cited in Alexander (2002) define place/city marketing as a process whereby local activities are related as closely possible to the demands of targeted customers. The intention is to maximize the efficient social and economic functioning of the area concerned.

### **2.2. Tourism Planning and Urban Planning Theory**

Lew (2007), pointed out, the field of urban and regional planning is much more comprehensive in both subject matter and outcomes than is most tourism planning. Tourism planning, however, draws upon a good portion of urban and regional planning methods, especially in the area known as rational planning. Thus, the narrower area of tourism planning could be considered as a subfield of urban and regional planning. According to Lew (2007), tourism planning apparently lacks attention to the normative<sup>50</sup> issues of how planners should plan and what issues planners should focus on in their planning efforts. These questions address the complexity of data and issues that planners deal with, including questions of what data or

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<sup>50</sup> Alexander (2002) stated that the planning theories are eclectic theories borrowed from many other disciplines. Thus, there is no general theory of planning. There was a radical change in planning thoughts during post-war about the normative ideals and assumptions of planning theory. Accordingly, it was assumed that town planning thoughts were emerged from two perspectives. The first one is the systems view of planning that is derived from a theory of the object that town planning seeks to plan (the city, region, environment etc.) as a system. The other is the rational process of planning-the theory about the process of planning i.e., planning as a rational process of decision-making or process of doing a plan. Later, the systems view of planning was considered as substantive planning theory or the theory about the object and rational planning acknowledged as procedural planning theory- a theory about the process or procedures of doing about planning. Andreas Faludi (1973) in his book 'Planning Theory' further elaborated that planning theory is divided into "theories in planning" and "theories of planning". He argued that since a theory of planning is about procedure thus planning theory should be procedural theory. Hence, in Faludi's terms, planners' plan is substantive theory whereas the rational process view is clearly a procedural theory.

information should be collected, how it is organized, and how the information will be used to make decisions. Tourism planners could benefit from greater familiarity with these fundamental concepts of planning theory.

Regarding the relationships between urban planning and tourism planning, Lew argued that; urban planning is a basic social necessity to prevent development chaos in general, and property values, while tourism planning is not an essential public necessity, but is a voluntary process and therefore often less core to the public debate. Gunn (1998) further argued that in some communities, tourism planning is an acknowledges subset of broader public planning functions, while in others tourism is separate and relegated to the private sector (Gunn, (1998), p. 15).

Therefore, it is obvious that because of these differences, the values, perspectives and approaches to tourism planning are different from urban planning, even if the actual tools used in practice may be identical. Finally, Lew viewed tourism planning as a subset of urban planning and his reason is tourism planners use most of the same skills and tools as urban planners (Lew, 2007).

### **2.3.Planning Tourism as an Integrated System**

As stated by Inskeep (1991), an underlying concept in planning tourism is that tourism should be viewed as an inter-related system of demand and supply factors. The demand factors are international and domestic tourist markets and local residents who use the tourist attractions, facilities and services. The supply factors comprise tourist attractions and activities, accommodation and other tourist facilities and services. Attractions include natural, cultural and special types of features - such as theme parks, zoos, botanic gardens and aquariums - and the activities related to these attractions. Accommodation includes hotels, motels, guesthouses and other types of places where tourists stay overnight. The category of other tourist facilities and services includes tour and travel operations, restaurants, shopping, banking and money exchange, and medical and postal facilities and services. These supply factors are called the tourism product.

Other elements also relate to supply factors. The supply factors include the tourism infrastructure and services. These tourism infrastructures particularly include transportation (air, road, rail, water, etc.), water supply, electric power, liquid and solid waste disposal, and telecommunications.

The underlying approach to tourism planning, as well as to other types of development, is that of achieving sustainable development. The sustainable development approach implies that the natural, cultural and other resources of tourism are conserved for continuous use in the future, while still bringing benefits to the present society (Inskeep,1991). According to Inskeep (1991), the sustainable development approach to planning tourism is acutely important because most tourism development depends on attractions and activities related to the natural environment, historic heritage and cultural patterns of areas. If these resources are degraded or destroyed, then the tourism areas cannot attract tourists and tourism will not be successful. More generally, most tourists seek destinations that have a high level of environmental quality - they like to visit places that are attractive, clean and neither polluted nor congested. It is also essential that residents of the tourism area should not have to suffer from a deteriorated environment and social problems.

## **2.4.City Marketing and Urban Planning**

City/place marketing is connected to urban/spatial development as an innovative approach to planning. Primarily, a city marketing procedure should be evaluated under the philosophy of urban management (Ashworth, et al, 1990), in the same way that the promotion process is a basic part of marketing. A city in order to be successfully marketed must be branded, or vice versa, thus city marketing is interrelated to city branding (Morgan, et al, 2004).

City branding is the application of trademarks on cities (Ashworth, 2004). A direct, insisting and convincing objection to this is that, cities are too complex to be treated as simple products, and thus logos for cities, as well as city marketing in general, are impossible, since cities are not products, governments are not producers and their users are not costumers. However, according to Ashworth (2004 a), the use of brand names not only possible but it has been practiced (whether consciously or not) since cities have been competing for trade, residents, wealth, prestige and power. Adopting a brand could provide a product with certain and special identity, which is exactly the objective of city marketing for cities (Ashowrth, 2004).

The brand will help in raising the status of the city as a tourism destination or a residential place or place for business establishment. Tourists will want to come, or businesses will want to locate in the city, just because of its acme (Ejigu, et.al, 2004). Successful examples are those of New York (*'I love NY!'*, *'The City that Never Sleep'* etc.), London (*'London First'*), Singapore (*'Uniquely Singapore'*) and the advertising of Greek Tourism Organization concerning Greece (*'Live Your Myth in Greece'*) and that of the Ethiopia Tourism Commission (*'13<sup>th</sup> Months of Sunshine'* which currently replaced by *'Land of Origins'*). However, there is no well-developed city marketing strategies that can better promote tourism development both at the national and regional levels. Thus, a great effort should be exerted in order to enhance the marketing strategies in the destination areas of the study site by applying different strategies.

## **3. The Methods**

This is an evaluative kind of research, which is categorized under qualitative research. The research is designed qualitatively focusing on three urban areas namely Bahir Dar city, Ziege town and Tis Abay town. The focus lies on city level tourism development activities with respect to urban planning practice and management. Thus, the study dominantly tries to explain and understand the local tourism status of the Bahir Dar City Administration and its surroundings vis-à-vis the integration of urban Planning practice and management for sustainable tourism development in the study area. Therefore, a qualitative research approach is selected as the approach offers the opportunity to understand tourism in a wider context and as it gives the interviewees the chance to express their impressions freely and uncategorized (Mayring 2002, cited in Christian, 2012).

In this study, the descriptive method was employed to investigate the status of the tourism development in line with the urban planning practice. The descriptive survey method is concerned with practices that prevail; beliefs, points of view, or attitudes that will be held, process that are going on; effects that are being felt or trends that are developing (Kothari, 2004 p.3).

Unlike in quantitative research, where there is a formula for determining the sample size needed for statistical power at a given level of confidence, there is no formula for determining the "correct" size of a qualitative sample. Sample size in qualitative research is not judged by the same criteria as it is in quantitative research because statistical power is not the goal (Patton,

2002). Instead, the researcher needs to consider the trade-offs between breadth and depth, and that can be done only by considering the purposes of the qualitative objectives of the study. According to Kothari (2004), purposive /non-probability sampling allows the researcher to pick only those who best meet the purpose of the study. Thus, this technique is deliberately used to choose specially those experts and officials who have deep knowledge about the issue under investigation and gives more reliable information for the study. Simple random sampling was also used in selecting the tourists randomly at Bahir Dar, Zegie and Tis Aby town and in selecting hotel managers and tour operators at Bahir Dar.

The other strategy is purposeful random sampling. Randomly selecting a few cases for in-depth analysis or to provide concrete examples of participants' program experiences lends credibility to the findings, although it does not permit generalization to the entire client or staff population. Thus, this technique was deliberately used to choose those who have deep knowledge about the issue under investigation and to have more reliable information for the study.

The techniques used in this research therefore, include interviews, questionnaires, observation, and focus group discussion.

The researcher has collected data through interview from the concerned tourism development officials and experts as well as tour operating agencies as key informants. The officials and experts who served as a potential key informant include those who are working in the Urban Development & Housing Bureau, Regional Urban Planning Institute, Regional Bureau of Culture & Tourism and the three municipalities of Bahir Dar, Ziege and Tis-Aby respectively. In addition to this, the tourists and tourism businesses actors<sup>51</sup> in the three study sites served as key informants.

About the sample size selection, the techniques adopted are quite different as per the nature of the key potential informants. For instance, in selecting the samples from the potential tourist population, the following techniques were adopted. First, the data about universe populations of tourist were obtained from Bahir Dar tourism information desk; accordingly, the average monthly tourist in-flow in 2016 was about 190 tourists. Thus, considering this as total population for this study, the researcher has taken 20% of 120, which accounts 35 tourists with snow balling method.

Regarding the local communities engaged in tourism related business, since the population is homogenous in all the three study sites, sample representatives of 46 respondents (4 each from Tis Abay and Zegie and 28<sup>52</sup> from Bahir Dar town) were drawn as a representative sample with simple random sampling techniques.

In addition, to the above-mentioned key informants, a focus group discussion was made with officials and experts from each respective tourism and urban development sectoral offices and the three municipalities of Bahir Dar, Tis Abay and Zegie. (See the details in table 3.1 annexed). The primary data were obtained from tourism development associations, business associations that are engaged in tourism development process and any agency responsible for implementing tourism development projects. In addition, officials and experts who are working in the Urban Development & Housing Bureau, Regional Urban Planning Institute, Bureau of Culture & Tourism and the three municipalities of Bahir Dar, Ziege and Tis-Aby were the primary data sources.

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<sup>51</sup> The tourism businesses actors include tour operation agencies, boat transport enterprises and souvenir sellers, and the most common tourist hotels.

<sup>52</sup> All tour operating agencies tour guides and common tourist hotels are found in Bahir Dar

The secondary data was obtained from Growth and Transformation Plan, national and regional tourism development manuals and guidelines, urban tourism and development policy and strategies, urban development strategies, tourism development projects and tourism reports. The major institutions from which these secondary data were collected include Ministry of Culture and Tourism, Ministry of Urban Development and Housing, different governmental departments including the Municipalities of (Bahir Dar, Zege and Tise Abay), Amhara Regional State Bureau of Urban Development and Housing, Amhara Regional State Urban Planning Institute, Amhara Regional State Bureau of Culture and Tourism etc.

## **4. Results and Discussion**

### **4.1. The Status of Tourism in BCA and its surroundings**

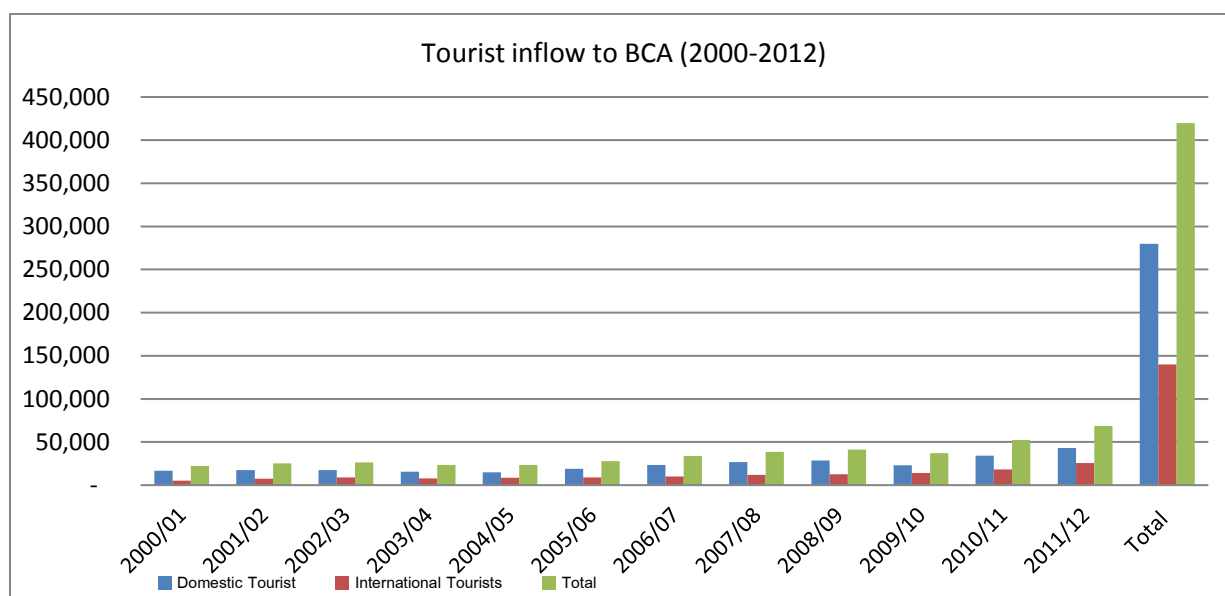
In Ethiopian context, the economic contribution of tourism could significantly be marked as earning of the foreign currency at country level and its contribution in attracting investment, creating job opportunity and generating income at the local level. Tourism is an attractive sector for policy makers primarily because of its wealth- and job-creating potential. Thus, the Ethiopian government is trying to integrate tourism with expanding of micro, small-scale and medium-scale enterprises to produce goods and services, so that this enables in turn creating considerable employment opportunities, promoting sustainable development and eliminating poverty. In the remaining sub topics, the status of tourism in Bahir Dar City Administration is analyzed and some results will be provided accordingly.

According to the BoCTPD (2017)<sup>53</sup>, the regional tourist flow and estimated revenue from the international inbound tourist categorized as domestic and international depending on their origin. While the international tourists mostly come for leisure and entertainment, the domestic tourists are usually related to conference tourism and administrative purposes, as Bahir Dar is the seat of Amhara National Regional State.

Figure 4.1 below, shows, the population of domestic and international tourist inflows to Bahir Dar city administration and its vicinity. As shown in the figure, the number of both domestic and international tourists did not exceed 50,000 until 2010/11. However, when we look at the trends of international tourist inflow, it seems continuously increasing from year to year while that of the domestic inflow is fluctuating. Since 2007/08 onwards, it is increasing except in 2009, which showed decrement from 25,542 to 22,880. In 2011/12, there were largest domestic tourists, which have been reached 42,930. Again, the figure shows a greater number of international tourists than the domestic in each year.

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<sup>53</sup> Due to lack of comprehensive and timely tourism data, the researcher preferred to work on the compiled tourism data that has been prepared by Amhara Tourism Information yearly booklet in 2004 E.C. The other recent data are different in different institutions even in those who are working on the sector. It is because most of the statistics are done by projections



**Fig. 4.1 Tourist Inflows to BMCA from 2000/01-2011/2012**

*Source: ANRS BoCTPD and Ministry of Culture & Tourism, 2018*

Although there is increasing trend in international tourist arrivals in BMCA, the number is not as such significant when we compare it with the national level. As depicted in the Fig. 4.2 above, the tourist share of Bahir Dar City Administration is minimal. It showed decreasing trend except for the year 2007 relative to the country's tourist population flow. Since the city is serving as a springboard for the historic route of the northern Ethiopia, the decrement in the tourist population relative to the country's flow level has a prominent influence on these destinations as well. While the country's international tourist arrivals are progressive, that of Bahir Dar City Administration is quite fluctuating and even the percentage share is incomparable and insignificant when compared to the national level. To testify this out of 383,399 international tourists registered at national level in 2008, only 11,774 of them visited Bahir Dar. In comparison to this large number, the 11,774 international tourists who visited Bahir Dar in 2008 may appear low, but they made the BCA, the third most visited tourist destination in Ethiopia after Lalibela and Gondar (Bureau of Culture Tourism Promotion Development, 2011). It is possible to conclude that although the region has eye-catching nature and cultural endowments, the flow of tourists in the destination areas are below the expectation when compared to the inflow of tourists to the country. Therefore, we need to exert a huge effort to boost the tourism development of the destination areas by considering the actual tourist destination sites as unique products that can attract tourists and generate revenue.



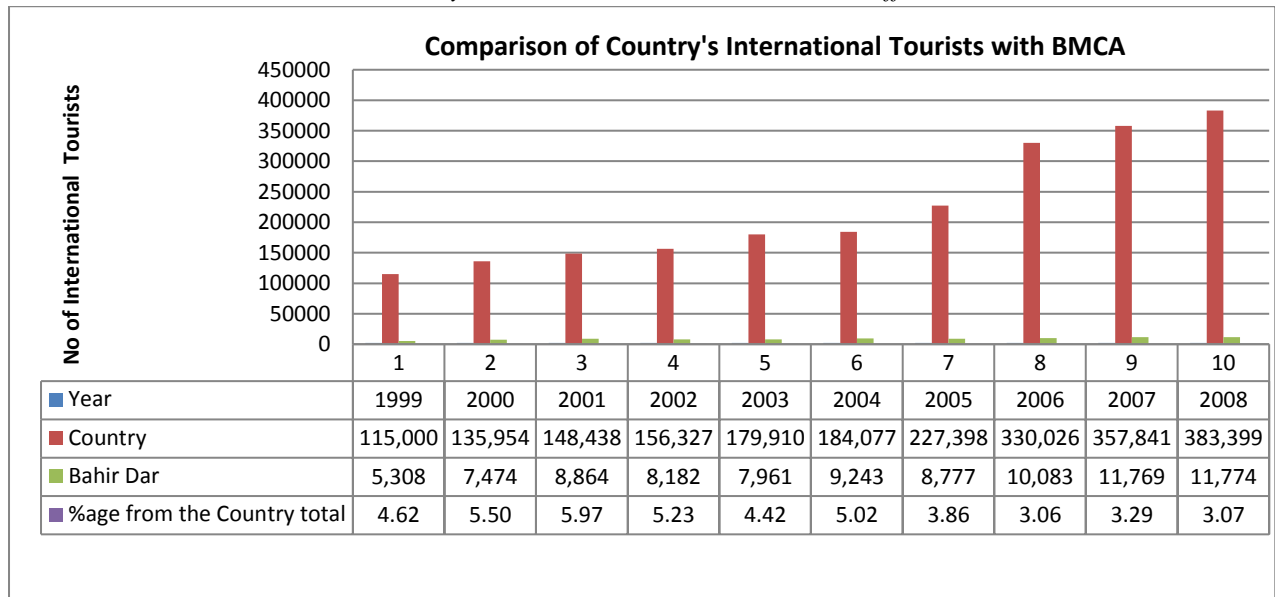


Fig. 4.2: Comparing the Country's International Tourists with BCA

Source: ANRS BoCTPD and Ministry of Culture & Tourism, 2018

Fig. 4.3 below shows the revenue generated from domestic and international tourists. As depicted in the figure, the revenue generated from both domestic and international tourist had never been exceeded 20,000,000.00 until 2008. The figure also shows that progressive revenue generated by the international tourists, while the domestic tourists are fluctuating. The figure infers that the revenue generated by the international tourists is higher than the domestic tourists are in each respective year. The total revenues obtained from international tourists was around 61,882,746.00 ETB while, the amount obtained from local tourists is around 40,444,151.00 ETB up to year 2012.

Although the satellite towns have a tourist attraction potential, Bahir Dar has dominated these towns as it is acting as growth pole /center in every economic development endeavor.

According to the data obtained from Bureau of Culture, Tourism Promotion Development (2017), Bahir Dar attracted about 190 tourists per day whereas only 10 to 20 percent of them visit Zegie Peninsula and/or the Nile Falls. Out of these nearly 10 percent of their expenditures go to local souvenir sellers and 7 percent to local guides, whereas the largest share (83 percent) is spent on entrance fees, transportation, food and accommodation (Bureau of Culture, Tourism Promotion Development, 2017). This indicates that it is insignificant amount of share that goes to these local areas (Zegie and Tis Abay). In addition, as the results of the focus group shows, these satellite towns are not benefiting from the revenue generated within their jurisdictions as the money is directly goes to the Revenue Bureau at Regional level. Most of the participants (officials at the satellite towns and tour guides) stated that these satellite towns do not get a single penny from the income generated within their jurisdiction.

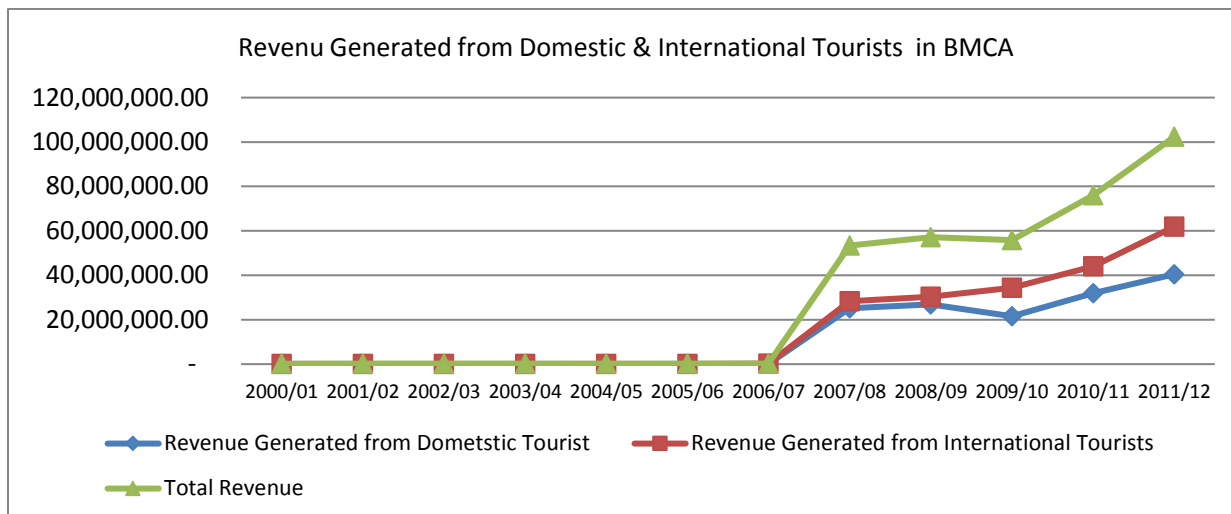


Fig. 4.3: Revenue Generated from Domestic & International Tourists in BMCA from 2000-2012

Source: Bahir Dar City Administration, Culture and Tourism office, 2018

Being located at the proximity to Bahir Dar, these satellite towns should have better locational advantage as Bahir Dar has better infrastructure provision like Bahir Dar airport, transportation and medical facilities, banks and postal services. Such opportunities can increase the area's accessibility, which in turn increases a willingness of visitors to stay in these satellite towns. However, there is no any initiative made to increase the tourist's stay at these tourist destination sites. According to the tourist information center at Tis Abay and Bahir Dar, the maximum tourist stay does not exceed two hours in Tis Abay and one day in Zegie peninsula respectively.

#### 4.1.1. Tourism as an opportunity for Image Building

As stated in the GTP plan and in the tourism policy document of the country, the government is striving for enhancing tourism development as a poverty eradication strategy and thus building the country's image. Especially for country like Ethiopia, which is renowned adversely by the external worlds through famine and war for the past decades, tourism can serve as a strong tool of image building. In such endeavor, then it requires to integrated tourism development with the country's overall development agenda.

Thus, linking the tourism development into the strategies of image building and economic development is inevitable. The researcher tried to assess the tourist's perception about their satisfaction towards the services and accommodations as well as the hospitality and community's awareness about tourism in general. Assessing these can in turn helps to measure tourist perception about the image of tourist destination areas as well as the country.

##### i. Level of Satisfaction of Tourists Towards Provision of Services

Rating the satisfaction of tourists can serve to confirm the perception of a given tourist about some specific destination areas. If they are satisfied with what they have experienced in tourist destination sites, then, they will have a good image about the locality, which initiates them to promote the place to other tourists. This, parameter then could be used again to judge upon the international tourist's view about the country in general and Bahir Dar City Administration & its vicinity.

As can be seen from the fig. 4.5 below, the majorities (57.1 %) of the tourists are not satisfied by the service provision; the rest (34.3 %) are satisfied in average. It can be inferred that the tourists are not satisfied with the level of service provision at BCA. This clearly has a negative impact in the image building and in further tourist attracting efforts.



**Fig. 4.4: Level of Satisfaction of Tourists on Services Provided**

*Source: Field Survey, 2018*

### ii. Tourist's Perception about the Community's Awareness and Hospitality

The community's awareness towards tourism and their hospitality can serve again to measure the level of satisfaction of the tourists. If the community's awareness is high and they are hospitable; then, the tourist could recommend others and thus, they are building the image of the place they have visited indirectly.

**Table 4.4: Rating for Community's Awareness and Hospitality (By Tourists)**

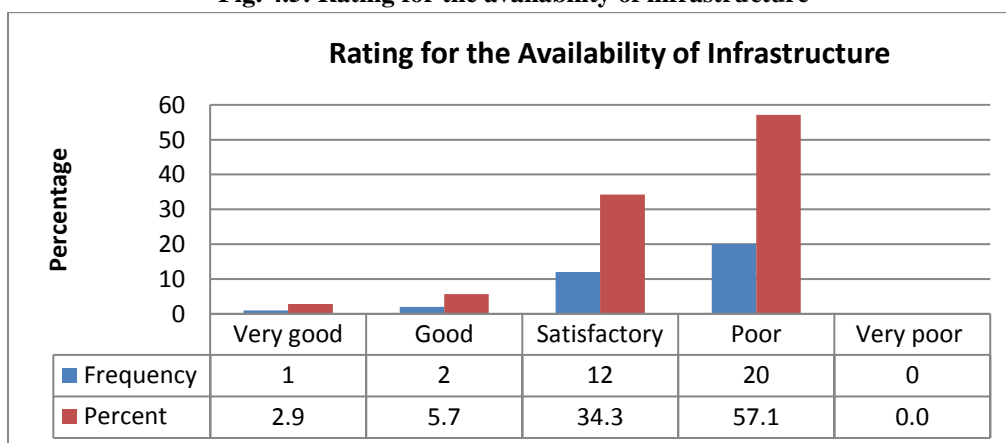
Tourist's Perception about the Community's Awareness and Hospitality	Response	Frequency	Percentage
	Very Good	31	88.58
	Good	2	5.71
	Satisfactory	2	5.71
	Poor	-	-
	Very poor	-	-
	Total	35	100

*Source: Field Survey 2013*

Table 4.4 above shows that, almost all of the respondents indicated that the community has very good awareness and hospitality towards tourism and tourists. Therefore, this willingness and having such wonderful awareness among the community can help the society to preserve its cultural as well as historic heritages. This in turn is an opportunity to sustain the cultural tourism in these destination areas.

### iii. The Impact of Inadequate Infrastructure on Tourism

**Fig. 4.5: Rating for the availability of infrastructure**



*Source: Field Survey 2018*

As shown in the Fig. 4.6 above, infrastructure and facilities at the tourist destination sites are almost in question. Only 34.3 percent of the respondents rated for the availability of infrastructure as satisfactory. Most tourists (57.1%) rated that the availability of infrastructure is poor. Thus, the tourist's view towards tourist attractions areas will be distorted by the inadequacy of infrastructural facilities. A group of tourists (from Poland) informally described that they were scared while they made a journey on very old boat on such large water bodies. Most tourists, through informal discussions described that there should be an option for different boats than the old government boats while making a voyage to Zegie monasteries. Thus, additional boat with better quality must be provided in order to cater the needs of the tourists. The same is true in case of transportation system in Tis Abay tourist destination area. For instance, the same group of tourists at Tis Aby mentioned that the public bus transport does not encourage tourists to the site, hence it is mandatory to provide an alternative mode of transport other than public buses. Thus, the inadequacy in infrastructure and other tourist facilities are the big bottleneck that hinders tourism development in the study area. Thus, it is possible to conclude that the tourists do not have an option especially in Tis Abay other than public buses. The other mode of transport like the minibus and midibus are not willing to travel to the site due to the bad road conditions that is characterized by bumpy ride. Even the walking forced anybody to trudge through the mud. The road from Bahir Dar city to the Blue Nile is about 35 kms but takes more than 75 minutes as the road is not an asphalt road. Currently however the road is under construction.

#### **4.2.The Need for Integrating Urban Planning and Tourism Development**

Tourism planning takes place in the real world where there are different individuals and groups having different value systems varying and often-conflicting interests. In addition, it takes place in the processes of negotiation; coercion, compromise and choice all conspire to ensure that these activities are not necessarily rational or straightforward as stated in the literature review. Effective tourism planning thus can be used to balance the economic, social, cultural and natural sensitivities of the area.

In order to realize such ultimate objectives, tourism planning thus needs an integrated spatial planning in complement to macro-economic and sector specific planning. This in turn requires competent technical staff in order to support such planning endeavors. An effective urban development planning should promote urban-urban and urban-rural linkages and the overall urban networks must be based on a coherent vision that combines, integrates, and localizes strategies and investments in all sectors.

In this regard, the current practice in Bahir Dar City Administration shows that, tourism development and urban planning practices is performed as a separate development activity. In addition, the aim and purposeful intention of incorporating the satellite towns under Bahir Dar city administration is reversed and is not in the right track. The following narrations can be helpful in justifying the above statement.

The following narrations have been taken from the focus group discussion that was held at Tis Abay town.

- The planning and implementation of some development activities in each satellite town is under the support of the Bahir Dar City administration. The justification for this is that the most repeatedly mentioned issues regarding the intended lodge construction by a private investor at the scenery view of Tis Issat fall. The corner stone of the project was laid but currently suspended as the Bureau of Culture and Tourism and the residents intervene on

the issue. According to the focus group participants and also the official sand experts at bureau of culture and tourism, no consultation has been made with the respective responsible sector like Bureau of Culture and Tourism, Tis Abay municipality; but it was simply superimposed directly by Bahir Dar city Administration.

- Although the hydropower plant is within the jurisdiction of Tis Abay, as told by informants during the focus group discussion, half part of the town has no electrification. The town administration also admits the issue that there is shortage of electric supply at Tis Abay town. This shows that while preparing the plan of Integrated Development Plan of Bahir Dar town, the infrastructure and utility plan does not consider the issues of the satellite towns like Tis Abay town.
- Regarding the support and the assistance, the town obtained from the Bahir Dar City Administration, every participant in focus group discussion agreed that they do not get any support from Bahir Dar City Administration. Additionally, the municipal officials argue that the intervention by Bahir Dar City Administration creates confusion in their administration endeavors. Sometimes, the Bahir Dar City Administration do not consider the role of Tis Abay municipality in any development endeavors that are entertained within the town's jurisdiction. E.g., the Resort in Tis Abay site is best illustrative for such confusion of interventions.
- The tour guides also assure that the tourism development of the area is in question because of the seasonable condition of the waterfall. One of the tour guides confirmed that the content of the waterfall is inconsistent and sometimes there could be no water when the water is fully- diverted to the electric power generation.
- The officials in Tis Abay town assured that the town is not benefiting from its tourism potentials, as the revenue that has been generated from tourism (entrance fees etc.) in town is directly goes to Bahir Dar City Administration office of tourism and culture.
- In addition, the municipal official argued that the existing proclamation (Proclamation 91/2003) lacks clarity; and thus, the roles and responsibilities of the existing institutional set up is not clearly settled.

The following narrations have taken from the focus group discussion held at the Zegie town. Most of the participant unanimously argued on the following issues:

- The role of the Zegie municipality both in plan preparation and implementation process is undermined. The officials also informed that, there has been no consultation with the municipality when the plan was prepared by private company named PACE Consultants Plc in 2007. Here it is not justifiable to have an Integrated Development Plan (IDP) of Bahir Dar which was prepared one year back in 2006. Had it been according to the proclamation 91/2003, Tis Abay is one of the satellite towns of Bahir Dar in which its plan needs to be integrated with IDP of Bahir Dar in order to promote urban-urban and urban-rural integration.
- In general, what is repeatedly mentioned is that the Bahir Dar City Administration intervenes fully in any development activities taking place within the boundaries of the satellite towns irrespective of the principles stipulated in proclamation 91/2003.
- The municipal officials at Zegie outlined that the autonomy of the municipality is in question. They also argue, that it is not possible to be autonomous without having organizational set up, working procedures and independent fiscal monitoring and use right. This is because all these activities are cascaded from the Bahir Dar City administration to

the municipality. In general, the overall issue of the municipality is extremely at the hands of Bahir Dar City Administration.

- As most respondents (municipal officials, tour guides and participants of focus group discussion) viewed, there is no integration between Bahir Dar City Administration and Zegie town. Even the municipal status of Zegie town is not well organized as stipulated in the Proclamation 91/2003. Rather the town is considered as one of the Kebeles of Bahir Dar city administrations.

From the above paragraphs, it can be possible to infer that the intended objective and the principles of the City Administration stipulated in the proclamation 91/2003 have been reversed. Therefore, as per the suggestions of most of the experts from urban deployment sector and municipal officials it requires reviewing the proclamation to incorporate all unexpected events and practices that has been entertained so far.

When we come to the urban planning and development practice in Bahir Dar City Administration, the planning approach is characterized by top down approach. This is because the top management from Bahir Dar City Administration formulate project objectives, provides working procedures, prepare plans and makes interventions in the role of the respective satellite towns. That is why Bahir Dar City Administration takes the growth pole position in initiating most of the developments of some projects directly by the city administration itself without any due consultation with the respective satellite towns' consensus. For instance, the initiative made by BCA to construct a lodge at Tis Aby without consulting the BoCTPD and Tis Aby town administration is the best example. See how much it is affecting the development of the town, when we see tourism as propulsive industry as described by Ajala (2008). He cited the works of Myrdal (1979) and Hirschman, (1958) who are the prominent in dealing with the Growth Pole Theory. As per the growth pole theory, tourism is an industry that generate both spread/trickledown and backwash/polarization effect within and beyond the region where it is developed. That is why the researcher believed that Bahir Dar city administration is taking the pole position in boosting its development at the expanse of the satellite towns. Such effects are also happening at Zegie town. In Zegie town as mentioned during the focus group discussion, the city administration of Bahir Dar is intervening in the procedural activities of Zegie town; for instance, some municipal services are suspended by the Bahir Dar City Administrator while it is still performed at some Kebeles of Bahir Dar. Among such activities includes, the transaction of property ownership rights, which consists of transferring properties to third party through sales, gift and inheritance. According to the officials, these transaction activities are the most activities that gain better (relative!) revenue to Zegie municipality but stopped by BCS interference.

According to the proclamation 91/2003, any city administration should be involved in all their activities and adhered to the principle of democratic leadership and governance, the principle of development, the principle of self-sufficiency, and the principle observing regional and federal laws in performing functions. In addition, it urges to adhere to the principle of cooperation and coordination and the principle of partnership. When we measure the real practice against these charming principles; all of them are reversed in case of BCA and its hinterlands.

#### **4.3.City Marketing Strategies to Boost Tourism**

The most common marketing strategies are city branding, extraordinary building construction, and mega event hosting and virtual reality techniques. As seen in the literature review, city

branding is the application of trademarks on cities. Although cities are too complex to be treated as simple products, the experiences of different cities in different nations help in raising the status of the city as a tourism destination. In this regard, Bahir Dar City Administration is lacking behind. Thus, it is not possible to go further to analyze the existing city branding effort, as there is any of such practice at the city level. However, it is inevitable to adopt such strategies as the competition is becoming so fierce not only for tourism but in any development endeavor. Therefore, the coming section tries to analyze the existing marketing system, i.e., tourism promotion in BCA.

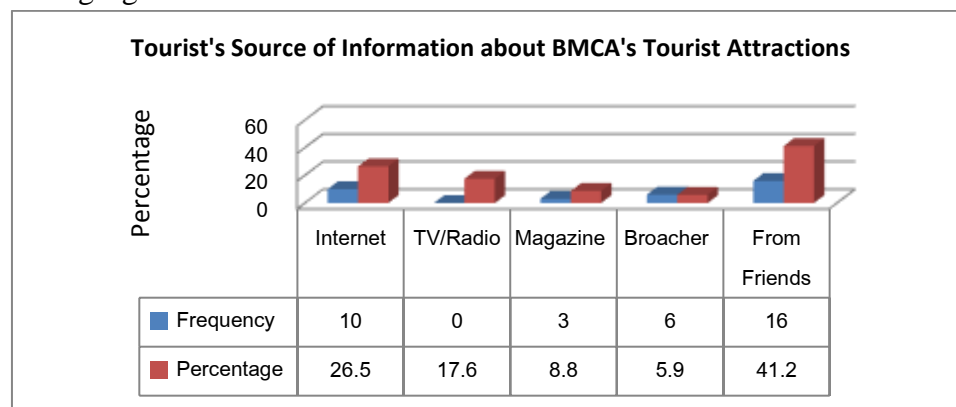
#### 4.3.1.1. Tourism Promotion

Tourism promotion involves activities, which individuals and groups undertake to attract potential tourists. Co-operative advertising, websites, social media, attendance at travel shows, magazine articles, brochures, maps, commercial and promotional signs, travel guides, newspaper, radio, television and tourism information centers are all examples of promotional activities.

#### 4.3.1.2. The Role of Tour Operators in Promoting Tourism

Tour operators are a critical link in the tourism supply chain. The link between international tour operators and domestic tour operators is particularly pertinent for Ethiopia, because foreign investment in the sector is not permitted and so all are Ethiopian companies. According to Ministry of Culture and Tourism (MoCT), there are 85 domestic tour operators and they provide about 65 percent of the business to the main hotels around the historic route.

Even though there are around 15 tour operators in Bahir Dar City Administration, most of them have no adequate capacity and staffs to cater service to the increasing number of tourists. This is because many of the tourists came to the study area by friend's recommendations as indicated in the following figure 4.4.



**Fig. 4.4: Tourists' Sources of Information to come to BMCA**

*Source: Field Survey, 2018*

As depicted in Fig. 4.4 above, the primary source of information, for tourists are coming from friends (45.71%), followed by the internet media constituting 28.57 percent. This implies that the promotion of tourism in the region in general and that of Bahir Dar and its vicinities is still at the infant stage. The number of tourists who come to the area by browsing the tour operators' broacher/guidebooks online on website accounts for only 17.14%. Those tourists who used the tour operators' guidebook suggested that the guidebooks are not even clear and complete to give full-fledged information about the destination areas. They argued that it is necessary to

incorporate all the necessary information about the tourist destinations. In general, weak promotion practice is one of the basic bottlenecks, which hamper tourism from playing its socio-economic and image building role at the Bahir Dar City Administration. Out of the total six interviewed tour operators, only two (33.33%) has developed a website for their firm. The remaining tour operators however, had no such online services and even they are having inadequate number of employees to perform their duties. The tour operator's managers argued that there should be continuous on-job training for their employees; and they insist that such trainings are the duties and responsibilities of the Bureau of Culture and Tourism. However, the bureau fails to provide such trainings in continuous and programmed manner. When asked about the relationship between their organizations and Bureau of Culture and Tourism, all mentioned that there is no a strong relationship with the bureau other than some discussions held during the meetings. In general, the tour operator's role in linking the tourism supply in the area has been undermined and thus, they are not doing the business up to their maximum effort. The following table 4.1 below also strengthens this idea. The table indicates the response for the questions posed to the tourists about the major obstacles of tourism development in Bahir Dar and its surroundings.

**Table 4.1: The Major Obstacles in Tourism Development of the BMCA**

No	Issues under consideration	Frequency	Percent
1	Promotion problems	17	48.57
2	Others (the prior bad image of the country)	8	22.86
3	Lower quality of tourist accommodations	6	17.15
4	Infrastructural constraints	4	11.42
5	Peace and security problems	-	-
	Total	35	100.00

*Source: Field Survey, 2018*

As depicted in the table 4.1 above, it can be possible to prioritize the major reasons why the Bahir Dar City Administration tourist attraction did not match with its potential according to the tourist's view. Accordingly, the major bottlenecks are lack of promotion, prior bad image of the country and low quality of tourist accommodations based on their order of prioritization followed by infrastructure constraint. Thus, a great effort must be done in this regard to bring a good image of the country not only at the regional but also in the national level; and this can be enhanced by having a well-defined and integrated tourism promotion.

According to tourism officials, tourism promotion activities are performed not in well-organized and integrated manner, rather it is done on ad hoc basis. Previously, the Bureau of Culture and Tourism is promoting tourism thorough regular air coverage on Fana-Gonder FM Radio, Amhara Television and in Hiddase newspapers. Recently, the bureau has prepared a soft copy and hard copy of guidebook in four languages such as Amharic, English, German and Italian. According, to the data obtained from the bureau's five-year strategic plan, the total planned budget for tourism sector in the five years (2014-2018) is 273,429,045. Out of these 144,022,647 birrs (52.7%) is allocated for tourism promotion and related costs. This shows that



on average 28,804,529.4 birr is allocated for promotion in yearly basis. Such promotion activities are taking place both at the regional and city level. At the city, level the promotions are performed by celebrating World Tourism Day and Ethiopian Cities Day etc. in Bahir Dar and the major towns of the region.

As mentioned in the above paragraph, the problem related to lack of appropriate city marketing is not subject to financial matters. Rather the problem lies on selecting the right promotion strategies that can fit the nature and characteristics of the city utmost. From urban design and planning point of view such promotions should have been enhanced by creating legible elements such as monuments that can promote more the characteristics and nature of the town. However, most of such endeavors in Bahir Dar do not reflect place-branding concepts. For instance, some monuments are not clearly showing the unique identity of the town. The plate 4.1 below shows such monument having no discernible meaning (on the right side) as compared with the other, which explains more the identity and the unique characteristics of Bahir Dar (a Fisherman seen on the left).



**Plate 4.1: Some urban design elements do not show the Identity of Bahir Dar**

*Source: Field Observation*

The right-side plate shows the monument that is located in front of Amhara Regional Rural Roads authority. Most of the experts from the urban professions and tourism sector experts are criticizing the monument, as it has nothing to do with the nature and characteristics of Bahir Dar. The researcher has also tried to communicate the concerned body to know about the monument but could not find anybody to respond concerning the issue. The location of the monument is strategic, in branding the unique nature of the city, as it is located on the main entrance high way of Bahir Dar International Air Port. Monuments in such places should be simple, meaningful and eye-catching and should be remains in visitors' mind. From such point of view, the argument by many experts is correct as it lacks such qualities.

As mentioned during the interview and the informal discussions made with urban sector professionals, most of them have no clear idea about city marketing strategies to enhance tourism development. As argued by many scholars, tourism by its nature is multi-sectoral and urban professionals who should have a great role in boosting tourism development by adopting such strategies have neglected this nature of tourism. The view by the experts showed that the planning and management of tourism has simply left as the sole responsibility of the Bureau of Culture and Tourism Promotion Development.

## **5. Conclusion and Recommendation**

### **5.1 Conclusion**

In this study, the effort was made to analyze the urban planning and tourism development practice in Bahir Dar City Administration and its surroundings. The analysis started by discussing the tourism development of the study area. The results showed that the tourist inflow and the amount of revenue generated from tourism are increasing from time to time. In addition, the effort was made to assess the tourism related investment; as indicated in the analysis most of these investments are focused on construction, social services and followed by tourism and hotel. In the same section, the analysis showed that such investment endeavors are only restricted within the jurisdiction of Bahr city. Then, the economic contribution of tourism as employment and income generation was also assessed and thus, tourism is playing a great role in employment and income generation. In terms of the role of tourism as an opportunity in building the image of the country, the effort was made to get the tourist's perception in service provision, availability of infrastructure and their perception about the community's awareness to tourism and hospitality.

The other issue addressed in the discussion part is the need for integrating regional/urban planning to tourism development. This issue has been discussed by comparing the nature of planning and tourism to what is taking place in the real ground in the study area. Then, the planning practices at the two satellite towns and at Bahir Dar city level were briefly discussed. The other core issue that was discussed in the analysis part is city marketing strategy to boost tourism. Under this section, the issue of traditional and ad hoc tourism planning and lack of city marketing strategies (place branding) was discussed; in the same section, the role of the tour operators was also evaluated. Finally, the finding of the study was presented.

### **5.2 Recommendation**

Planning and managing urban areas in strategic manner and municipal governance are challenging and complex process as it involves multiple actors and priorities. It can be stated that one single solution is not available, which would fit every urban areas' planning requirements.

Considering this reality, inter-municipal cooperation is an option worthy of consideration. By allowing communities to maximize available resources, inter-municipal cooperation can result in significant benefits to local governments. The inter-municipal cooperation is a good chance to reduce the existing disparities in the quality of the same public service among communities between Bahir Dar City Administration and the two satellite towns. Even though there is different inter-municipal cooperation, the researcher is not in position to say one type of it fits to the Bahir Dar City Administration and its surroundings as it requires a detail analysis of the existing institutional arrangements. The initiative of the researcher is just to alert the regional and local administration the need for the inter-municipal cooperation.

The other recommendation to solve the existing weak coordination among the municipalities is the need to have municipal organizing capacities which need again active and strong leadership, supported by politician and society and have a shared visions and strategy and promote public-private partnership. The local administration of Bahir Dar city should always regard its region (vicinities or the satellite towns) as its natural planning area, both for survey and analysis, and as the subject for planned intervention. This is because the planning effort should not be limited with some administrative boundaries alone as the success of the Bahir

Dar City Administration is also the success of its hinterlands in regional planning approach. Thus, intergovernmental consultation and interaction should also be the essential part of the planning and tourism management in Bahir Dar City Administration and its surroundings as well.

Consultation should be the heart of urban planning as well as the tourism planning and management in Bahir Dar City Administration and its surroundings. In such experience what is required is commitment (social and political) and promoting the participation of stakeholders and thus, creating the sense of belongingness in every development endeavor and letting the local administration level to make decision on issues under their jurisdictions.

A regional administration can perform to the optimum if the municipality and regional administrative authority involved are cooperative. Without cooperativeness, no form of regional administration can function well. Thus, the study recommends co-cooperativeness at all levels of government structure.

Finally, tourism planning system will function much more effectively, and brings the directed benefits if it is planned in an integrated manner, with coordinated development of all the components of the system or merged within the development agenda of country and/or regional and Bahir Dar City Administration and its surroundings at local level.

Moreover, the planning of tourism should be recognized as a continuous and flexible process. This in turn needs the policy framework and planning guidelines that are flexible to allow adoption of changing circumstances as planning that is too rigid may not allow development to be responsive to change.

The following are some specific recommendations:

- In order to solve the tourism related infrastructures and facilities there is a need to work in partnership. Thus, public-private partnership strategy should be adopted. This can be again realized by allowing a mutual recognition of respective strengths and weakness and working towards agreed objectives.
- In relieving the weak institutional capacities of the municipalities, it requires to review the existing Proclamation N<sup>o</sup> 91/2003, and regulation N<sup>o</sup> 65/2009 which deals with the establishment, organization and definition of powers and duties of urban centers in Amhara Region.
- In addition, the Bahir Dar City Administration should revise its approach in supporting and assisting the satellite towns for mutual development strives.
- Because of its trans-sectoral nature, the tourism planning requires intergovernmental coordination and sectoral integration for successful and sustainable tourism development, thus, a great effort should be exerted towards enhancing such integration.
- A big investment on promotion is required to market the natural, cultural and religious tourist potential of the region as well as the two satellite towns. It is clear from the study that more tourists would have been attracted to Ethiopia, and then to Bahir Dar City Administration and its surroundings, had it been there is a strong and coordinated promotion of the country's tourism attractions in general and that of the region. This demand coordinated action by the Ministry of Culture and Tourism, tour operators, hotels, the Ethiopian Air Lines, the Ethiopian Diaspora and Ethiopian embassies, and the Ethiopian media.
  - In addition to the traditional ones like advertising; through tourism journals and participating in trade fares, there should be intensive publication of books,

brochures, maps, and video using different languages. Therefore, all stakeholders should be committed to a unified image and brand building through both printed and broadcast media.

- The guiding policies and strategies and institutional arrangements to manage tourism sector are basic requirement. Thus, the commitment from government, (re-establishment of the Ministry of Culture and Tourism, the formulation of Tourism Policy) is encouraging. However, specific strategies for regional integration, social integration and political integration towards the tourism sector need to be well defined.
- Urban planners need to question the conformity of tourism planning within broader regional/urban development goals and objectives that incorporate the public issues at large.
- New training institutions of hotel and tourism management should be opened, and the existing ones should be expanded.
- Planning academics should also encourage to further contribute to the understanding of tourism through research that develops appropriate theoretical constructs, empirical methods, and creative planning processes to better integrate tourism within national, regional and local economic developments goals.

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# **The Notion of Democratic Developmentalism in Ethiopia: Briefing on Issues, Experiences and Challenges**

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## **Abstract**

*The major aim of this paper is to assess and explain the main issues in the Democratic Developmentalism here after DD, Ethiopia's experience in implementing the DD political philosophy and the challenges ahead of implementing it. For this purpose both descriptive and analytical research approach were used. The study was based on secondary sources of data like books, journal articles, government and non-government reports, published and unpublished theses and dissertations. Based on these the findings show that the DD political and social concept Ethiopia is trying to apply for the first time faces both theoretical and practical challenges. Theoretically, the contradiction between consecutive free election with the participation of multi-party on the one hand and continues rule of dominant political party notions on the other. The other theoretical challenge is DD is untested political concepts without having the fixed expire date. In addition, there is theoretical contradiction between ethnic federalism which permit self-determination including secession and DD. In terms of practices, DD need dynamic leaders gearing society toward changes by punishing rent seeking and corruption. However, the existing practice in Ethiopia is unable to do these. The twenty years practices show that Ethiopia is currently under heavy corruption and rent-seeking showing that the existing leadership is not to the expected. Hence, it is possible to concluded that DD Ethiopia is intended to implement theoretically contradict with democratic principle in general and the FDRE constitution in particular. Practically lack of dynamic leadership and rampant of corruption in the country clearly show the fail of DD in the country. Therefore, the paper implies the need to think on the developmental paradigm in the country.*

**Key Words:** *Democratic Developmentalism, Dominant party, Rent-seeking, Corruption*

## **1. Introduction**

Ethiopia is the oldest state in the world whose historical establishment is going back more than 3000 years. However, the modern Ethiopian state is the outcome of 1850s Tewodros II's attempt which completed by Menelik II in the 1900s. Since the establishment of modern Ethiopian state, the respective Ethiopian leaders tried to practice different developmental paradigm seemed for them the pathway for Ethiopia from poverty to development. For example, the feudal regime in Ethiopia tried to apply modernization developmental paradigm, which mainly focus on the western development path. In 1974, the ousting of the feudal regime in the country resulted in the paradigm shift of Ethiopian political economy from semi-capitalist to socialism. All the political economy and social affairs of the country diverted to Marxist-Leninist philosophy. After seventeen years of practicing Marxist-Leninist philosophy, the new regime led by EPRDF took the power, which again brings a radical change to Ethiopian politics. Among others the country's political analysis changed from class based to ethnic based, multi-national federalism introduced, parliamentary system and a new constitution, FDRE Constitution introduced.

Gradually, at the end of second millennium, the late Ethiopian prime minister Melese Zenawi, introduced a new paradigm, democratic developmentalism as the argument of Melese by

exploiting the fruit of both Asian authoritative developmentalism and Neo-liberalism with the motto 'If I stand on the shoulder of two giants, I will look far more than the giants'. The practices and policies of democratic developmental state reach its peak after 2005 Ethiopian national election.

After two decades, when we talk about the practices of democratic developmental state in Ethiopia today, there are diverging views; the first view is the views of supporter of DD in Ethiopia. These group of scholars, activists and politicians ascertain that DD brings fundamental changes in Ethiopia by citing that Ethiopia begin to record continues double digit economy. Also, these group cite the beginning of construction of grand Ethiopian renaissance dam and other national projects as sign of success of DD (Eidmon, 2012). On the other hands, the opponents of DD criticize it as authoritative mechanism through which EPRDF attempt to survive and stay on power for undetermined time (Fisseha and Bizuayehu, 2017). The aim of this paper, let alone the two debates, is assessing the challenges of democratic developmental state by focusing on theoretical, constitutional and practical realities in order to contribute academic finding to solve ideal quarrel on the implementation of Democratic Developmental State in Ethiopia.

In general, the paper has three intertwined specific objectives: to explore the concepts and features of democratic developmentalism, assessing the contradiction between FDRE constitution and DD and explore the practical challenges while implementing DD in Ethiopia. Hence, the paper is organized under four themes accompanied with other preliminary sub-sections. The first section deals with the methodology and methods of data collection used in this study. The second part discuss the concepts and features of DD. The third section is about the reasons for establishment of DD in Ethiopia. The forth section deals with the major part of the paper, the challenges of implementing DD in Ethiopia followed by concluding remarks (conclusions and recommendations).

## **2. The Methods**

This study will attempt to explore the challenges of democratic developmental state in Ethiopia by focusing on theoretical, constitutional and practical explanation. To properly address the issue under investigation, this study will employ a qualitative research approach; a research strategy that usually emphasizes words rather than quantification in the collection and analysis of data.

In this study, a qualitative research methodology is justifiable due to the nature of the research problem under study. The study requires a wide range of data to be gathered from multiple sources, which is possible only by employing qualitative approach. Thus, the study requires a theoretical perspective, qualitative instruments of data collection and analysis. Beside this, the subject of the study can be understood by collecting, analyzing and interpreting various documents. Therefore, qualitative research approach will be employed to properly address the subject under study and the selected methodological approach will also guides instruments of data collection and method of data analysis. To this, end the study based on secondary sources like books, journal articles, government and non-government reports, published and unpublished theses and dissertations, websites and media outlets.



### **3. Democratic Developmentalism: Conceptual Clarifications**

There are three debates concerning democracy-development nexus. The first view is advocated by modernization theory which popularized by Lipse as cited in Amuno (2008), points that there is correspondences between democracy and higher levels of economic developments. He also argued that the likelihood of democratic consolidation is higher in the contests of economic growth and developments. This perspective stimulates the idea of democracy first and development later arguing that democracy is the social prerequisite for development. The second perspective, whose major intellectual supporter is Samuel Hantington, contends that poor countries that aspire to development and industrialization should hold democracy in abeyance until the goal of economic development and prosperity are attained. This perspective based on the assumption of development first, democracy later (Amuwo, 2008).

The third perspective underlines the need for feasible simultaneity of the process of democracy on the one way and development and poverty reduction on the other ways. The essence of this argument is to pursue the two processes in tandem; to the extent that there is no democracy without development and vice versa. The supporters of this perspective argue that the path towards simultaneous sustainable development and democracy is to collapse both process into one by making development by itself the process of democratization (Manaye, 2017 and Amuwo, 2008).

The other debate about democracy and development is which version of democracy and development to promote. As Amuwo (2008) ascribe neo-liberalism failed to achieve its goal in Africa because of its ideological variance from Africa's indigenous notion of participation, legitimacy and constitutional procedures. Furthermore, Amuwo (2008) argued that African political elites and markets are incapable of applying orthodox market reforms and recommending efficient and effective state intervention in the markets. The new development paradigm, democratic developmental state is born out of this debate, according to Melese (2006), by exploiting the democracy-development nexus contextual to African reality; meaning inculcating African democracy and development contexts.

Thus, Democratic Developmental State is the new development paradigm popularized by the late Ethiopian prime minister, Melese Zenawi, in his draft dissertation entitled as 'African Development Paradigm: Dead Ends and New Beginning', which has the argument that neo-liberalism failed in Africa and Democratic Developmental state is the new paradigm to realize an attempt of African renaissance. It is developed by merging the basic features of Neo-liberalism from West and Developmental state from Asia. It is based on the principle of democracy and development is complementary. However, deferent scholars define it in different ways.

For example, Ohno, (2009), define DD as a political regime in which a developmental party remains in power for a long time by consecutively winning multi-party elections and under which policies that punish rent seeking and encourage productive investment are implemented with strong state guidance. This should be construed as a model, which Ethiopia is trying to attain for the first time rather than an already-established and well-functioning political regime. Also, Edigheji, (2010) define DD as state that could act authoritatively, credibly, legitimately and in binding manner to formulate and implement its policies and programmes. Therefore, there is no one fit definition of DD; rather we can understand it from its characteristics; these characteristics are discussed as follow;

### **3.1.Dynamic Leadership**

Democratic developmentalism is development paradigm under the auspices of government lead system transformation. System transformation may occur in four ways; collective mutation, foreign pressure, by the combination of government policy and foreign pressure and government policy. Democratic Developmental State is a system transformation process by government (policy). The critical element of government-led systemic transformation is leadership. This includes both the quality and capability of the leader himself or herself, and the appropriateness of visions and principles that guide the transformation (Ohno, 2009). Further supporting this idea Fesseha and Abteuold (2017) describe that effective democratic developmental state needs visionary elite, strong and committed leaders who can mobilize the resources and the people to enhance economic development and democratization simultaneously. Accordingly, DD needs dynamic leadership for not only managing economy but also to bring economic development and democracy. Hence, DD need dynamic leaders obliged to bring economic performance and democracy simultaneously.

### **3.2.Competent Bureaucracy and Institutional capacity**

Bureaucratic competence is another hallmark of democratic developmental state. The political leadership is determined to bring about economic development and is relatively less corrupt. Recruitment and assignment to positions is based on merit, hence DD need technocrats who are effective, competent, and nonpolitical. Competent bureaucracy is bureaucrat that recruited based on merit and has predictable and long-term career rewards (Beresa, 2015).

To realize its objectives and sustainability, Democratic developmental state requires professional and efficient (merit based) state bureaucracy. Democratic developmental states should pursue meritocratic recruitment and provisions of incentives for bureaucrats. DD needs empowered; capable and depoliticized bureaucracy, which helps it in one side, can remain insulated from powerful pressure groups and elections and on the other side can craft state intervention in the economy (Fesseha and Abteuold, 2017). The other central to understand democratic developmental state is consideration of institutional capacity to intervene. According to Fesseha and Abteuold (2017), democratic developmental state needs strong institutions, which has the capacity to implement the pursued policies effectively.

### **3.3.Introduction of Democracy and Legitimacy**

DD is aimed at building a political system unique to Ethiopia, which is in between the East Asian authoritative developmentalism, which postpones democracy, and western style democracy that requires an early adoption of advanced democracy. DD can be construed a variation of democracy which is realistic, manageable and consistent with the national goal of poor country that faces many constraints and problems. The kind of democracy envisaged under DD is the basic one that holds free elections with multiple parties and guarantees the minimum level of basic freedom and basic human rights. This also overlaps with the core elements of the democracy required of developing countries by the West and the international community. Thus, the unique feature of DD is it obliged the government to bring economic growth (legitimacy) and democracy simultaneously (Ohno, 2009).

### **3.4.Political Support Base**

Another hallmark of democratic developmental state is constant political support base. It is natural that a developmental party intending to win an election every five years should have majority constant support base. Pursuant to this, the EPRDF chooses small farmers, which occupy 80% of the Ethiopian population, as its support base. In addition, small and medium

size entrepreneurs in the urban areas are also counted as its future support base although their number is still small (Ohno, 2009). However, at present, the ruling party has not established itself firmly in urban constituencies and professionals.

#### **4. Reasons for Democratic Developmental State in Ethiopia**

The architects of democratic developmental state forwarded different reasons/justification why DD is the only option for African development in general and Ethiopia in particular. The failure of both liberal democracy and developmental state in Africa open the forum for the discussion on the future developmental paradigm for Africa. Ethiopia is not exceptional from this post 1990s global political dynamism. Gradually at the end of millennium the Ethiopian late Prime Minister, Melese Zenawi, came up with different developmental paradigm, democratic developmental state. According to Melese, (2006) neither developmental state nor neo-liberalism feet's the contemporary African political situations in general and Ethiopian in particular. Other African scholars like Awa Eme (1991) and Edigheji (2005) support this argument by saying that liberal conception of democracy focus on social and political rights by neglecting the essential rights in Africa, economic justice like access to food, shelter, medical care and housing. Further adding Edighenji argued that democracy and development must go hand in hand since the two can mutually reinforce each other (2005:Pp.9).

For Melese (2013) neo-liberalism is a dead end in Africa since almost all African attempted and failed to succeed. The late Prime Minister argued that the main cause for the fail of neo-liberalism in Africa is due to inconvenience between neo-liberal ideology and existing African reality, what Mohammed Ayoob call as the mismatch between African reality and Western methodology (Ayoob, 1998). Furthermore, Melese argued that the neo-liberal paradigm failed to uproot the rent seeking system because it denied the role of government as a dynamic driver for systemic change. The naïve view of “market is good, government is bad” which promoted a minimalist government could not generate an agent powerful enough to launch a systemic change in a latecomer developing country. Therefore, as of Melese, the solution is democratic developmental state, which allowed state intervention in market.

In the same view, Melese argued that development without democracy, the path through which the Asian Tiger developed would also inapplicable in today's Africa. In multi-ethnic and diverse society like Ethiopia, development without democracy is a mere wish. Supporters of democratic developmental state identified three-fold reasons why democracy in developmental state. The first reason is inherence and universal importance of democratic principles like freedom, human rights and participation. The second reason is to secure legitimacy. In the 21<sup>st</sup> century no government can be get legitimacy from both internal (popular support for transformation policy) and external (aid and international cooperation) forces without introducing democracy.

The third reasons why democracy inculcated in developmental state is that in multi-ethnic and religiously diverse society like Ethiopia democracy is the only tool of management which the EPRDF used to say that ‘the homogenous nature of the East Asian population helps them to compromise democracy and this is not the case in diversified Ethiopia (Manaye, 2017). Thus, based on these justifications Melese argued that the solution for Africa's development crisis is in between the two, democratic developmentalism, which he call new beginning in Africa development. He conceptualizes democratic developmentalism as a development paradigm in which the developmental party continuously rules by introducing both elementary democracy and economic growth simultaneously.

## 5. Challenges of Democratic Developmentalism in Ethiopia

The overall assessment of the implementation of Democratic Developmental State in Ethiopia resulted in mixed and debatable outcomes. With its own challenges, the government implements different policies and strategies and achieve some economic growths. Massive mega projects on dam building, road construction and other socio-economic infrastructures are also the manifestation of the developmental nature of the regime, although, there is doubt on quality and corruption in the sectors.

The regime also introduced different comprehensive development plans and strategies, from Sustainable Development and Poverty Reduction Program (SDPRP) to the second Growth and Transformation Plan (GTP2) with the national vision of becoming the middle-income country by 2023. In terms of improving civil services (bureaucracy) capacity, different civil service reform programs implemented. Various management tools also implemented, from Business Re-engineering (BPR) to current deliverology. All these are the policies and strategies associated with developmental states. The implementation of these policies and strategies bring relative success in the country's economic performances. For example, according to World Bank report, between the years 2000 and 2016, the country's annual GDP growth is 9.8% (the Ethiopian government report says double-digit growth), GNI per capital increase from 120 to 660 and life expectancy increase from 51.9 to 64.6 (WB, 2017).

However, the implementation of Democratic Developmental State, in terms of introducing elementary democracy and winning consecutive free election is doubtful, in the word of many scholars fail to achieve intended goals. Even some scholars argued that democratization process in Ethiopia decline when the implementations of DD reach its climax. For example, the Freedom House, 'freedom in the World' report as cited in Manaye (2017) position Ethiopia among 'partly free states' from 1998 to 2010, but the same organization report position Ethiopia as 'no free states' since 2011, showing the degeneration of introduction of democracy in Ethiopia.

Political pluralism and accommodation of political differences are also least nurtured. Since, 2005 election crisis, genuine multi-party system gone and dominant one party system reign without free election (*Ibid*).

Reports on massive human rights violation increase from time to time. Development induced displacement become another threats for low-income societies including smallholder farmers, which the regime consider as its constant support base. For example, the large-scale Oromo protest begun in 2015, which resulted in decease of hundreds, imprisonments of thousands and displacements of thousands, is on the one way show the level of grievances of people on government development induced projects and on the other hands the causality shows the degeneration of introduction of democracy promised in DD.

In general, the implementation of DD in Ethiopia with the inspiration of bringing legitimacy in both economic performance and introduction of democracy brings little legitimacy for the regime. Hence, the next sub-sections discuss the main challenges why DD do not bring expected legitimacy. For understanding, the challenges are schematized under two groups: constitutional and practical challenges. The first part deals with the contradiction between DD principles and FDRE constitution while the second section deals with the practical challenges of the DD principles in contemporary Ethiopia.

## **5.1. Theoretical and Constitutional Challenges**

Theoretically, there is the contradiction between consecutive free election with the participation of multi-party on the one hand and continues rule of dominant political party notions on the others. In addition, there is theoretical contradiction between ethnic federalism which permit self-determination including secession and DD which is mainly based on the principle of uniformity. On the other hand, the Preamble of the FDRE constitution ascertains as the owner of the FDRE constitution is the Ethiopian nations, nationalities and peoples. Furthermore, the same constitution provides the Ethiopian nations, nationalities and peoples the right to self-determination including secession. Also, the Ethiopian federation is established based on Ethnic lines whereas DD is mainly focused on common policies which is guided from the centre- it follows the principle of centralized and top down approach. Hence, the contradiction between FDRE constitution and DD is discussed below;

### **a. DD and Ethnic federalism**

The first constitutional contradiction arises from ethnic based federation. As the 1995, FDRE constitution Article 46 (1) clearly stipulates that Ethiopia is a federal state comprises of regional governments. The nine regional states are mainly formed based on ethnicity besides other criteria (settlement patterns and consent of the people). The same constitution Article 47 (4) furthermore, acknowledges Ethiopia as the home of multi-cultural, multi-linguistic and multi-ethnic state with equal rights. The same constitution also give all ethnic groups full inviolable rights to establish their own state, government and administer themselves at any time (FDRE, Article 47 (2)). All these show that the FDRE constitution legalized institutional, policies and administrative diversities, which directly contradict with DD, which promote uniformity of policies and administration, more based on the principle of democratic centralism.

The Ethiopian federal system established in line to ethnicity, which allowed autonomy of Ethnic groups while the DD mainly based on uniformity. Bizualem and Fesseha, (2017) in their article entitled as ‘incorporating “Democratic Developmental State Ideology” into Ethiopia’s ethnic federalism-A contradiction’ concluded that adoption of DD contradict with the FDRE constitution which may resort the government either to change the constitution or change state structure from federal to unitary which clearly show the contradiction between DD and Ethiopia’s ethnic based federalism. The two researchers furthermore, concluded that DD principle puts the state government (Regions) under the shadow of federal government making states mere agents of the federal government. Furthermore, Jebena (2015) and Asnake (2011) as cited in Bizualem and Fesseha, (2017) argued that the Democratic developmental state Ethiopia praised to implement is directly contradicting with the foundation of the FDRE constitution and the federal arrangement of the country. The Ethiopian Ethnic federalism, which allowed each ethno-linguistic region to have autonomous policies, can directly contradict with DD, which based on the policies of centralized and top-down approaches.

### **b. DD and Self-determination**

The FDRE constitution Article 39 allowed Ethiopian nations, nationalities and people’s absolute self-determination up to and including secession while DD based on common nationwide policies. Above all, the constitution goes to the extent that “Every Nation, Nationality and Peoples in Ethiopia has an unconditional right to self-determination, including the right to secession” (Art39(1)). According to Bizualem and Fesseha, (2017) Article 39 of the FDRE constitution which provide unconditional rights to self-determination of all nations, nationalities and peoples encourages nations, nationalities and peoples to be busy of developing

themselves individually which contradict with democratic developmental state since this ideology requires popular mobilization under one common goal. Hence, Article 39 of the FDRE constitution, which is the pillar of the Ethiopian federation, contradicts with DD. Also Jebena (2015) as cited in Bizualem and Fesseha, (2017) explain that the rights of self-determination in FDRE constitution drastically hindered elite commitment and ethnically affiliated bureaucracy has been cultivated instead of meritocracy which affected DD.

### **c. DD and Political Pluralism**

The FDRE constitution legalizes political pluralism which allowed all citizens to establish any political parties they want while the DD paradigm limited the political freedom to democratic developmental ideology by declaring that in democratic developmental state a developmental state continuously rule by winning free elections without clarifying what is so if the ruling party is not winning consecutively.

The Ethiopian Revised Political Parties Registration Proclamation No. 573/2008, Article 4(1) ascertain that every Ethiopian shall have the right to form a political party or to be a member of any political party they want. The same proclamation Article 10 (1-4) barred political parties' aims to pursue unlawful activities and formed to breakdown the constitutional order from registration as political parties in Ethiopia. Overall, the proclamation provides Ethiopian to establish and being member of any political parties without any ideological limitation. Whereas democratic developmental state ascertains that it is only developmental party, which can win consecutive election and continuously rule the country. This principle directly contradicts with the basic principle of political pluralism because political pluralism is diversity in political ideas including the ideology. Therefore, DD principle contradicts with political pluralism inculcated under FDRE constitution.

In the same talk, DD depicted that to realize its objectives, the developmental party should consecutively win democratic elections and continuously rules. But, the existing reality in Ethiopia shows that there is no opposition political party having the same development paradigm with the incumbent regime. For example, the Blue party and Forum for Federal Dialogue (Medrek) program show that the two parties' political philosophy is Neo-liberalism and social democracy respectively. In support of this idea, Eidmon Tesfaye (2012) concludes that the practice of EPRDF developmental state model is opposed to pluralist democracy. Therefore, the paradigm limited to answer the question that what will happen if the incumbent government loose election. This can contradict with constitutional rights of political parties which permits ideological freedom.

In general, terms the FDRE constitution is more of promulgated based on liberal democracy while DD is as discussed above advocate elementary democracy, which is the contradiction. For example, the FDRE constitution chapter three exhaustively lists almost all lists of human rights from civil and political rights (individual) to group rights. The constitution further recognized all international human rights convention Ethiopia ratified as integral part of the constitution. Thus, it contradicts with the basic principles of DD, which advocate elementary democracy, and continuous rule of one party (dominant one party system). Even the elementary democracy claimed by architect of DD do not identified which open the practices of democracy for exploitation.

### **5.2. Practical challenges**

Although, there is no comprehensive document defining the main characteristics and elements of democratic developmental state, different articles show that the pillars of DD is achieving

legitimacy both in terms of economic performances and introduction of democracy. To achieve these goals there are basic requirements from developmental states. Among others, DD should have dynamic leadership, stable political system, strong support bases, strong bureaucracy and institutions. Ethiopia is practicing DD for the last two decades and the practical challenges the incumbent government faces while implementing DD are discussed below;

**a. Challenges from Dynamic leadership**

DD need political leadership who is committed to development and either uncorrupted or limited personal gains to non-predatory corruption. It need revolutionary leader, which punish against corruption and rent seeking. However, the existing reality in contemporary Ethiopia is not really fitting to the principle of DD. Instead, corruption and rent seeking become a dominant political economy challenging the economy and politics of the country. As Samuel endorsed that the incumbent regime used the political strategy of marginalization and exclusion which resulted in lack of development oriented political elites and the preponderance of rent-seeking and predatory. The new FDRE prime minister in his official inauguration admitted this problem by explaining that the main challenge of Ethiopian political economy is organized corruption, which is beyond the capacity of anti-corruption commission (EBC, 2010 E.C, March 24).

**b. Challenges from Constant Support base**

For developmental party to consecutively win democratic election and continuously rule the country, it need constant and majority support base. In this concern the EPRDF take smallholder farmers and partially small and micro-enterprise as constant and majority support base. However, this attempt is highly challenged, in the eyes of many scholars; failed to save the EPRDF regime, which is experienced during the 2005 national election and popular protest since 2016. Supporting this argument Fesseha and Abtewold, (2017) ascertain that ‘the EPRDF-led Ethiopian government is attempting to use sustained economic growth as a coat and an instrument of getting legitimacy, which it failed to gain in a democratic way’ to show the practical challenges of democratic developmental state.

**c. Challenges from Bureaucracy and Institutional Capacity**

The other practical challenge of democratic developmental state is lack of attracting skilled and professional manpowers. The regime has also failed to use the existing skilled manpower effectively because recruitment and promotion within the bureaucracy are not merit-based. Merit is tertiary which comes from the primary party loyalty and affiliation (Fesseha and Abtewold, 2017). This resulted in two problems in the eyes of Fesseha and Abtewold, (2017); on the one way it create weak government bureaucracy which in turn hinder the government to establish effective developmental policies and strategies. On the other hand, bureaucracy weakness resulted in civil servant discouragement, which in turn creates mistrust and political opposition, what the incumbent regime call as lack of good governance. Also, Samuel Kenha (2011) ascertain that ethnic federalism in Ethiopia has negatively impact in establishing highly competent bureaucracy (pillar of DD) due to the ethno-language criteria for recruitment and appointment of bureaucrat and their patron client arrangement. In addition, the creation of countrywide citizenship has declined due to ethnic federal structure of the country. Leave, debate on Ethnic federalism as it is, the argument of Samuel clearly shows the weakness of Ethiopian bureaucracy, which is incapable to implement DD.

Furthermore, Samuel argued that bureaucracy in Ethiopia is strongly influenced by the ruling elites. The higher positions in many governmental departments are assigned based on political loyalty. The cumbersome of political intervention highly affect bureaucratic autonomy. On the

other hand, politically affiliated bureaucracy is using an extended organ of the political machinery, thereby undermining impartiality and professionalism and distributing favorable treatment based on political patronage. The Oromia regional state civil service bureau head, Dr. Bikila Hurisa admitted this problem by saying that there are structural problem in Oromia regional state civil services in particular and Ethiopia at large. His research finding shows duplication of power holders, problems of structural clarity and duplication of political appointees on professional sectors, which in turn shows the current Ethiopian bureaucracy, is too infant to realize the goal of DD.

In general, although, the EPRDF praises to combine both development and democracy, the practice shows contradiction. The democratic developmental state strongly publicized by EPRDF regime after millennium at a time the country simultaneously begins to record double-digit economy. However, in the eyes of many scholars and also the writer of this paper, the democracy space begin to decline since 2005 Ethiopian national election which may be partially show the contradiction between practicing Asian authoritarian developmental state with western oriented democratic elections together. For this the post 2005 election political crisis, the passive 2010, 2015 national elections, and current Oromo protest in particular and national wide political crisis in general are evidences of declining of political space in the country since the rise of DD.

## **6. Concluding Remarks**

After forcefully adopting Neo-liberalists development programs under the auspices of structural adjustment programs for more than a decade that resulted in no improvement in African economy, African in general and the Ethiopian in particular made a radical move to the East, what the former Zimbabwe president Robert. G. Mugabe describe as we bring our faces to the East where the sun rise and give our back to the west where the sunset. Then, the late Ethiopian Prime Minister Melese Zenawi by combining the features of both neo-liberalism and Asian authoritarian developmentalism, developed a new development paradigm, democratic developmental state. The aim of this paper is to explore the challenges of democratic developmental state in Ethiopia by focusing on theoretical, constitutional and practical realities.

Constitutionally speaking, the basic principle of democratic developmental state development paradigm is contradicting with the main tenants of the FDRE constitution. Among others, the DD principles of uniformity and continuous rule of dominant party is contradicting with ethnic federalism, self-determination and political pluralism. In terms of practices, as different literatures show DD needs dynamic leadership, strong institutions, competent bureaucracy, constant support base and introduction of democracy, however, the practice is otherwise. Currently, the Ethiopian incumbent government faces leadership problems. Rather the anti-thesis of DD, rent seeking and corruption flourished in the country.

The DD also need strong financial, political, social and economic institutions, which execute its principles. However, the practices after two decades in Ethiopia show that there is no strong institutions perform this purpose. In addition, DD faces lack of competent bureaucracy. Currently in Ethiopia, the selection of bureaucracy is based on political loyalty not professional merits, which resulted in weak bureaucracy. The expected constant support base of Ethiopian DD, smallholder farmers, is also not constant support base, which is tested during 2005 national election and the last three years popular protest. The principle of introduction of democracy is also not yet achieved. Therefore, it is possible to conclude that the new development paradigm,



democratic developmental state that Ethiopia is trying to implement for the first time faces theoretical, constitutional and practical challenges, which implies the need to think over development paradigm in the country.

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# The Politics of Language and Nation Building in Ethiopia

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## Abstract

*Ethiopia is a multi-ethnic, multilingual and pluralist country. Cognizant to this reality, the 1995 FDRE constitution uphold language equality under Article 5 and since then the country implemented the policy of multilingualism in which children learn in their mother tongues as well as nations and nationalities use their own languages or the language of their choice for administrative purpose. However, the policy and practices of language in Ethiopia is politically sensitive. The aim of this paper is therefore to examine the effect of language politics on nation building in Ethiopia. To do this the study use sequential exploratory research approach, which is based on collection and analysis of qualitative data followed and supported by quantitative data. Both primary and secondary sources of data were used. Concerning secondary sources books, journal articles, media outlets, constitution and other legal documents were used. To substantiate the secondary data sources, primary data were used. This study is partly the finding of research conducted in 2009 E.C, 466 informants from kemissie and Wollo University Students were participated. Using this the study reach upon the following findings; although, language plays pivotal roles in nation building, the politicization of language and lack of clear language policy hinder the contribution of language in nation building process in Ethiopia, which in turn retarded nation building process in the country. The practice shows that the country is moving from national monolingual practices in pre-1991 to regional monolingual in post 1991 in which the University students are case example. Hence, it is possible to conclude that the politicization of language accompanied with lack of clear language use policy is one of the factors, which is or will be challenging and, in some aspect, -retarding nation building process in Ethiopia. Therefore, there is the need to de-politicize language and having clear language use policy in Ethiopia.*

**Key Words:** Politicization of language, Language Policy, Nation building, Politics of language

## 1. Introduction

Ethiopia is both the past blessed and cursed country. Ethiopia is a blessed country of more than three thousand years, non-colonized African State with long history of statehood. Although, the long history of statehood is glory for its current generation but the country is unfortunately not successful in completing its state /nation building process. The country has not yet determines its language use policy in which after 3000 years history the country is worrying for national language, even to the fear of disintegration.

The politics of language has been evident throughout the history of Ethiopia. It began with the decision to make Amharic the only lingua-franca in Ethiopia. It is also relates to banning other indigenous languages from media, art and public uses in the country during the Imperial era. That was meant that all official documents affecting citizens and the country are published only in Amharic and sometimes in Ge'eez. It was clear that the decision deprive people from the right to know their own affairs, however it was assumed that speaking Amharic as a common language would help in the project of creating a unified country-nation building. That wasn't necessarily a bad assumption at that particular time, but anyhow it failed. Now, we only need to acknowledge that failure and design a better language policy to move forward as a country.

Ethiopia is the country where more than one dominant language is spoken. As indicated, above all the previous language policies in the country consistently promoted speakers of one language over the others. The political intervention over the last 27 years on the other hand have radicalized Ethiopian nations and nationalists by politicizing past injustices and now, there is little to no chance of reversing the narrative shortly whether it is based on fact or fiction. There is only one feasible way forward and that is to work towards multilingual Ethiopia. Therefore, the aim of this paper is to investigate the politics of language policy and its effects on nation building process in Ethiopia.

To realize the objectives of the study, the researcher employed both qualitative and quantitative research approach, which enabled the researcher to explore the politics of language and its effects on nation building process in Ethiopia. In this study, both primary and secondary data were collected. The primary sources of data were collected by informant interviews, focus group discussion and questionnaires from Kemisie and Wollo University Students. As a result, both the secondary and primary data were organized thematically and analyzed just to increase the consistency and strength of the finding of the study. Besides, various literatures dedicated to the concepts of language policy, language politics, nation building, socio-economic and political significance of language were reviewed.

## **2. Language Politics and Nation building: Conceptual Clarification**

Language is potentially explosive political issues in Africa. As Alexander cited in Zelealem (2012) pointed out language issues in Africa are among the most serious issues like racial, land, housing, clean water and health. In Africa, the politics of language is complicated not only by the presence of dominant exoglossic languages but also by the multiplicity of African Languages, which are mainly underdeveloped and restricted to localized roles and low-level domains. With the fail of assimilation nation building thesis and language homogenization policy in Africa, scholars begin to focus on how to negotiate the treacherous terrain of multiculturalism in the context of globalization, democratization, and equity and redress (Nyika, 2012).

Before discussing in detail the nature of language politics and nation building process in Ethiopia it is better to clarify what is politics of language and nation building means. Different scholars tried to conceptualize politics of language in different manners. Mainly, politics of language refers to how language and linguistic differences are dealt with in a given political arena. It often manifest itself in government preferential recognition for languages as well as how language is treated in official capacities (Rajagopalan, 2001).

On the other hand nation building is the most elusive and debatable concept in political science. Though widely used, the term ‘nation-building’ remains imprecise and contested. In much of the policy documentation, its meaning is assumed rather than defined. There is also a tendency to use the term ‘nation-building’ interchangeably with that of ‘state-building’. Despite this, many observers would maintain that, while closely related, ‘state-building’ and ‘nation-building’ are distinct processes. ‘State-building’ is seen as the task of building functioning states capable of fulfilling the essential attributes of modern statehood. Nation-building refers to more abstract process of developing a shared sense of identity or community among the various groups making up the population of a particular state, distinguished in this way, ‘state-

building' focuses on the practical task of building or strengthening state institutions, while 'nation-building' is more concerned with the characteristic of relations between citizens and their state. In general, nation building is the process of creating nations in which its citizens stay together by sharing common values, preferences and can communicate with each other (Caviedes, 2003).

On the other contentment, concerning politics of language and nation building nexus, the world practiced and is practicing two models; the first model is considering multiculturalism in general and multilingualism in particular as divisive force and implement assimilation nation building thesis under the motto of one language, one nation, one state, generally homogenous nation building process. In this model the government is using brutal force/assimilation the process in which the government prohibited local cultures or even genocide. This process is the nation building process through which many European countries like France pass through. African States including Ethiopia attempted nation building through assimilation under the auspices of one language, one nation and one state. Many post independence African leaders saw the maintenance of local ethnic identities as an impediment to the construction of new national identities. For example, President Samora Machel of Mozambique famously declared that 'for the nation to live, the ethnicity must die'. Thus, many leaders attempted to abolish traditional kingdoms and federal systems that retrenched ethnic identities. However, this model is failed in Africa in general and Ethiopia in particular (Caviedes, 2003 and Nyika, 2012).

The second nation building process is through democratic ways. The post Second World War era witnessed contacts among nations and peoples increasing at an incredibly rapid rate and with it the progressive dismantling of barriers either geo-political, cultural or even linguistic. More and more people are becoming proficient in more than one language, often as many as three or four languages. So much so that multilingualism is fast becoming the norm rather than the exception in many countries. Even in countries that traditionally were looked upon as rigorously monolingual, multilingualism has been spreading at an impressive rate. For example, greater Britain, which was conceived as European country, which completes nation-building process through homogenization process today, is socially multicultural. Thus, the contemporary scholars of politics of language advices that this process of nation building in multicultural society can be done through education, teaching common languages and building infrastructures for easier travels. This is an attempt after the assimilation policy failed to bring intended goals.

In both models, language is the most important unifying forces. In addition, the contextual global and national political reality matters. Ethiopia attempted assimilation nation building process from antiquity to the 1990s while in the post 1991 the new approach multiculturalism introduced. However, as history show Ethiopia failed to complete nation building process using assimilation thesis. On the other hand, since 1991 the country reversed nation building process/thesis toward multiculturalism the process in which diversity is not the threat to nation building process. But, after thirty years the country again in dialogue and the Ethiopian politics is perceived as politics at crossroad: either to fail to civil war or democratic transition, new nation building process is loading. Therefore, this paper tried to investigate the politics of language and the fate of nation building process in Ethiopia.

### **3. Language Politics and Nation Building in Ethiopia (Pre-1991)**

The history of Ethiopian Language policy has two stages: *de facto* and *de jure*. The pre-1955 language policy is entirely a *de facto* language policy. During the Axumite period (100-1100) Ge'ez was the language that served as the language of Kings and as the lingua-franca among ordinary people with some sort of official status (Zealealem, 2012). It was also the language used in education by the Ethiopian Orthodox Tewahido Church as far back as 330 A.D. After the transfer of power from Axum to Lalibela (1150-1270), Amharic apparently replaced Ge'ez. During this time, whereas the former remained to be the literary language the latter took over the status of the language of Kings together with its vital role as a vehicular language. Since then, Ge'ez in Ethiopia has been become the liturgical and devotional language of the Ethiopian Orthodox church and the language of literature and learning for those who would pursue vocations in that church. Since the 4<sup>th</sup> century, Amharic, by common law, was declared as the most crucial national language.

This implicit national status of the language was explicitly declared for the first time in the constitution of 1955, during the regime of Haile silassie I. Since then until 1991, Amharic enjoyed the constitutionally enshrined status of being the national language of Ethiopia. The then Imperial government was illustrious for promoting a centralized policy in safeguarding its power and running nation building smoothly. The Imperial language policy too was dominated by the perception, which promoted linguistic and cultural homogeneity as the necessary requirements for social and economic progress and political stability, in general nation building. This attempt was an ideological tenet inherited from the Westerners who strictly considered monolingualism as a gateway to nation building (155 Ethiopian Constitution, Art. 125). This time also conceded with most African countries independence and advocacy of one Africa.

The Haile-Sellassie regime was known for introducing an overt language policy for the first time in the long Ethiopian history. Consequently, the linguistic hegemony of Amharic officially continued with legal backing. The policy proclaimed Amharic as the national official language of the imperial state. Since then, Ethiopia has become the only endoglossic African nation where an indigenous language has started to serve as the sole national official language. In word of Zelealem (2012), Amharic was recognized as a national language for two reasons at a time: (a) it is an indigenous language widely spoken across the country, and (b) it was supposed to be associated with one's Ethiopian identity like a national anthem or national flag irrespective of differences in ethnic background. As an official language, the country's laws or legal systems were formulated in Amharic. It was widely used in government administration, mass media and education.

Apparently, as seen above the “one language – one nation” motto was continued as the ideological tenet in post war, nation buildings” in Africa. The preference to this motto could be subjected to at least two interpretations. One interpretation could be the recognition of one and only one language in the expense of others – an assimilationist language policy/nation building thesis. The other interpretation could be the promotion of one language to serve the multilingual state as part of a strong national identity.

Of course, beyond the national anthem and the national flag as well as ethnic and cultural factors, the Ethiopian national identity was defined mainly in linguistic terms. The assessment of the policies of most multilingual African countries, both Tanzania and Ethiopia included, certainly deserve the second interpretation. In connection to this, Bahru (2008) cited in Zelealem (2012) writes that the language policy of the imperial regime arose from the idea that national integration and the corresponding trouble about the centrifugal tendencies latent in a heterogeneous state like Ethiopia. The post colonial African nation building process was influenced by the legacy of the European concept of nation state which can be attained through national integration which, in its turn, can only be achieved through linguistic homogeneity or the introduction of a unifying language was the motivating factor for undermining linguistic pluralism in multilingual African countries. Immediately after the liberation of most of the African countries from the colonial masters, pan-Africanists were keen to the use of one language to avoid obstacles that could possibly emanate from ethnic and linguistic diversity. The then African governments of the time have invariably sought to promote one national language among many others because they took linguistic heterogeneity as a threat to national unity and a hindrance to development.

The east African country is also not exceptional from this reality and hence, triumphant in utilizing language as a unifying force and one of the instruments for national integration and strong national identity. The 1987 constitution of Kenya which recognized the pivotal role of Kiswahili in Kenya as the official language (together with English), a compulsory school subject up to the end of secondary education and the language of the parliamentary. Kiswahillization in Tanzania, Bhasa Indonesiazation in Indonesia, Malayization in Malaysia, Tagalongization in Philippines, etc. as national symbol are well-utilized yielding fruitful results among peoples who belong to different ethnolinguistic groups. The fact of the matter is that the motto 'one unified country - one unifying language' undoubtedly jeopardizes the development of other languages and can even lead to their gradual demise. The lack of attention to and suppression of the other little known languages is one of the major reasons why we presently witness a number of languages suffering from endangerment in the aforementioned countries including Ethiopia. Finally most of this attempt failed to create expected outcome (Zelealem, 2012).

Following the coming to power of the military junta in 1974, the National Democratic Revolution of Ethiopia (NDRE) constitution promised the right to provincial self-government together with the right to the use of one's language. In the early days of the socialist regime, it was appeared that there was a promise to non-Amharic speaking ethno-linguistic groups that they could use and preserve their own languages. However, the socialist regime constitutional promise of granting both minorities and powerless majorities to the drama of red terror (Mesfin, 2014). The Derg regime was the time when Ethno-nationalism reaches its peak and all nations and nationalities in the country struggle for their language while the regime response was forceful.

#### **4. Language Politics and Nation Building in Ethiopia (Post 1991)**

Following the change of government in 1991, Ethiopia's language policy and nation building system has been undergoing fundamental change. No part of the country's political system has been left untouched. A decentralized one in line with the principle of federalism under which

the current government has been organized replaced a centralized administration system. The federal Ministry of Education, which was highly centralized in the past, has now been decentralized into many states, district-level bureaus, and departments demarcated on ethnic lines. The decentralization process, in addition to devolving authority, has brought with it various change initiatives, one of which is the change in media of instruction (Abebayew and Daniel, 2006).

Thus, new nation building process began; multination building process a nation building process in which diversity or multilingualism is not the problem. Ethiopia is the country where more than one dominant language is spoken. As indicated, above all the previous language policies in the country consistently promoted speakers of one language over the others. But the political intervention over the last 27 years on the other hand have radicalized Ethiopian nations and nationalists by politicizing past injustices and now, there is little to no chance of reversing the narrative shortly whether it is based on fact or fiction.

In relation to this, Caviedes (2003) argued that it is not multilingualism per se that engenders division, but the attitudes of the speakers and the sentiments and symbolization attached to the language, which is most matter. The language policies and practices in Ethiopia in post 1991 is the reflection of this reality. It is not the recognition of multilingualism in the country which is the challenge to nation building rather it is the over politicization of language issues which polarized public attitudes toward languages.

For example, non-Amharic speakers were reluctant to learn Amharic not because of Amharic is difficult but due to attitude- politicization of language. The interviews and focus group discussion data result shows that many of non-Amharic speakers are reluctant to learn Amharic due to they are socialized either as Amharic is expansionist language or they dislike it due to different reasons all of which discourse they forwarded are politicization. Many nationalists perceived that Amharic is imposed on their peoples. However, there are two political realities concerning language and nation building nexus; the first political reality is assimilation nation building thesis under the auspices of one nation, one language and one state is the fashion of nation state building in the 1900s in which most European countries were successful while many African attempted but failed. The Ethiopia is not exceptional, until 1991, consecutive Ethiopian government attempted nation building through assimilation but failed to succeed. This is one political reality that we should take a lesson from not live it.

The second political reality is many of the languages serving as official languages or national languages in the world today are not reach that status by selection rather by chance of history either due to colonialism or the result of attempt of assimilation policy internally. English, French or Spanish languages are served as United Nations official languages and official languages of many African countries due to many people's speak these languages as a result of colonial history. Amharic become the widely used language in Ethiopia due to internal assimilation attempt by consecutive Ethiopian governments which is the political reality and not unique to Ethiopia. The only unique political history to Ethiopia is, Ethiopia was non-colonized country and saved from using colonial language as other African country. Therefore, the over politicization of language in Ethiopia deceived the people from understanding prevailed political history in balanced manner. Letting a side existing political reality non-

Amharic speakers specially Ethno-nationalists advocate Amharic as expansionist languages and campaign against learning it.

On the other hand, other languages in Ethiopia are derogatorily perceived as local network, which cannot bridge individuals with the people elsewhere. For example, my informant from Kemissie asserted that non- Afaan Oromo speakers undermine our children when they learn in Afaan Oromo by saying, “don’t confuse your children by sending to an afaan Oromo School’. Even there are sayings in Amharic “Ke mamar ABCD yishalal tef macheda” literally means it is better to work in the field than learning in Afaan Oromo or qube. Overall, the politicization of language polarized public attitudes toward language, which resulted in the rise of regional monolingualism in the country. As data from Wollo University students indicates, there are great communication barriers among Ethiopian University students coming from different regions in the country in general and Somialia, Oromia, Tigray and Amhara regions in Particular. Thus, the language and nation building nexus in Ethiopia is gradually move from bad to worst.

## **5. Concluding Remarks**

Ethiopia is a highly diverse society with a varied and contested history relating to issues of language and nation building. Historically, from Tewodros II to the end of Imperial regime (1974), the government adopted assimilation nation building process in which one language policy was the rule of the game while the Derg regime also continued with nation building under one national language aspiration but permit some local language for educational instruction.

The post 1991 Ethiopian language policy and nation building process is unique in its both practices and trends. The policy introduced multilingual language policy- providing all languages equal state recognition while it reduces the status of Amharic to the level of ‘federal working language’. However, the post 1991 language policy and following nation building process faces challenges. The finding shows that the Ethiopian language policy and practices is politicized. There is the mixture of language issues with ethno-national politics. Ethno-nationalists accused the expansion of Amharic as potent damage to their language and campaign against Amharic as colonial/expansionists language or agent of expansion. Whereas those who favor national language in Ethiopia undermine the new policy and learning in mother tongue as waste.

Overall, the language policies and practices in Ethiopia is under polarized political influences in which the country is practically moving from previous national mono-lingual attempt to regional monolingualism. As the university students are evident, there is great communication barriers which in the understanding of this paper occurs due to the over politicization of language. This implies that the politicization of language create polarization among different languages speakers which in turn polarized sources of knowledge production, different history writing and different aspiration of future Ethiopia. What many Ethiopian used to say that Ethiopia Tolossa aspired is different from what Kebede aspire and the Hagos Ethiopia is different from Mohammed or Gautlu aspiration. Generally, the main challenges for nation building in general and language issues in particular are our attempt to live history than learning from history to understand today and forecast tomorrow. Therefore, the paper implies the need to think on the relation between politics and language. In this way to continue as a state there



should be medium of communication among citizens. Therefore, there is the need to de-politicize language and introduce strong and all-inclusive language policy in Ethiopia.

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# The Constitutional Options for Realizing Sustainable Development in Federalist Ethiopia

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## Abstract

*Constitution is a steppingstone for all affairs of the nations in the modern democratic governments of the world. It is a document, which gives frameworks on every aspects of certain state including politics, social and economic objectives. Most of the time democratic constitutions are incorporating various commitments in their preambles as well as in their contents in order to improve the socio-economic and political life of their people in general and realizing sustainable development in progress in particular. Hence, transforming certain societies in their socio-economic and political aspects is unthinkable, unless one can have a genuine and legitimate constitution, which guarantees for sustainable development in its contents; and limited government, which is, committed itself to practicing and enforcing these constitutional promises to achieve sustainable development. Accordingly, this research assesses the contents of the 1995 FDRE Constitution in line with the constitutional options to ensure sustainable development under the present federalist state of Ethiopian legal system and the prevailing challenges encountering in the attempt of realizing sustainable development. It employs a qualitative research approach like analyzing legal documents to achieve its purpose. This research finds out that there are a number of problems to ensure sustainable development in Ethiopia, like gaps in enacting specific laws for these constitutional promises, eroding these constitutional principles by the government, lack of having genuine institutions to enforce these constitutional principles in achieving sustainable development. This research concludes that though there are constitutional principles exist to realize sustainable development; there are legal and practical problems in enforcing these constitutional promises in Ethiopia.*

**Key words:** *Constitutional guarantees, Human rights, Laws*

## 1. Introduction

In the history of states formations, constitutions have enacted in different manners and for various purposes. Whereas, the concept of sustainable development, constitutionalism (limited government), rule of law and other principles of democratic governance are incorporated and collaborated in a legitimate and grantiste constitution (which guarantees rights). Accordingly, some constitutions are imposed by the rulers for suppressing the subjects/citizens without the interest and participation of the ruled. In this governance system, the model of state formation and political organization is hierarchical (Daniel, Volume 3). State formed through conquest, dictatorship, and Monarchical government systems represent these forms of political organizations.

For instance, Ethiopia was practicing hierarchical leadership in her political history in the era of monarchical governments/during Menelik II up to Haileselassie I (from 1889-1974), as well as, she was under dictatorial government during the Derg regime (from 1974-1991). Both the 1931 and 1955 Constitutions were imposed rather than outcomes resulting from due considerations of historical, economic, cultural and social realities of the Ethiopia (Assefa, 2006). Hence, the type of Ethiopian government was hierarchical during the monarchical and military dictatorship periods. Under these systems, leave alone ensuring sustainable development, the concept of development itself is hardly possible.

On the other hand, some states were evolved organically out of more limited forms of human organization and which over time concretize power centers, which govern their peripheries (Daniel, Volume 3). Polities which are founded and organized on the organic model seemingly grow naturally, and as they develop, the more powerful or otherwise talented leaders form a political elite at the polity's center that rule over the vast majority in the polity, who are relegated to the peripheries (Ibid). The constitutions of the organically created states are enacted through evolution from the traditional body of accepted rules and customary practices (Ibid). The apotheosis of this model is Westminster-style parliamentarianism with the parliament sovereign (Ibid). This system may be existed in the form of parliamentary democracy, like United Kingdom.

Furthermore, some states are founded by design through covenant or compute in which power is shared through a matrix of centers formed by the government of the whole, based on federal principles (Ibid). The covenantal model is different from the above ways of state formation. Since, under the covenantal model of polities formation, at least two states, one is the federal state and the other is the regional states must bargain between themselves on all political, social and economic aspects of the nations living in that polity (George, 2008). This covenantal model of state formation is all about federation or federal way of organizing a polity in certain country. Hence, federations are originated from particular bargains on various issues related to political and socio-economic aspects of the public at large, which struck at a particular time and designed to serve for generations (Assefa, 2006). In these bargaining between the federal and sub-units on a number of issues, a written and supreme constitution necessitates mandatorily (Ibid).

Therefore, in a federation written and supreme constitution is considered as the covenant among the peoples or ethnic groups living in that particular federalist state on one hand and between the citizens and the government on the other hand. Accordingly *“Every covenant involves consenting, promising and agreeing”* (Daniel, Volume 3); and the same scenario is workable for the federal constitution, since it is considered between the nations, nationalities and peoples of certain federal country. The peoples living in federation give their consents on their political, social, economical, cultural and historical aspects in detail manners as much as possible for them by directly or indirectly involved through their legitimate representatives (FDRE Constitution, Preamble). Consequently, after giving consents and bargaining on all affairs mainly on the fate of their political and socio-

economic affairs, they put promises or guarantees for the violations of their agreement under the fundamental constitution (Ibid, Preamble and Article 39).

Apparently, the rationale behind in bargaining in all their political, social, economic, cultural and other affairs by multi-diversified societies in the form of covenant under their supreme constitution in federation is to ensure everlasting peace and thereby to realize sustainable development. Hence, unless the various ethnic groups are empowered to participate and determine on the fate of their political and socio-economic affairs; it is hardly possible to ensure sustainable development especially in federation. So the core question is what does sustainable development mean? The concept of sustainable development is broad; and so it is difficult to define it in a single and precise manner. But it is possible to expound the concepts of sustainable development in various ways. The best-accepted definition is that says, “*Sustainable development is a development that meets the needs of the present without compromising the ability of future generations to meet their own needs.*” (Brundtland Commission, 1987).

Another definition was given by the Swiss ‘Monitoring of Sustainable Development Project as follows:

*‘Sustainable development means ensuring dignified living conditions with regard to human rights by creating and maintaining the widest possible range of options for freely defining life plans. The principle of fairness among and between present and future generations should be taken into account in the use of environmental, economic and social resources.’*

Kofi Annan the former secretary General in his statement to the 53<sup>rd</sup> session of the commission on Human Rights on 9 April 1997 defined the right to sustainable development in fantastic manner as follows:

*“Truly sustainable development is possible only when the political, economic and social rights of all people are fully respected. They help to create the social equilibrium, which is vital if a society is to evolve in peace. The right to development is the measure of the respect of all other human rights. That should be our aim a situation in which all individuals are enabled to maximize their potential of society as a whole.”*

From the above definition, the concept of sustainable development is all-inclusive that requires implementing the political, social, economic, cultural, and environmental rights those guaranteed under the constitution and international treaties in holistic and balanced manner to satisfy the needs of the present and future generations. Hence, the mere facts of increasing GDP, ensuring rapid development in the way that violates the rights of future generations, or warranting economic growth in violation of human and democratic rights cannot be considered as sustainable development by any means.

Accordingly, the Ethiopian Nations, Nationalities and Peoples enacted the 1995 FDRE Constitution based on their consents through their direct and indirect participation by their representatives, to realize sustainable development, as well as, for eradicating the impoverishment and thereby guaranteeing democratic governance.

They put the right to self-determination as a remedy for the violations of their rights recognized under the same constitution (See Preamble of FDRE Constitution as follows):

*We, the Nations, Nationalities and Peoples of Ethiopia:*

*Strongly committed, in full and free exercise of our right to self-determination, to building a political community founded on the rule of law and capable of ensuring a lasting peace, guaranteeing a democratic order, and advancing our economic and social development; Firmly convinced that the fulfillment of this objective requires full respect of individual and people's fundamental freedoms and rights, to live together on the basis of equality and without any sexual, religious or cultural discrimination; Further convinced that by continuing to live with our rich and proud cultural legacies in territories we have long inhabited, have, through continuous interaction on various levels and forms of life, built up common interest and have also contributed to the emergence of a common outlook; Fully cognizant that our common destiny can best be served by rectifying historically unjust relationships and by further promoting our shared interests;*

*Convinced that to live as one economic community is necessary in order to create sustainable and mutually supportive conditions for ensuring respect for our rights and freedoms and for the collective promotion of our interests; Determined to consolidate, as a lasting legacy, the peace and the prospect of a democratic order which our struggles and sacrifices have brought about;*

*Have therefore adopted, on 8 December 1994 this constitution through representatives we have duly elected for this purpose as an instrument that binds us in a mutual commitment to fulfill the objectives and the principles set forth above.*

As clearly elaborated hereinabove, the FDRE Constitution is used as a covenant of the nations, nationalities and peoples of Ethiopia. Since, they give their consent as they expressed that, “*We, the Nations, Nationalities and Peoples of Ethiopia...*” Hence they have bargained and agreed on their political fates as they reveals this by saying, “*Strongly committed, in full and free exercise of our right to self-determination, to building a political community founded on the rule of law and capable of ensuring a lasting peace, guaranteeing a democratic order, and advancing our economic and social development;*”. Thus, they determined that their politics is founded up on rule of law and prop up by the right to self-determination, which guarantees democratic order and lasting peace among the nations, nationalities and peoples. In addition to this fundamental rights and freedoms of individuals and groups are recognized, as well as, the right to equality is ensured. Furthermore, Socio-economic related affairs are negotiated and in that way they agreed and committed to advancing their economic and social development. As a result, they convinced that to live, as one economic community is necessary in order to create sustainable and mutually supportive conditions for ensuring respect for their rights and freedoms and for the collective promotion of their interests.

Therefore, it can be deduced from the preambles of the FDRE Constitution that the nations, nationalities and peoples of Ethiopia have bargained and agreed on their political, social, economic, environmental and cultural agenda through their representatives and in so doing enacted the covenantal based democratic constitution in 1995 in their political history for the first time. Accordingly, this Constitution establishes a Federal and Democratic State structure (FDRE Constitution, Article 1). Thus, this shifts the political paradigm of Ethiopia from unitary to federalism and decentralizes the governmental power from the center to peripheries or regions. It answered the old aged quest for nationality or ethnic identities, as well as, the right to equality; by this means, recognition is given for the nations, nationalities and peoples of Ethiopia (FDRE Constitution, preamble, Article 25 and 39). Furthermore, this constitution introduces the principles of sanctity of human and democratic rights, as well as, it guarantees the right to live together on the basis of equality and without any sexual, religious or cultural discrimination (Ibid, Preamble and Article 10). Moreover, it calls for striving to create common outlooks by continuous interactions of political, social, economic and cultural lives through rectifying historically unjust relationships and by further promoting their shared interests, thereby, guaranteeing for sustainable development indirectly since the end goal of this constitution is ensuring everlasting peace and sustainable development (FDRE Constitution, Preamble).

Consequently, the 1995 FDRE Constitution introduces and guarantees various constitutional options to maintain sustainable development under its contents. Firstly, under its preambles it guarantees the advancing of economic and social development, consistently to the principles of rule of law and democratic governance (Ibid, Preamble). This constitution strengthen the relationships among the nations, nationalities and peoples of Ethiopia to live as one economic community in order to create sustainable and mutually supportive conditions for ensuring respect for their rights and freedoms and for the collective promotion of their interests (Ibid).

Specifically, this constitution incorporates various constitutional provisions, which claim for ensuring sustainable development in all aspects. Hence, any political and socio-economic development must be sustainable to consider them as a healthy development. Accordingly a community within its locality (Ibid Article 18(4) (d) must voluntarily perform any economic and social development activity. As per Article 24(2) of the same constitution, “Everyone has the right to the free development of his personality in a manner compatible with the rights of other citizens.” Development policies must not affects the vulnerable groups like women, children and disabled peoples. For instance, women have the right to full consultation in the formulation of national development policies, the designing and execution of projects, and particularly in the case of projects affecting the interests of women (Ibid, Article 35(6) and 41(5)). On the other hand, this constitution guarantees for the Ethiopian farmers and pastoralists have the right to receive fair price for their products, that would lead to improvement in their conditions of life and to enable them to obtain an equitable share of the national wealth commensurate with their contribution (Ibid, Article 41(8)).

Additionally, Article 43 of the same constitution puts the right to have sustainable development as a ground norm in the following manners:

#### **Article 43: The Right to Development**

- 1. The Peoples of Ethiopia as a whole, and each Nation, Nationality and People in Ethiopia in particular have the right to improved living standards and to sustainable development.*
- 2. Nationals have the right to participate in national development and, in particular, to be consulted with respect to policies and projects affecting their community.*
- 3. All international agreements and relations concluded, established or conducted by the State shall protect and ensure Ethiopia's right to sustainable development.*
- 4. The basic aim of development activities shall be to enhance the capacity of citizens for development and to meet their basic needs.*

Moreover, the FDRE Constitution imposes a duty on the government both at federal and regional level to formulate and implement the country's policies, strategies and plans in respect of overall economic, social and development matters which supports sustainable development (Ibid, Article 51(2) and 52(2(c), 55(10), 77(6)). Likewise, the constitution puts the issues of development in general and sustainable development in particular as its core objectives as per its Article 89. So, government has the duty to ensure that all Ethiopians get equal opportunity to improve their economic condition and to promote equitable distribution of wealth among them (Ibid, Article 89(2)). Additionally, government shall provide special assistance to Nations, Nationalities, and Peoples least advantaged in economic and social development (Ibid, Article 89(4)). Beside this, government shall at all times promote the participation of the People in the formulation of national development policies and programs; it shall also have the duty to support the initiatives of the People in their development endeavors (Ibid, Article 89(6)).

Generally, duty is imposed on government to ensure social development of the peoples. To the extent the country's resources permit, policies shall aim to provide all Ethiopians access to public health and education, clean water, housing, food and social security (Ibid, Article 90). Again, government shall have the duty to support, based on equality, the growth and enrichment of cultures and traditions that are compatible with fundamental rights, human dignity, democratic norms and ideals, and the provisions of the Constitution (Ibid, Article 91). More than this the government is under duty to protect the environment. Therefore, government shall endeavor to ensure that all Ethiopians live in a clean and healthy environment; and the design and implementation of programs, as well as, projects of development shall not damage or destroy the environment (Ibid, 92).

Broadly speaking, the above explanations point out the major constitutional options for ensuring sustainable development in the federalist state of Ethiopia. Not only have these, Ethiopia ratified a number of international

treaties like UDHR, ICCPR, ICESCR and others based on its Article 9(4) and 13(2) of the FDRE Constitution. These internationally ratified treaties support the sustainable development in additions to the constitutional options explained hereinabove.

A lot of things had done by the drafters of the FDRE Constitution, and golden principles those claiming for the entrenchments of human and democratic rights, rule of law and democratic cultures for transforming the political and socio-economic status of Ethiopia from worse to better. So there are numbers of options under the preambles and contents of the same constitution, as well as, the international treaties ratified by Ethiopia as explained above to ensure sustainable development.

Albeit all these constitutional options recognized as constitutional guarantees; still there are numerous challenges which retard the realizing of sustainable development in practice under the federalist state of Ethiopia. Some of these problems include: the failure of the government to enact specific laws in comprehensive manner in order to implement these constitutional promises appropriately to ensure sustainable development. The other problem is lack of having genuine and well-structured and functional institutions to enforce these constitutional principles to realize sustainable development. Additionally, encroaching to the right to sustainable development by the government, even whilst practicing and enforcing other constitutional guarantees or certain policy of the government is another challenge. As a result, the main objective of this research is to evaluate the contents of the FDRE Constitution in order to explore the constitutional options available and their practical and legal challenges to realize sustainable development under the present federalist state of Ethiopia.

## **2. The Methods**

This research has attempted to make an appropriate review of the existing literature on sustainable development and explores the constitutional options for sustainable development under the FDRE Constitution. Moreover, it endeavors to scrutinize the challenges encountering in practicing constitutional options for enforcing and ensuring sustainable development under the federalist state of Ethiopia.

Additionally, it strives to explore legal and practical opportunities prevailing in Ethiopia to establish sustainable development. To fulfill these objectives, it reviews various literatures written on constitutional options for sustainable development and critically analysis the FDRE Constitution of 1995, as well as, other relevant laws including national laws and international treaties.

Therefore, its research methodology is qualitative one. Hence, various related literatures, FDRE Constitution, other relevant laws, international treaties ratified by Ethiopia and the practices in Ethiopia on the matters of constitutional options for sustainable development will be analyzed and compared in detail in order to show the existing possible challenges and constitutional options for warranting sustainable development under the current federalist state of Ethiopia.

## **3. Result and Discussions**



Ethiopia enacted a well comprehensive, the best democratic and the more legitimate constitution in 1995 which is named as the 'FDRE Constitution'. This constitution guarantees various constitutional rights for the nations, nationalities and peoples of Ethiopia. Hence, it grants plenty of constitutional options for the people of Ethiopia in all aspects including political, socio-economic, cultural and environmental affairs. First, this constitution recognizes five pillars of constitutional principles, which include sovereignty of nations, nationalities, and peoples, constitutional supremacy and constitutionalism, sanctity of human rights, secularism, and transparency and accountability of government (FDRE, Article 8-12).

Chapter three of the same constitutions strengthen the principles of fundamental rights and freedoms and thereby not less than thirty-one kinds of rights are recognized and granted a constitutional guarantee (Ibid, 14-44). Here the principles of human rights are entrenched. Political, social, economic, cultural, and environmental rights are recognized and guaranteed under chapter three of the FDRE Constitutions. The constitutions establish parliamentary system of government (Ibid, Article 45). Furthermore, bicameral parliament is established (Ibid, Article 53). The power to interpret the constitution is vested in the hand of upper house of the parliament (in the hand of House of Federation), (Ibid, Article 62 and 84).

Power is shared/ divided between the regional states and federal state. Accordingly, the enumerated power is given for the federal government whilst the reserved or residual power that is not given expressly to the federal government alone, or concurrently to the federal government and the states are given for the regional states (Ibid, Article 52). Moreover, the highest executive powers of the Federal Government are vested in the Prime Minister and in the Council of Ministers (Ibid, Article 72). Furthermore, an independent judiciary is established by this Constitution (Ibid, Article 78).

Consequently, all these constitutional guarantees are recognized under the FDRE Constitution and the three government wings are under duty or duty bearers to implement these guarantees whereas the nations, nationalities and peoples of Ethiopia are beneficiaries of these constitutional rights including political, socio-economic, environmental and cultural rights as recognized under chapter three of this constitutions and other international treaties ratified by Ethiopia. All these constitutional options of developments on all areas including politics, socio-economic, environmental and cultural aspects must be implemented in line with the principles of sustainable development. However, in enforcing or practicing these constitutional guarantees to enforce and ensure sustainable development, various challenges will be encountered under the federalist state of Ethiopia as explored and analyzed hereunder.

#### **a. Lack of Specific and Comprehensive Legislations**

To have constitutionally limited government, having constitutional text with its golden principles and guarantees is not enough. However, additionally to the contents of the constitution, the constitutional guarantees must be practiced through day-to-day government actions, decisions and enactments. Because of its inherent features,

constitutional laws are comprises of very general principles and provisions. Hence, without having specific legislations, it is unthinkable to apply the general principles or constitutional guarantees recognized under the text of the constitutions.

Therefore, the researcher would like to assess the concept of sustainable development and critically analyzes whether or not the Ethiopian constitutional options and specific laws enacted is satisfactory enough to realize sustainable development and thereby point out the possible challenges in enacting specific legislations under the federalist states of Ethiopia. Accordingly, the concept of sustainable development may be explained as follows:

*Sustainable development is a comprehensive concept, which synthesizes environmental protection, development and democracy. Contemporary international law is expected to enrich this important concept through collaboration with other disciplines, and make it gradually positive rules (Y. Matsuura, 2005).*

Here, this shows that the concept of sustainable development is too broad which comprises of various agendas including environmental, development and democracy and collaborating these and other discipline is mandatory to ensure sustainable development. So to realize sustainable development it needs specific legislations on the issues of environmental affairs which includes protections of forests, land conservations, protections for endemic and other animals, avoid or reduce air pollutions and generally ensure the right to healthy for human beings and other living things, as well as, using natural resources in the way that will not prejudice to the rights of the current and future generations. Concerning development, it is also broad which may include economic, social, cultural, political, and other sectors of development. Therefore, we need specific laws on every sectors of development to ensure sustainability or balanced development in all affairs. Furthermore, the concept of democracy is too broad and without democratic governance, talking about sustainable development does not hold water. This democratic governance only realized in democratic systems where the governments are established by the people, for the people and changed by the people and so in such states the principles of rule of can be enforced.

Furthermore, the concept of sustainable development in relation with human rights can be evaluated and defined as follows on the other hand by different scholars:

*Sustainable development law has been described as an intersection between three fields of international law, namely, international environmental law, international economic law and international human rights law (Dire Tladi (2007).*

Pursuant to this quotes, sustainable development cannot stand by itself, so it is a multidisciplinary concept appeared from the intersections among various fields of study or concepts like international law, international environmental law, international economic law and international human rights law. From this wording, one can deduce that it is not possible to ensure these concepts lonely or separately. They are inseparable and indivisible concepts. So, it is mandatory to have consistent and comprehensive specific laws on the area of environment,

economy, social affairs, and politics to ensure sustainable development in certain country. Now the researcher would like to explore the constitutional options exist under the FDRE Constitution in line with the above explanations as follows:

First, the FDRE Constitution ensures the principles of accountability and transparency of the government as one of its five pillars (FDRE Constitution, Article 12). Additionally, this constitution imposes duty on all government organs to enforce the constitutional guarantees recognized infavour of the people/citizens (Ibid, Article 13(1)). So the constitutional rights on all affairs, including socio-economic, political, cultural, and environmental sectors are guaranteed for the nations, nationalities and peoples of Ethiopia. Specifically, “The Peoples of Ethiopia as a whole, and each Nation, Nationality and People in Ethiopia in particular have the right to improved living standards and to sustainable development” (Ibid, Art. 43). Human rights is guaranteed as inviolable and inalienable rights which may extends from the right to life to the right to have sustainable development (Ibid, Article 10, 15, 43). In addition, the right to have clean and healthy environment is constitutionally guaranteed (Ibid, Article 44, 92).

Moreover, government shall have the duty to support, based on equality, the growth and enrichment of cultures and traditions that are compatible with fundamental rights, human dignity, democratic norms and ideals, and the provisions of the Constitution (Ibid, Article 91). In addition to this, every nation, nationality and people in Ethiopia has the right to speak, to write and to develop its own language; to express, to develop and to promote its culture; and to preserve its history (Ibid, 39(2)).

Furthermore, in relation with respecting and enforcing human rights guaranteed under the FDRE Constitution especially on the issues of freedoms, liberty, privacy, protection from inhuman treatment, free from discrimination, equality, presumption of innocence, fair and speedy trials, democratic election and others the FDRE Constitution incorporates an excellent principles consistent with the international human rights treaties and covenants (Ibid, Chapter three, see Articles like 15, 16, 17, 18, 19, 21, 25, 26 and others). So to enforce and practicing these golden principles we must have comprehensive and consistent Criminal Codes, Criminal Procedures and other specific legislations to enforce this general constitutional principles.

But, the challenges are lack of comprehensive, consistent and perpetual legislations to enforce these political, socio-economic, environmental, cultural and other constitutionally guaranteed rights to enforce, practicing and ensure the right to sustainable development guaranteed under the FDRE Constitution.

The first challenge is that majority of the specific laws and codes are not comprehensive enough to address the right to ensure sustainable development. For instance, the current government fails to update many laws in line with current federal based legal system. Laws like Commercial Code, Civil Code, Civil Procedure Code, and Criminal Procedure Code are still not updated for the past fifty years. These codes were enacted during the emperor Haileselassie under the feudal system and absolutely centralized government of Ethiopia. Now days the

federal system was introduced to Ethiopia before two decades and federal oriented constitution was enacted in 1995. Though this FDRE Constitution incorporates the right to have sustainable development, the survival of these old and imperial oriented codes and laws in the era of federation remains a paradox. Since having these old laws, it is too difficult to ensure the right to sustainable development recognized under the current legitimate and grantiste constitution. However, sometimes efforts have done by the parliament to enact specific proclamations or codes to update these old laws, but these efforts are not satisfactory. For instance, the Federal Criminal Code of Ethiopia was enacted in 2004. Nevertheless, the Criminal Procedure Law is yet not enacted or enforced. Hence, it is difficult to apply the federal based criminal laws by using imperial based criminal procedure code.

On the other hands, the issues related to socio-economic affairs were incorporated under the 1960 Ethiopian Civil Code. For instance, land related laws like environmental laws, planning laws, housing or building laws, lease laws, and water laws are generally governed under the Civil code, but specific proclamations and regulations are enacted on each of these specific areas. But there is no comprehensively enacted codes on these land related issues even like the civil code of 1960. This highly affects the tackling to ensure the right to sustainable development in the federalist Ethiopia. Because, many of the civil code provisions are obsolete or not cope- up with the current federal spirits and on the other hand, the newly enacted proclamations on the specific areas are not comprehensive enough to address all the issues of sustainable development affairs. For instance, law of succession is incorporated under the 1960 civil code of Ethiopia under part V (Civil Code, Article 826-1125). The aim of this succession law was to establish centralistic law of successions and did not recognize diversity even in private cases (Ibid, 3347(1)). But the FDRE Constitution accommodates diversity on private matters like succession and family areas in addition to cultural and ethnic based diversities (FDRE Constitution, Article 34(5), 9(1)). But Ethiopia did not enact law of successions consistent to the spirit of the FDRE Constitution; still yet judges are employing this imperial succession law in federal system both at federal and regional level.

Besides this Ethiopia uses the imperial Commercial Code which was enacted in 1960. Again employing the old and imperial based commercial law in federation is unthinkable. Since the nature of commercial and business activities are changeable from time to time, commercial law must be updated from time to time to cope-up with the changing world. But the Ethiopian government fails to enact a well comprehensive and consistent commercial code or laws in line with the federal legal system. But the parliament enacted various proclamations, which are distributed here and there, so it is far from satisfactory to manage issues of commerce and business interactions in comprehensive manner.

Therefore, since ensuring sustainable development touches all aspects or the intersections of these private and public laws, it is too difficult to ensure and realize it in practices under the current federalist Ethiopia. Consequently, all these laws, which deal with socio-economic affairs, Peace/Criminal laws/, Commercial laws

and other related laws, must be updated and comprehensively enacted to substantiate the concepts of sustainable development under the present federalist state of Ethiopia.

The second challenges are related to enacting specific and comprehensive laws by both the federal and regional states to support sustainable development consistent to the spirits of the FDRE Constitution. As known from the federal system the government is established both at federal and regional level (George Anderson, 2008). Power is constitutionally shared between the federal and sub-national states (Ibid). The same is true under the FDRE Constitution (FDRE Constitution, Article 52). So each of this state is enacting laws on the subject matters constitutionally fall under their jurisdiction. For instance, the federal government or parliament enacts laws on exclusive federal subject matters enumerated under Article 51. And the regional states enacted laws on subject matters left from the listed or enumerated subject matters (on residual matters) (Ibid, 52). But in doing so, the federal and regional government must execute their duties mutually with one another.

*“Federal and State powers are defined by this Constitution. The States shall respect the powers of the Federal Government. The Federal Government shall likewise respect the powers of the States.”*(FDRE Constitution, Article 50(8)).

Hence, laws are enacted both by federal and regional government to ensure and practice the right to sustainable development which is recognized as constitutional guarantees under the same constitution. But if laws are enacted on political, social, economic, cultural, environmental affairs inconsistent with the spirits of the constitution, it is impossible to ensure sustainable development. Because, the laws enacted to ensure sustainable development must first of all, compile with the spirits of the constitution, to ensure balanced and constitutional based development, which respects the ideology of federalism and finally guarantees the right to self-determination of the nations, nationalities and peoples of Ethiopia.

But there are problems concerning with enacting codes or laws on certain subject matters. The best example is the 2004 FDRE Criminal Code of Ethiopia. Clearly, to ensure sustainable development criminal law has paramount importance. Since the government use criminal laws to ensure peace and security, to protect the environment, to conserve natural resources, to punish criminals who violates the constitutional guarantees, to respect human and democratic rights and the like. Accordingly, the FDRE Constitution gives the power to enact penal legislations for the federal government and states have also home to enact penal laws. The same constitution claims, “The House of People Representatives shall enact a penal code. The States may, however, enact penal laws on matters that are not specifically covered by Federal penal legislation.”(FDRE Constitution, Article 55(5)). But a closer look at the provision of FDRE Criminal Code of 2004 reveals that it is all inclusive and all the issues of crimes and criminalities are incorporated under the same code. Even minor crimes like petty offences are covered by the federal criminal code and this criminal law is very centralistic like the 1957 imperial penal code of Ethiopia. So it is very difficult to conclude that it is a federal criminal code in reality or in practice though the

cover pages claims it as federal criminal codes. Therefore, the challenge is that the act of having centralistic criminal law in federation may affect the constitutional guarantees of the regional states to administer and determine the fates of their socio-economic, political, cultural and environmental affairs at regional levels and indirectly retards the attempt of ensuring the right to sustainable development in particular regional state. Since, without having the power to enact criminal laws to enforce, fulfill and respect the constitutional guarantees in practice the mere fact of recognizing the right to sustainable development in particular and other affairs in general is senseless.

The third challenge is lack of specific and comprehensive laws to nurture the traditional justice system in federalist Ethiopia.

*Every people that does not want to lose its identity must link up with its past* (Ruch & Anyanwu, 1984).

Of course, the FDRE Constitution recognizes the right to use traditional justice system or institutions (FDRE Constitution, Article 34(5) as follows:

*This Constitution shall not preclude the adjudication of disputes relating to personal and family laws in accordance with religious or customary laws, with the consent of the parties to the dispute. Particulars shall be determined by law.*

Additionally, the right to access to justice is recognized for all people of Ethiopia as per Article 37 of the FDRE Constitution. However, it is unthinkable to conclude that the formal justice system is accessible and affordable for all peoples under the current Ethiopian federation. Since majority of the peoples are living in rural areas, poor and lack legal awareness and even their constitutional rights (Abera Degafa, 2013). Hence, in the context of developing multicultural countries, for the realization of the right to development, engagement with customary justice systems becomes imperative (Harper, 2011). Therefore, litigating all the issues related to socio-economic issues, cultural and environmental affairs and others overall through the formal justice process is unthinkable under the current Ethiopian federations. However, failure to enact specific laws and establish genuine institutions for customary institutions negatively affects the realization of the right to sustainable development in Ethiopia, since ensuring the right to sustainable development through formal mechanism exclusively by the state machinery is too difficult for various reasons as explained hereinabove.

The fourth challenge is lack of specific and comprehensive laws and policies which empowers citizens in determining on all government policies and strategies which affects their interest. This may includes the mega national projects which will affects the political, socio-economic, cultural and environmental rights of the nations, nationalities and peoples of Ethiopia either positively or negatively. For instance, the projects like the Renaissance Dam of Ethiopia, Master plans, large scale investment, and others. At least the government must ensure the public participation to determine such mega projects, which will result in expropriation of their land and property of certain groups up on fair compensation. If not this may resulted in serious political crisis, which will demolish

the concept of sustainable development rather, strengthening it. The best example is the Oromia and Addis Ababa master plan, which caused serious disaster in 2014, even though that master plan was proposed for ensuring sustainable development between Addis Ababa and the surrounding Oromia towns as the government claims. On the other hand, the renaissance dam of Ethiopia mobilizes the whole nation to ensure sustainable development. However, Ethiopia lacks specific and comprehensive laws and plans which involve the public at large before hand on such important national projects which will ensure sustainable development in long run. So whatever the project results will be, it must be communicated to the interested party or to certain ethnicity or to the public at large before running the projects only up on the government decision. If not, it is against the right to self-determination guaranteed for the people under the constitution and therefore, it will erode the right to self-governance which will result in violation of the right to sustainable development.

#### **b. Lack of Establishing Genuine and Functional Institutions**

To ensure development in general and sustainable development in particular, in addition to laws, having genuine and functional institutions, which based their systems on the principles of good governance, has paramount importance. Without having such institutions, it is unthinkable to ensure sustainable development in any country. As regards to the significance of good- governance, Larry Diamond stated that:

*For the past several decades there has been a broad assumption that countries are poor because they lack resources, infrastructure, education, and opportunity. By this logic, if we could only transfer enough resources and technology, build enough schools, roads, ports, and bridges, we could generate development. These types of improvements in economic output and capacity, physical infrastructure, and public health are crucial to development. But they are not enough, and they are not the most crucial factor. No amount of resources transferred or infrastructure built can compensate for - or survive bad governance. Corrupt, wasteful, abusive, incompetent governance is the fundamental bane of development. Where governance is endemically bad, rulers do not use public resources effectively to generate public goods, and so improve the productivity and well-being of their society. More often, they appropriate these goods for themselves, their families, their parties, and associates. Unless we improve governance, we cannot foster development. (Diamond, 2004).*

According to this quote, the mere facts of enacting well democratic and comprehensive legal system and the availability of resources or strong economic basis cannot ensure sustainable development, unless the strong government institutions substantiate it, which is functioning, based on the principles of good governance. Hence, having professional, ethical and well skilled civil servant is needed to ensure the sustainable development. There must be accountability and transparency of government institutions and officials at all levels to ensure sustainable development in Ethiopia. In addition to this, the institutions must be functional. Sometimes institutions are established but they are not functional in an effective and efficient manner. For instance, the Regional

Constitutional Interpretation Commissions are not functional in many regional states. So it is very difficult to adjudicate the issues of constitutional rights in relation to the constitutional right to sustainable development if violated by the government or non-governmental institutions. Hence, it is too difficult to enforce the right to sustainable development in regional states under such conditions.

Again, the watchdog institutions like Human Rights Commissions and the Office of Ombudsman are constitutionally recognize (FDRE Constitutions, Article 55 (14 and 15)). These watchdog institutions have a great role in investigating and giving recommendation, as well as, giving reports to the concerning organs if the government violates the constitutional right to sustainable development. But they are established in big cities only; so they are not accessible for the public at large. In case they are not functioning effectively and efficiently, their contributions in supporting sustainable development by checking or controlling the government is far from satisfactory in the Ethiopian federation.

In addition to the above challenges, there is a great discrepancy among regional states on the extent of development in general and sustainable development in particular. Especially the difference between the emerging state like Afar, Benishangul Gumuz, Somale, and Gambella regional states and the other relatively developed regional states like Amhara, Tigray, Oromia, Southern Nations, Nationalities and peoples and Harari regional state is serious. In the emerging regional states the extent of development is less even though majority of them are rich in natural resources when compared to those relatively developed states. The lacking behind of these emerging states in relation to development is only because of historical prejudice as a result of the past discriminatory government system of Ethiopia. As a remedy the FDRE Constitution guarantees the rectification of historical prejudice among the nations, nationalities and peoples of Ethiopia under its preamble; in practice a lot of works are yet not done and the difference is still ongoing between these groups. For instance, there is a great difference in rate of infrastructure, health services, educations, clean water, electricity, literacy rate, proportional representation at federal level, and others. Hence, this reality will erodes the concept of sustainable development in the long run, unless checked seriously, since development must be proportional and balanced among all regional states, as well as, all regions must have relatively functional government institutions which give services effectively and efficiently.

Besides this some institutions established at federal levels are contested for their partiality or politically dependent institution. The best example is the House of Federation. As explained some place hereinabove, House of Federation is empowered with the power of interpreting the constitution (FDRE Constitution, Article 62, and 84). Many scholars' contests the House of Federation as a political organ since the organ that elects its member is from the ruling parties of the regional states (Assefa Fisseha, 2006). But the House of Federation adjudicates all constitutional disputes including the issues related to the right to sustainable development (FDRE Constitution, Article 83 and 84 (2)). So it is not genuine institution to resolves or decides the issues of right to sustainable



development impartially like the ordinary courts, if this right is violated by the ruling party as it is politically dependent institution.

### **c. Encroaching to the Right to Sustainable Development by the Government**

Whilst implementing and fulfilling their constitutional duties, the government may encroach to the constitutional guarantees in general and the right to sustainable development in particular. As clearly elaborated hereinabove, the duty is imposed on all wings of government to enforce the constitutional guarantees recognized under chapter three of the FDRE Constitution as per its Article 13(1). The three wings of governments are duty bearers to enforce and implement the fundamental rights and freedoms, as well as, the right to sustainable development specifically in the current federalist state of Ethiopia.

But these government organs both at federal and regional levels may contravene the fundamental constitutional guarantees including the right to sustainable development; while they are enacting laws, executing laws, and interpreting laws unless seriously checked practically by comprehensive laws. Consequently, sometimes the Ethiopian parliament is criticized for enacting restrictive laws/proclamations, which erodes the constitutionally guaranteed rights. The best example is the Charities and Societies Law of Ethiopia (Proclamation No.621/2009). According to this proclamation, only Ethiopian charities and societies are allowed to participate in the advancement of human and democratic rights. Many commentators believe that the commitment of the government to safeguard fundamental rights and freedoms including freedom of associations, assembly, and expression is questioned as a result of this restriction (Debebe, 2014). Hence, this restrictive law retards the enforcement of the right to sustainable development by preventing or at least reducing the role of charities and civil societies in enhancing sustainable development.

The other restrictive law is on the area of freedom of mass media and the right to access to information. For instance, Freedom of Mass Media and Access to Information Proclamation (Proclamation No. 590/2008) impose restrictions on freedom of access to information. It provides that defamation and false accusation against “constitutionally mandated legislators, executives and judiciaries” will be prosecutable “even if the person against whom they were committed chooses not to press charge” (Proclamation No. 590/2008, Article 43(7)). Here the mass Medias may be frightened by this seriously restrictive laws and refrain themselves from criticizing the unconstitutional acts of the government enactments and decisions. Consequently, the government officials will abuse their powers or acting beyond power given for them freely and thereby negatively affects the enforcements of the right to sustainable development.

Additionally the issues of incorporating ouster clauses under various legislations are another problem, which may hold up the progress in ensuring the right to sustainable development. Ouster clauses are provisions in the statutes that take away or purport to take away the jurisdiction of a competent court of law (Abdulfatai O. Sambo et al, 2013). It denies the court the ability to make any meaningful contribution with respect to matters relating to

sustainable development and good governance brought before the court. In fact, it seeks deny the litigant any judicial assistance in respect of the matter having bearing on sustainable development and good governance brought before it. The legislature seeks, by the enactment of ouster clauses, to deny the court the power of judicial review in respect of the matter in which its jurisdiction has been ousted (Ibid). In the same manner, the problem of ousting the ordinary judiciary from adjudicating the constitutional issues related to the right to sustainable development is one main challenge to enforce and claim the right to sustainable development under the current Ethiopian federalist state. As a result, if any contestation is raised concerning the rights guaranteed under the FDRE Constitution, the power to adjudicate these constitutional issues is vested in the House of Federation not in the hands of ordinary courts (FDRE Constitution, Article 62, 83, 84 (2)). Hence, the right to food, housing, health, education, clean environment and others recognized under chapter three of the same constitutions cannot be claimed for their enforcement if violated by the government as per the same provisions. Since, the powers to entertain constitutionality issues are given for the House of federation under the FDRE Constitution. This erodes the right to have sustainable development in various manners since the right to sustainable development is not justiciable under the same constitution.

#### **4. Conclusion and Recommendation**

The concept of sustainable development is too general and the total aggregates which can be squeezed from the intersections of various types of developments, including political, socio-economic, cultural and environmental aspects. Hence, we must assess the issues of sustainable development in the holistic and harmonized manners. As a result, one cannot view the matter of sustainable development in disaggregated approaches. To ensure sustainable development, all sectors of developments must be progressed in balanced manners in the way that cares for both the current and future generations.

Therefore, the concept of sustainable development comprises of not only the issues of economic development or growth, rather it consists of the matters of environmental protections, political freedom, protection of human rights, alleviation of poverty, practicing good governance, ensuring rule of law, respect for diversified cultures, and ensuring the right to self-determinations in all aspects of human life in a certain country. In order to guarantee the right to sustainable development, democratic governments are incorporating and practicing numerous constitutional principles which support and enhance the concepts of sustainable development in various sectors; including human rights, environmental protection and conservations, warranting political rights like free and fair elections, multiparty system and ensuring public participation in decision making process. Furthermore, accommodating multiculturalism especially in federations, rectifying historical prejudices, transform the socio-economic rights of the impoverished societies in progress, guaranteeing the right to healthy, educations and equal access to resource or benefit and burdens sharing among the regions and their ethnicities proportionally.

Accordingly to warrant all these constitutional rights and guarantees, the constitution of certain countries must be legitimate enough; i.e. it must be democratic at its making process (all inclusive, or participatory in its making process), its contents must be genuine and comprehensive enough which incorporates plenty of human rights principles consistent with international human rights instruments, treaties, declarations and covenants, rule of law, constitutionalism (limited government), as well as, which grants the unconditional right to self-determination in all aspects for the nations, nationalities and peoples living in that federation. Consequently, the 1995 FDRE Constitution has a number of options for ensuring sustainable development under its contents. It guarantees human rights starting from the mother of rights (right to life) to the extent of ensuring the right to have sustainable development for the nations, nationalities and peoples of Ethiopia (FDRE Constitution, Article 15 and 43 respectively). It ensures the principles of limited government and rule of law thereby made the accountability and transparency of government and government officials as per its Article 12 and 13 of the same constitution.

Regardless of all these attempts to ensure the right to sustainable development, there are prevailing challenges, which retards the practicing and enforcing the right to sustainable development under the current Ethiopian federalist state. The core challenges include: Lack of enacting specific and comprehensive legislations; failure to establishing genuine and functional institutions which enforce the right to sustainable development practically, and ousting the ordinary judiciary from adjudicating the constitutional disputes in relation to the right to have sustainable development and making the right to sustainable right non-justiciable.

To sum up this discussion, the right to sustainable development can be enforced, only and only, if the government gives its due care to the political freedom or rights, economic development, environmental protections and entrenching the culture of human right and good governance at all levels and in all sectors. But the mere facts of increasing one sectors of development like ensuring economic growth only does not show the sign of sustainable development and human well-beings. So the government must able to improve all sectors of development strengthen freedom for the nations, protecting and make the environment conducive for the citizens, ensure the economic development, fulfill, respect and enforce human and democratic rights, constitutionally limits the power of government; plus ensuring that all these improvements will be underway in the manner which shall never affects the interests of the present and future generations. If these conditions are not fulfilled as much as possible for the government, it is hardly possible to ensure and enforcing the right to sustainable development in any country including Ethiopia. Consequently, the current Ethiopian government must worry about these principles and commit itself to fulfill and warrant the principles of sustainable development in its actions, inactions and day-to-day decisions.

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# Evaluation of the Horizontal and Vertical Accuracy of Google Earth Images: in a Selected Case Study Site in

Bole Sub city, Addis Ababa

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## **Abstract**

*Google Earth is a computer program that renders a 3D representation of Earth based primarily on satellite imagery. The Main objective of the study is to conduct a horizontal positional and vertical elevation accuracy assessment of the Google Earth image data in a selected case study site in Bole Sub city, Addis Ababa using the statistical comparisons between GE image positional and elevation data against the corresponding Cadastral data. The study was based on data obtained from primary and secondary source and this study use quantitative approaches in the collection and analysis of data. A total of 34 sample points (Control Points) were selected using purposive sampling technique based on the criteria of even spatial distribution, clear visibility and inclusiveness of the various topographic features. The existing Cadastral Map of the Addis Ababa City Administration and Google Earth imagery of the March 2017 archives were used as the locational and elevation data sources. Accordingly, the existing cadastral map which was extracted photogrammetrically from the Ortho-photo (with 17cm spatial resolution) as a vector data was further processed in the Arc GIS environment to select sample areas and extract coordinate values that were used as the horizontal controlling parameters. The existing contour data with 1m interval that was also photogrammetrically generated from the Ortho-photo with 17cm spatial resolution was further processed and the elevation values for the selected sample control points were extracted and the values served as the controlling parameter of height/elevation. The Google Earth image which served as the source of the Test Parameter data was downloaded and further processed with tasks such as Map Projection with Arc GIS software environment and Elevation data extraction in the Google Earth Pro application and TCX Converter software. The results indicate that the Google Earth image has more shifting along the X-axis (1.8982) than along the Y-axis (-.6449) in the planar coordinate, but the corresponding standard deviations (0.72693 along X and 1.53780 along the Y axes) imply that the error level along the X-axis is more stable/consistent than that of along the Y-axis. Similarly, the error observations along the Z-axis show relatively higher mean and standard deviations (i.e. -3.8366 and 2.11733 respectively) than along the X and Y axes depicting the highest level of error as well as low level of stability/consistency of the individual sample errors along the Z-axis. It is strongly recommended that Google Earth images need further Geo-referencing endeavors to improve the positional accuracy and usage in mapping applications of large-scale maps.*

**Key Words:** Google Earth; horizontal positional accuracy; vertical elevation accuracy; cadastral photogrammetric measurements

## 1. Introduction

Google Earth is a virtual globe based on 3D maps and geographical information program. It facilitates mapping of the Earth by the superimposition of images obtained from satellite imagery, aerial photography and geographic information system (GIS) 3D globe. Google Earth uses digital elevation model (DEM) data collected by NASA's Shuttle Radar Topography Mission (SRTM) enabling 3D view of the whole earth. Google Earth also supports managing 3D Geospatial data through Keyhole Markup Language (Khalid L.A., 2016).

Google Earth is useful for many applications such as earth resource mapping, visualizing earth feature, 3-D renderings of structures, town planning, simulation of disaster event such as of earthquakes using the Google Earth model, to monitor traffic speeds and congestion etc (Khalid L.A., 2016).

This issue raises questions about the expected positional accuracy of Google Earth, which is the main interest of the current research. Due to the potential of GE Images, a number of researches have been done concerning the horizontal/positional and vertical/elevation accuracy of this resource, to date (Ahmed E. Ragheb, 2015), (Ashraf Farah, et al., 2014), (Khalid L.A., 2016), (Giuseppe Pulighe, et al., 2015).

These researchers conducted the accuracy assessment in different parts of the world (e.g. Cairo, Rome, Riyadh) using various methods of accuracy assessments such as: (1) Global Positioning System ground truth data; (2) cadastral photogrammetric data vertex as independent check points; (3) total station ground survey data (ibid).

The results of the assessments show inconsistencies in each case creating the hypothesis that the accuracy of GE Image data are not uniform in different parts of the world. They also unanimously recommended prior accuracy assessment as mandatory procedure to the usage of GE Image as data inputs (ibid). This triggers the importance of conducting similar accuracy assessment in Addis Ababa. The overarching goal of this paper is therefore, to investigate the horizontal positional and vertical elevation accuracy of VHR GE images in Addis Ababa city.

In recent years, the advent of freely available virtual globes, such as Google Earth (GE), NASA World Wind, Microsoft Bing Maps, and others, has opened a new era of Digital Earth (DE) (Goodchild et al., 2012), enabling users exploring satellite and aerial images and to address geographical issues (Lin Huang, et al., 2009). In particular GE ([http:// www. google. com/ earth/ index.html](http://www.google.com/earth/index.html)), shortly after its release in 2005, has evolved along with its increasing interest and popularity due to the free access, user-friendly interface, and richness of content at global coverage, showing a realistic and engaging view of the surface of the planet. As a result of its popularity, also an increasing number of researchers have recently begun using GE images for several applications in technical and scientific projects.

There are domestic and international commercial satellite imagery companies that provide high resolution imagery that can be found in software tools like Google Earth and Bing Maps. Examples of these commercial

companies and their employed satellites are: (1) US based Digital Globe, currently operating three satellites: (a) Quick-Bird, (b) World-View -1 and (c) WorldView-2 (Digital Globe, 2014); (2) US based Geo-Eye, currently operating three satellites: (a) GeoEye-1, (b) IKONOS and (c) OrbView-2 (Geo-Eye, 2014); (3) French based Spot Image, currently operating two satellites: (a) SPOT 4 and (b) SPOT 5 (SPOT, 2014); (4) German based Rapid-Eye, currently operating five satellites: Rapid-Eye 1-5 (Rapid-Eye, 2014); (5) Netherlands based Image-Sat is currently operating two satellites: (a) EROS A and (b) EROS B (Image-Sat, 2014).

The GE image data which is freely available in (<http://www.google.com/earth/index.html>), is a potential source of spatial data input if site specific accuracy assessment is conducted prior to its usage. GE image data can benefit the urban and rural development activities of Ethiopia by providing cheap, recent and historical spatial data of any part of the country.

### **1.1.Problem Statement**

In spite of the free online availability of GE images of any part of the world, it must be noted that Google Earth provides this service with a disclaimer that warns users about the quality of the data. Despite this warning, many individuals still refer to Google Earth as a reliable and accurate data source. Inaccuracies in the Google Earth data can potentially cause problems if it is used in technical tasks requiring high accuracy such as surveying and mapping applications (Potere, 2008, Kazimierz BECEK et al., 2011, and Naji et al., 2013).

For example, Ashraf Farah, et al (2014) got horizontal accuracy of 2.18m and vertical accuracy of 1.51m Riyadh; Giuseppe Pulighe (2015) got horizontal accuracy close to 1m for Rome; Khalid L.A. (2016) got vertical accuracy of 1.85m for flat topography and 2.5m for rugged topography in Cairo. From the above cases it is possible to infer that the accuracy of GE image data is variable from place to place and in different topographic situations, suggesting the importance of site specific accuracy assessment prior to the usage of GE image data source for any research activity of practical applications.

Therefore, this research finding reports the horizontal positional and vertical elevation accuracy of Google Earth Imagery of a selected case study site in Bole sub city, Addis Ababa with the consent of Ethiopian Civil Service University (ECSU), Research and Publication Coordination Office (RPCO).

### **1.2.Research Objectives**

The general objective of this research was to conduct a horizontal positional and vertical elevation accuracy assessment of the Google Earth image data in a selected case study site in Bole Sub city (Addis Ababa) using the statistical comparisons between GE image positional and elevation data against the corresponding Cadastral data..

#### **1.2.1. Research Questions**

The following research questions are used as guides to conduct this research:

- What is the horizontal positional accuracy of GE image as compared to the cadastral map of the study area?
- What is the vertical accuracy of GE image as compared to photogrammetrically extracted elevation data of the cadastre map of the study area?
- For which specific purposed could Google Earth Imageries be used?

### 1.3.Scope of the Study

**Spatial Scope:** The case study site would have a spatial scope (i.e. Geographical Extent) limited to 152 hectares that is selected from Bole sub city.

**Thematic Scope:** The research thematically covered positional accuracy of GE images in the Easting ( $RMSE_X$ ), positional accuracy of GE images in the Northing ( $RMSE_Y$ ), horizontal positional accuracy assessment in both Easting and Northing Coordinates (i.e.  $RMSE_{XY}$ ) and assessment of the vertical height accuracy of Google Earth images ( $RMSE_Z$ ). In addition to that, the calculated horizontal and vertical errors values were statistically analyzed using summary of statistical frequencies (such as Histograms, Normal Q-Q Plots) to understand the normality of the error distributions; furthermore, the possibilities of any outliers and central tendency of errors were analyzed using descriptive statistics (such as Skewness, Kurtosis, Box-plots of Z-scores and Kolmogorov-Smirnov test).

### 1.4. Description of the Study Area

In order to have a comprehensive picture of the study area, the important aspects of the existing phenomenon of the study site that have relevance to the objectives of this research have been reviewed. Accordingly, the Locational and Topographic phenomena are described in the following sections.

#### 1.4.1. Location

The study area is located in Addis Ababa city, Bole sub city. Astronomically the study site is located between  $38^{\circ}49'45''E$  and  $38^{\circ}50'40''E$  longitude and  $9^{\circ}0'35''N$  and  $9^{\circ}1'20''N$  latitudes (Figure 1.1). The site covers about 152 hectares; this areal extent usually exceeds the area delineation of most local development plans (LDP) sites. This extent is usually mapped in a large scale; therefore, the extent of the selected study site will give the opportunity to test whether GE images data are reliable spatial data sources to be used in large scale mapping or not.



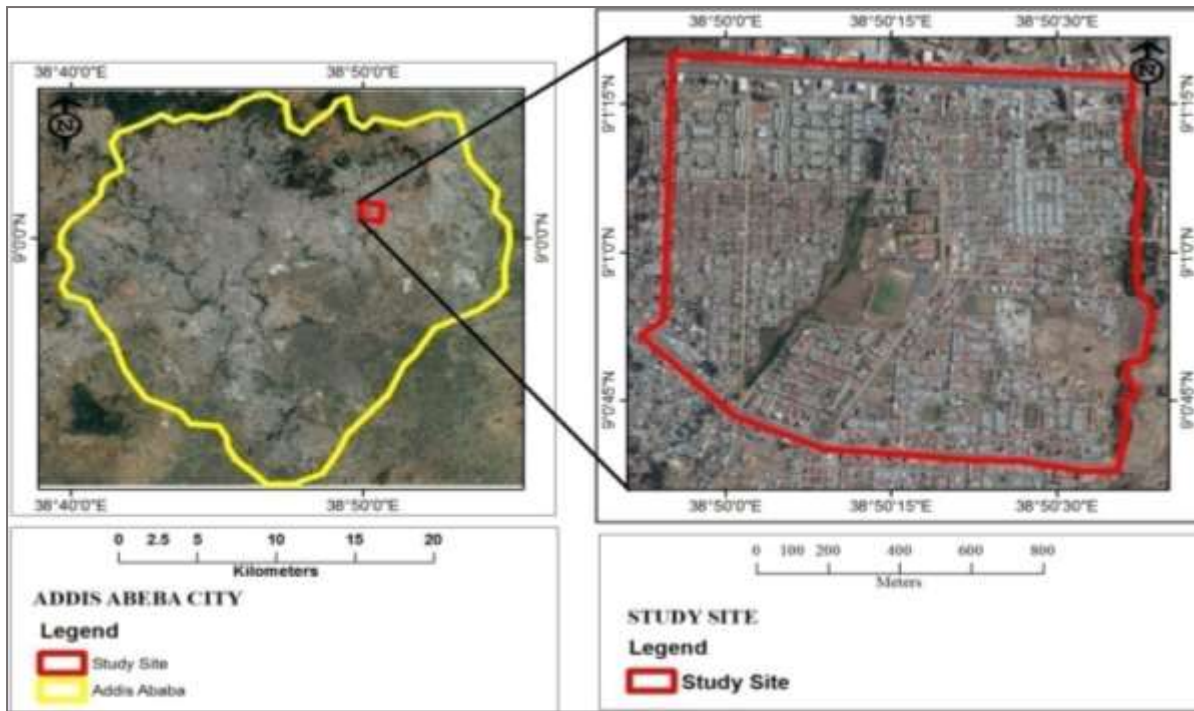


Figure 1.1. Study site

#### 1.4.2. Topography

Regarding the altitude the site encompasses locations with minimum elevation of 2341 m.a.s.l and maximum elevation of 2391 m.a.s.l., with mean elevation of 2369.5 m.a.s.l; (see Figure 1.2). Generally, the elevation has a decreasing trend as one goes from northern to southern part, where the lowest altitude observed towards the south-east margin of the study site.

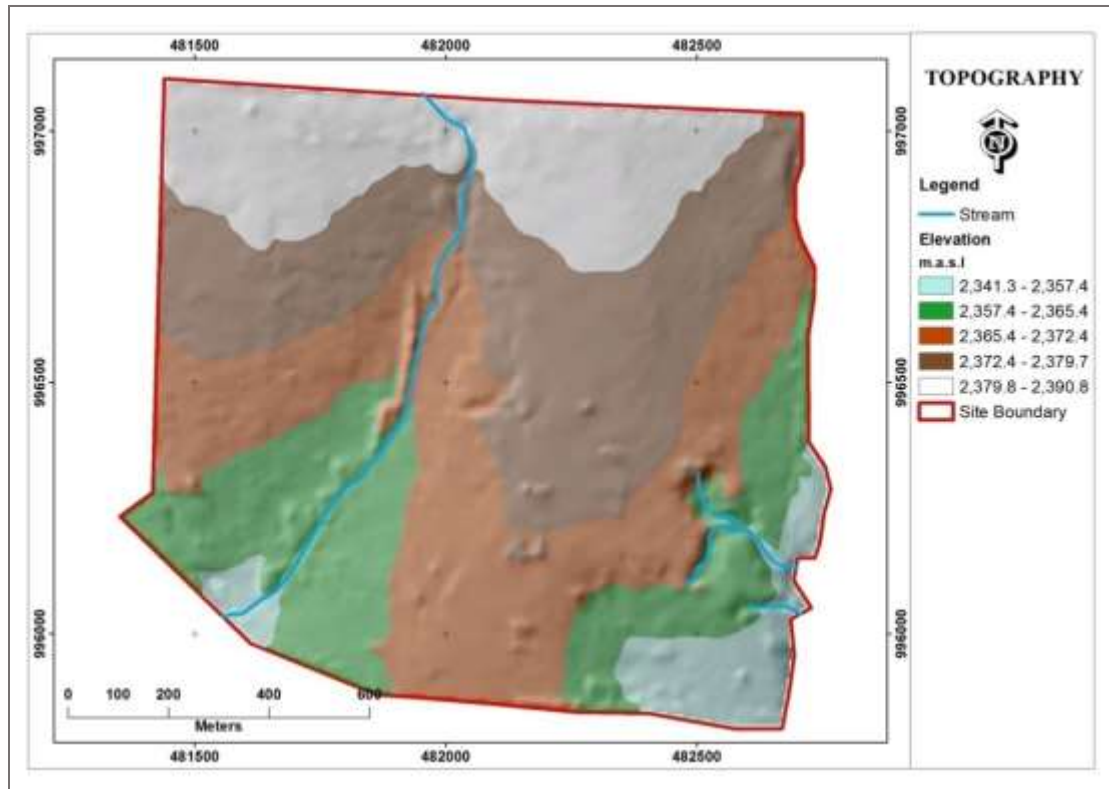


Figure 1.2: Digital Elevation Model; showing the Relief of study site.

### 1.4.3. Slope

The property of the slope of a given area is governed by the spacing of between the contour lines, which imaginary lines are drawn on a map joining places of equal elevation above sea level. The closer the contour lines the steeper is the slope and vice versa. Figure 1.3 shows slope map of the study area.

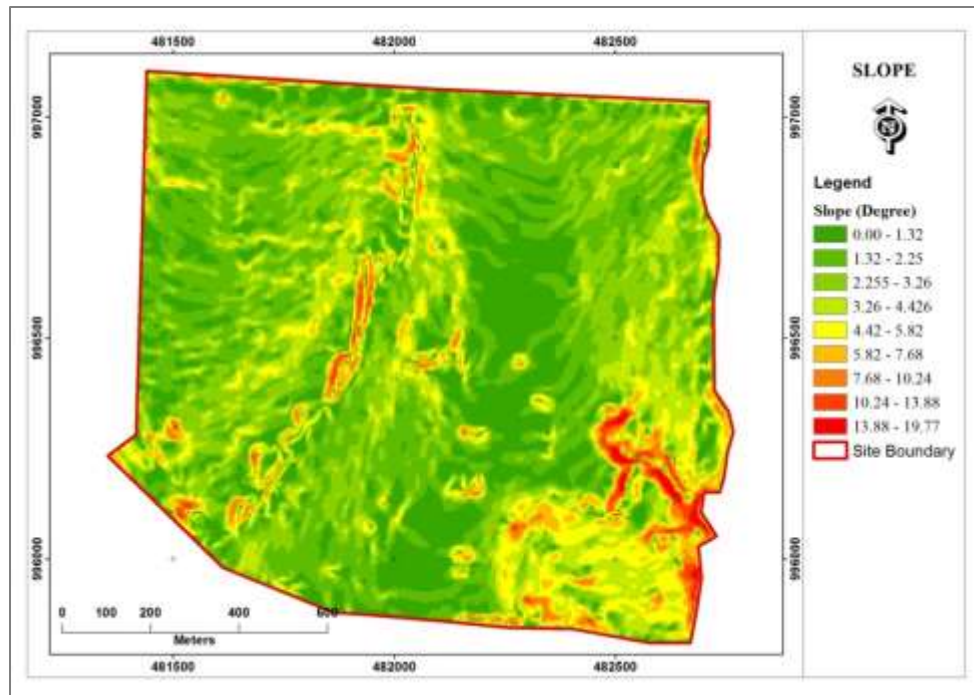


Figure 1.3: Slope Map of the study site.

As it can be depicted in figure 1.3, the slope of the study site ranges between 0.00 – 20.00 degrees, where the majority of the area falls within the flat and gentle slope. Statistically the slope of the study site is presented in the following figure 1.4. As it can be depicted from the figure, average slope of the study site is 2.8 degrees implicating the dominance of gentle and near flat topography. Therefore the various topographic differences are taken as assets for the research in testing whether positional and elevation accuracies of the Google Earth images are affected by topography or not.

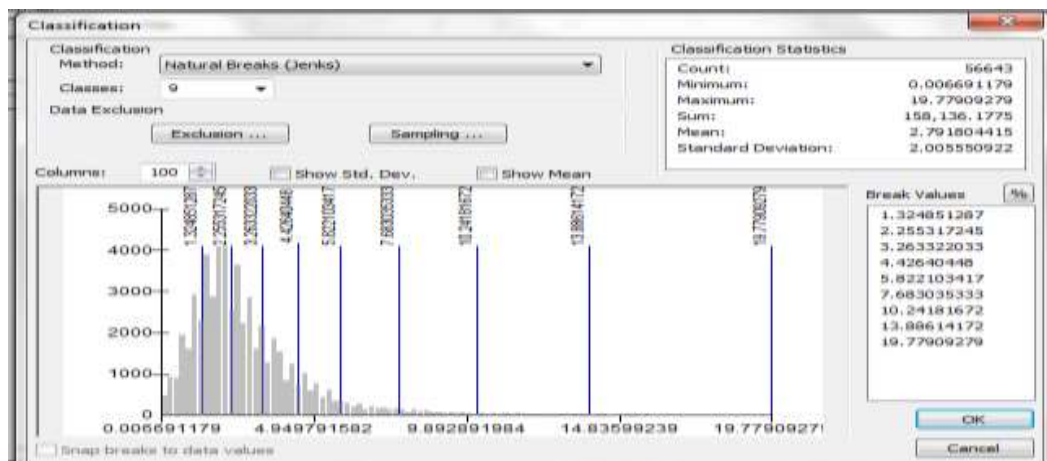


Figure 1.4: Statistical summary of the slope of the study site

## **2. Literature Review**

### **2.1.Theoretical Review**

#### **2.1.1. Google Earth Imagery**

GE is the most popular virtual globe software that visualizes images as a global mosaic of the Earth of mid and high-resolution satellite and aerial imagery from multiple providers, including ancillary data-like pictures, address, etc. Moreover, it enables users to create geometric primitives such as points, lines, polygons, and attributes such as vector format Keyhole Markup Language (KML). The type of images displayed depend on the zoom level for a specific area, ranging from SPOT5 and Land-sat images for continental-scale view or deserts, rainforests, and poles, up to aerial ortho-photos, IKONOS, Quick-Bird, GeoEye-1, Worldview-1, and Worldview-2 images for urbanized areas to the maximum zoom level. The only metadata available are reported when a user zooms on a specific zone by displaying in the bottom part of the window the name of data provider and the acquisition date (Giuseppe P. et al., 2015).

#### **2.1.2. Spatial Accuracy**

Spatial accuracy refers to the degree of certainty with which objects can be located in an image relative to their geographic position (Corbley, 1996a); it is independent of the resolution of the sensor. In remote sensing, there are two kinds of accuracy to be considered for the end user: accuracy without ground control points (GCP's) and accuracy with ground control points (ibid).

Accuracy takes on increasing importance at higher spatial resolution because as smaller objects are identified, their locations must be known more precisely to meet minimum map standards, which have practical value in many applications. For example, in GIS, accuracy is especially important because satellite images are often used in conjunction with vector map (ibid).

#### **2.1.3. Accuracy Assessment**

In an accuracy assessment of spatial data, the data under investigation is compared with higher quality data. The higher quality data, called reference data, is collected through a sample-based approach, allowing for a more careful interpretation of specific areas of the spatial data. The reference data is collected in a consistent manner and is harmonized with the spatial data, in order to compare the two classifications. The comparison results in accuracy measures and adjusted area estimates for each spatial data category (FAO-UN, 2016).

Regarding the total number of sample points, the guidelines of FGDC states that to evaluate the accuracy of spatial data, at least a minimum of 20 independent CPs shall be tested. Similarly, the American Society for

Photogrammetry and Remote Sensing (ASPRS, 2013) developed new geo-location accuracy standards for digital geospatial data and recommend 20 clearly defined CPs for a project area  $\leq 500 \text{ km}^2$ .

Satellite imagery horizontal positional accuracy are usually assessed in terms of x, y and horizontal root mean squared error (RMSE<sub>x</sub>, RMSE<sub>y</sub> and RMSE<sub>r</sub>, respectively (FGDC, 1998):

$$RMSE_x = \sqrt{\frac{\sum_i (x_{data,i} - x_{reference,i})^2}{n}}$$

$$RMSE_y = \sqrt{\frac{\sum_i (y_{data,i} - y_{reference,i})^2}{n}}$$

$$RMSE_r = \sqrt{RMSE_x^2 + RMSE_y^2}$$

where:  $x_{data,i}, y_{data,i}$  are the coordinates of the  $i^{th}$  point in the evaluated dataset,  
 $x_{reference,i}, y_{reference,i}$  are the coordinates of the  $i^{th}$  point in the independent reference dataset of higher accuracy,  
 $n$  is the number of CPs, and  
 $i$  is an integer that ranges from 1 to  $n$ .

#### 2.1.4. Relation between Pixel Size and Object Size

Ground Sample Distance (GSD), more commonly known as pixel resolution, refers to the size of the sensor's detector element projected onto the ground. However, optics degradation, primarily in the payload system, causes this pixel to be blurred to a larger size (Corbley, 1996a).

According to Srivastava et al (1996), in order for an object being identifiable on the imagery with medium contrast conditions, it must be imaged by at least one-fifth of the reported image resolution. Thus, the resolution required for imagery can be estimated simply as:

$$\begin{aligned} GRD &= \frac{1}{5} * 0.25 \text{ mm} \times \text{Map Scale Map} \\ &= 5 \times 10^{-5} \times \text{Map Scale Factor (in meter)} \end{aligned}$$

For 1:25,000 and 1:12,500 scale map products, for instance, the required ground resolutions are 1.25 m and 0.625 m, respectively. However, the detection of features in good radiometric contrast condition is sufficient to image the object in 2-3 times its element resolution. Therefore, a pixel resolution of 2.5 and 1.25 m, respectively, would be sufficient for these aforementioned products (ibid).

### **2.1.5. Orthorectification/3D Geometric Correction of Image**

Orthorectification is a process which converts images into map-like (metric quality) form by accurately removing from it satellite, scanner (camera), and terrain related distortions. The resulting ortho image can then be directly applied in GIS or mapping oriented area applications e.g. terrain analysis, thematic information extraction, area measurements, etc. There are two methods of Orthorectification: (1) Parametric: rigorous (physical, deterministic) sensor modeling with mathematical modeling of viewing geometry physical components (platform, imaging sensor, earth, map). Such models are complicated due to the information released (or not) by image suppliers, although approaches exist to overcome this problem e.g.: Toutin's model for VHR satellite images, available in PCI Geomatica software; (2) Non-parametric: The Rational Functions mathematical model (RF), that builds a correlation between the pixels and their ground locations (continuous mapping between image and object space) based on ratio (separately for row & column) of two cubic polynomial functions. Polynomial coefficients (the rational polynomial coefficients - RPC) are derived using physical sensor/camera model (at the ground station) and are distributed by image vendor with certain processing level products (J. Chmiel, et al., 2004).

## **2.2. Empirical Review**

### **2.2.1. Introduction**

Due to the special capacity of GE image, which have a global coverage showing a realistic and engaging view of the surface of the planet, it gained worldwide popularity; also, an increasing number of researchers have recently begun using GE images for several applications in technical and scientific projects. A brief search on peer-reviewed journal papers, by using the Institute of Scientific Information databases and Google Scholar, reveals over 100 relevant articles with the term 'Google Earth' on titles, abstracts or keywords, while many others mentioned it on full-length text. The use of GE by the scientific community pertains to studies on Land use/Land cover (LULC), agriculture, Earth surface processes, biology, landscape, habitat availability, health and surveillance systems (Giuseppe P. et al, 2015).

Research applications harnessing GE features were summarized by Yu and Gong (2012) into eight categories: data collection, validation, visualization, data integration, modeling, communication, dissemination, and decision support. Uses of GE for data collection and validation are particularly interesting in remote sensing applications and increasingly being used in conjunction with image processing methods for various scientific researches.

### **2.2.2. Summary of previous Researches**

**Taylor and Lovell (2012):** The potential of GE images have been demonstrated by Taylor and Lovell (2012) to detect urban agriculture areas in the city of Chicago with a relatively high accuracy.

**Dorais and Cardille (2011) and Dong et al. (2012):** used GE image to extract ground truth data and used as a training and test sample to aid and evaluate classification datasets derived from MODIS and PALSAR images.

**Cracknell et al. (2013):** GE images were used to classify land cover classes within 1-km spatial resolution MODIS pixel.

**Potere et al. (2009):** carried out accuracy assessment of global urban map.

**Ploton et al. (2012):** successfully modeled and assessed aboveground biomass of tropical forest using GE canopy images, highlighting the great potential of the method for biomass retrieval. They also propose the first reliable map of tropical forest aboveground biomass in the Western Ghats of India by using GE images.

**Sato and Harp (2009), Fisher et al. (2012) and Frankl et al. (2013):** all demonstrated the usefulness of high spatial resolution GE images in the study of Earth surface to yield quantitative insights about geo-morphological processes like landslides, channel-width variability, and gully erosion.

**Wang, Huynh, and Williamson (2013):** integrated GE data with a micro scale meteorological model to improve its functionality and ease of use. They also developed modular software to convert model results and intermediate data for visualizations and animations with GE.

Despite this large penetration of GE use for scientific projects, many open research questions can be raised concerning the reliability of the imagery, since very few information are released by Google Inc. on metadata about sensors, image processing and resolutions, overlay techniques, etc. In particular, one of the major drawbacks is related to uncertainty on horizontal accuracy that might limit the scientific use of these data and lead to misinterpretations of the results and incorrect inferences, especially on area estimates and data retrieval applications (Mc-Roberts, 2010).

However, to date, despite the potential of these images, very few studies were aimed at assessing the horizontal accuracy and their geo-positioning capability for maps creation in the field of DE. The first systematic study on positional accuracy was reported by Potere (2008), who determined the absolute accuracy of GE images at a global scale for several worldwide places.

In another study, Paredes-Hernandez et al. (2013) undertook the accuracy assessment at a regional scale over rural areas in Mexico.

Similarly, in a study about direct ortho-rectification of raw satellite images, Yousefzadeh and Mojaradi (2012) validated the accuracy of GE images in two test sites before using them to extract planimetric ground control and check points (CPs).

Giuseppe P. (2015) indicated that there is a lack of investigations and analysis on positional accuracy of very high resolution (VHR) GE images, especially in metropolitan areas, where greater are the updates and resolutions of the images provided by Google Inc.

### **3. The Methods**

#### **3.1. Research Design**

The research type is quantitative, where the statistical comparisons of locational and elevation errors of the X (Easting), Y (Northing) and Z (Elevation) coordinates (in meter units) of the sampled Cadastral Control Points (CCPs) which were extracted from the existing Cadastral Map and the corresponding coordinate values extracted from the Google-Earth image (i.e. GECs) is performed.

Case Study research strategy is used by taking a selected study site in Bole sub city, in Addis Ababa, where the spatial scope is considerably small and topographically variable; so that to understand whether the Google-Earth image accuracy significantly affected by spatial extent and/or topographic variations.

With regard to the time dimension of the research, cross-sectional design is used by taking the Google Earth image archive of March, 2017.

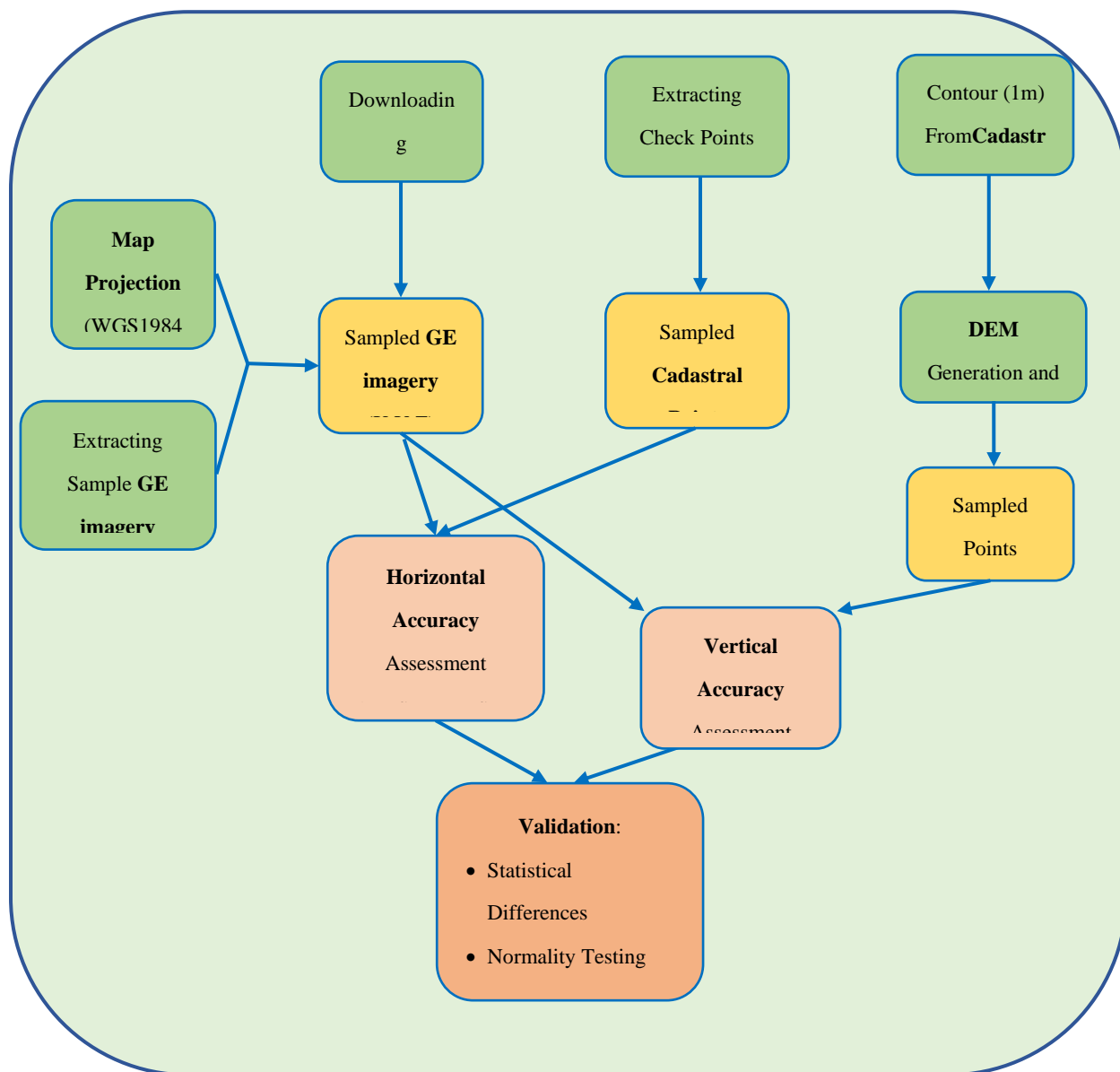
Regarding the research approach, a multi-parametric approach is used, in which the X,Y,Z coordinate values of the Cadastral Control Points (CCPs) extracted from the existing Cadastral Map are taken as independent variables (Controlling parameter) and the corresponding X,Y,Z coordinate values of the Google Earth Control Points (GECs) are taken as the dependent variables (Test parameter). The validation process of the Google Earth image sample points includes the comparison of histograms, graph plots, tests of normality, azimuthal direction errors, and the calculation of standard statistical parameters.

The relative accuracy is expressed as the confidence level that fulfills the Root Mean Squared Error (RMSE) requirement suitable for the production of planimetric maps. For accuracy testing, the selected Control Points (CPs) satisfy the following conditions (FGDC, 1998):

- The points must be collected by an independent data source and with high accuracy;
- The points must be evenly distributed over the geographic extent of the image;
- The points must be well defined, easily identifiable and recoverable.



- The following diagram (Figure 3.1) depicts the methodological approach used to conduct the research:



*Figure 3.1. Methodological Framework*

### 3.2.Data Sources and Methods of Data Collection

The existing Cadastral Map of the Addis Ababa City Administration and Google Earth imagery of the March 2017 archives were used as the locational and elevation data sources. Accordingly, the existing cadastral map which was extracted photogrammetrically from the Orthophoto (with 17cm spatial resolution) as a vector data was further processed in the ArcGIS environment to select sample areas and extract coordinate values that were used as the horizontal controlling parameters. The existing contour data with 1m interval that was also photogrammetrically generated from the Ortho-photo with 17cm spatial resolution was further processed and the elevation values for the selected sample control points were extracted and the values served as the controlling parameter of height/elevation. The Google Earth image which served as the source of the Test Parameter data

was downloaded and further processed with tasks such as Map Projection with Arc GIS software environment and Elevation data extraction in the Google Earth Pro application and TCX Converter software.

The following table depicts the data types, data sources and the methods of data collection techniques employed in the research (Table 3.1).

*Table 3.1. Data Sources and Methods of Data Collection*

<i>Required Data</i>	<i>Data Type</i>	<i>Usage</i>	<i>Data Source</i>	<i>Data Collection Method</i>
Point data with X, Y, Z locational coordinates	Primary Data	Input for accuracy assessment as Test component	-Google Earth	Downloading and Georeferencing
Point data with X, Y locational coordinates	Secondary Data	Input for accuracy assessment as Control component	Photogrammetrically generated cadastral map	Point feature and coordinate extraction
Contour/DEM	Secondary Data	Input for vertical accuracy assessment control points	Photogrammetrically generated contour data with 1m interval	DEM generation from contour data input

### 3.3.Sampling Design

A total of 34 sample points (Control Points) were selected using purposive sampling technique based on the criteria of even spatial distribution, clear visibility and inclusiveness of the various topographic features. Additionally, the purposively selected samples points satisfied the condition of having sharp edges and having attached to the ground surface. Therefore, the purposively selected sample points assumed to have little contributions to the biasness of results.

#### 3.3.1. Population or Universe

The population of this research are those point locations that are found within the spatial extent of the study site (i.e. covering about 152 ha),having X, Y, Z coordinate values and fulfilling the above mentioned sample selection criteria (i.e. section 3.3).

#### 3.3.2. Sampling Frame

The sampling frame in this research had no special categorization/grouping either by topography or the suitability criteria considerations mentioned in (section 3.3).

#### 3.3.3. Sampling Unit

The sampling unit of the study is Point Features with X, Y, Z locational and elevation coordinates for samples that were taken from the Google Earth image; regarding the samples taken from the existing Cadastral Map are those Point Features having the X and Y horizontal locational coordinates; the elevation values (Z coordinates) required for the elevation accuracy assessment were taken from the Digital Elevation Model (DEM) of the Cadastral Map.

### **3.3.4. Sampling Technique**

A purposive sampling technique was employed for the sake of optimization of findings to the accuracy assessment by decreasing biasness. In this case only those point features satisfying the sample selection criteria mentioned in (section 3.3) were selected for the analysis.

### **3.3.5. Sample Size**

There is no clear sample size determination technique for this kind of research; but the general consensus is that the more sample sizes are taken the more accurate and reliable results achieved by guaranteeing error control reliability. In fact, the guidelines of FGDC states that to evaluate the accuracy of spatial data, at least a minimum of 20 independent Control Points (CPs) shall be tested. Similarly, the American Society for Photogrammetry and Remote Sensing (ASPRS, 2013) developed new geo-location accuracy standards for digital geospatial data and recommend 20 clearly defined CPs for a project area  $\leq 500 \text{ km}^2$ .

Therefore, base on the above-mentioned experiences, 34 Control Points were selected and analyzed.

### **3.4.Method of Data Analysis and Interpretation**

The data analysis tool employed GIS software platforms such as Arc GIS, Google Earth Pro, TCX Converter for the determination of sample control points, extraction of coordinate values, map preparation and analysis of the vector distribution, plotted as arrows emanating from the origin (0,0) with the corresponding modular error component and azimuthal (directional) error component. On the other hand, the SPSS software environment was used as an important statistical data analysis tool in performing Frequency and Descriptive statistical summaries such as Statistical Differences, Normality Testing, Error Frequency Graph, Normal Q-Q Plot, and Box-plot.

### **3.5.Method of Data Presentation**

The results of the data analysis were presented as: Maps, Tables and Graphs; showing the Statistical Differences, Normality Testing, Error Frequency Graph, Normal Q-Q Plot, and Circular Statistics.

## **4. Results and Discussions**

### **4.1.Introduction**

This section addresses the data presentation, analysis, interpretation and discussion of results. The data analysis approach mainly involves the error calculation and the normality testing of the calculated positional and elevation error distributions.

In performing the error calculations and normality tests, the two important input data sources considered are: (1) The positional and elevation coordinate values of the Google Earth Control Points (GECPs) (i.e. test parameter); and (2) The positional and elevation coordinate values of the corresponding Cadastral Control Points (CCPs) (i.e. control parameter).

The error calculations were performed using the Root Mean Squared Error (RMSE) analysis procedures in which the scalar magnitudes of errors were evaluated. Accordingly, the  $RMSE_x$  (error along the X-coordinates/Easting),

RMSE<sub>Y</sub> (error along the Y-coordinates/Northing), RMSE<sub>Z</sub> (error along the Z-coordinates/Elevation) and RMSE<sub>XY</sub> (horizontal error) are calculated. In addition to the scalar error calculations, the prevailing azimuthal/vector errors evaluation was also conducted for all sampled points using the Circular Error calculation procedures. The resulting vector distributions of errors were plotted as arrows emanating from the origin (0, 0) with the corresponding azimuthal (directional) error component, so that the quadrant in which most of the errors are concentrated as well as the resultant directional error is determined.

The Normality testing of error distributions were analyzed by using the general procedures of Descriptive Statistics. More specifically, the procedures of Summary Statistics using Frequencies (such as Histograms, Normal Q-Q Plots and Detrended Normal Q-Q Plots) and the procedures of Summary Statistics using Descriptive (such as Skewness, Kurtosis, Kolmogorov-Smirnov test and Box-plot of Z-scores of errors) are employed.

The results of the Statistical Summaries of Frequencies, such as Histograms were useful in getting a first indication of the normality of the error distribution, while Q-Q plot (quantiles of empirical data against the ideal) gave a better diagnostic for checking a deviation from the normal distribution; similarly, the Detrended Normal Q-Q Plots were important in getting useful information about the deviation of observed values against the deviations from the expected values.

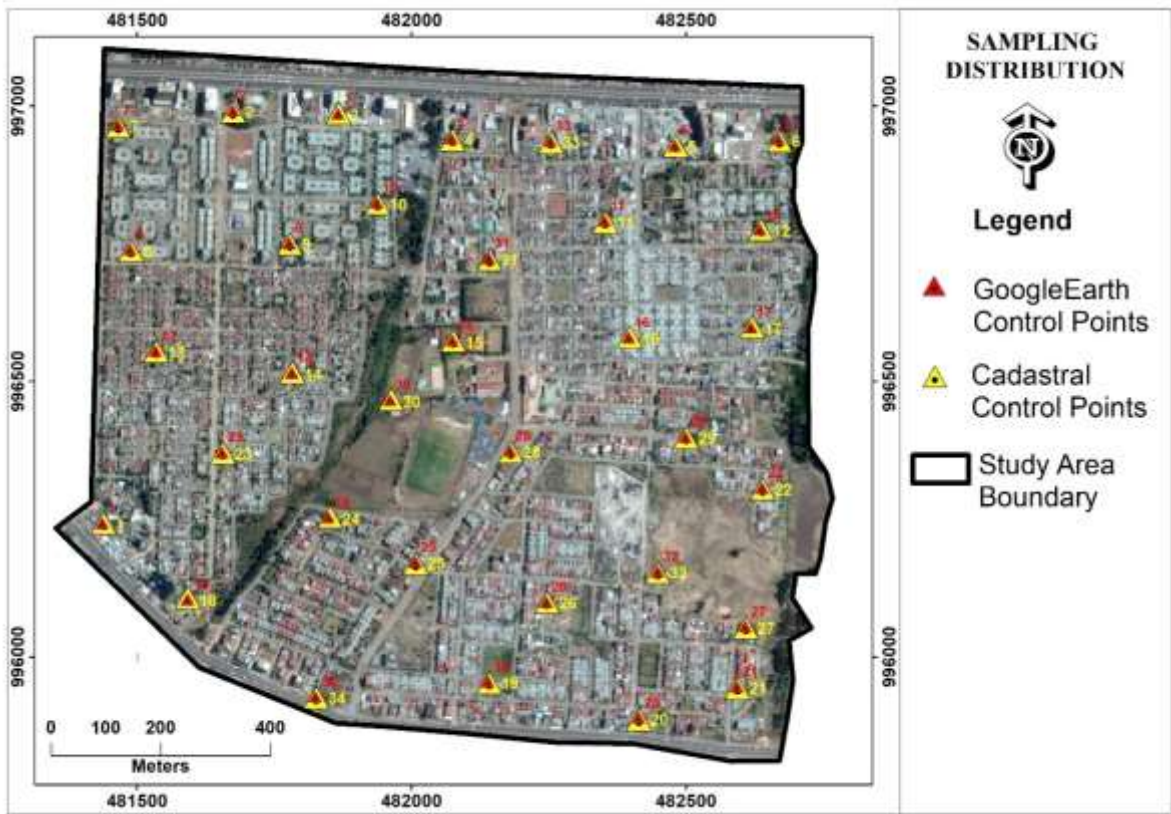
The results of the Summary Statistics using Descriptive such as Skewness measures were important in measuring the asymmetry of the error distributions around the median, while the Kurtosis measures were useful to measure the intensity error of the distribution (if data are peaked or flat relative to a normal distribution); the Kolmogorov-Smirnov (K-S) test(also called nonparametric and distribution-free test)was used to compare an independent identically distributed samples from an unknown univariate distribution. Additionally, for checking the presence of Outliers and Extreme Cases of errors, a Box-plot of Z-scores were generated for all three error directions (i.e. Easing, Northing and Elevation errors).

#### **4.2.Spatial Distribution of GECPs and CCPs**

A total of 34 point samples were taken from the selected locations of the Cadastral Map and the corresponding Google Earth image. The CCPs with their X, Y, and Z coordinates were used as the controlling parameters, while the corresponding GECPs with their X, Y and Z coordinates were taken as the test parameters.

The selection of the sample points satisfied the conditions specified by both the Federal Geographic Data Committee Reston (FGDC) and the American Society for Photo-grammetry and Remote Sensing (ASPRS) criteria of Control Points selection required for the assessment of positional accuracy of spatial data. Hence, the selected sample points are: (1) Sufficient enough, (2) Well distributed over the study area, (3) easily identifiable and recoverable (FGDC, 1998); (ASPRS, 2013).

Therefore, the purposively selected sample points assumed to have little contributions to a potential biasness of results.



**Figure 4.1.** *The spatial distribution of CCPs (i.e. Control Parameter) and GECPs (i.e. Test Parameter) superimposed on the Google Earth Image.*

### 4.3.Locational Error Assessments

The following sections present the results of locational error assessment in which both the scalar (non-directional) and the azimuthal (directional) errors.

#### 4.3.1. Scalar Error Assessments

Table 4.1. depicts the distance and elevation variations between individual GECPs and CCPs; the results are presented as  $\Delta X$  for variations along Easting's,  $\Delta Y$  for variations along Northing and  $\Delta Z$  for variations of Elevation. The calculations of these positional and elevation variations are done by taking the CCPs as controlling parameter and the GECPs as test parameters; hence, those variations are calculated with respect to the CCPs values.

The positive of  $\Delta X$ ,  $\Delta Y$  or  $\Delta Z$  imply the CCPs value of a particular sample is greater than its corresponding GECPs value and vice versa. As it can be seen from Table 4.1, all the  $\Delta X$  values are positive and all the  $\Delta Z$  values

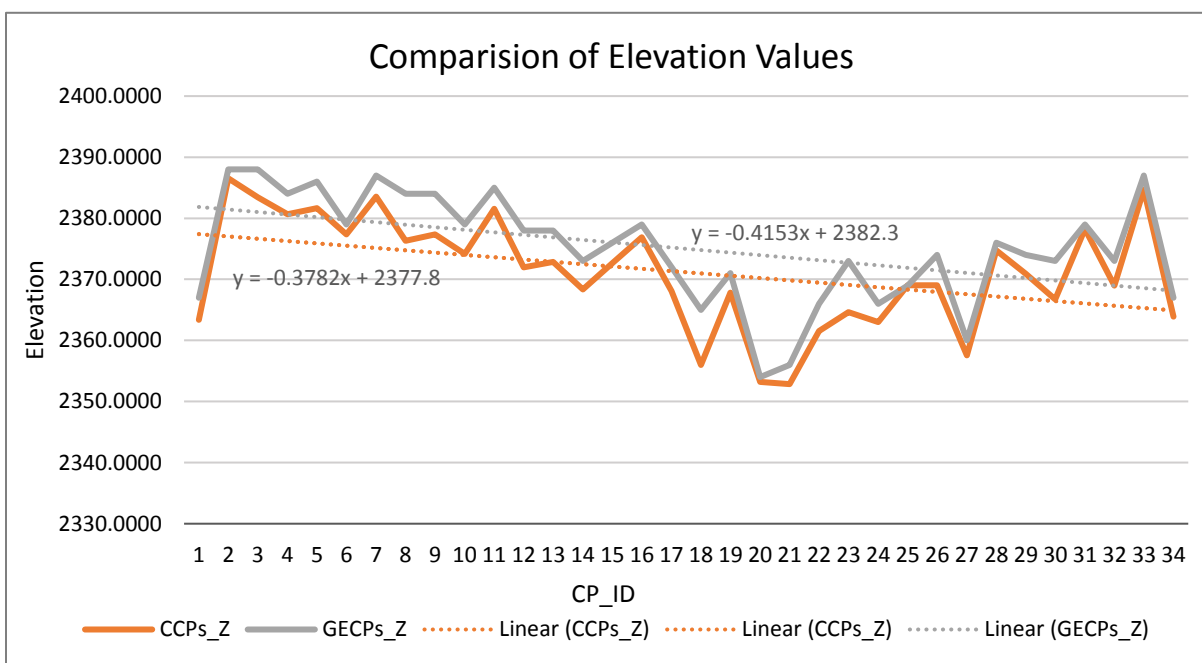
are negative with the exception of one sample point (i.e. CP\_ID: 26 with  $\Delta Z=0$ ), but the  $\Delta Y$  values show both positive and negative values.

**Table 4.1.** Distance and Elevation Variations between individual GECPs and CCPs

CP_ID	CCPs_X	GECPs_X	CCPs_Y	GECPs_Y	CCPs_Z	GECPs_Z	$\Delta X$	$\Delta Y$	$\Delta Z$
1	481439.3505	481436.4590	996242.4497	996242.0772	2363.3501	2367.0000	2.89	0.37	-3.65
2	481674.7784	481674.3552	996989.5571	996991.6011	2386.5352	2388.0000	0.42	-2.04	-1.46
3	481866.9444	481865.6300	996987.4118	996985.8186	2383.4272	2388.0000	1.31	1.59	-4.57
4	482074.2735	482072.0881	996939.4315	996940.4967	2380.6563	2384.0000	2.19	-1.07	-3.34
5	482480.9437	482478.8544	996928.3076	996928.0392	2381.6777	2386.0000	2.09	0.27	-4.32
6	482670.2665	482668.4569	996936.5698	996938.4788	2377.3501	2379.0000	1.81	-1.91	-1.65
7	481465.5772	481464.4229	996962.9625	996965.3777	2383.5547	2387.0000	1.15	-2.42	-3.45
8	481489.2352	481486.7325	996737.2894	996738.6246	2376.3237	2384.0000	2.50	-1.34	-7.68
9	481778.6735	481777.0349	996749.5042	996750.8432	2377.3706	2384.0000	1.64	-1.34	-6.63
10	481938.4550	481936.5105	996822.5663	996823.9415	2374.1387	2379.0000	1.94	-1.38	-4.86
11	482353.1028	482351.2235	996789.9899	996791.3966	2381.5574	2385.0000	1.88	-1.41	-3.44
12	482636.3833	482633.2975	996775.8122	996775.8041	2371.9629	2378.0000	3.09	0.01	-6.04
13	481534.8705	481532.7524	996554.7155	996555.1341	2372.8774	2378.0000	2.12	-0.42	-5.12
14	481783.0708	481781.3806	996516.9072	996515.4158	2368.3623	2373.0000	1.69	1.49	-4.64
15	482076.4649	482074.5242	996573.5314	996573.2386	2372.6519	2376.0000	1.94	0.29	-3.35
16	482397.8369	482394.9645	996580.6029	996579.6602	2376.8940	2379.0000	2.87	0.94	-2.11
17	482620.3413	482617.8358	996599.6129	996598.0467	2368.0896	2372.0000	2.51	1.57	-3.91
18	481592.1169	481591.6846	996107.3212	996104.3817	2356.0029	2365.0000	0.43	2.94	-9.00
19	482141.4636	482139.0770	995952.9560	995953.7953	2367.8257	2371.0000	2.39	-0.84	-3.17
20	482414.0502	482413.0562	995886.0402	995888.4749	2353.2004	2354.0000	0.99	-2.43	-0.80
21	482593.6973	482592.4877	995943.6103	995945.4026	2352.8481	2356.0000	1.21	-1.79	-3.15
22	482639.7635	482638.0839	996304.4711	996305.8188	2361.5142	2366.0000	1.68	-1.35	-4.49
23	481656.4202	481654.0493	996370.5762	996370.6713	2364.6196	2373.0000	2.37	-0.10	-8.38
24	481851.6469	481847.9168	996253.7478	996252.5903	2362.9888	2366.0000	3.73	1.16	-3.01
25	482007.3715	482006.2586	996168.5258	996171.9751	2369.0049	2369.0000	1.11	-3.45	0.00
26	482246.8272	482244.6476	996098.9674	996099.6016	2369.0190	2374.0000	2.18	-0.63	-4.98
27	482608.6034	482607.3325	996052.8553	996053.9479	2357.5698	2360.0000	1.27	-1.09	-2.43
28	482181.0373	482178.8200	996371.3874	996373.2127	2374.7273	2376.0000	2.22	-1.83	-1.27
29	482500.2963	482498.3942	996398.3525	996398.6079	2370.9204	2374.0000	1.90	-0.26	-3.08
30	481962.8366	481960.2102	996467.6346	996465.2887	2366.7039	2373.0000	2.63	2.35	-6.30
31	482142.0655	482140.3354	996720.4068	996723.3021	2378.2478	2379.0000	1.73	-2.90	-0.75
32	482448.3732	482447.3629	996152.9396	996155.0309	2368.9958	2373.0000	1.01	-2.09	-4.00
33	482254.1236	482252.5693	996934.3265	996936.2599	2384.7148	2387.0000	1.55	-1.93	-2.29
34	481826.6555	481824.5700	995926.1165	995927.0274	2363.8718	2367.0000	2.09	-0.91	-3.13

From Table 4.1. It can be depicted that the Google Earth image is shifting to the left along the X-axis, while the same image is having elevation values greater than the corresponding Cadastral Map; but there is no definite shifting direction along the Y-axis.

Figure 4.2. Depicts the general trend of higher elevation values of the Google Earth image sample elevation values as compared to the corresponding Cadastral elevation values. In addition to that the two elevation trend lines show consistent pattern implying the existence of a systematic error that can be adjustable once their relationship is mathematically determined. Hence, comparison between the y-intercepts of the two trend-line equations gives an aggregated systematic difference of 4.5 meters (i.e. the Google Earth Spot Heights are somewhat greater by about 4.5 meters of elevation than that of the Cadastral Map Spot Heights).



**Figure 4.2.** Comparison of elevation values of CCPs and GECPs

Table 4.2 displays the statistical summaries of the horizontal and elevation variations between the GECPs and CCPs values. The table reveals important characteristics such as the central tendency and dispersion of values of the horizontal and elevation variations between the controlling and test parameters. Typical measures of central tendency are presented in the form of ‘Mean’ values, while typical measures of dispersion are presented in terms of ‘Range’ and ‘standard deviation’.

**Table 4.2.** Statistical summary of the Horizontal and Elevation Variations between individual GECPs and CCPs

	Range	Minimum	Maximum	Mean		Std. Deviation
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic
$\Delta X$	3.31	.42	3.73	1.8982	.12467	.72693
$\Delta Y$	6.39	-3.45	2.94	-.6449	.26373	1.53780
$\Delta Z$	9.00	-9.00	.00	-3.8366	.36312	2.11733

Accordingly, it is possible to depict from Table 4.2 that, relatively high level of dispersion with typical Range value of 9 meters and standard deviation of 2.111733 meters are observed among the  $\Delta Z$  values. It is also observed that the high standard error of the mean value of the  $\Delta Z$  variable in combination with the high range value of 9 meters of the same variable suggests that the mean value (i.e. -3.8366) of the vertical error is highly influenced by the presence of outliers and high degree of dispersion of vertical error values.

With regard to error along the X-coordinate, relatively higher level of central tendency is observed with small standard deviation of 0.72693, mean error value of 1.8982 meters and relatively small range value of 3.31 meters.

To summarize the statistical summary presented in Table 4.2, it can be depicted that the Google Earth image has more shifting along the X-axis (1.8982) than along the Y-axis (-.6449) in the planar coordinate, but the corresponding standard deviations (0.72693 along X and 1.53780 along the Y axes) imply that the error level along the X-axis is more stable/consistent than that of along the Y-axis. Similarly, the error observations along the Z-axis show relatively higher mean and standard deviations (i.e. -3.8366 and 2.11733 respectively) than along the X and Y axes depicting the highest level of error as well as low level of stability/consistency of the individual sample errors along the Z-axis.

The scalar error assessment was also performed by using the Root Mean Squared Error (RMSE) analysis procedures. Hence, the  $RMSE_X$  (error along the X-coordinates/Easting),  $RMSE_Y$  (error along the Y-coordinates/Northing),  $RMSE_Z$  (vertical error along the Z-coordinates/Elevation) and  $RMSE_{XY}$  (horizontal error); the results are presented in Table 4.3.

Table 4.3 depicts that the total Root Mean Squared Error value along the X-axis/Easting is 2.029 meters, along the Y-axis/Northing is 1.647, along the Z-axis/Elevation is 4.367. The table also shows that the total horizontal positional error along the XY-plane is 2.613.

**Table 4.3.** Calculated RMSE Values of the GECPs with reference to CCPs

$RMSE_X$	2.029
$RMSE_Y$	1.647
$RMSE_Z$	4.367
$RMSE_{XY}$	2.613

It is important to note that the aggregated elevation/vertical error of the Google Earth image that was calculated with the RMSE approach is 4.367 meters (see Table 4.3); while when the same is calculated using the analysis of the Spot-height trend line is 4.5 meters (see Figure 4.2). Therefore, both approaches give somewhat consistent values only with a difference of 0.133 meters which is tolerable. It can be also depicted from the same Table 4.3 that the horizontal accuracy of the Google Earth image is better than its vertical accuracy by about 1.67-fold.

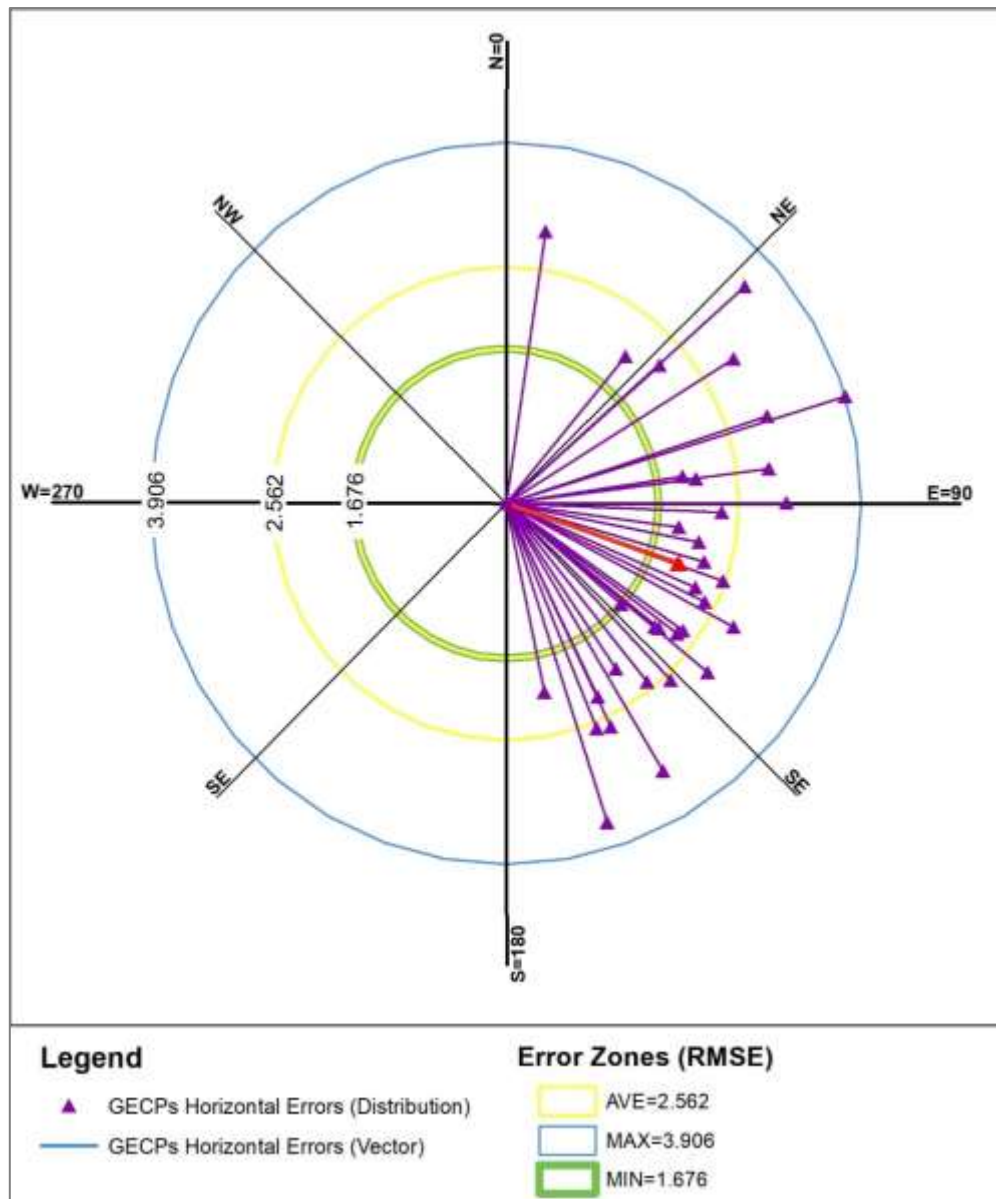


### 4.3.2. Azimuthal Error Assessments

In addition to the scalar error assessments, the prevailing azimuthal/vector errors evaluations were also done using the Circular Error calculation procedures; in which the vector distributions of errors were plotted as arrows emanating from the origin (0,0) with the corresponding modular error component and azimuthal (directional) error component, showing the quadrant in which most of the errors are concentrated.

Figures 4.3 depict the Azimuthal direction of errors for Google Earth image. All of the azimuthal error directions are situated in the NE and SE zones of the circular error chart. Qualifying the distribution of the directional errors, depicts about 10 (29.4%) of the Google Earth control points fall in the azimuthal error direction of the NE zone, while 23 (67.6%) fall in the SE zone. The average azimuthal error direction in angular unit is about  $108^{\circ} 45' 54''$  also falling in the SE zone (i.e. represented with red arrow in Figure 4.3).

Therefore, the analysis of the azimuthal direction of error of the Google Earth image shows a shifting in the SE direction with reference to the position of the Cadastral Map.



**Figure 4.3.** Azimuthal Direction of Errors for GECPs represented in a circular chart

#### 4.4. Normality Testing of Errors

The values for normality tests like Skewness and Kurtosis as well as K-S test (i.e. K-S alias for KOLMOGOROV-SMIRNOV) tests were performed to find out the normality of the distribution of the calculated horizontal positional and vertical elevation errors of the Google Earth image sample control points (GECPs) with reference to the respective Cadastral Map control points (CCPs). The results are reported in Table 4.4 and Table 4.5.

Further analysis of the normality of error distributions were performed by using statistical diagrams such as histograms, normal quantile-quantile plots (Q-Q plots), detrended normal Q-Q plots and Box plots. The resulting statistical diagrams of error distributions for the Easting, Northing and Vertical/Elevation axes are presented in Figures 4.4 through 4.7 respectively.

According to Höhle and Höhle (2009), Histograms provide a first indication of the normality of the error distribution, while Q-Q plot (quantiles of empirical data against the ideal) gives a better diagnostic for checking a deviation from the normal distribution and the Boxplots are important to identify the presence any extreme cases and/or outliers in the error distribution.

#### 4.4.1. Skewness, Kurtosis and Kolmogorov-Smirnov Test Statistics

The analysis of skewness and kurtosis were performed to get a more precise evaluation of the error distributions. The skewness is important to find out the amount and direction of skew (departure from horizontal symmetry), and kurtosis is important to find out how tall and sharp the central peak is, relative to a standard bell curve.

The test statistics table presented below (Table 4.4) depicts the Skewness and Kurtosis values along with the Standard Deviation, Variance and Mean of the distribution of the calculated errors of the GECPs along the three dimensions of the assessed errors (i.e. easting, northing and elevation variables).

**Table 4.4.** Calculated Std. Deviation, Variance, Skewness and Kurtosis error values of the GECPs.

	Std. Deviation	Variance	Mean		Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error	Statistic	Std. Error
$\Delta X$	.72693	.528	1.8982	.12467	.112	.403	.307	.788
$\Delta Y$	1.53780	2.365	-.6449	.26373	.511	.403	-.298	.788
$\Delta Z$	2.11733	4.483	-3.8366	.36312	-.585	.403	.309	.788

The mean values (Table 4.4) of  $\Delta Y$  (-.6449) and  $\Delta Z$  (-3.8366) of the GECPs are lower than the standard deviations (1.53780 and 2.11733 respectively) denoting a fairly tight dispersion in the data among these variables and the absence of systematic errors, but the mean value for  $\Delta X$  (1.8982) which is greater than the corresponding standard deviation (.72693) signifying compactness of the error values around the mean.

The coefficient of skewness and kurtosis values lower than  $\pm 0.5$  are the indicators to the normal distribution of errors. To this regard, the Skewness of  $\Delta X$  (0.112) imply the error distributions along the X-axis are close to normal distribution (i.e. approximately symmetric). The Skewness value of  $\Delta Y$  (0.511) implies the bulk of errors are moderately skewed right and the Skewness value of  $\Delta Z$  (-0.585) implies the error distributions are moderately skewed left.

In addition to the skewness, the kurtosis values are also important to get a better picture of the contribution of the outliers over the overall error distributions for that outliers in the sampled control points have significant effect on the kurtosis. In Table 4.4 the kurtosis value for  $\Delta X$  (0.307), for  $\Delta Y$  (-0.298) and for  $\Delta Z$  (0.309) are all within the tolerable ranges of statistically insignificant values of kurtosis (i.e. between -0.5 and +0.5). Therefore, the small values of kurtosis of all the three variables imply the outliers have little/insignificant over the normality of the error distributions.

Furthermore, the normality of the error distributions is evaluated using the one-sample Kolmogorov-Smirnov test. The Kolmogorov–Smirnov test (K–S test) is a nonparametric test of the equality of continuous, one-dimensional probability distributions that can be used to compare a sample with a reference probability distribution. The results are reported in Table 4.5.

**Table 4.5.** One-Sample Kolmogorov-Smirnov Test for the normality of error distributions of the GECPs.

		$\Delta X$	$\Delta Y$	$\Delta Z$
N		34	34	34
Normal Parameters <sup>a,b</sup>	Mean	1.8982	-.6449	-3.8366
	Std. Deviation	.72693	1.53780	2.11733
Most Extreme Differences	Absolute	.066	.114	.103
	Positive	.066	.114	.084
	Negative	-.066	-.065	-.103
Kolmogorov-Smirnov Z		.387	.667	.599
Asymp. Sig. (2-tailed)		.998	.765	.866

a. Test distribution is Normal.

b. Calculated from data.

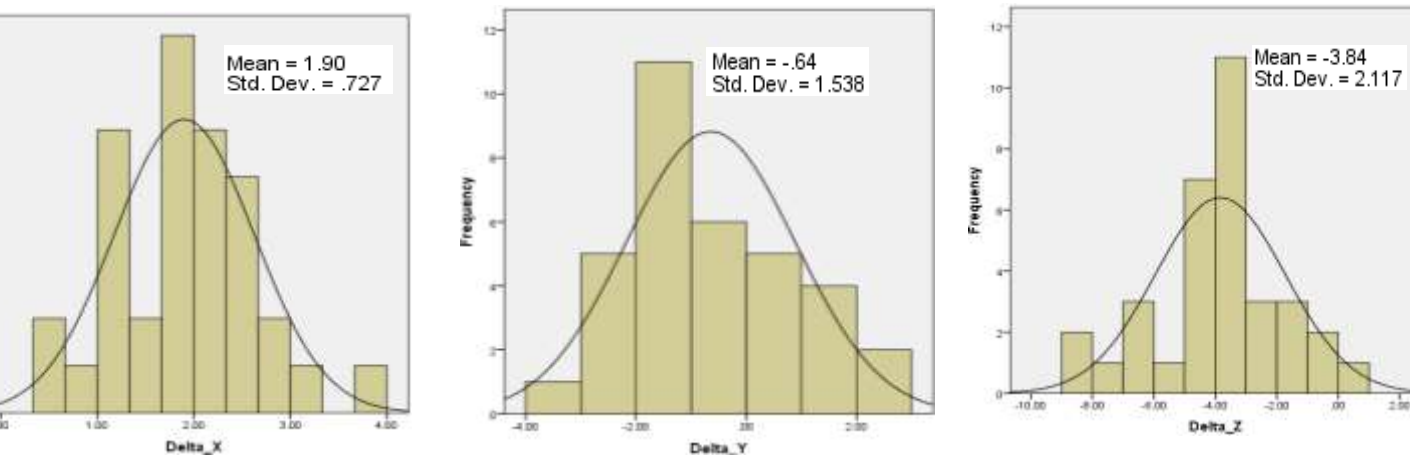
The K-S test statistics values along all the three axes X, Y and Z are 0.387, 0.667 and 0.599 respectively and the p-values (significance) are 0.998, 0.765 and 0.866 respectively. The predefined significance level is 0.05, and thus do not reject the null hypothesis that data violate the normal distribution. Therefore, the results of the K-S test results imply that no significant departure from normality was found.

#### 4.4.2. Error Distribution Plots (Histograms, Normal Q-Q Plots, Detrended Normal Q-QPlots)

The distribution plots (Histograms, Normal Q-Q Plots, and Detrended Normal Q-Q Plots) (i.e. The quantiles of the observed values are plotted against the quantiles of the specified distribution) of errors for the Google Earth image along East, North and Vertical axes for GECPs are visualized in Figures 4.4, 4.5 and 4.6, respectively.

Histograms provide a first indication of the normality of the error distribution, while Q-Q plot (quantiles of empirical data against the ideal) gives a better diagnostic for checking a deviation from the normal distribution (Höhle and Höhle 2009).

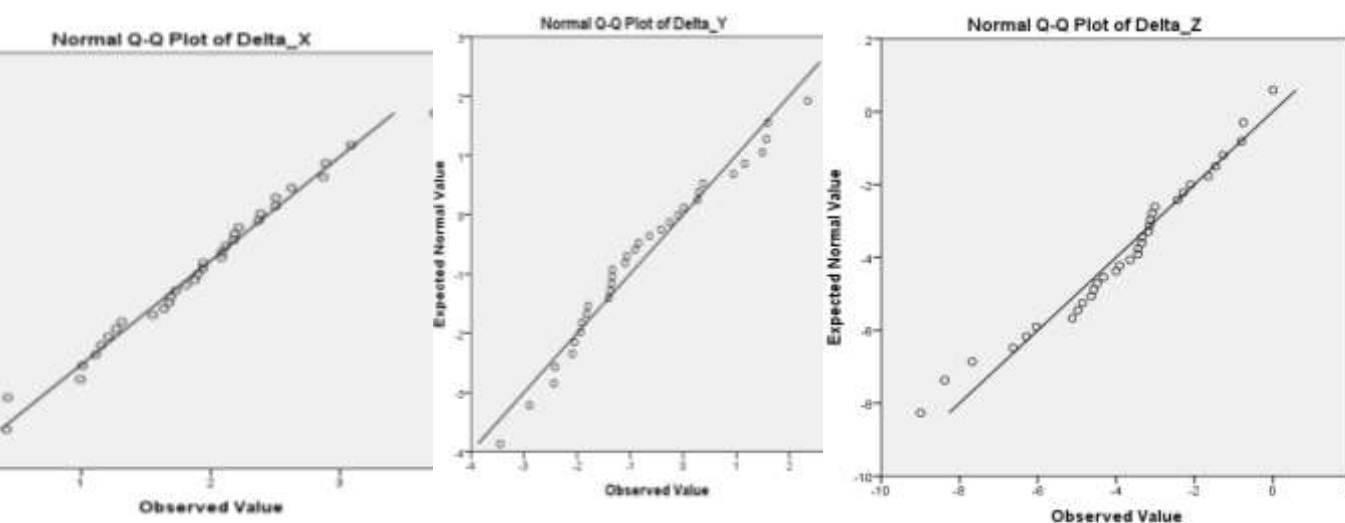
The histogram is a visual summary of the distribution of values. The overlay of the normal curve helps you to assess the skewness and kurtosis.



**Figure 4.4.** Histograms of Errors for GECPs along X, Y and Z dimensions

The histograms of GECPs for the observed error distributions along the X, Y and Z axes are depicted in Figure 4.4 above. The resulting histograms reveal that the superimposed curves for a normal distribution (Gaussian bell curve) does not match the data very well. East, North component, with deviations from the sharper peak around the mean and relative less for the tails. These distributions tend to have a peak in the center of the distribution and seem leptokurtic.

The Normal Q-Q plots presented in Figure 4.5 are also used to depict the distribution of outlier error values along the X, Y and Z axes. The dots represent the actual errors while the corresponding line represents the hypothetical error distribution.

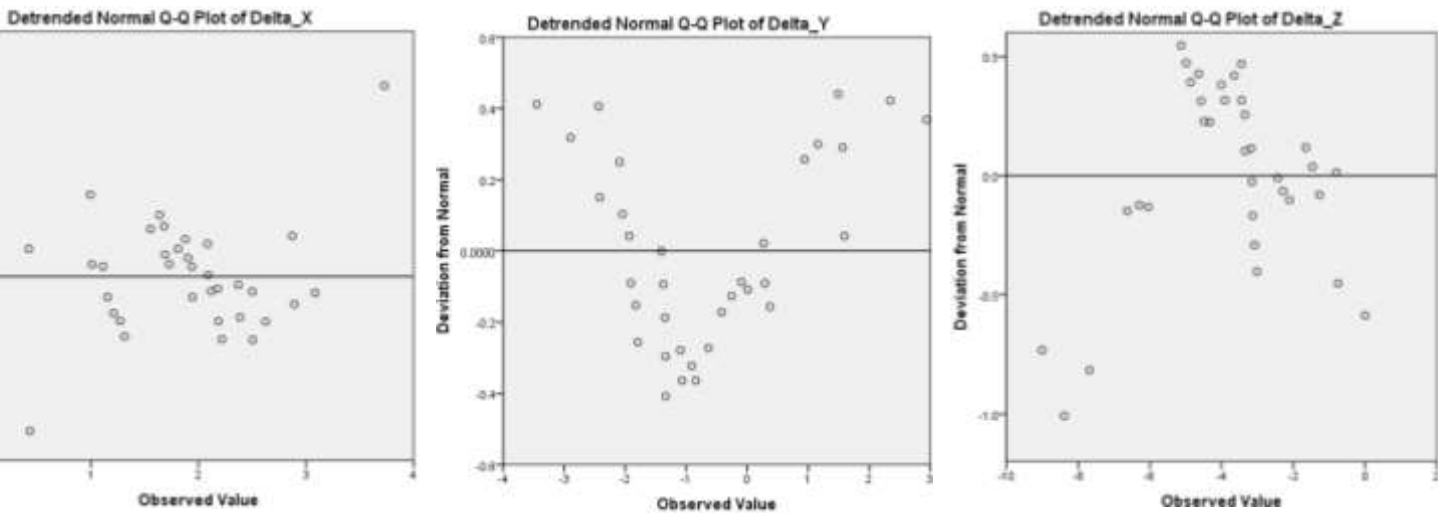


**Figure 4.5.** Normal Q-Q Plots of Errors for GECPs along X, Y and Z dimensions

As it can be depicted from Figure 4.5 that the Normal Q-Q Plot of the X-axis the observed values are highly coincided with the expected normality line (defined by the line equation of  $y=x$ ); but a few outliers are also exhibited at the lower and upper ends of the diagram. In the cases of the remaining two diagrams lesser level of

coincidence of the observed values against the hypothetical normal lines are exhibited; in addition to that outliers of observed values are found distributed at lower, central and upper parts of the hypothetical normality line.

For the sake of further understanding of the normality of the error distributions Detrended Normal Q-Q Plots were also generated in which the observed values are plotted against the expected values but emphasizing on the deviations of the observed values against the expected value that is denoted with line equation of  $y=0$ . The results are presented in Figure 4.6 below.



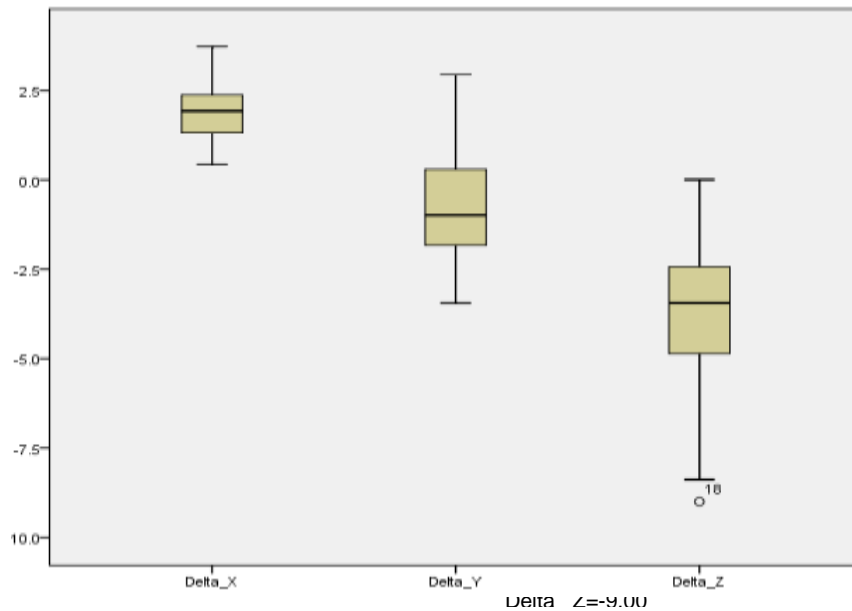
**Figure 4.6.** Detrended Normal Q-Q Plots of Errors for GECPs along X, Y and Z dimensions

It can be depicted from Figure 4.6 that the observed values of the errors along the X-axis are more or less compacted around the  $y=0$  expected hypothetical line with the presence of few outliers at the lower left and upper right corners of the box. But for the cases along the Y and Z axes the deviations are more signified with outlier in the top corner of the box for Y-axis and bottom of the box for Z-axis.

#### 4.4.3. Assessment of Errors for Outliers and Extreme Cases (Using Boxplot of Z-scores)

Finally, in order to make sure the error distributions are not significantly affected by the presence of outliers and/or extreme cases, an outlier test was performed. One or a few outliers or influential data points might be causing problems. In the presence of such cases it worth considering excluding outlier and exceptions to correct skewed data and create a normal distribution by transforming values.

In this case the descriptive procedure was used for obtaining summary comparisons of approximately normally distributed scale variables and for easily identifying unusual cases across those variables by computing z scores (i.e. a standardized value) for all error distributions along the three axes (X, Y and Z) and the results are depicted using the Box-plots of z-scores in Figure 4.7.



**Figure 4.7.** Box-plots of Z-scores values of Errors for GECPs along X, Y and Z dimensions

Accordingly, an outlier along the error distributions along the Z-axis (i.e. the elevation error distributions) is observed whose value is distant from the values of the majority of observations (i.e. a value whose distance from the nearest quartile is greater than 1.5 times the inter-quartile range). The identified particular outlier value is the 18th record with an outlier value of -9. For the cases of errors along the X and Y axes no significant outliers were identified.

Therefore, it can be implied that the skewness and kurtosis values for error distributions along the Z-axis were significantly influenced by the presence of the outlier value.

#### 4.5. Discussions

The main objective of this study was to assess horizontal and vertical accuracy of Google Earth images in Addis Ababa, Bole Sub city with specific case study area within the sub city. No prior studies were taken at Addis Ababa city level, but similar studies were undertaken at both the global and regional scales to accomplish the same objective by using and testing different CPs (Control Points). For instance, at a global scale Potere (2008) estimated a positional accuracy of 39.7 m RMSEr, collecting CPs extracted from the Landsat Geo-Cover, while Yousefzadeh and Mojaradi (2012) estimated horizontal accuracy in 6.1 m RMSEr, by using CPs extracted from 1:2000 scale maps of three towns of the study area in Iran. In another major study, Paredes-Hernandez et al. (2013) have recently reported an accuracy of 5.0 m RMSEr, by using CPs located over a rural area and extracted from a cadastral database. In the same manner the accuracy assessment of this particular research was done by comparisons of CPs extracted Cadastral Map of Addis Ababa city. As expected, the results obtained in this study

also gave different accuracies for the horizontal positional and vertical elevation. Overall, taking into account the resolution of the extracted Google Earth images (i.e. 0.61meters), the results of this research indicated 2.613 meter horizontal and 4.367 vertical accuracy. The high range value exhibited along the z-axis might possibly be the contribution of the horizontal shifting in addition to the quality of the generated DEM data. The transformation of the originally extracted Google Earth image which is in WG4 1984 Geographic coordinate system into the projected coordinate system of Adindan-UTM-Zone 37N may have introduced a systematic error contributing to reducing both the horizontal and vertical accuracies. The use of CPs extracted from Cadastral Maps can be an interesting reference database to evaluate the accuracy of images at medium and low resolution. Systematic errors should be eliminated as best as possible, histograms, Q-Q plots, estimation of azimuthal errors, and statistical tests are further computed to normality in error distribution of the data. Overall, the more robust choice to check if the data follow a normal distribution is a statistical test. A number of authors have reported the use of K-Tests as a goodness of fit to test for the normality and uniformity of the data for the analysis of errors in the positional accuracy of images (Zandbergen 2008; Cuartero et al. 2010; Aguilar, del Mar Saldaña, and Aguilar 2013). In case of this particular research, the results of the K-S tests gave a p-value that supports a decision to accept the null hypothesis of normal distribution. These findings are not really unexpected. Positional errors of spatial data (both horizontal and vertical) are spatially dependent, tend to be positively auto-correlated (Goodchild 2009), and generally are not normally distributed. Overall, greater positional uncertainty is associated with rugged terrain (Beekhuizen et al. 2011), while vertical error increased with surface slope (Pulighe and Fava 2013). However, it seems possible that the flat relief of the study area may have reduced outliers and sources of error involved in sampling, as well as an improved ortho-rectification procedure of the images analyzed.

## **5. Conclusion and Recommendation**

### **5.1. Conclusion**

Google Earth imagery has nearly a systematic positional shift. But, in general, Google Earth represents a powerful and attractive source of positional data that can be used for investigation and preliminary studies with suitable accuracy and low cost. Google Earth is one of many online mapping applications that offer users interactive mapping capabilities. It is often being used by academic users as a source for reference or base maps. It provides an open source, easy access and cost free image data that support map interest community. This contemporary high resolution archive of the Earth's landmass represents a significant, rapidly expanding and largely unexploited resource for scientific inquiry. Therefore, if the systematic errors of Google Earth images are eliminated with the application of further image rectification procedures such as Geo-referencing with Ground Control Points, it is a reliable and accurate data source for mapping applications.

It can be concluded that from the study result the accuracies are suitable for some certain applications but inadequate to meet the standard required for superior or large scale precise



Study such as for preparing large area cadastral, urban planning, or land classification maps or should be used with carefulness employ further Geo-referencing endeavors.

The resources that we use to address the huge number of problems we face are limited. It is necessary therefore that we investigate all the potential information technology can offer. Google Earth image can be used for investigation and studies with low cost. Thus, users of Google Earth have to test the Vertical and Horizontal accuracy of data by comparing with reference data before using it.

## 5.2.Recommendations

Based on the study results the authors recommend the following points.

- Those findings are valid in the place of study and other similar studies are needed prior to conclude certain accuracy elsewhere.
- Further studies need to be taken to assess the accuracy level at different cases such as rugged topography, dense forest covers, and in a wider spatial scope
- Google Earth images need further Geo-referencing endeavors to improve the positional accuracy and usage in mapping applications of large scale maps.
- Google Earth image can be used with medium and small scales and may be applied in large scales with certain safety measures.
- Despite its overall vertical and horizontal positional accuracy, coordinates extracted from GE's imagery should be used with carefulness.

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# **The Role of Media in Promoting Good Governance in Ethiopia: Challenges and the way forward**

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## **Abstract**

*The Purpose of this study was to assess the roles of the Ethiopian media in promoting good governance and the challenges faced when they disseminated information concerning good governance. The study was conducted in four media institutions. Fana broadcasting corporate and reporter newspaper from privately run media institutions and Ethiopian Broadcasting Corporation and Addis Zemen newspaper from publicly owned media institutions. The selection of these media sectors were based on the type of ownership, accessibility and coverage. The study employed qualitative and quantitative research approach. Quantitative data was collected through questionnaire and qualitative data was collected through in-depth interview. Stratified multi stage sampling followed by proportional and random sampling techniques was used to select the 179 survey journalists and purposive sampling technique was applied to select interviewee. The data was analyzed using descriptive statistics. The study revealed that though the media in Ethiopia play their own role in bringing a variety of good governance concerns to the attention of the public and the government; they are not up to the task. The roles of the Ethiopian media as a watch dog and acting as a civic forum role failed in the range of low level while the agenda setting role was found at a moderate level. The challenges faced the media's ability to promote good governance in Ethiopia are associated with political and legal challenges, institutional challenges, lack of skill and capacity of the journalists engaged in reporting good governance issues. The research recommended media houses, government and journalists that media houses should remain free from any external intervention such as media owner, government and sponsors; building media capacity, equal treatment of both private and public media in accessing government information; strengthen executive body and media relation in promoting good governance; bolstering law enforcement authority and media in promoting good governance.*

**Key Words:** good governance, media, agenda setting, watchdog, civic forum

## **1. Introduction**

For much of modern democratic history, media has been considered as one of the most powerful agents of democratic accountability. It can ensure the voices in a nation can be counted, good governance can flourish, and generally, democratic governance can realize. Independent, free and pluralistic media are central to good governance in democracies that are young and old. Free media can ensure transparency, accountability and the

rule of law; they promote participation in public and political discourse, and contribute to the fight against poverty. An independent media sector draws its power from the community it serves and in return empowers that community to be full a partner in the democratic process (UNESCO, 2009, P.10).

The media serve as a conduit between the citizen and the government by disseminating timely information. The citizen demand relevant and timely information about how governments work, what governments do and the efficiency and effectiveness of the public bodies in performing their duties. On the other hand, disclosing government information also beneficial to the government for enhancing openness, transparency and public participation in decision-making process that can assist in developing citizen trust in government actions and maintaining a civil and democratic society (Glenn, 1990). From this one can say that, putting into effect the good governance principles, for instance, transparency openness, public participation depends largely on the degree of publics' access to government information (Cloete & Auriacombe 2007; Head 2010)

The Media in Ethiopia to play its' role freely and responsibly, the government of Ethiopia provided legal guarantee in the constitution as well as different proclamations. The 1995 FDRE constitution, article 29, sub-article 4 stipulated that *"in the interest of the free flow of information, ideas and opinions which are essential to the functioning of a democratic order, the press shall, as an institution, enjoy legal protection to ensure its operational independence and its capacity to entertain diverse opinions.* and the freedom of the mass media and access to information proclamation also stated *"to encourage and promote public participation, public empowerment, to foster a culture of transparency, accountability and efficiency in the functions of public bodies and to encourage and promote good governance.* (Proclamation No.590/2008, Art.11(3).

Ethiopia has marched long stride to ensure the sustainability of its fast-economic growth in the recent decades although lack of good governance, corruption and maladministration practices remained challenges to such efforts. The government said "the root cause of all-round crises in the country is lack of good governance. (Mulat,2014) Former Prime Minister Hailemariam Desalegn in a televised broadcast (Friday, March 18, 2016), acknowledged that "good governance has now become the agenda of the government and the people themselves are talking about it."

The government of Ethiopia strived to enhance the practice of good governance by taking several measures such as the Civil Service Reform, Justice System Reform, improved democratic governance, and decentralization which resulted in some improvements. In general, though the government of FDRE has taken important measures to promote good governance by ratifying a number of international human right instruments, and the FDRE constitution adopted multi-party government system and accepted most of the internationally recognized human rights conventions, the process of good governance building is encountered serious and complex challenges. Different forms of media, whether private owned or government owned, are responsible for covering issues of good governance and imparting relevant information on the issues to the public. In this regard, Norris argues that: "The channels of the news media can function to promote government transparency, accountability and public scrutiny of decision makers in power by highlighting policy failures maladministration by public officials, corruption in the judiciary, and scandals in the corporate sector." (2006:2)

However, Due to this lack of available information and lack of adequate awareness about human rights among the public, the limited democratic culture and experience in the country, limited participation of citizens in governance, lack of adequate and appropriate policies and laws in some areas and capacity limitations of law enforcement and governance organs of the government, the citizen's participation in the governance process is low (Government Report, 2015).

The general objective of this study is to assess the role of media in promoting good governance in Ethiopia and the challenges they faced when reporting on good governance. To this end, this study attempts to answer: -how strongly are cooperated the media houses and public bodies for maintaining good governance in Ethiopia? What are the achievements of the media in fighting lack of good governance and maladministration in government offices? What are the bottlenecks facing the media in promoting good governance? Are the legal frameworks that govern the media are creating a conducive environment for the media to play their roles independently in promoting good governance?

## **2. Review of Related Literature**

### **2.1. The Concept of Good Governance**

There is no agreed definition of good governance. It has been widely discussed in the past decades by international development organizations, scholars, politicians and public administrators, since good governance has remained a global challenge. The United Nations defines good governance as *"promoting equity, participation, pluralism, transparency, accountability and the rule of law, in a manner that is effective, efficient and enduring"* (Rachel M. Gisselquist, 2012). For the World Bank, good Governance *"consists of a public service that is efficient, a judicial system that is reliable, and an administration that is accountable to the public"* (1989, 60). In addition, in 1992 the World Bank in its published booklet, Governance and Development, defined governance as *"the manner in which power is exercised in the management of a country's economic and social resources for development"* World Bank (1992, p.1)

Similar to the World Bank, the United Nations Development Programme (UNDP) defined good governance as *"the exercise of political, economic and administrative authority to manage a nation's affairs (1997b, p. xi)"* In another key report, Governance for Sustainable Human Development, UNDP (1997a) contends that good governance is of great significance not only to ensure the rule of law and protect against international organized crime, but also to maintain and expand a nation's social and economic infrastructure.

All these connotations from international agencies suggest that good governance is involved with leadership toward societal development, and the concept is indeed a product of the late twentieth century when development becomes the priority of both states and international community.

Since mid-1990s, the interests of both international agencies and scholars in good governance have been increased. More importantly, the meaning of governance which has tended to be broader in scope and research about governance has expanded across a variety of issues, including the interface between civil society and good governance (Roy, 2007), the relation between governance and development (Khan, 2006)

public management (Huque, 2013), decentralization (Bardhan, 2002), and democratic governance and policy reforms (Brinkehoff, 2000).

However, only a few and limited studies examine governance from the viewpoint of media and communication. For instance, Khazaeli and Stockemer (2013) evaluate the impact of Internet use on governance quality through analysis of Internet penetration rates in more than 170 countries and find that Internet penetration has a positive influence on governance practices regardless of regime types.

As a matter of fact, governance is not a new term, but its appearance in discussions about the links between the media and good governance is a comparatively recent phenomenon.

## **2.2. Role of Media in Good Governance**

The role of media has become extremely critical for smooth functioning of democracy and ensuring good governance. The importance of the media is to make officials aware of the public's discontents and allowing governments to rectify their errors. Since then, the press has been widely proclaimed as the "Fourth Estate," a co-equal branch of government that provides the check and balance without which governments cannot be effective (Stephen, 1991).

All aspects of Good Governance are facilitated by the existence of a strong, pluralistic and independent media within the society (UNESCO, 2005). Since good governance comprises of accountability, transparent, responsive, equitable and inclusive as well as effective and efficient, Media has a huge role in ensuring that all of these criteria are met from time to time. According to Norris (2010), the media has three key roles in contributing to democratization and good governance. These are watchdog, civic forum and agenda setter.

### **2.2.1. Media as a Watchdog Role**

One of the vital functions of the media is to check the activities of the government on behalf the people. As a 'watchdog' role, the media can play an important role to promote transparency, accountability, and public scrutiny of decision-makers, by highlighting policy failures, mal-administration by public officials, corruption in the judiciary, and scandals in the corporate sector. Investigative journalism can open the government's secret records to external scrutiny and critical evaluation, and hold authorities answerable for their actions (Norris, 2006:6).

In sum, the watchdog role requires the media to monitor the performance of the government and protect the public interest from incompetence, corruption and maladministration.

### **2.2.2. Media as a Civic Forum**

The second important role of media is to function as a civic forum for political debate, facilitating informed electoral choices and actions. The critical role of the media in this case is to mediate between the state and citizens through the debates and discussions about the major issues of the day and informing people about the stand of their leaders on such issues. By publicizing information, the media also make public services more responsive to

the people. Media also making people to vigilant on political developments in the world and helping to stimulate debate drawing attention to all social evils including the institutional failures, corruption, inefficiency and illegal activities. (Norris,2006:6)

### **2.2.3. Media as Agenda Setter**

The term agenda setting means media effects succinctly when they said the media don't tell people what to think but rather what think about. This has come to be called agenda setting (Vivian, 2005). The media play an important role by setting an agenda to the government and the public. The media set an agenda on social problems such as corruption and lack of good governance.

Therefore, the three vital roles that the media play, watchdog, civic forum and agenda-setter, promote good governance by facilitating government transparency and accountability, checking of the abuse of power, strengthening the public sphere and highlighting policy failures, maladministration, scandal and corruption by decision-makers within both the public and private domain.

### **2.3. Mass Media and Good Governance in Ethiopia**

Mass media can play a significant role to inform the publics about the plans and practices of the government in order to develop the culture of transparency and accountability. By taking this into account, the current government of Ethiopia provided guarantee for press freedom in the 1995 FDRE constitution and other proclamations.

The 1992 press proclamation, under the EPRDF led government was the first press proclamation in the history of the country that provides press freedom. As reflected in the preamble, the press proclamations meant to enable the press play its role by providing favorable conditions under which the press could operate freely and responsibly.

“...free press, not only provides a forum for citizens to freely express their opinions but also plays a preeminent role in protection of individual and peoples' rights and the development of a democratic culture as well as in affording citizens the opportunity to form a balanced views on various topical issues and to forward their opinions on the directions and opinions of government.”

Article19 of this proclamation also declared that *“government officials shall have the duty to cooperate with the press in furtherance of the principle that the people have the right to know about the operations of government and the accountability of government officials.”* Press Proclamation No. 34/1992.

Following the issuance of the press proclamation, a larger number of both daily and weekly newspapers and other press products were flourished. (Shemelis, 2000, p. 9). This resulted in the expansion of media's role in covering certain issues of the public and the government policies and practices in their air time and space.



In the 1995 FDRE constitution, the right to freedom of the press, among other things, was safeguarded by the law. Article 29 sub-articles 4 of this constitution declared that

*“In the interest of the free flow of information, ideas and opinions which are essential to the functioning of a democratic order, the press shall, as an institution, enjoy legal protection to ensure its operational independence and its capacity to entertain diverse opinions.”*

Freedom of the mass media and access to information Proclamation No.590/2008, Art. 11(3) also stated the role of media in governance as follows:

*“To encourage and promote public participation, public empowerment, to foster a culture of transparency, accountability and efficiency in the functions of public bodies and to encourage and promote good governance.”*

However, many scholars debate that the degree of media’s freedom in covering certain public issues in the country is still restricted by the government.

The Ethiopian constitution guarantees freedom of the media. Consistent with the constitution, Ethiopia has opened space for the development of private print and electronic media. There has been an increase in the number of private newspapers in Ethiopia since the media was liberalized. Press freedom has proven to be a highly contentious issue. A new press bill that was drafted a couple of years came under strong criticism inside and outside the country because it was perceived as too restrictive on the private media (ADB,2009)

The law has been amended based on international best practices, and the legislation was passed by Parliament. Some analysts still maintain that the new law is restrictive. One concern is over the heavy penalties that will be imposed on owners of newspapers breaking the law. The importance of a free press in enhancing transparency and providing the public with the means of holding the executive accountable cannot be overemphasized. Although Ethiopia is committed to press freedom as enshrined in its constitution, the challenge is to ensure that the press operates freely (ibid, p.10)

In Ethiopia, the measure of good governance (accountability, transparency, rule of law, efficiency and effectiveness, consensus oriented, participation, and equity and inclusiveness) are almost ignored in practice (Oertel,2004). However, the issues of good governance need to be practiced by the government. On top of this, the efficacy of the new development and transformation plan primarily requires the application of the essence of good governance (Report of the Prime Minister reported to the parliament on the quarter of the year 2011).

Different forms of media, whether private owned or governments owned, are responsible for covering issues of good governance and imparting relevant information on the issues to the public. In this regard Norris argues that: “The channels of the news media can function to promote government transparency, accountability and public scrutiny of decision makers in power by highlighting policy failures maladministration by public officials, corruption in the judiciary, and scandals in the corporate sector.” (2006:2)

However, whether the media are playing their role effectively remains a subject of scholarly debate on different issues that signifies the practice of good governance and issues or values of good governance. This may be evident from the study by Yonas (2009) which revealed that both the state- and privately-owned media in Ethiopia had failed to give prominence coverage to democratic values and good governance. Gerring (2005) underlined that the quality of governance influences the propensity of democracy. And hence, mass media can play a significant role to inform the publics about the plans and practices of the government in order to develop the culture of transparency and accountability.

### 3. The Methods

In order to achieve the purpose of this study, both qualitative and quantitative data were collected. Hence, mixed research design was taken as the most appropriate because mixing the two methods is suitable for the purpose of triangulation in researches (Cohen, 2000).

#### 3.1. Population, Sampling Techniques and Sample Size

The population of this study was drawn from journalists who have been working on media houses and various public bodies who are closely working with media and issues of good governance.

In order to select an appropriate sampling unit from the media stratified multi-stage sampling followed by proportional and then simple random sampling technique was employed. Samuel, Campbell and e.tal (2004) stated that stratified multi-stage sampling is an efficient sampling method which combines the techniques of stratified sampling based on grouping units into strata and then using a hierarchical structure of units within each stratum. Based on this sampling method, the media was grouped into public and private media. Each of them was also further stratified into newspaper, radio and television. In order to determine the sample size on the role of media in promoting good governance in Ethiopia, the following formula was used.

The Cochran formula is:

$$n_0 = \frac{Z^2 pq}{e^2}$$

Where:

- $n_0$  is the required sample size
- $e$  is the desired level of precision
- $p$  is the (estimated) proportion of the implementation of access to information law
- $q$  is  $1 - p$ .
- The  $z$ -value is found in a  $Z$  table.

The maximum proportion,  $p = 0.5$ , the level of confidence 95%, and at least 5%+or- precision. A 95 % confidence level gives us  $Z$  values of 1.96, per the normal tables; thus,

$$n = ((1.96)^2 (0.5) (0.5)) / (0.05)^2 = 179$$

Table 19: Summary of Journalists' Population and Sample

Media	Population	Sample	Tv Amharic service	Radio Amharic service	news paper
ETV	570	114	77	37	-
FBC	250	50	31	19	-
Addis Zemen	40	8	-	-	8
Reporter	37	7	-	-	7
Total	897	179	108	56	15

Source: own Survey, 2018

As shown in the table 1, a sample of 114 from ETV News, 50 from Fana broadcasting corporate, 8 from Addis zemen, 7 from Reporter were selected for his study.

After the multi-stage sampling techniques, proportional sampling method (20%) was used to determine the number of journalists in each of the media houses to be selected. Finally; random sampling was used to select the final respondents which would give equal opportunity of selection for the population.

So a random sample of 179 journalists (57 from private media and 122 from public media) was our target population that could be enough to ensure the confidence levels what the researcher needed.

The other population comprises the government officials who have a direct connection with media and journalists. Based on purposive sampling, an interview was conducted with representatives from Government Communication Affairs Office, Ethiopian Broadcasting Authority, federal Ombudsman commission and 3 journalists who are working on good governance were taking part in the study.

### 3.2. Data Collection Methods

The data was collected through questionnaires and interviews. First, the researcher was reviewed literatures related to the research works to put light on the research issue. Then, selected participants were filling in questionnaires designed based on the research objectives and interviews also conducted with selected respondents.

### 3.3. Data Analysis

The research data was analyzed in a mixed way. Hence, first, the quantitative data was analyzed by using SPSS and the findings were presented on tables and charts. Concurrently, the qualitative interview data coded and grouped on the basis of the research objective themes was analyzed and interpreted.

## 4. Results and Discussions

There were two sets of respondents who were targeted during the study. These were randomly selected members of the journalist who answered the main questionnaire and interviews. Government officials who are directly related their roles with media were also responded to the in-depth interviews.

### 4.1. Respondents Profile

Table 6: Respondents' profile

Respondents Profile(percent)																			
Sex		Age				Educational Qualification				Job Category					Experience				
Male	Female	<25	26-30	36-40	>46	Certificate	Diploma	First Degree	2 <sup>nd</sup> degree and	Reporter	Senior reporter	Editor	Deputy editor	Editor-in chief	Senior Producer	<5	5-10	11-15	>15
47.5	52.5	24	54.2	19.6	2.2	-	-	86	14	46	10	14	13.4	8.4	7.8	33	41.9	12.8	12.3

Source: Own survey, 2018

Of the 179 respondents who were fill in the questionnaires, 94 were male representing 52.5% while 85 were female respondents representing 47.5% of the total number of the respondents. The age of respondents have been divided in to four age groups i.e:- below 25; between 26 to 30 years; between 31 to 35 years; between 36 to 40 and lastly above 41 years of age. Majority of the respondents( 54%) fell within the age range from 26 to 30 years of age; followed by respondents aged under 25 years who made up of 24% of the respondents while the age group 31-35 formed 20%; the age group 36-40 contributed 2%.

As can be observed from the above table, majority (86%) of the respondents have first degree, followed by 14% of the respondents who have second degree and above.

Regarding the job category of the respondents, 46% 14% and 13% of the respondents selected for the study are failed at the designation of reporter, editor and deputy editor in their media houses respectively. Only 10% of the respondents are senior reporter, followed by 8% editor-in chief and 8% senior producer. This implies that majority of the respondents have been selected on the designation of reporters so as to get the correct view of the respondents regarding the role of media in promoting good governance in their respective media houses. Majority

(42%) of the respondents have an experience between 6 to 10 years followed by 33% who have less than 5 years' experience. Only 25% of the respondents ranging their job experience from 11 to 15 and above 16 years.

## Types of Media

Table 2: Types of Media

Types of Media				
Based on Ownership		Based on Mechanical device		
Public Media	Private Media	News Paper	Television	Radio
<b>68.16</b>	31.84	8.38	61.45	30.17

Source: Own survey, 2018

Media can be grouped either by ownership or by the mechanical device they used. The ownership of media is an important factor for the independence and integrity of the media. Media outlets that are reporting on good governance issues strongly influenced or compromising the neutrality of their stories on the basis of their ownership.

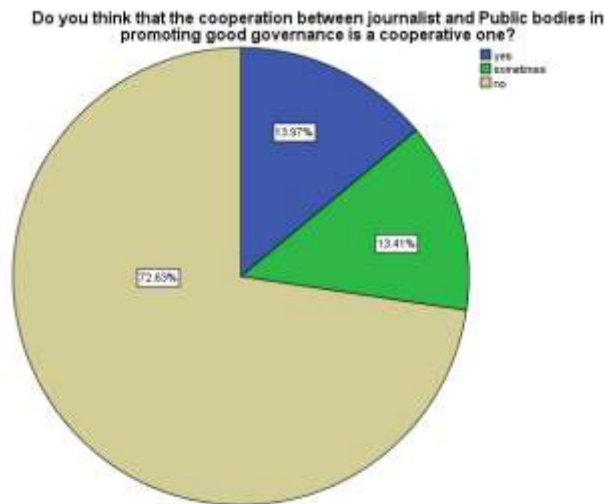
For the purpose of the study, the sample of 179 respondents has been selected from two privately owned and two publicly run media houses so as to find out their roles in promoting good governance in Ethiopia and also to identify if there is a difference between private and public media in good governance stories report. The above table shows that majority (68%) of the respondent are selected from publicly run media and the rest 32% are from privately owned media.

Based on the mechanical device or mechanism, all mass media can be grouped into two classes. The first one is Print Media which includes newspapers and news magazines and secondly, electronic media which is further divided into radio and television. These three mainstream media (newspaper, radio and television) have played a great role in promoting good governance.

Table two revealed that 61.5% of the respondents were selected from television followed by 30% from radio and 8.4% respondents from newspaper.

## 4.2. Cooperation between Media and Government

### 4.2.1. Cooperation between media and executive bodies in promoting Good



Source: Own survey, 2018

Figure 1: Cooperation between Media and Executive Bodies

In responding to the question “Do you think that the cooperation between journalist and Public bodies in promoting good governance is a cooperative one?” 73% of the respondents responded that journalists’ relationship with public bodies is conflict based. While 14% claimed that there is a cooperating based relationship between media and public bodies and roughly the same proportion (14%) said public bodies are sometimes cooperative one to the journalistic work of the journalists. One can observed from the above figure, the number of journalists who have a conflicting based relationship with public bodies was more than the number of those who have a cooperating based relationship with public bodies.

Both conflicting and cooperating based relationship between media and public bodies affected the free flow of information on promoting good governance either positively or negatively. If the relationship between journalists and public bodies are conflict based over the exchange of information on promoting good governance, the journalists didn’t get enough and reliable information from the government and the government information don’t get coverage by the media and vice versa if their relationship is positive and a cooperative one.

The researcher also examined if the type of media ownership has its own role on the type of relationship between media and government. According to the table below, (88%) private media and 54% of public media respondents responded that they don’t have a cooperative relationship with the government. While, 36% of public media journalists have a good relationship with the government.

Table 3: Media Ownership Cross Tabulation on Media Cooperation with Executive Bodies

<b>Do you think that the cooperation between journalist and Public bodies in promoting good governance is a cooperative one? * media ownership Cross tabulation</b>				
Activities	parameters	Media ownership (%)		Total (%)
		public	private	
Do you think that the cooperation between journalist and Public bodies in promoting good governance is a cooperative one?	yes	36	0	24.58
	sometimes	10.65	12.3	11.2
	no	53.27	87.7	64
Total		100	100	100

Source: Own survey, 2018

Results from the table below also indicated that journalists who have been working in public media scored ( $M=2.17, SD=0.933$ ) which is less than journalists working in private media ( $M=2.88, SD=0.331$ ).

Table 4: Media Ownership by Group of Statistics

<b>Group Statistics</b>					
Activities	media ownership	N	Mean	Std. Deviation	Std. Error Mean
Do you think that the cooperation between journalist and Public bodies in promoting good governance is a cooperative one?	public	12 2	2.17	.933	.084
	private	57	2.88	.331	.044

Results shown from the table below independent samples t test revealed that, the F value for Levene's test is 219.267 with a Sig. (p) value of .000 ( $p < .001$ ). Due to the Significance value is less than our alpha of .05 ( $p < .05$ ), we can conclude that there is a significant difference between the private and public media in terms of their cooperation with the government in promoting good governance.

Table 5: Independent Samples T test on Media relationship with Executive Bodies

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Do you think that the cooperation between journalist and Public bodies in promoting good governance is a cooperative one?	Equal variances assumed	219.267	.000	-5.536	177	.000	-.705	.127	-.956	-.454
	Equal variances not assumed			-7.406	168.552	.000	-.705	.095	-.893	-.517

Source: Own survey, 2018

#### 4.2.2. Levels of Interaction between media and law enforcement authorities

Media and law enforcement authorities have a common interest with different roles on good governance issues. Journalists who are engaged in investigative journalism and law enforcement authorities who engaged in criminal proceeding have a common mission: to expose and bring justice for abuses of power for private gain. In this case media reporting is an essential source of detection in corruption cases for law enforcement authorities to conduct internal investigations.

Table 6: Level of Interaction between media and law enforcement authorities

	Dissatisfied	Moderately satisfied	Satisfied	I don't know
Levels of Interaction between media and law enforcement authorities	59.78	24.58	8.9	6.7

Source: Own survey, 2018

Answering to the second question “There level of interaction between media and law enforcement authorities in relation to the issues of good governance promotion”; the vast majority of the respondents(60%) considered their interaction with law enforcement authorities are dissatisfied and 24% of the respondents are moderately satisfied and 9% satisfied and the rest 7% don't know their level of interaction with law enforcement authorities.

In addition to the respondent's response by questionnaires, interview with journalists working in ETV and Ombudsman commission officials also used for the purpose of cross justification on the level of relationship between media and law enforcement authorities.



One of the interviewee stated that:

*“We have very poor communication with law enforcement authorities. We are not happy by the action of the law enforcement authorities because prosecutors didn’t start prosecution as well as bring the corrupted officials to justice following our investigation’s report. So our investigation is fruitless.”*

#### 4.2.3. Accessing government information on lack of good governance

Table 7: Accessing government information on lack of good governance

	Yes	Sometimes	No	I don’t know
Accessing government information on lack of good governance	10.6	18.99	57.54	12.85

Source: Own survey, 2018

57.5% of the journalists not considered the public bodies as a credible source of information where lack of governance has shown in a given office. The results from the surveyed journalists revealed that in times of bad governance the public bodies do not offer them the necessary information.

One of the interviewee supported the above data:

*“Though we are claiming that the government is a credible source of information, in a time of lack of good governance which is happened in a given government office, the respective office didn’t provide us the required information that help us to expose corrupt officials. During the media reporting on lack of good governance, the respective offices are biased towards the interest of their organization who is serving for instead of the interest of the public at large.*

#### The public bodies treated public and private media equally when they report on good governance issues

Table 8: Public and private media treatment by public bodies when report on good governance

	Yes	Sometimes	No	I don’t know
The public bodies treated public and private media equally when they report on good governance issues	37.99	12.85	31.84	17.32

Source: Own survey, 2018

The above table revealed that 38% of the surveyed journalists considered government treated private and public media equally during reporting stories on good governance while 32% of them said government do not treat public and private media equally.

Table 20: Level of Treatment to Public and Private Media by Government

The Public bodies treated private and public media equally when they report about good governance * media ownership Cross tabulation				
		media ownership		Total
		public	private	
The Public bodies treated private and public media equally when they report about good governance	yes	54.09	3.5	37.98
	sometimes	13.93	10.52	12.84
	no	16.39	64.91	31.84
	I don't know	15.59	21.05	17.34
Total		100	100	100

Source: Own survey, 2018

As shown in the above table, there is a significant difference on the level of government treatment to public and private media when they gather stories on good governance issues. 54% of the public media journalist said government treated public and private media equally while 65% of private media journalists said there was no equal treatment by the government. Only 3.5% of journalists working in privately owned media said government treated private and public media equally.

One of the interviewee views on this issue is presented below.

*“During press conference, press briefing and interview with government officials, public media take advantage over the private ones in accessing and receiving information from government officials.”*

Table 6: Journalists level of manipulation by the government when they report on problems of good governance

	Yes	Sometimes	No	I don't know
Journalists level of manipulation by the government when they report on problems of good governance	45.81	26.82	12.85	14.53

Source: Own survey, 2018

Surveyed journalists are requested if they are manipulated by public bodies when they reported on lack of good governance so far. From the responses, it was noted that a large deal of them (46%) feel that public bodies manipulate the media for their own purpose. While 26% of the respondents tend to adopt the manipulation by government bodies happened sometimes. One of the interviewee shared his experience on how corrupted officials manipulated media:

*“The media house has accepted a complaint on the delayed road construction from the one region. Following this complaint, the media outlet sent a media team to do an investigative report on the delayed road construction. However, the managers of the project bribing the reporter in order to buy positive coverage and avoid negative coverage on the status of the construction. Then, the journalist didn’t write any negative reports on the status of the construction and the positive story were televised. The beneficiaries of the project watched false stories were televised. Consequently, the beneficiaries of the road sparked protest over the media houses for broadcasting misleading information.”*

From this one can conclude that media is highly influenced and manipulated by public bodies through bribery.

#### 4.2.4. Sources of Information

Lack of good governance (mal-administration, corruption and mis-management) reporting is one priority area of the media industry. From the surveyed questionnaires and the interviews done with journalists, it was observed that access to government information regarding lack of good governance in a specific office was extremely hard. Media houses that have reported on lack of good governance sometimes do not use direct government sources rather they found other sources who gave them information in confidence. Media use different tools to gather information on lack of good governance as shown in the table below.

Table 7: Source of Information

Source of information for media	Most of the time	sometimes	seldom
Whistleblowers	22	66	12
Customer’s comment	55	31	14
HPR reaction	36	49	15
Regulator’s report	39	59	2
Democratic institutions’ report	42	55	3
Social networking news	48	41	11
Media tips	3	16	81
Other media	8	20	72

Source: Own survey, 2018

The Survey indicated that a large number of journalists (55%) used customers' comments as the most important source of information followed by social networking news (48%) and democratic institutions report (42%) for journalists reporting on lack of good governance stories.

#### 4.2.5. Status of Ethiopian Media Role in promoting good governance

Media has been playing a great role in promoting good governance through disseminating information. The disseminated information helps the public to critically debate on the issues of good governance. To do so, independent and strong media with in a country is important to improve all aspects of good governance. The media allow for ongoing checks and assessments by the population on the activities of the government and assist in bringing public concerns and voices into the open by providing a platform for discussion.

In the process of good governance promotion media can serve a lot by mediating the government and the public. The mediation can be explained through three roles. According to Norris and Odugbemi (2009), these are agenda setting, gate keeping and watchdog role of the media. The table below revealed that the role of Ethiopian media acting as a civic forum and agenda setter roles in promoting good governance was failed in the range of moderate level (Mean=2.81 and 2.99 and median=3.00) respectively while the watch dog role of the media is low (Mean=1.96 and median=2.00)

Table 21 : Roles of Media in Promoting Good Governance

Roles	Percent	Very low	Low	Moderate	High	Very High	Mean	Median
Act as a civic forum	100	11.2	33	26.8	21.8	7.3	2.81	3.00
Act as an agenda-setter	100	8.9	20.1	41.9	20.7	8.4	2.99	3.00
Serve as a watchdog	100	35.2	38	23.5	2.8	0.6	1.96	2.00

Scale: 1=very low, 2=low, 3=moderate, 4=high, 5= very high

Source: Own survey, 2018

The table above shows that 33% of the surveyed journalists responded that Ethiopian media found at lower stage in terms of acting as a public sphere for public discussion on the issues of good governance. While 27% of the respondents responded media as a civic forum was found at a moderate and 22% at higher level.

Another important function of the media is setting the agenda for public discussion. The media also creates public awareness on certain core issues that affect the society. It has the role to shape opinion of the public concerning events taking place in the society.

The above table shows that 42% of the respondents responded the role of Ethiopian media as agenda setter is rated moderate level while 21% rated higher and 20% lower level.

The interviewee supported this data:

*“Most of the time the Ethiopian media in assists the public to know the good governance problems in Ethiopia but sometimes manipulated by the politicians for their own gain. They used the media not to solve the problem of*

good governance in the country but to shape the public opinion based on the interest of the politicians'. The core issues on the media depend on their vital interests concerning certain politicians and socio-economic issues that should be presented to the public.”

The third most important role of media is acting as a public watchdog in reporting scandals and immoral behavior. It exposes violations and scandals conducted by government officials. Without media criticism, an attempt to promote good governance is not successful. All the media under this study have their own programs on good governance. Fana Broadcasting Corporate under its program *tegaz nekaash* and ETV news under *Aynachen* have been broadcasting more programs on lack of good governance. Reporter and Addis Zemen also criticize the government weakness on good governance by publishing different good governance problems in their own different columns. The table above shows that 38% and 35 % of the respondents responded that watch dog role of the media are found at low and very low stage respectively.

### 4.3. Factors Affecting the Role of Media in Promoting Good Governance

There are some critical issues that affect the role of Ethiopian media in promoting good governance. The factors that affect the role of media can be categorized in to three parts; political and legal factors; institutional and capacity challenges.

#### 4.3.1. Political and Legal Factors

In order to promote good governance by media fair legal frameworks that are protected the right of the media and the journalists is required and enforced by the government. Here, four items were presented to the subject to evaluate whether the law is guaranteeing the freedom of the media and how the law is implemented on the ground.

Table 22: Political and Legal Challenges

Political and Legal factors affecting report on good governance	%	Strongly disagree	dis agree	neutral	agree	Strongly agree	Mean	Median
In principle, FDRE Constitution provided guarantee for Journalists to report on areas of governance problem.	100	2.8	4.5	16.8	52	24	3.9	4
Freedom of the mass media and access to information proclamation enables media to play its role in promoting good governance effectively.	100	5.6	7.3	41.9	44.7	0.6	3.27	3
The constitution or other basic laws contain provisions designed to protect freedom of the press and of expression are fully enforced	100	19.6	54.7	20.7	3.9	1.1	2	2
media are polarized along political ideology when they report on good governance issues	100	1.7	6.1	24.6	59.2	8.4	3.66	4.00

Scale: 1=strongly disagree, 2=disagree, 3=Neutral, 4=Agree, 5= Strongly Agree.

Source: Own survey, 2018

Accordingly, answering to the first question, “in principle, FDRE Constitution provided guarantee for journalists to report on areas of governance problem” 52% of the respondents responded to agree, 24% disagree and 17% rated to neutral level. For the second question “freedom of the mass media and access to information proclamation enables media to play its role in promoting good governance effectively.” The data shows that 48% agree and 42% rated neutral level while 7% and 6% rated agree and disagree respectively.

Answering to the third question 55% and 20% the surveyed respondents disagree and strongly disagree respectively on the constitution or other basic laws contain provisions designed to protect freedom of the press and of expression are fully enforced. While around 3% are rated above neutral level.

Answering to the last question “media are polarized along political ideology when they report on good governance issues” 59% of the respondents agreed media is polarized along political ideologies while 25% rated neutral level regarding the media polarization along political ideologies.

As can be observed from the above data, though both the constitution and freedom of the mass media and access to government information create conducive environment for the media to play their role in promoting good governance, the constitution and other laws were not enforced.

The media is also polarized along political ideologies. The private media is tended to liberal paradigm while the public media tended to developmental model paradigm. The private media which is producing contents which is highly critical to the government and the public media are pro-government.

*One of my key informants stated that:*

*“The public media appreciate all activities of the government while the private media criticize the activities of the government. Both the private and public media journalists’ do not care for the profession rather to the interest of their owners. Due to this ideological and financial problem, neutral, ethical and balanced media houses are unlikely to live in our country.”*

#### **4.3.2. Institutional Challenges When Reported on Good Governance**

Another main challenge faced the media in carrying out their responsibility is associated with the issue of media institution. An independent media institution provides the most effective check on governmental power and activity.

Table 23: Institutional Challenges

Institutional challenges when reported on good governance	%	Strongly disagree	disagree	neutral	agree	Strongly agree	Mean	Median
The media enjoy editorial independence when they reported about governance problems	100	12.8	34.1	17.9	26.8	8.4	2.84	3.00
The culture of self-censorship is highly placed in media houses	100	3.9	19.6	33	29.1	14.5	3.31	3.00
journalists are united in protesting abuses against the press and have willingness to cover attacks against their colleagues	100	44.7	33.5	17.3	2.8	1.7	1.83	2.00
Press associations have played an important role in monitoring, protesting and raising public outrage against attacks on journalists.	100	59.2	22.3	13.4	3.9	1.1	1.65	1.00
Media ownership affects media stands on issues of good governance	100	1.1	0.6	24	53.6	20.7	3.92	4.00
Media is under the influence of sponsorship when reported on issues of good governance	100	18.4	30.2	15.6	15.6	20.1	2.89	3.00
Journalists judge good governance issues to cover by themselves	100	10.6	41.9	22.9	20.9	3.9	2.65	2.00

Scale: 1=strongly disagree, 2=disagree, 3=Neutral, 4=Agree, 5= Strongly Agree.

Source: Own survey, 2018

Answering to the first question “media enjoy editorial independence when they reported on governance problems” 34% of the respondents disagree to media enjoy full independence when they reported on the issues related to good governance. Unless the media is editorially independent, it cannot create an informed citizen that is more

prepared to hold public bodies accountable as well as to actively participate in decision making process of the government.

Regarding to the second question “the culture of self-censorship is highly placed in media houses” 33% of the respondents responded the culture of self-censorship is moderately affected the role of the media in promoting good governance. This effect one of the interviewees stated that:

*“Journalists most of the times significantly limited their investigative reporting due to over censor themselves for fear of reprisals from the editors, the media owner, the government and corrupted officials.”*

Another interviewee also shared what he faced from the editorial board after he did his investigative reporting on condominium housing in Addis Ababa:

*“We did an investigative report on the condominium housing in Addis Ababa. The report was presented to the editorial board for reprisals. When the head of the editorial board watch the problems in the condominium housing such as the housing conditions are not considered decent; chronic lack of infrastructure; sewerage system was dysfunctional (water pipes are rusting); green areas and parking areas being used as garbage disposal lots; houses rented out for night club; chat houses...; After the editorial board see the investigative report they decided that though this report reflect the problems of condominium housing in Addis Ababa clearly, politically it's consequence is not good. Due to political reason, the editorial board not allowing to aired the investigative report”*

From this, one can conclude that media houses are not editorially independent to inform governance problems to the public. They judge reporting of good governance on the interest of the government rather than the interest of the public at large.

Media ownership affects media stands on issues of good governance. Media independence is guaranteed if media organizations are financially viable, free from intervention of media owners and the state, and if operating in a competitive environment.

The surveyed journalists were also asked if media stands on issues of good governance affect their role in promoting good governance and 54% and 21% of the respondents respectively agree and strongly agree to media ownership affects their stands on issues of good governance.

The table below indicated that 61% of the surveyed private media and 50% of public media agree to the media ownership influence on issues of good governance report. 29% of the surveyed journalist strongly agree while 35% of private media respondents rated to neutral level of influence.



Table 24: Media Ownership Influence on Media Stands on God Governance

media ownership \* Media ownership affects media stands on issues of good governance Crosstabulation

		Media ownership affects media stands on issues of good governance					Total
		strongly dis agree	dis agree	neutral	agree	strongly agree	
media ownership	public	1.6	0.8	18.8	50	28.8	100
	private	0	0	35.1	61.4	3.5	100
Total		1.1	0.6	24	53.6	20.7	100

Scale: 1=strongly disagree, 2=disagree, 3=Neutral, 4=Agree, 5= Strongly Agree.

Source: Own survey, 2018

### Sponsorship influence on Media stands on issues of good governance

The surveyed journalists were also asked if media is under the influence of sponsorship when reported on issues of good governance and 30% and 18% of the respondents disagree and strongly disagree to the influence of sponsorship to the media role on promoting good governance. However, the data below indicated that a differences observed on the influence of sponsorship on public and private media. 61% and 39% of the surveyed private media journalists strongly agree and agree respectively on the influence of sponsorship on media reports on good governance promotion while 44% and 27% of the surveyed public media journalists disagree and strongly disagree to the influence of sponsorship to the media role in promoting good governance. Then we can conclude that Private media is highly influenced by the sponsors than the public media.

Table 25: Sponsorship Influence on Media Stands on issues of Good Governance Report

media ownership \* Media is under the influence of sponsorship when reported on issues of good governance Crosstabulation

		Media is under the influence of sponsorship when reported on issues of good governance (%)					Total
		strongly dis agree	dis agree	neutral	agree	strongly agree	
media ownership	public	27	44	23	5	1	100
	private	0	0	0	38.6	61.4	100
Total		18.4	30.2	15.6	15.6	20.2	100

Scale: 1=strongly disagree, 2=disagree, 3=Neutral, 4=Agree, 5= Strongly Agree.

Source: Own survey, 2018

59% of the respondents strongly disagree and 22% disagree on the role of press associations in monitoring, protesting and raising public outrage against attacks on journalists.

### 4.3.3. Capacity and Skill Challenges

In order journalists to do an investigative report on lack of good governance effectively, they should have deepened understanding of good governance problems. Journalists' professional skills and capacity is important to investigate corruption, mal-administration and mis-management cases.

Table 26: Capacity and skills challenges

S/ N	Capacity and Skill Challenges	%	Strongly dis agree	dis agree	neutral	agree	Strongly	Mean	Median
1	Journalists have undertaken specific training on ways of promoting good governance	100	4.5	22.9	36.9	33	2.8	3.07	3.00
2	The capacity of the journalists in reporting good governance issues have been reinforced/improved/ by training	100	11.2	34.1	40.2	11.7	2.8	2.61	3.00
3	Journalists are fully aware of the key governance problems	100	3.9	2.2	15.6	59.2	19	3.87	4.00
4	Journalists have good knowledge and capacity to report effectively on governance problems	100	2.8	32.4	27.9	22.3	14.5	3.13	3.00

Scale: 1=strongly disagree, 2=disagree, 3=Neutral, 4=Agree, 5= Strongly Agree.

Source: Own survey, 2018

The surveyed journalists were questioned whether they have taken a specific training on ways of promoting good governance. 37% rated neutral level and 33% agree and 23% disagree to taking specific training on good governance issues.

The respondents also requested if “the capacity of the journalists in reporting good governance issues have been reinforced/ improved/ by training. The surveyed journalist responded that 40% and 34% rated neutral and disagree respectively to the capacity of the journalist’s capacity was improved by training.

Answering to “journalists are fully aware of the key governance problems”59% rated agrees, 19% strongly agree while 16% rated neutral level and the rest below neutral level.

The above data indicated that journalists’ lack of specific training on promoting good governance is a challenge for the journalists to do an investigative report.

Answering to the third question 32% of the respondents disagree on Journalists have good knowledge and capacity to report effectively on governance problems while 28% rated neutral level and around 37% rated above neutral level and 3% strongly disagree in responding to the journalists have good knowledge and capacity to report effectively on governance problems.

As can be observed from the above table 4.9, the majority of the respondents have responded to the items related to the capacity and skills of journalists in promoting good governance. Though a slight difference exists among the respondents to the capacity and skills of journalists in reporting good governance, their response is more or less neutral level. The mean and median of the question one, two and four revolving is at around three (neutral level) while the mean and median of the third question is at around 4 (agreed level)

## **5. Conclusion and Recommendation**

### **5.1. Conclusion**

The starting point of this study is to examine the role of Ethiopian media in promoting good governance and the challenges faced when they are reporting on good governance issues. Relevant Secondary and primary data was used for the performance of this research. Secondary data related to the concept of governance, relation between media and governance, role of media and current status of good governance in Ethiopia and laws and proclamation related to media was reviewed while primary data were collected by interviews and questionnaires from journalists and relevant government offices. The questionnaires were distributed to journalists who are working in selected private and public media. EBC and Addis Zemen from public media and FBC and reporter newspaper from private media were taken as a sample media for the study. 179 journalists (122 public media and 55 private media journalists) were filled out questionnaires; and interview were also conducted with institution representatives working in the institute of ombudsman, government communication affairs office and Ethiopian broadcasting authority and journalists.

Findings indicated that majority (73%) of the surveyed journalists have a conflicting based relationship with the government in promoting good governance in Ethiopia. This conflicting based relationship affected the exchange of information in promoting good governance. However, the cooperation between media and government has also affected by the type of media ownership. Public media cooperation with the government outweighs private media.

As far as the level of communication and interaction between media and law enforcement authorities were also unsatisfactory though both media and law enforcement authorities have their own goals in exposing wrong doing of the government and bring justice for those who abused power for private gain.

The findings also depicted that media reporting on lack of governance also adversely influenced and manipulated by public bodies through bribery. Sometimes the corrupted officials bribing journalists in order to buy positive coverage and avoid negative coverage on the wrong doing of corrupted officials.

Access to government information regarding lack of good governance in a specific office was also extremely hard. However, media used different tools to gather information on lack of good governance. The most important source of news on lack of good governance is customers' comments followed by social networking news and democratic institutions report respectively.

Concerning the role of media (civic forum, agenda setter and watch dog roles) in promoting good governance indicated that acting as a civic forum and agenda setter roles in promoting good governance was failed in the moderate level while the watch dog role of the media is below the moderate level. Despite the media in Ethiopia

plays its own role in bringing a variety of good governance concerns to public and government attention, the media has faced various challenges related to journalists' capacity and skills; institutional, political and legal challenges.

This challenges in its turn caused large failure on the part of the media to adequately investigate wrong doings of the government and provide informative coverage on the wrongdoing of government.

## **5.2. Recommendation**

The recommendations listed below are made based on the major findings of the study and the conclusion presented above.

- Media and government should work together and strengthen their cooperation in order to expose wrongdoings of the government and promote good governance.
- Since any kinds of external intervention reduce the power and independence of the media to probe and expose wrong-doing of officials, media should remain free and operating according to the roles specified in the constitution and other laws.
- The law enforcement authorities should strengthen their level of communication with media and start enquiry on the wrongdoer officials based on the evidence given by investigative journalists.
- Journalists use their discretion to operate within the parameters of law and regulation since the influence of media owner and media management has been directly influenced the autonomy of journalists in exposing wrongdoer officials.
- Journalists should capacitate their capacity and skills in promoting good governance.

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## **Laws and Proclamations**

FDRE 1995 constitution

Freedom of the Mass Media and Access to Information Proclamation 590/2008

Press Proclamation No. 34/1992

# The Role of Government in Sustainable Land Management Technology Adoption in Ethiopia

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## **Abstract**

*Government and development partners promoted and scaled up sustainable land management program in Ethiopia. However, studies on the role of government in farmers agricultural technology adoption through programs and extension services are inadequate. Accordingly, the objective of the study is to explain the role of government in sustainable land management technology adoption by smallholder farmers. The multivariate probit model results indicated that the provision of extension services and training enhanced technology adoption while sustainable land management programs led to adoption tradeoffs. These signals that government interventions required to be selective and careful incentivization of the adoption of labor-intensive technologies. The government has also room to increase technology adoption by increasing farmers access to education, off-farm employment, practice-oriented training and field study. The maintenance of physical infrastructures and copying improved technologies from communal lands cannot be ignored by farmers.*

**Key words:** *sustainable land management, technology adoption, extension, training, Ethiopia*

## **1. Introduction**

Hunger and undernourishment are the challenges of development in Sub Saharan African countries (FAO, 2008, 2015). Although progress has been made, in the years 2014–2016, an unacceptably large number of people still lack sufficient food, and one in nine people in the world and one in four in Sub Saharan Africa (SSA) were undernourished (FAO, 2015). Moreover, FAO figures showed that SSA is at the bottom in the global crop and livestock yield FAO (2009), in tropical and sub-tropical countries' agriculture contributed to 70% of deforestation (FAO, 2016).

Several factors contributed to low productivity and food supply shortage in SSA. For example, SSA is a region vulnerable to the adverse impacts of climate change and variability (Challinor, Wheeler, Garforth, Craufurd, & Kassam, 2007; Jones & Philip, 2003; Kotir, 2011; Kurukulasuriya & Mendelsohn, 2008). For example, climate change and variability impacts are decreasing food production (Deressa & Hassan, 2009; Knox, Hess, Daccache, & Wheeler, 2012; Schmidhuber & Tubiello, 2007) and climate change impact estimated to decrease Africa's livestock and crop yield significantly (Challinor et al., 2007; Jones & Philip, 2003; Kabubo & Karanja, 2007; Knox et al., 2012). However, farmers have poor adaptation practices (Bryan, Deressa, Gbetibouo, & Ringler, 2009) and low adaptive capacity (Challinor et al., 2007; Marshall, Park, Howden, Dowd, & Jakku, 2013) in the region. Access to sufficient food in SSA is also affected land use change (Lal & Stewart, 2010) and soil

degradation. Moreover, soil degradation and urbanization are severe problems causing shortage of food supply in Ethiopia and Tanzania (Lal & Stewart, 2010). According to Hurni (1996) degradation contributed to persisting food insecurity and poverty in Ethiopia. Land degradation costs Ethiopia substantially in studies conducted over the last two decades (Dejene, 2003; Rahmato, 2003). Total soil loss in Ethiopia is  $1.5 \times 10^9$  tons per year (Hurni, 1996) and Bewket and Teferi (2009) find a significant amount of soil loss in Ethiopia. Moreover, soil erosion dominates agricultural productivity loss in the highlands costs 2-3% of agricultural gross domestic product per annum. The lack of agricultural technologies and the poor adoption of technologies because of lack of credit and information contributed to low agricultural yield in Ethiopia (Deressa, Hassan, Ringler, Alemu, & Yesuf, 2009). To deal with the challenges, the government of Ethiopia and donors have supported and promoted soil conservation and environmental rehabilitation in Ethiopia since early 1980's. However, past soil conservation programs were not participatory, top-down interventions, and gave insufficient attention to farmers viewpoint, constraints, and local situations (Bekele, 2004; Bojo & Cassells, 1995). Considering past soil conservation limitations, the government of Ethiopia in collaboration with development partners has initiated, implemented and expanded SLM program to address challenges. As described in the Environmental and Social Management Framework (ESMF) document the first phase of SLM (SLM I) launched in 2009 and introduced land management practices to restore eroded land in 45 woredas and watersheds through natural resource rehabilitation programs. The intervention areas are characterized by high production potential, but severely degraded (ESMF, 2013). Thus, the SLM program currently implemented in 937 kebeles (177 critical watersheds) and 209 woredas (districts) in six regions namely Amhara, Tigray, Benishangul-Gumuz, Gambella, Oromia and SNNP Region) since 2009 (Emily Schmidt & Bekele, 2016; Emily. Schmidt & Tadesse, 2017).

The SLM program is defined as a land management strategy jointly improves productivity and improve environmental quality (Fernandes & Burcroff, 2006). That is, SLM requires that increased productivity and environmental resilience can be simultaneously achieved in a win-win scenario. Moreover, SLM is considered to reverse the vicious circle of land degradation and poverty. Moreover, there are instances of SLM technologies increased profitable and improved local livelihood (Pendera & Gebremedhin, 2007) and diminished hunger and restored ecosystem functions jointly (Edwards et al., 2011).

The SLM program implemented in Ethiopia has three main components. These are: i) physical/ infrastructure measures such as soil bounds, terrace, and waterways ii) biological measures like improved seed and crop rotation and iii) other SLM technologies including insect protection, vertisil management, and soil acidity rehabilitation. Moreover, although earlier study in Ethiopia by Nigussie et al. (2017) examined factors affecting SLM technology adoption in general, but specifically has not assessed the role of government interventions. This study assesses the role of SLM programs promoted and extension services provided by government in promoting adoption of SLM technologies. The specific research questions are: 1) What is the effect of SLM program on adoption of

agricultural technologies? 2) What is the linkage between extension services provided by government and adoption of selected agricultural technologies? and 3) what is the effect of education and training on adoption of agricultural technologies?

## **2. Concepts and Theories**

Food demand is increasing because of increasing population and income in developing countries, while farm lands are limited and productive lands are being displaced by the expansion of urbanization and industries (FAO, 2012). Increasing yield per hectare and improving soil fertility simultaneously is more important to Ethiopia because the opportunity to bring additional virgin soil under cultivation to increase yield is impossible, particularly, in densely occupied highlands changing land use and vulnerable to climate change impacts (Tolessa, Senbeta, & Kidane, 2017). More desirably Ethiopia can increase food supply by increasing agricultural productivity and efficiency. Moreover, currently the shift is towards sustainable intensification that can increase food production and stock of natural capital and ecosystem services simultaneously (Kassie, Teklewold, Jaleta, Marenny, & Erenstein, 2015; Pretty, Toulmin, & Williams, 2011).

SLM is defined as “a knowledge-based procedure that helps integrate land, water, biodiversity, and environmental management (including input and output externalities) to meet rising food and fiber demands while sustaining ecosystem services and livelihoods” (Fernandes & Burcroff, 2006:2). Moreover, SLM requires the combination of technologies, policies and economic activities in agricultural sector, to upsurge agricultural income of farmers while sustaining the quality and the functions of ecosystem. Holt-Giménez (2002) explained that SLM combines policies, technologies and economic activities aimed at integrating socio-economic concerns with environmental concerns. SLM allows to achieve five pillars of sustainability according to (Smyth & Dumanski, 1995). First, increasing productivity; second, minimizing the level of production risk; third, ensuring the sustainability of environment; fourth, be economically viable (e.g., whether the contribution of the economic activity to income is significant to make its continuation attractive); fifth, be socially acceptable (e.g., if activities are negotiated among all stakeholders, when possible conflicts of interest are addressed and resolved, and when activities adequately meet the needs of poorer people). According to Woodfine (2009) SLM is the key entry point for improving land resource resilience and productivity within the context of the potentially devastating effects of climate change in Sub-Saharan Africa, bridging the needs of agriculture and environment, with the twin objectives of: i) Maintaining long term productivity and ecosystem functions (land, water, biodiversity); and ii) Increasing productivity (quality, quantity and diversity) of goods and services (including safe and healthy food).

Moreover, practicing SLM is among intensification strategies involving investment in land that rise the yield of land while reduce adverse impacts on environment and ecosystem services (Fernandes & Burcroff, 2006). SLM increases resilience to climate change and variation (Liniger, Mekdaschi-Studer, Hauert, & Gurtner, 2011), reduces socio-ecological vulnerability (Kok et al., 2016) and, hence food security (Branca, Lipper, McCarthy, &



Jolejole, 2013). Thus, deployment of SLM practices is important to keep agriculture profitable, to feed sufficiently a growing population and while preserving the natural capital and ecosystem services (Tappan & McGahuey, 2007). We have various evidences on how SLM impacted yield. Application of biochar to soil increases mean farm productivity (Jeffery, Verheijen, Van der Velde, & Bastos, 2011). Land management practices support farmers to improve their access to food and livelihood security targets (Kandlinkar & Risbey, 2000) and increase farm net revenues and productivity in SSA (Salvatore Di Falco, 2014; Salvatore. Di Falco, Veronesi, & Yesuf, 2011).

SLM interventions are also increased sustainability in Ethiopia. Minimum tillage results in more productivity than chemical fertilizer in low agricultural potential areas (Kassie, Zikhali, Pender, & Köhlin, 2010); plots with sustainable land and watershed management interventions (such as terraces bounds, check dams) have higher production value than plot without intervention (Emily Schmidt & Tadesse, 2014); and stone bounds applied on Sami-arid plots increased yield (Kassie et al., 2007). Adoption of small scale irrigation is improving food security as it frees from rain dependence and increase production frequency per year (Tesfaye, Bogale, Namara, & Bacha, 2008). There are also instances that SLM decreased yield (Damte, Mekonnen, Kassie, Di Falco, & Bezabih, 2017) as SLM structures requires six years on average to observe crop yield increment (Araya et al., 2012).

Several factors are constraining SLM technology adoption. Education of household head and slope of the plot, distance to the plot and farmers perception to erosion affect the use of land management measures in western Ethiopia in a study by Anley, Bogale, and Hailegabriel (2007). Size of active family member enhances adoption of agricultural technology in Burkina Faso while the age of farmer decreases agricultural technology adoption (Savadogo, Reardon, & Pietola, 1998). Moreover, effective use of land management practices is constrained by several factors in Ethiopia. Household socioeconomic characteristics and plot characteristics affect the use of SLM practices in Ethiopia (Anley et al., 2007; Nigussie et al., 2017). Although SLM is promoted to enhance sustainability, maintenance of SLM structures for short term to long term is ignored in Ethiopia (Anley et al., 2007; Shiferaw & Holden, 1998). Moreover, to enhance sustainability and productivity earlier study suggested SLM interventions tailored in such a way to fit various agro ecological zones rather than a one-size fits-all approach (M. Kassie, Zikhali, Pender, & Köhlin, 2009).

### **3. The Study area and data set up**

Ethiopia is low income country vulnerable to drought and climate change imapcts (Deressa & Hassan, 2009; FAO, 2014; Holden & Shiferaw, 2004). The real GDP of Ethiopia was increasing and with the growth rate of between 8.7% and 10.9% for the periods 2011/12-2016/17 (National Bank of Ethiopia, 2017). According this report, although the contribution of agriculture in GDP was decreasing, the 36.3% share of agriculture in 2016/17 in GDP was significant. The agricultural sector dominated by crop production. In addition, in Ethiopia,

Agriculture accounts for 70% of foreign exchange earnings and 80% employment is considerable (FAO, 2014). Moreover, Emily Schmidt and Bekele (2016) observed that agriculture employees 76.6% of the labor force in 2013.

Higher level of extreme poverty was 33 percent in 2011 (World Bank, 2016) and land degradation, deforestation and drought are the challenges of development in Ethiopia (FAO, 2014). To alleviate poverty and restore environmental or land degradation, SLM program was implemented in Ethiopia in two phases. The first phase of SLM was introduced in 2009 and SLM II is implemented based on experiences and lessons learned from the SLM program I. SLM II comprises integrated watershed and landscape, institutional strengthening, capacity development and knowledge production/management, rural land administration, certification and land use; and project management. These components are decomposed into sub-components implemented in six regional states of Ethiopia. Thus, the SLM program currently implemented in 937 kebeles (177 critical watersheds) and 209 woredas (districts) (Emily. Schmidt & Tadesse, 2017).

For this study, farm and plot level primary data were collected from Dega Damot woreda, West Gojjam, located in Amhara region and Kersa Malima woreda is located in West Shewa, Oromia region. The watersheds selected for these study in these two woredas are specifically, Kechem and Tinishu Lemen watershed managements in Amhara and Oromia region respectively. The total area of the Tinishu Lemen watershed was 13, 321 hectares and that of Kechem watershed was 19, 793 hectares. The implementation of the SLM program was started at the end of 2009 in both watersheds. These watershedes are located in highland areas that were the most degraded and facing low agricultural productivity.

Stratified multistage random sampling technique was applied to select smallholder farmers from each of the two woredas. Farmers participated in the SLM program and farmers did not participate were used to form strata. Farmers sampled from Oromia were 200 and Amhara were 208. Program participant farmers surveyed were 100 in each woreda while non-program participants were 100 in Oromia and 108 in Amhara. The whole farms of program participant farmers fall within watershed demarcated for SLM program while all farms of non-participant farmers fall outside the watershed. Accordingly, the quantitative data were collected from 408 farms. On average, four crops such as barley, wheat, pulses or potato per farm were selected. These four crops were planted intercropped in a single plot but not mixed cropping if the farm is not fragmented. While one or more than one plot is used to grow crops if the farm is fragmented. Thus on average the survey covered 1632 plots covered by four crops (e.g., 408 plots per crop) in 2018 from December to February. To complement the quantitative results and in-depth understanding of research questions, qualitative information was gathered through 2 focus group discussion comprising farmers, extension workers and agricultural experts from each woreda (e.g., 8 and 12 focus group discussants in Karsa Malima and Dega Damot woredas respectively).

#### 4. Empirical Model

Multivariate (MVP) model was used to explain the role of government in promoting sustainable land management. MVP model estimates the multiple equations of probit model jointly when the multiple error terms of binary probit model are correlated (Cameron & Trivedi, 2005; Greene, 2003). Furthermore, MVP model is suitable when the decision to adopt a particular land management technology is expected to be conditional on the adoption of another substitute or complementary technology (Cameron & Trivedi, 2005; Dorfman, 1996; Greene, 2003; Mulwa, Marennya, & Kassie, 2017). When error terms of multiple equations are correlated application of logit model would lead to biased and inefficient estimation (Asfaw, Di Battista, & Lipper, 2016; Kassie et al., 2015; Mulwa et al., 2017; Nigussie et al., 2017).

The dependent variable is the farmer adoption of SLM technologies so as to maximize net benefit. An MVP model for a farmer that maximizes net benefit is specified as

$$\ln y_i^* = x_i' \beta + \varepsilon_i \quad (1)$$

Where  $y_i^*$  is a latent variable, the difference between benefit from sustainable land management technology adoption minus non-adoption. We cannot observe the net benefit, but we can observe the adoption of an SLM technology,  $y_i = 1$ . Thus, the relationship that exists between  $y_i$  and  $y_i^*$  is given by:

$$\begin{aligned} y_i &= 1 \text{ if } y_i^* > 0 \\ y_i &= 0 \text{ if } y_i^* \leq 0 \end{aligned} \quad (2)$$

That is, if a farmer adopted technology, we observe  $y = 1$ , implying that a rational producer made a decision that improves soil fertility and hence improves the income of farmers. For this, MVP model that shows the association between adoption decisions of farmers and explanatory variables is given by

$$y_i = \begin{cases} 1 & \text{if } y_i^* > \alpha + x_i' \beta + p_i' \gamma + \varepsilon_i \\ 0 & \text{if } y_i^* \leq 0 \end{cases} \quad i = 1, \dots, I \text{ \& } z = 1, \dots, Z \quad (3)$$

Specifically,  $y_{iz}$  denotes the  $z^{th}$  observed response of the  $i^{th}$  farmer;  $y_{iz}$  equals 1 if farmer  $i$  adopts SLM technology  $z$  and zero otherwise. Vectors of explanatory variables comprise the socioeconomic characteristics of households  $x_i$  and policy variables,  $p_i$ . Policy variables stands for SLM program and extension services introduced by the government of Ethiopia. Error terms  $\varepsilon_i$  are distributed as multivariate normal, each with a mean

of zero and a variance covariance matrix  $\rho$ , where  $\rho$  has a value of one on the leading diagonal and correlations  $\rho_{kj} = \rho_{jk}$  as off-diagonal elements (Cappellari & Jenkins, 2003). In our case,  $\rho_{kj}$  is the correlation coefficient of the error terms corresponding to any two adaptation equations to be estimated in the model. A positive value of  $\rho_{kj}$  denotes that any two measures used are complementary while a negative correlation is interpreted as measures used being substitutes (Kassie et al., 2015).

## **5. Results and discussion**

This section concisely presents the summary statistics of variables and the nexus between SLM technology adoption and government interventions. Moreover, the socioeconomic factors affecting farmers technology adoption decisions are discussed.

### **5.1. Farmer specific information**

Equal size of women-headed households<sup>54</sup> (13%) were considered in the study from both woredas. Being men expected to increase the adoption of SLM technologies as men have more access to information and control over resources than women. The mean age and the farming experiences of farmers respectively were 47.5 and 29 years implying that farmers have long farming exposure. Experiences are expected to decrease technology adoption as older farmers are reluctant to accept new technologies and may lack resources to buy technology. Ethiopian older farmers less likely adopt bunds in studies by Teshome, Graaff, Ritsema, and Kassie (2014). The majority of the farmers (63.5%) were literate, can read and write, and the literacy level of men farmers was higher than that of women. The literacy level is higher in the Dega Damote woreda (77.9%) of Amhara region than 48.5% of Kersa Malima, Oromia region. Farmers on average have two years of education. Education increases farmers access to various skills and information that led to more agricultural technology adoption (Cholo, Fleskens, Sietz, & Peerlings, 2018) yet Nigussie et al. (2017) found an unclear effect of education.

### **5.2. Resource ownership**

Tropical livestock units (tlu) are converted into a common unit using a conversion factor of food and agricultural organization (Harvest Choice, 2011). The mean size of tropical livestock units were 4.8. Men owned more livestock than women and the difference was significant at the 1% level. Dega Damote woreda had significantly larger livestock population than Kersa Malima. SLM program participant farmers owned significantly larger cattle than that of non-SLM. Laeger tropical livestock units increased SLM adoption in studies by Kassie et al. (2015), while decreased in studies (Anley et al., 2007; Deressa et al., 2009).

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<sup>54</sup> Here afterwards women stands for women-headed household while men stands for men-headed household

Table 1. Summary statistics of explanatory variables

Variable	variable description	%	mean	S.D.	min	max
	<b>farmer specific information</b>					
sex	1 if household head is men	87.8			0	1
experience	Farming experience of head, years		29.1	11.8	0	76
education	Education of head, years		2.3	2.4	0	11
family	Family members age 15-64 years		3.6	1.7	0	12
	<b>resource ownership</b>					
tlu	Tropical livestock unit		4.8	2.7	0	18.8
asset	Asset ownership, birr		48544.2	78142.3	0	905500
offinc	Annual off-farm income, birr		1028.1	3102.3	0	30000
social	Average years engaged in social		97.8	66.4	0	445
	<b>farm characteristics</b>					
farmha	Land holding size, hectare (ha)		7.5	2.9	0.3	12.3
farmrha	Land size rented, ha		0.85	1.1	0.25	9
farmb	Plot size allocated for a given crop, ha		4.4	2.9	0.25	9
plotb	number of total plots cultivated		3.58	1.9	1	16
distanceb	Distance to a plot from home		17.6	11.8	1	35
rentb	1 if a plot is rented	10.2				
erosionb	1 if a farmer perceived high erosion	11.2	0.04	0.35	0	0
slope	1 if slope of the plot is steeper	9.3	0.12	0.32	0	1
	<b>policy interventions</b>					
extension	Number of extension contact, year		12.5	13.3	0	85
training	Number of SLM trainings recieved		6	6	0	35
credit	1 if no credit constraint	50.7			0	1
slm	1, if SLM program participant	49.3			0	1
	<b>Crop type</b>					
barley	1 if a farmer planted barley	25				
wheat	1 if a farmer planted wheat	25				
pulses	1 if a farmer planted pulses	25				
potato	1 if a farmer planted potato	25				

Asset ownership in this study is the sum of the estimated values of the main assets types of Ethiopian like jewelry, house, television, radio, mobile and beehives owned by a household. The mean value of asset was 4,8594.3 birr. The estimated value of assets in Kersa Malima, Oromia region, were significantly higher than that of the Dega Damot woreda, Amhara regional state. Gender and program participation did not lead to disparity in asset

ownership. Asset ownership as an indicator of wealth is expected to enhance SLM technology adoption because the stock of assets owned used for collateral to borrow money to buy technologies and tools for SLM practices. However, earlier studies by Kassie et al. (2015) observed the contradicting effects of asset ownership.

The off-farm participation of household head defined as involving in income generating works other than working on own farms, but including income from working on the farms of other households and income earned from handcrafts, trade and other economic activities. A large size of farmers (25.5%) was participating in off-farm works. The off-farm participation size of farmers was 29.8% and 21% respectively in Dega Damot and Kersa Malima. Women with 32% off-farm participation rate exceeded men with rate of 24.5%. Off-farm average earning was 1028.1 birr. Dega Damot farmers had higher off-farm income than Kersa Malima woreda. Off-farm income earned did not differ by gender and program participation. Studies fund that off-farm income could help farmers to buy agricultural technologies and increase adoption (Deressa et al., 2009) while off-farm time reduces adoption by decreasing the time available to work on own farm (Teshome et al., 2014).

### **5.3.Farm Characteristics**

A larger farm size expected to enhance SLM practices. The average landholding size of 1.5 hectares was fragmented into 4 plots and the level of land fragmentation ranges from 0 to 16, implying fragmentation is higher than country level farm dispersion level. At a national level farm size of 1.01 hectares fragmented into 2.4 plots (Deininger & Jin, 2006). Most of the farmers (88.5%) owned fragmented plots. Number of plots per farm in Kersa Malima were significantly higher than that of Dega Damot and also landholding size in Kersa Malima woreda was higher than Dega Damot. Non-SLM farms were more fragmented than SLM farms, but men and women farms were equally fragmented. Land size did not varies by gender and program participation. A few farmers were landless and mean size of land sharecropped or rented was 0.21 hectares. A larger land size was sharecropped or rented in Kersa Malima than Dega Damot of Amhara region. Farmers involved in the SLM program were sharecropping or renting land more than non-program farmers. Farmers' access to education increases farmers involvement in sharecropping or renting land than that of farmers did not have any education. Land renting and sharecropping were gender neutral. Fragmentation of land decreased adoption of SLM technologies in studies by Teshome et al. (2014) and increased in studies by Cholo et al. (2018).

### **5.4.Government services**

For purpose of this study, government services are services or interventions by government such as extension and credit services provided by government. Farmers had access to extension services and SLM training provided by government, which induce the adoption of agricultural technologies. Farmers on average contacted and discussed with extension expert about their farm issues 19 times in Dega Damote was higher than the average figure of 5 in the Kersa Malima and the difference was significant at the 1% level. Moreover, interestingly literacy increases

extension contact and the mean differences were significant at the 1% level, but as expected the age of a farmer was negatively correlated with his extension contact. Extension contacts were gender neutral and farmers in a program did not have more extension contacts than non-program farmers. According to the study by Deressa et al. (2009) we assumed that more extension contact expected to increase adoption of agricultural technology by providing information and increasing awareness.

Farmers received several types of trainings related to SLM technologies, for example, farmers 78% took modern input use, 88% took terracing, 87% took composting, 53% took vegetables and fruit tree planting and 24% took enset planting trainings. On average, a farmer received 6 SLM application trainings per year. SLM training participation was gender neutral. However, literate farmers had more mean number of SLM trainings than farmers did not read and write and the difference was significant at the 1% level. SLM training participation of SLM program farmers were significantly higher than non-SLM farmers. Farmers in Dega Damota Damot had more frequently participated in SLM trainings than farmers in Kersa Malima Woreda and the mean participation differences were significant at the 1% level. Training provided to farmers increased adoption of SLM practices (Cholo et al., 2018), therefore, training provided to farmers expected to increase technology adoption.

Larger size of households, 85%, had access to microcredit<sup>55</sup> services often provided by the government when they needed credit. The total microcredit loan was 2305.7<sup>56</sup> birr. Microcredit loan size of farmers was equal in both woredas and gender neutral. However, program participant farmers loan size was less than non-participants. Farmers used credit for several purposes. Credit was used to buy farm implements by 28 %, to start business by 6% and to buy food for the family by 1% and used for other purposes by 28% of farmers. However, 18% of farmers did not borrowed said that they did not have microcredit access constraint when they needed it. Lack of collateral, high interest rate and others respectively, were barriers to 5%, 10% and 5% of farmers did not borrow. Farmers did not access credit in Dega Damot and Kersa Malima regional states were 19% and 20% respectively. Microcredit access increased the adoption of agricultural technology (Deressa et al., 2009).

### **5.5.Social network**

Farmers are often involved in various social networks including '*iqub*<sup>57</sup>', '*idir*<sup>58</sup>', '*maheber*<sup>59</sup>' and '*debo*<sup>60</sup>'. Larger proportion of farmers (98%) were participating in any of these social networks. Most farmers participated

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<sup>55</sup> Non-bank saving and credit organization with more friendly collateral requirement to local users than banks and supported by local government to mobilize saving and to increase credit access.

<sup>56</sup> 1 USD is equal to 30 Ethiopian Birr during data collection period.

<sup>57</sup> provides traditional saving and credit services to its members by pooling money from its members.

<sup>58</sup> provides traditional insurance services to its members by pooling money from its members

<sup>59</sup> social group formed by interests group to achieve common goals

<sup>60</sup> social group formed by interest groups to help each other by pooling labor of members

in more than one social network and dominantly farmers participated in it. We added a number of years all members of a given household participated in any of these five social networks to obtain the size of social networks. For example, if only a wife and a husband each are participate in a social network for five years, then the social network size of this particular household was ten. The mean social network size of farmers was 97.1. Male-headed households had a significant and larger social networks than women headed households. Non-program and program participants have equal social network participation size. Social network increase adoption of agricultural technology as it is means to diffuse information, but Damte et al. (2017) found social network has mixed effect on the decision to adopt.

## 5.6. Sustainable land management Program

SLM technologies considered in this survey were 23, but 10 technologies indicated in Table 2 were analyzed. Some of SLM practices were promoted by the government, particularly physical SLM practices and agricultural technologies, both in program and non-program farms. On average 6.5 technologies were applied per plot and SLM technologies employed in a given plot ranging from 0 to 19 practices. Although we had farmers included by SLM program (49%) and non-SLM program (51%), farmers that were not included were also applied SLM technologies applied by farms participated in the SLM program. On average, interestingly farmers that were participating in the program deployed a significantly large number of land management technologies than non-participating farmers. The mean number of SLM practices per plot in the Dega Damot woreda were significantly higher than Kersa Malima. Higher education led farmers to apply a significantly large number of SLM technologies. However, number of SLM practices per farm were gender impartial.

Table 2. SLM technologies applied by farmers

Technology	Status of technology application	%	min	max
soil	1 if soil bound is applied	49.7	0	1
stone	1 if stone bound is applied	26.5	0	1
water	1 if waterways is applied	33.1	0	1
row	1 if row planting is applied	38.7	0	1
legume	1 if legume rotation is applied	32.1	0	1
residue	1 if residue management is applied	28.5	0	1
compost	1 if compost is applied	43.6	0	1
seed	1 if quality seed is applied	11.2	0	1
grass	1 if forage on terraces is applied	7.7	0	1

The focus group discussion with farmers and agricultural extension experts indicated that some of the SLM technologies introduced by the program were different from traditional SLM practices, but most of the technologies introduced are similar to the local practices. Although for related SLM technologies, qualities of implementation in the program site and follow up mechanisms are better than the traditional SLM practices. For



example, soil bund and stone bund are introduced by the program and communal paid labor is used to apply these technologies in program farms. Although these physical structures are known by the local community, these technologies were costlier and did not practiced.

The SLM technologies introduced were suitable to the local agroecology. Apple seedlings and quality seed for potato, for example, suitable for highland agroecology were distributed to farmers located in the highland areas by the program. Moreover, quality seeds for vegetables and beer barley distributed to farmers participate in the program were productive. However, some of SLM technologies introduced did not fit to the local agroecological zone.

Farmers and experts said that SLM program was not forced, rather participatory starting from initiation to implementation phase. They opined that different committee members were established from grassroot level to federal government and subsequent discussions were made to make the program participatory. For example, committee were established from farmers in each kebele and discussions were made with farmers and trainings were provided to farmers to facilitate the technology adoption. Discussants also informed that non-participant farmers were copying technologies from program participant farmers. However, farmers and experts explained that sustainability of some technologies will be endangered after the phased out of the project. For instance, labor intensive and costly physical soil and water conservation technologies, liming technologies and the use of costly quality seed will be interrupted when the project will be resigned. Moreover, farmers make a fewer maintenance practices on their farm fields, but maintenance activities on communal lands were completely ignored. Farmers and experts stated that the main challenge of the SLM project were delaying payments for daily labor involved in the project. Organized monitoring and the evaluation of tasks were not in place, so that most of the works run by the program will be interrupted when the project ended. Limited awareness creation was made to the grassroot level stakeholders how to sustain the adoption of technologies when the program is resigned. Moreover, farmers and experts noted that the inputs required for the project were delayed because of unnecessary beaurocracies.

### **5.7.Factors affecting the Adoption of SLM technology**

Table 3 presents the MVP model results. The model fits the data as the Wald test is rejected the null hypothesis assumes that all coefficients in each regression equation are jointly equal to zero at 1% significance level. The MVP model is also preferred over the binary probit model as the likelihood ratio test rejects the absence of correlation between error terms at 1% significance level (see Table 3) and 28 of the 36 pairs of error terms have significant positive correlation.

#### **5.7.1.Socioeconomic characteristics of farmers**

Socioeconomic factors of households were affecting the deployment of SLM technologies. Being men decreased probability to adopt soil bund, row planting and planting trees and grasseses to be used as fooder on terraces rather than leaving bare terraces. The findings support studies by Nigussie et al. (2017) and Deressa et al. (2009) that

found that being male-headed household decreases the adoption of various sustainable land management technologies. Farming experience decreased the probability to adopt residue management and planting fodder on terraces and the finding matches with the age of farmers decreases the application of bunds in the studies by Teshome et al. (2014). This implies that older farmers are reluctant to apply practices because of lack of labor and resources to buy agricultural technologies and inputs, although experienced farmers expected to apply technology more because of their better exposure.

Education increased the probability to adopt stone bunds, waterways, row planting, compsting, and, but reduced probability to adopt planting grass and trees on the terraces, which used as animal fodder. Earlier studies observed mixed effects of education on the application of land management practices. For instance, and Asfaw et al. (2016); Cholo et al. (2018) explained a positive relationship between education and adoption of land management practices while studies by Kassie et al. (2015) found both positive and negative effects of education on the use of land management parctices. Education lets farmers to access skills and information that enhance farmers adoption decisions. Livestock ownership decreased probability to adopt some land management agricultural technologies.

Table 3. Factors affecting the adoption of sustainable land management technologies

<b>variable</b>	<b>soil</b>	<b>Stone</b>	<b>water</b>	<b>row</b>	<b>legume</b>	<b>residue</b>	<b>compost</b>	<b>seed</b>	<b>grass</b>
sex	-0.27** (0.13)	0.00 (0.15)	-0.21 (0.15)	-0.27** (0.12)	-0.17 (0.13)	0.05 (0.12)	-0.04 (0.13)	0.01 (0.15)	-0.38** (0.15)
experience	0.01 (0.00)	0.00 (0.01)	0.00 (0.00)	0.00 (0.00)	-0.00 (0.00)	-0.01*** (0.00)	-0.00 (0.00)	0.00 (0.00)	-0.02*** (0.01)
education	-0.02 (0.02)	0.02 (0.02)	0.05** (0.02)	0.04** (0.02)	0.00 (0.02)	0.02 (0.02)	0.06*** (0.02)	-0.01 (0.02)	-0.07** (0.03)
family	-0.00 (0.03)	-0.00 (0.03)	0.06** (0.03)	-0.06** (0.02)	0.02 (0.03)	0.12*** (0.02)	0.07*** (0.02)	-0.01 (0.03)	0.02 (0.04)
tlu	-0.01 (0.02)	-0.03 (0.02)	-0.03 (0.02)	0.00 (0.02)	-0.01 (0.02)	-0.06*** (0.02)	-0.03* (0.02)	0.02 (0.02)	-0.07*** (0.03)
ln(asset)	-0.08** (0.04)	0.09 (0.06)	0.02 (0.06)	-0.09** (0.04)	-0.12*** (0.03)	-0.08* (0.04)	-0.14*** (0.04)	0.20* (0.11)	0.24*** (0.07)
ln(offinc)	-0.02 (0.01)	0.03* (0.01)	0.02* (0.01)	0.04*** (0.01)	0.00 (0.01)	0.00 (0.01)	0.03*** (0.01)	-0.01 (0.01)	-0.07*** (0.02)
Ln(social)	0.03 (0.04)	-0.10** (0.05)	0.18*** (0.06)	0.04 (0.04)	-0.02 (0.04)	0.11*** (0.04)	0.08* (0.05)	-0.12*** (0.04)	0.09 (0.06)
farm	0.05* (0.03)	0.02 (0.03)	0.05* (0.03)	-0.09*** (0.02)	0.17*** (0.03)	0.03 (0.02)	-0.07*** (0.02)	-0.06* (0.03)	-0.06 (0.04)
plot	0.10** (0.04)	0.04 (0.05)	-0.06 (0.04)	-0.00 (0.04)	-0.06 (0.04)	-0.01 (0.04)	-0.04 (0.04)	-0.00 (0.04)	-0.06 (0.06)
distance	0.00 (0.00)	0.01** (0.01)	0.00 (0.00)	0.02*** (0.00)	0.01 (0.00)	-0.00 (0.00)	0.01*** (0.00)	0.01* (0.01)	0.01** (0.01)
rent	-0.28*** (0.06)	-0.16** (0.06)	0.02 (0.10)	0.00 (0.05)	-0.08 (0.09)	-0.23* (0.12)	0.01 (0.05)	0.13* (0.07)	-0.24 (0.18)
slope	0.28***	0.16**	0.29***	-0.00	0.07	0.11*	-0.01	-0.13*	0.18*

	(0.06)	(0.06)	(0.07)	(0.05)	(0.06)	(0.06)	(0.05)	(0.07)	(0.09)
erosion	0.00	0.00***	-0.30***	0.00***	0.01	-0.00***	0.00***	0.00***	-0.25
	(0.00)	(0.00)	(0.10)	(0.00)	(0.10)	(0.00)	(0.00)	(0.00)	(0.19)
extension	0.01***	0.01**	0.02***	0.03***	-0.00	0.02***	0.04***	0.01***	0.02***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
training	0.01	-0.07***	0.01	0.03***	0.07***	0.05***	0.02*	-0.01	0.07***
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
credit	0.24***	-0.28***			-0.05				
	(0.09)	(0.10)			(0.08)				
slm	0.56***	0.83***	-0.30***	-0.65***	-1.63***	-1.03***	-0.45***	0.47***	-0.69***
	(0.09)	(0.10)	(0.09)	(0.08)	(0.09)	(0.09)	(0.08)	(0.10)	(0.13)
barley				-0.17	0.36***	0.57***	-0.26**	0.59***	
				(0.11)	(0.12)	(0.11)	(0.11)	(0.14)	
wheat				0.10	0.55***	0.21*	-0.31**	0.38**	
				(0.12)	(0.12)	(0.11)	(0.12)	(0.15)	
pulses				0.02	0.87***	-0.06	0.15	0.52***	
				(0.11)	(0.12)	(0.11)	(0.12)	(0.14)	
region	1.85***	2.43***							
	(0.16)	(0.19)							
Constant	-1.23***	-3.19***	-2.48***	0.77*	0.65	-0.41	1.11**	-3.32***	-3.32***
	(0.48)	(0.67)	(0.64)	(0.46)	(0.42)	(0.47)	(0.52)	(1.18)	(0.72)
Likelihood ratio test of $\rho_{21}, \dots, \rho_{91}, \rho_{32}, \dots, \rho_{92}, \dots = 0, \chi^2(36) = 693.8, p > \chi^2 = 0.000$									
log pseudo likelihood= -4693.87									
Wald test $\chi^2(172) = 3117.82, p > \chi^2 = 0.000$									
Number of observations (plots)					1313				

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1 Robust standard errors in parentheses

A large off-farm income enhanced the probability to adopt a stone bund, waterways, row planting, and composting, while it decreased the probability to adopt planting fodder on terraces. Nigussie et al. (2017) and Amsalua and Graaff (2007) found mixed effects of off-farm income on the use of SLM technologies. Off-farm income participation perhaps increase adoption of some technologies by allowing farmers to generate extra income. On the contrary it likely to decrease farmers participation, by decreasing farmers' time available for agricultural production.

Social capital increases probability to adopt waterways and residue management while reduced improved seed use. Social capital increases the use of a combination of SLM practices in studies by Teklewold, Kassie, Shiferaw, and Köhlin (2013) while social connections have mixed effect on the adoption of sustainable intensification practices (Cholo et al., 2018).

### 6.7.2. Access to government services and programs

Farmers' access to government services and programs was affecting the use of SLM and agricultural technologies. For example, contacts and discussions with extension workers increases the probability to adopt all land management technologies, except legume-barley rotation. Extension contacts provided farmers with information of SLM technologies and technologies that fits to specific crop, agroecology and soil type. The result was

supported by earlier studies, like Deressa et al. (2009) and Bryan et al. (2009) in that extension contacts increased adoption of soil conservation and planting trees.

Higher number of trainings received on SLM technologies by farmers increased the application of most SLM technologies. For instance, the number training received by farmers were increasing the adoption of row planting, legume rotation, residue management, and planting fodder on edge of terraces. Trainings on SLM technologies enhance the adoption of these technologies by providing information to farmers on the benefits of SLM technologies. Similarly, the number of SLM related trainings increases the application of manure in Ethiopia (Nigussie et al., 2017).

Farmers whose plots located within the SLM project area were more likely to invest in land in the form of both soil bund and stone bund technologies. However, unexpectedly farmers in the SLM program area were less likely to apply waterways and biological technologies like, row planting, legume rotation, composting and planting grass and trees on the edge of terraces. The results, perhaps attributed to the fact that physical SLM technologies, soil bound and stone bund, were labor intensive and mainly introduced by the program and use community paid labor to undertake these land management technologies while the latter common SLM technologies mostly used by farmers before the introduction of the SLM practices. The result implies that SLM program leads to substitution of biological technologies by physical technologies.

### **6.7.3. Farm characteristics, crop type and farmers perception**

Land fragmentation measured as number of plots was increasing the probability to deploy soil bund, but did not influence adoption of other technologies. However, ownership of multiple separated plots increased manure and terrace application and enset planting (Cholo et al., 2018). The plot size increased probability to apply waterways and legume rotation, but decreased stone bund, row planting and composting. Similarly plot size has mixed effect on the use of land management technologies (Nigussie et al., 2017). However, land area increased the decision to adapt climate change adaptation practices in studies by Bryan et al. (2009). Distance to a plot from homestead was increasing the application of stone bund, row planting, composting, quality seed use, and grass planting. Walking distance to plots from are inline with the findings of Teklewold et al. (2013).

The higher slope of the plot increased probability to adopt technologies that reduce erosion like soil and stone bunds and water ways. The result is consistent with Teklewold et al. (2013), but contrasts with the findings of Nigussie et al. (2017) in Ethiopia and Clay, Reardon, and Kangasniemi (1998) in Rwawanda. Moreover, farmers perceived higher erosion levels were more likely to apply srone bund than than farmers did not perceive. However, erosion perception has mixed effect on the use of biological SLM technologies. Similar results, is observed by

Nigussie et al. (2017) and farmers perception of erosion increase adoption of soil bunds as a strategy to reduce erosion.

Farmers technology adoption varies by the crop type they produce. Farmers were more likely to adopt row planting and composting on potato than barley plots while farmers were more likely to apply legume rotation, residue amangement and quality seed on barley plots than potato plots. Composting was more likely applied in potato plots than wheat plots. The technologies that are more likely applied on potato plots are more suitable for potato production than barley and vice versa suggesting that farmers are rational as they choose technologies to match the crop type.

Moreover, renting land from other farmers decreased the probability to adopt technologies that enhance soil fertility or reduce ersion. For example, farmers were less likely to apply soil bund, stone bund and residue management on rented plots while farmers were more likely to apply quality seed on rented plots. Studies by Nigussie et al. (2017) in Ethiopia indicated that ownership of land increases adoption of traditional stone bund while decreases agroforestry and rented land increases adoption of sustainable intensification practices in studies by Teklewold et al. (2013).

## **6. Conclusion**

The government of Ethiopia and the development partners promoted SLM program in Ethiopia to jointly reduce environmental degradation and to improve productivity and hence the agricultural income of smallholder farmers. However, the evidence related to how government interventions through SLM program and extension services influenced adoption of various physical and biological technologies is limited for informed decision. To address the issue, this study aimed to explain the role of government in the adoption of SLM technologies.

The MVP model estimation results showed that the education of farmers and annual off farm income size were positively associated with the probability to adopt several SLM technologies implying that increasing farmers access to education is important to increase technology adoption. Moreover, increased access of farmers to off-farm employment opportunities improved the intensity and quality of adoption practices by financing the adoption costs of agricultural technologies. Although credit access is important to increase technology adoption like soil bund application, a few farmers accessed a small size of credit from government run micro-finance institutions and most of farmers did not borrow to buy agricultural technologies and inputs. As expected rented land decreased the adoption of mots SLM technologies suggesting improving land tenure security more is important chiefly to promote labor intensive technology adoption and investment in land that have long repayment period. The farmers perception of erosion incidences increased the use of technologies and farmers were more likely to apply soil and stone bund and waterways on hilly plots to control erosion. Farmers also chose SLM technologies to suit a crop type.

The government interventions through extension service and the provision of training focused on the use of SLM technologies promoted technology adoption. Moreover, government and policy makers need to use farmers training centers established in each kebele to provide practice-oriented trainings to farmers on the application of SLM technologies. Farmers are required to attend more SLM trainings to learn skills and improve the qualities of several land management technologies they deploy. Focus group discussion indicated that most of the farmers overlooked the maintenance of SLM technologies, particularly on communal lands and did not copying some of tree planting practices from communal lands. Farmers would involve in the maintenance of SLM practices and copy tree planting practices from communal lands. Most of the farmers were planting apple in Dega Damote woreda, but ignored timely pruning of apple although it is essential for sustainable apple production. Farmers lacked tools for pruning, local government need to provide tools for pruning. The government need to give more attention to upgrade the skills of extension workers to immense the adoption of SLM practices. However, SLM program led to undesirable substitution of technologies, for example, labour intensive physical infrastructures were substituted for biological technologies. The substitution occurred because the physical technologies were constructed by paid community labour in the program villages, the government pays for pooled community labour involved in the construction of soil and stone bunds. The result suggests that incentives led to substitution of costly and labour-intensive land management technologies for less labour intensive biological technologies. Although the government and development partners incentives are important to enhance SLM technology adoption, incentives packages should be provided in such a way to encourage the implementation of both physical and biological technologies instead of promoting solely the former.

Focus group discussion indicated that application of labour-intensive physical technologies were more promising when the program pays for the labour contributions of farmers, but payments for community labour were delayed. SLM program performance reports need to be delivered to concerned higher level officials timely to evaluate and make appropriate adjustment. Concerned expertise at zonal and regional levels were needed to provide sufficient support to experts at a grass root level to increase the effectiveness of the program. To create a sense of ownership and to ensure accountability and responsibility of the project, organizations responsible for the project need to be established and provided legal rights to stakes at grass root level to continue and scale up the SLM program when the project will be withdrawn. Overall, the government need to increase the coverage of SLM program and provision of extension services and trainings to increase the impact of SLM program.

This study has some caveats. The study applied cross-sectional plot and farm level data. The former data cannot capture changes in the adoption decisions of farmers overtime and hence future studies could apply panel data. Moreover, for time reasons the survey limited to two woredas in two larger regions of the country, although the SLM program was implemented in many woredas of six regions. Further studies may increase the sample woredas. Moreover, this survey covered highland agroecology despite the fact that Ethiopia has diversified

agroecological zones. Despite the caveats, this study is important for policy makers to make informed decision regarding the role of government to expand and improving the quality of SLM program.

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# Innovative Green ICT for Environmental Protection and Development in Africa

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## Abstract

*In this modern era, innovation growth, technological development and consumption seem to be endless. Each and every day thousands of electronic parts and devices are manufactured that make human life easier and made them to live in an era of new versions, new models and new technological functions, with no regard for the environmental and social repercussions. However, the disproportionate increase in technological waste is creating an environmental conflict. Even though the undeniable benefits of technology, the situation is becoming alarming considering the sheer quantity of technological waste discarded each year throughout the world and given that this waste has repercussions not only in environmental but also in social terms, since hundreds of communities in various countries around the world are working in electronic waste recycling every day without regulation and in hazardous and unhealthy conditions. All countries must therefore work together to find regional and global strategies, mechanisms and solutions to ensure the sustainable and efficient management of this waste. The role of ICT in the protection of the environment and combating climate change has received significant attention in different types of international forums. Increasing temperatures and sea level and frequent incidences of floods and storms constitute the evident impact of climate change, having also an effect on the balance of the ecosystems, water and food supply, public health, industry, agriculture and infrastructure. The main of this research work is to identify the several issues that affect the environment and to find the possible ICT based methods to protect the environment without disturbing the technology use.*

**Keywords:** Environmental awareness, Environmental pollution, Green ICT, Information and Communications Technology, ICT innovation.

## 1. Introduction

The role of ICT in the protection of the environment and combating climate change has received significant attention in different types of international forums. Increasing temperatures and sea level and frequent incidences of floods and storms constitute the evident impact of climate change, having also an effect on the balance of the ecosystems, water and food supply, public health, industry, agriculture and infrastructure [1]. The natural environment, encompasses all living and non-living things occurring naturally on Earth or some region thereof. It is an environment that encompasses the interaction of all living species [2].

Earth science generally recognizes four spheres, the lithosphere, the hydrosphere, the atmosphere, and the biosphere [2] as correspondent to rocks, water, air, and life. But, it also includes, the cryosphere and pedosphere as an active and intermixed sphere. Pollution is the introduction of contaminants into an environment that causes instability, disorder, harm or discomfort to the ecosystem i.e. physical systems or living organisms [3]. The main of this research work is to identify the several issues that affect the environment and to find the possible ICT based methods to protect the environment without disturbing the technology use.

## **2. Literature Review**

There are different views to investigate and summarize the conducted studies. One method is to investigate the studies based on the date they have carried out that has its own advantages. This method allows us to study the evolution and development of the topic. The next view is to divide the conducted studies into internal and external. The comparison of internal and external investigations will be easier in this method. The third method was to classify studies based on the themes and its benefits are the ability to focus on different areas of research. In this study, according to the breadth of topics of ICT and sustainable development, the consolidated view with a focus on topics was selected. That is, in the first place studies were divided into the three axis of the effect of information and communication technology on economic growth, the effect of economic growth on the quality of the environment, and information and communication technology on the environment and in the second place with regard to the chronological order in each group of domestic studies and foreign studies will be considered separately.

The work [4] investigate the qualitative and quantitative research on the role of information and communication technology in economic growth in developing and developed countries and suggest that there is a strong positive relationship between information and communication technology ICT and economic growth in developed countries. The use of ICT has led to changes in labor composition in favor of skilled workers who are fluent in information and communication technology skills.

The study [5] which was conducted in Egypt and other Arabic countries of the Persian Gulf argues that ICT in most cases has a positive correlation with economic growth, that is, economic growth increases by increasing investment in ICT and increasing the use and application of it.

The research work[5] investigate the effect of ICT capital in developing and developed countries in their study and conclude that ICT investment yields is positive and significant in developed countries and is not significant in developing countries. The paper [6] has investigated the effect of ICT on economic growth in Southeast Asia in their study. They conclude that the effect of ICT on economic growth started from capital deepening of the ICT sector in the 1990s and capital deepening of the ICT sector plays a major role in improving labor productivity in studied countries in the second half of the twentieth century.

The paper [7] through using the data of 36 countries during the period 1982-3 in both developed and developing countries estimate the effect of information and communication technology on economic growth. This estimation shows that the elasticity of information technology in developing countries equals the negative of 0.012 and 0.057 in developed countries.

The research Work [8] has investigated the effects of ICT on economic growth in developing and developed countries for the period 1993-2001 in his study and finds an insignificant positive relationship between the effect of information and communication technology on economic growth and productivity for all countries under study

### **2.1.Sustainable Development Models**

Some patterns of sustainable development are as the following. Given the considerable differences in their appearance, almost all of them base sustainable development on the three pillars of the environment, economy and society. These models include:

1. The tripod model of sustainability in which sustainable development has been based on three pillars of social, economic, and natural environment.



2. The three-sphere model which based the realization of sustainability on the realization of three dimensions of society, economy and environment. Environmental, social, and economic developments have always been emphasized in different models of sustainable development. However, in addition to the above dimensions the political dimension and other cases are considered in some of them.



## **2.2.Information and Communication Technology**

IT addresses issues such as the use of electronic computers and software so that the store, process, transfer, convert, protect, and recovery of data be safely carried out. The effect of ICT in public administration (such as urban and rural development, transport), improve the quality of life (such as health, education, environment, agriculture), knowledge sharing and improve access to information, the use of ICT in business (such as manufacturing, electronic commerce, tourism, and travel industry) is obvious. In addition, topics such as health, careers, business, security, the environment, regional development, human rights, and education are affected by ICT; while in many cases, this connection can be two-way.

ICT can have positive and negative effects on sustainable development. On the one hand, the sustainable development can be realized with a higher efficiency and effectiveness through ICT, on the other hand, ICT also can be an obstacle to the realization of sustainable development as a product (or service) or as a tool to empower other sectors.

## **2.3.The Impact of ICT on the Environment**

The relationship between information and communication technologies and the environment is one of the complex and multi-dimensional issues. ICT can have both positive and negative effects on the stability of the environment. ICT is a powerful tool for communities to protect the environment. The facilities which ICT provide for human communication reduce the need of communities to natural substances in environment [9] [10].

It also reduces the amount of waste entering the environment. On the other hand, production and distribution of ICT facilities require energy and materials and due to the short life cycle of ICT facilities, electronic waste entering the environment is increasing [11].



With regard to the impact of information and communication technology on environment, this issue can be investigated from different aspects, since examples and consequences of using this technology in various aspects of human life are obvious and can be investigated [12] [13]. The effects of information and communication technology on the environment are divided into three separate categories as follows:

- (a) **First Category:** Those consequences (outcomes) of environmental information and communication technology are investigated at this level which solely caused by the production and use of the facilities in this field which are called direct consequences and are divided into two groups of positive and negative consequences. Negative consequences include those parts of environmental consequences that are obtained from the production process of ICT such as computer hardware, network cables, monitors, consequences of disposal and destruction of ICT facilities, etc. Positive effects include capabilities that are obtained from production and supply of ICT products. For example, electronics indicator of pollution, electronic controls, and more.
- (b) **Second Category:** At this level, that part of the environmental effects of ICT (such as the use of ICT in the process of production, distribution, and consumption) is considered which influence macroeconomic sectors in terms of virtualization and increasing access among economic agents.
- (c) **Third Category:** This level is related to stimulation and motivation on the part of the effects of information and communication technology goes which makes the channel of higher economic growth, taking the total economy (as compared with the case where the information and communication technology is not used) increase which are famous as reaction and restoration effects. It is necessary to mention that the relative size of each of these effects (in three categories mentioned) is not equal and no doubt what is posed in the form of the consequence of the use of information and communication technology in the second level is far more impressive than the other two levels [14].

#### 4. Results and Discussion

According to the investigation of the model presented above and summarizing the considerations taken into account in them following results were obtained regarding the effect of ICT on sustainable development.

1. Two main aspects of supply and demand have been considered in order to develop ICT.
2. The supply of ICT is based on three components of infrastructure (including hardware products and ICT), media (including tools and information exchange systems), and content (including text, audio, image, and video).
3. The demand for services is mainly seen in the fields of education, business, health, and government services. Therefore, the components of e-learning, e-health, and e-government can be considered for it.
4. The main aspects of sustainable development include environment, economy, and society. Several factors are taken into account for sustainable development. Eight universal leading indicators are among them that favorably cover three mentioned dimensions.

Sustainable development indices can be defined based on 8 indices. These indices have been introduced by valid international sources including universities and research centers. A full description of each index and its issuing reference is given in the corresponding source [10].

1. The index of Ecological Footprint (EF): This index is used to measure resource consumption and pollutant absorption for demographic or economic.
2. The index of Surplus Bio-capacity (SB): This index assesses the sustainability of consumption patterns. The ecological footprint of potential low fertility land surface and water are collected in order to calculate this index. This index is a function of the amount of fertile ecological environment, consumption, and population.
3. The index of Genuine Savings (GS): This index shows net change in the total value of assets that are important for its development (such as produced assets, natural resources, environmental quality, human capital and foreign assets).
4. Environmental Vulnerability Index (EVI): This index shows the risks that threaten the environment.
5. The index of Gross Domestic Production (GDP): GDP can be considered as the total value of all goods and services produced within a country's borders, especially for a specific period of time (usually one year).
6. Human Development Index (HDI): This index represents the life expectancy at birth, access to education and acceptable standard of living.
7. Environmental Sustainability Index (ESI): This index evaluates the ability and capability of nations to protect the environment in the next several decades, and considers issues such as environmental systems, reducing environmental stresses, reducing human vulnerability to environmental pressures, social capacity, and institutional responsibility in the face of environmental challenges and global monitoring.
8. Environmental Performance Index (EPI): This index emphasizes the aspects of environmental sustainability and evaluates performance of policies and national programs to reduce environmental problems and protection of the environment and natural resources management.

### **Future Aspects of Green Computing**

As 21st century belongs to computers, gizmos and electronic items, energy issues will get a serious ring in the coming days, as the public debate on carbon emissions, global warming and climate change gets hotter. If we think computers are nonpolluting and consume very little energy we need to think again. It is estimated that out of \$250 billion per year spent on powering computers worldwide only about 15% of that power is spent computing- the rest is wasted idling. Thus, energy saved on computer hardware and computing will equate tons of carbon emissions saved per year. Taking into consideration the popular use of information technology industry, it has to lead a revolution of sorts by turning green in a manner no industry has ever done before. Opportunities lie in green technology like never before in history and organizations are seeing it as a way to create new profit centers while trying to help the environmental cause. The plan towards green IT should include new electronic products and services with optimum efficiency and all possible options towards energy savings. Faster processors historically use more power. Inefficient CPU's are a double hit because they both use too much power themselves

and their waste heat increases air conditioning needs, especially in server farms--between the computers and the HVAC. The waste heat also causes reliability problems, as CPU's crash much more often at high temperatures. Many people have been working for years to lice this inefficiency out of computers. Similarly, power supplies are notoriously bad, generally as little as 7% efficient. And since everything in a computer runs off the power supply, nothing can be efficient without a good power supply. Recent inventions of power supply are helping fix this by running at 80% efficiency or better.

## 5. Conclusion

Green ICT is of crucial importance for a sustainable economic development, including products with a lower environmental impact, processes treating waste, reuse or recycle, providing innovative technologies and systems to monitor environmental impact and support the social needs of citizens and consumers. The domains where ICT can help are vast. Reduction of carbon emissions and energy consumption are two of the most important domains. Equally important are issues like reducing waste and maximizing the use of raw materials. Collaboration between the different related sectors is paramount for achieving these goals. Green ICT benefits the environment by improving energy efficiency, lowering greenhouse gas emissions, using less harmful materials, and encouraging reuse and recycling. We should be legally, ethically, and socially committed to green our ICT products, applications, services, and practices.

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# Assessment of Opportunities and Challenges of Forming Partnership for the Goals: Goal 17 of SDGs to Realize the 2030 Agenda

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## Abstract

*Partnership is made cornerstone for the realization of Sustainable Development Goals (SDGs). Owing to ambitiousness of the 2030 development agenda, developer of the agenda wanted revitalization of partnership for implementations of SDGs. Thus, achievement of the 2030 agenda requires all hands of different actors [governments, businessmen, civil society organizations, individuals] on desk. This paper assessed opportunities and challenges of forming partnership for the goals by reviewing relevant literature, analyzing current world as well as national situation qualitatively. The author argues despite adoption of historic, comprehensive, people-centered universal transformative goals, it seems of lip-service; due to: non-binding nature of the agenda itself; prevalence of insatiability; increased isolationist policy at alarming rate; narrow nationalism and hypocrisy as challenges of forming partnership for the goals. Genuine commitment to implement SDGs; particularly, enhancing south-south and north-south is recommended to prevent SDGs from becoming wish list. Synergy between government, individuals, CSO and TNC is important.*

**Key Words:** *Challenges, Goal 17, Opportunities, Sustainable Development Goals*

## 1. Introduction

The World Bank has established a working definition for partnership. Accordingly, partnership is “a collaborative relationship between entities to work toward shared objectives through a mutually agreed division of labor” (World Bank, 1998). Internationally, forming partnership to stand together in solidarity for a better future dates back to the UN establishment era where countries agreed to co-operate one another (Peter, 2009). Since then, UN has mandated to make legislative documents related to partnership. As examples, the 1996/31 ECOSOC resolution governing NGO relations; 1998 United Nations Fund for International Partnerships can be mentioned. SDGs that formally approved in 2015 were the result of a three year long transparent, participatory process and were inclusive of all stakeholders and people’s voices. The goals represent an unprecedented agreement around sustainable development priorities among 193 Member States. The SDGs holistically address the economic, social

and environmental dimensions of sustainable development and are designed to be pursued in combination, rather than one at a time. Integrated development is therefore at the heart of the 2030 Agenda (PAGE 2016). However its realization will be unthinkable to achieve without revitalizing partnership with different actors. Organizationally, the article is divided into four sections. Following this introductory section, section 1 sets problems that motivated the author conduct this study. The 2<sup>nd</sup> section is material and methods. The 3<sup>rd</sup> section is results and discussions. Under this section, analysis of available opportunities to realize partnership for the goals and challenges of forming partnership for the goals that makes the 2030 agenda in general and goal 17 in particular a wish list are done. Finally, section 4 draws conclusions and recommendations.

### **1.1. Problem Statement**

The 2030 agenda for sustainable development is very ambitious. It bases on the five fundamental principles (five Ps); among which one is partnership (UN, 2015). These Ps are fundamentals to transform our world realization of which could lead to the future we want in 2030. These Ps are: People; international community is committed for the realization of all human beings fulfilling their potential in dignity and equality by ending poverty and hunger in all their form and dimensions. Planet; protect the planet and its resources from degradation for present and future generations. Prosperity; all human beings can enjoy prosperous and fulfilling lives and that economic, social and technological progress occurs in harmony with nature. Peace; foster peaceful, just and inclusive societies which are free from fear and violence. Partnership; mobilize the means to implement, focus on the poorest and most vulnerable with the participation of all countries, all stakeholders and all people.

The inter-linkage, integrated, and universal nature of SDGs demands cooperation of international community for realization of 2030 agenda. And partnerships hold fairly enough coverage of provisions in the declaration. In the declaration paragraph 39-46 are about means of implementation which has direct link with goal 17. Goals and targets of SDGs are treated in different section; meaning goal 1 through goal 17 is dealt in different section of the document. This makes goal 17 to appear twice; one under means of implementation section and under goals and targets section. This shows weight given to the goal and its importance for other goals.

Goal 17 is a key for the successful implementation and monitoring of all the other SDGs (ICSU, ISSC 2015). It is more fundamental than the others, because if we fail to achieve it, we won't be able to achieve any of the other goals. Goal 17 calls for the revitalization of the global partnership for sustainable development; an explicit acknowledgement that our collective ability to achieve the goals hinges upon our willingness to forge partnerships. As the name indicates, this goal is not only about goal number 17; it is for implementation of all other goals. Thus, goal 17 of SDGs contains key enablers for action across the entire SDGs framework. The goal facilitates an intensive global engagement in support of implementation of all the other goals and targets bringing together governments, private sectors, civil societies, the United Nations system and other actors and mobilizing all available resources (UN, 2015).

Despite these all, within a year of international community's approval of SDGs to guide activities of member states until 2030 with the objective of 'bringing development that will end poverty and promote prosperity by 2030, while addressing the environment'; two worrying facts affecting partnership has happened so far. Brexit vote and Trump presidency, who is trying to isolate America from the rest of the world as a challenge to realization of SDGs. Moreover, the 2017 UN report on partnership shows partnership for the goal is not very encouraging. As far as the author's knowledge is concerned, there is no research conducted to assess the opportunities and challenges to goal 17 of SDGs. So, it is important to assess what is challenging goal 17 of SDGs as well as available opportunity; in order to tackle challenges and utilize opportunities, to realize SDGs. This research is done with that intention framing its objective to "examine opportunities and challenges to attain sustainable development goals (SDGs) in general and goal 17 [partnership for the goal] in particular". To address its objective the following research questions are tried to be addressed.

- 1) What are existing opportunities to achieve SDGs in general and goal 17 of SDGs?
- 2) What are challenges of revitalizing partnership for the goal?

## **2. The Methods**

In the main, this paper has attempted to make an appropriate review of the existing literature on sustainable development goals with particular emphasis on goal 17 of SDGs. The 2030 Agenda document, Laws, books, journal articles and materials from internet sources are used. The research is based on literature review. Particularly, it is based on the integrative literature review; where critiques and synthesis of secondary data sources are made. This type of literature review the appropriate since the research does not involve in analysis of primary data.

To achieve its objective, in-depth look at the available opportunities, by assessing relevant literatures to realize SDGs as whole and goal 17; as well as investigating challenges that holds back revitalization of partnership thereby makes the SDGs a lip-service is analyzed looking at the current world situations. The submit document is critically analyzed; particularly goal 17 and its targets. Therefore, the methodology employed in the paper is qualitative one.

## **3. Results and Discussions**

### **3.1.Opportunities for Partnership for the Goals**

The theory behind a partnership approach is summed up by the Kashmiri saying: "one plus one equals eleven." In other words, the sum is greater than the individual parts. Such collaboration can ensure development initiatives; captures creative potential of diverse actors for deeper impact, foster local ownership for sustainability, and are integrated for effectiveness in addressing complex problems or new opportunities. The importance of partnership

has been recognized long ago; and more synergy is recognized in the 2030 agenda. Accordingly, the achievement of the 2030 agenda will require all hands-on deck. It requires different sectors and actors (UNDESA, 2016).

The 2030 agenda for sustainable development and SDGs are the global agenda that concerns every country, developed and developing. More importantly, integrated and indivisible SDGs that balance the three pillars of development: economic, social and environmental is the most comprehensive and consultative process in the history of UN. It is the 1<sup>st</sup> in the history of UN that large numbers of countries (193) come together and agreed up on common agenda. It means something when these all countries agreed and is a great opportunity for partnership and work together for the realization of the agenda. On the other hand, the submit document itself in its preamble called up on all countries and all stockholders to in collaborative partnership for the implementation of the plan that supposed to guide actions of countries for the next 15 years from its coming to force i.e. 2015-2030. In addition to large coverage given to partnership in the 2030 submit document, this is yet another opportunity for partnership for the goals.

The document envisaged the high level political forum to follow up the implementation of the goals and targets of the SDGs; the political forum has the potential to make partnership. High political forum is overseen under the auspice of General Assembly and Economic and Social Council. Therefore, this high political forum is an opportunity to strengthen and revitalize partnership. Addis Ababa Action Agenda that took place in Addis Ababa on July 13-16, 2015 (UN New York, 2015) is one of such high political forum that enhances partnership. The forum endorsed resolution 69/313 for global partnership and solidarity to address the challenge of financing thereby creating an enabling environment at all levels for sustainable development.

Dubai Declaration which was adopted at the first High Level Forum held at Dubai, United Arab Emirates, on 24 November 2016 was one of the agreement to boosts cooperation between UN space affairs office and UAE (Emirates, 2018). *The declaration* Asserted space exploration is a long-term driver for innovation, strengthening international cooperation on an all-inclusive basis among nations, and creating new opportunities for addressing global challenges. Global Partnership for Effective Development Cooperation, Open Government Participation, Global partnership for Sustainable Development Data; can be raised as examples of synergies of multi-stakeholder partnership that revitalize partnership globally (UNESCO, 2016). These are another opportunities to strengthen partnership for the goals.

More importantly, there are many unions regionally as well as globally if they stick to the concerns of SDGs which is a great opportunity for the attainment of goal 17 of SDGs. In general, the outcome of the submit



document is so comprehensive that it included provision that helps to form partnership and follow up the progress of the implementation of goals and targets of SDGs; at national, regional and international level. If countries are willing to do what they agreed regarding SDGs, prior existence of different unions thought regions and internationally, it is great opportunity to revitalize partnership for the goals; widening the possibility of achieving what is foreseen during the conference that resulted in developing the worldwide agenda for post-2015.

### **3.2.Challenges of Forming Partnership for the Goals; Goal 17 of SDGs**

It is barely three years since SDGs come in force to guide actions of governments for the next 15 years. It is just three year's journey of a fifteen year long road map and one could suggest patience for potential challenges. However, the fast paced unfolding realities of our world demand urgent action. Especially goal 17 of SDGs is at risk observing the prevalence of instability in the world following the rises of Islamic State; the Brexit vote; winning of Donald Trump the American Presidency who follows isolation policy that divide world than forming partnership; are among challenges that may impedes realization of 'Transformative Agenda of 2030' in general as well as the 17<sup>th</sup> goal of SDGs.

#### **i) Challenges from Perspective of the Non-binding Nature of 2030 agenda**

A key challenge to goal 17 of SDGs arises from the nature of agenda itself. Obviously, SDGs are political document which countries entered into political commitment to guide their deeds accordingly. Countries enter in to commitment but rarely honor promises they made. There is no ways of ensuring responsibility and accountability for not honoring the commitment (James Patterson, 2015). As an intergovernmental system, the UN is only able to track progress of sovereign member states, based on voluntary progress reports. This is challenging to force those entered to an agreement due to sovereignty principle. Provided genuine commitment exists at the national level, leaders may work towards its realization.

As expressed by James, discussions are currently occurring to decide on indicators and ways of monitoring and evaluating progress on the SDGs, largely at the national scale. Research identified concerns emerging from the way responsibility is framed in two key SDG documents (Bexell & Jönsson, 2017). However, realization of SDGs in general and goal 17 in particular is being challenged due to the non-binding nature of the document. In the 2030 agenda document, developed countries have made commitment to make Official Development Assistance (ODA) to strengthen financial constraint of Least Developed Countries (LDCs) (target 2 of goal 17). Developed countries have made commitment to assist 0.7% of their Growth National Income (GNI) which in most cases delivered in less amount of commitment. For instance, even though ODA commitment is raised 6.7% as compared to 2014 in 2015; the net ODA is at 0.3% of GNI; fell short of the commitment by many donors (OECD, 2016). And there is no way to force those committed to deliver more, in fact making less than what is promised due to the non-binding nature of the document.

## ii) Challenges of Governance

The 2030 agenda left no one behind. However, sustainable development will only become a reality if we have the enabling environment for it to happen (Frontiers, 2015). Governance will play a crucial role in shaping SDGs. It is only possible to be achieved with governance; indeed with three aspects of governance (Biermann et al., 2014). These three aspects are: good governance, which focuses on processes of decision making and their institutional foundations; effective governance which focused on the capacity of institutions to resolve problems of public policy and implement effective rules and *equitable governance*, which focuses attention on distributional outcomes and equitable treatment, including of the very poor and marginalized, is a third element of governance as goal. Generally, these three aspect of governance has synonymy with democratic governance; and it is possible when democratic values and norms are engraved into the functioning of the state, society and its institutions (OECD, 2016). Where there is no democracy and institutions that promote good governance, which in most cases is prevalent in developing countries; partnership is at risk. Therefore, SDGs are likely to fail unless far more attention is given to address governance challenges which are crucial for realization of sustainable development goals.

Civil societies are key drivers of sustainable development (Frontiers, 2015). Indeed, civil society plays a critical role in ensuring representation of diverse voices; particularly those of the neediest in the governance and development discourse. To function effectively they need enabling environment. However, in many countries Civil Society Organizations (CSO) are facing increasing challenges, which in directly affects realization of SDGs particularly goal 17. The 2015 civil society report shows the worsening relationship between government and CSOs (Firmin et al., 2015). Worsening CSO-Government relationship comes from historical attitudes, biases, and bad blood between civil society and government creates insurmountable barriers to their engagement; which includes fear of unknown, unsure or suspicious of the other's real intent or interest in a particular process (UNESCO, 2016). The Ethiopian situation is not different. It is even at the verge of extinction since the government uses a number of repressive laws to narrow down social and political spaces for and civic organizations. Charities and Civil Societies Proclamation and Anti-terrorism Proclamation are repressive laws endangering CSOs. This could be related to governance challenge. It directly affects strengthening partnership as envisaged by 2030 and revitalizing with all actors. A great challenge indeed for the realization of SDGs since it affects goal 17 which is the heart of the SDGs. In this regard the current Ethiopian government seems determined to widen both political spaces reforming legal hindrances. In turn it seems promising to revitalize partnership with CSOs that plays crucial role to achieve SDGs.

### **iii) Challenges of Narrow-nationalism**

Within a year after historic event in the history of this world where more than 150 head of states and governments and many more actors involved in the approval of transformative ambitious agenda, that may not be realized without revitalized global partnership; two worrying facts affecting partnership has happened so far. Brexit vote and raise Ku Klux Klan following win of Donald Trump the American presidency who is trying to isolate America from the rest of the world. On one hand, international community is crying to make partnership to achieve SDGs; which is in fact impossible unless global partnership is strengthened. On the other hand, in different countries narrow nationalism is raising which is contrary to forming partnership. Therefore, like that of good governance, poverty inequality and many other things like narrow-nationalism is challenge to goal 17 of SDGs.

### **iv) Lack of Political Commitment**

Realization of the global commitments related to SDGs is not very encouraging as a number of commitments on trade, aid, investment and financing for the development of the LDCs have not been significantly met (UN, 2017). Countries promise to unite against certain global problems at different forums but rarely perform promise they made because of different conflicting interests. Climate change (Goal 13) is a classic example. Those affected in the short term, such as fossil fuel companies and their workers, will perceive themselves as “losers” if they are forced to change, even though society as a whole will be a “winner” in the long-term (James Patterson, 2015). The hypocrisy of nations is practical challenges to revitalize partnership. The spread of protest all over America that hosted large number of protesters is the recent phenomena of the hypocrite nature of governments over climate change which is the challenge to realization of SDGs particularly goal 17.

## **4. Conclusion and Recommendations**

The Post-2015 Agenda is an unprecedented effort that embodies universal aspirations for achieving a better, more just; equitable, peaceful and sustainable future. The achievement the 2030 Agenda requires all hands-on deck. It requires different sectors and actors working together in an integrated manner by pooling financial resources, knowledge and expertise. Thus, the concept of partnerships is a vehicle for supporting government led actions in realizing 2030 agenda.

In the new development era with 17 intertwined SDGs and 169 associated targets as a blue-print for achieving the sustainable development, cross sectorial and innovative multi-stakeholder partnerships play a crucial role; while leadership role is indispensable to get us to where we need by the year 2030 by facilitating partnership formation. In the move towards the future we want by 2030, implementing SDGs are crucial. Existence of different initiatives, regular high political forum, and regional as well as global unions are opportunities to form partnership for the goals to realize 2030 agenda.

Even though it is a little too early to blame anybody for the achievement of SDGs, some challenges could be predicted from practices and some occurrences within the short life span of SDGs. Lack of good governance, lack of political commitment and hypocrisy, narrow-nationalism, the non-binding nature of the 2030 agenda are among challenges for strengthening partnership and revitalize global partnership for sustainable development.

To overcome these challenges:

- ✓ International, regional as well as local communities need to strengthen partnership through genuine commitment; sticking to what is promised during the process of developing the people-centered and plant sensitive document.
- ✓ International community needs to work on how to change the political document to binding document.
- ✓ If we really intend to end poverty in all of its forms, in all nations, by 2030, developed countries need to honor their ODA; and developing countries need to develop the pro-poor policy while monitoring implementation of aid to eradicate poverty.
- ✓ We need to have a leadership that reads mind and heart of society and who believes in partnership; since it is very much needed to realize SDGs. Particularly, working with CSO and business men is crucial.

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# Security Sector Reform in Ethiopia: A Study on Amhara National Regional State Police Force

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## Abstract

*The focus of this study is to assess security sector reform in Ethiopia with a particular reference to the Amhara Regional Police Force. The central objective of the study was to explore the current implementations, challenges and limitations of Security Sector Reform in Ethiopia with a particular reference to the Amhara Regional State Police Commission. The researcher employed qualitative research method with case study research design. The data was collected from primary and secondary sources. The participants of this study were selected via purposive sampling technique. The findings of the study show that SSR is currently implemented in the Amhara Regional State Police Commission having different forms. But, it is not in a position to improve the performance and service delivery of police force. The finding of the study also shows that the measures taken by the Commission and stakeholders to improve the reform program and service delivery of police are inadequate. Particularly, the roles of civil societies are curtailed in the ANRS Police Commission because of the 2009 Charities and Societies Proclamation adopted by the Ethiopian government. The study also identified the major challenges of the reform program and these are political interference, lack of competent leadership and lack of human and material resource. Lastly, the study suggested recommendations to the ANRS Police Commission, Stakeholders, and to the ANRS Council.*

**Key words:** Amhara, security sector reform, police, Ethiopia

## 1. Introduction

SSR as a concept was introduced after the 1990s by security experts and politicians in the world. It is originated from two spectrums. The first one is from the development community who were the advocates on the importance of security sector for economic development and democratization and the second one is from the field of civil-military relations who promote the holistic approach of security in Central and East Europe (Edmunds, 2002). But, it was after the speech by Clare Short, the then UK's Secretary of State for the International Development in 1998 that security sector reform became a burning discourse among scholars, government officials, and institutions at all levels of the international community (Ball, 1998). Security sector reform is a broader concept which encompasses institutions like the military, paramilitary, police, intelligence services, border guards, the judiciary and other governmental entities which are mandated to supervise these institutions (Bendix and Stanly, 2008).

The end of cold war had changed the types of conflict and security threats among the World community in general and developing nations in particular. Therefore, in order to manage such threats at all levels of the community, the concept of security sector reform was developed (Medhane, 2007). To this effect, the UN under the department of Security Council gives a due emphasis for security sector reform and assisted member states to adopt it in line with their national and regional context.

In Africa, security institutions which are established with the responsibility of managing conflicts are too weak and not governed by the norms and principles of democracy (Joseph, 2003). Despite the fact that some modifications have been taken by the leaders of African states, they solely serve the elite and the regimes than that of the society in general (Ibid). Hence, the AU cognizant of the limitations of security institutions had adopted its own policy framework on SSR in 2008. It was adopted with the intent of managing the overriding security problems and lack of African ownership of the current SSR among member states (AUC, 2008).

The SSR in Ethiopia was introduced in 2002 by the Justice System Reform Program Office under the authority of Ministry of Capacity Building and latter named as the Comprehensive Justice Sector Reform Program (JSRP) in the year 2005 (MoCB, 2005). The ultimate goal of the JSRP was to create an environment whereby the fundamental rights and freedoms of citizens are protected via maintaining the rule of law and good governance (IMF, 2004). It was adopted under the auspices of donor countries like UK and Norwegian government (Skaar, Samset and Glopper, 2004). However, the SSR program is solely driven by the government without the participation of the public and with little room for democracy and predominantly focused on the military forces (Nathan *et al.*, 2007; and Wulf, 2004).

Scholars argued that in order to have a successful economic, political and social development, there should be a secured environment in which the safety, stability and integrity of a given society are achieved (Marenin, 2013). To do so, the SSR is an indispensable aspect of all forms of development at the national or local levels. The SSR or the JSRP in Ethiopia was launched for the sake of reforming security institutions in a way that they would provide efficient and effective services in accordance with the law; enhance public participation in crime prevention; to make Police Force accountable and transparent; and to create a professional security apparatus via establishing police colleges at federal and regional levels (MoCB, 2005). However, scholars suggested that the reform program is plagued with high politicization and excessive intervention of the higher executive officials (Henoke, 2014). As such, it poses a question over the practical implementation of SSR in Ethiopia.

Pertaining to the studies little has been conducted at the national level. One of these studies is Elias (2015) and he studied on the Legal sector reform pursuits in Ethiopia and gaps in grassroots empowerment. His study focused on examining the level of attention given to the legal sector institutions and indicated that the reform is fragmented and lacks empowerment and harmonization from below. Moreover, Denney and Demelash (2013) also studied

on community policing in Amhara Region which is solely focused on the success and challenges of community policing officers in the region than other part of Police Officers. These studies are limited to assess the current implementation, limitations and challenges of SSR in Police Force particularly in their service delivery in Amhara Region. Hence, such gaps inspired the researcher to conduct further investigation and to fill the existing knowledge gap.

The general objective of this study is to assess the current implementations, limitations and challenges of security sector reform in Ethiopia with a particular reference to Amhara National Regional State Police Force. The specific objectives of this study are:

- To explore the current implementation of SSR in the Amhara National Regional Police Commission.
- To identify the challenges of implementing SSR in ANRS Police force.
- To explore the measures taken by the ANRS Police Commission and other stakeholders to improve the effectiveness of SSR and service delivery of police.

## **2. Review of Related Literature**

The concept of security is included here because it is the major subject of my study, that is, security sector reform. Security as a concept is defined by different scholars differently. For example, Buzan (1991) defined security as attaining one's freedom from threat that may endanger the life of individuals and the society at large. Booth (1994) on the other hand delineated that security means a condition whereby individuals or the society as a whole are freed from threats such as from physical violence which hinders them doing whatever they like.

The traditional notion of security emphasized on the military strength of state and its protection from external aggression. But, this approach could not address the security threats of individuals and the community since the end of cold war had brought a new phase of conflict in the world particularly in developing nations (Hussein, Gnisci and Wanjiru, 2004). Since then, a new paradigm of security has been developed which moves away from state-centric conceptions of security to people-centric conceptions, thereby much attention are given for the security of the individuals, their protection from multitude threats and empowerment in general (UNHSU, 2004). Hence, the concept of human security comes to exist which would be discussed below.

The shift of paradigm in the field of security led to the integration of the concept of human security. According to the UN Commission for Human Security (2003), the need for having a new paradigm of security is “in response to the complexity and the interrelatedness of both old and new security threats – from chronic and persistent poverty to ethnic violence, human trafficking, climate change, health pandemics, international terrorism, and sudden economic and financial downturns”(p.7). Therefore, human security is defined as protecting the essential values and rights of human kind in a way that they can achieve their freedom and fulfill their need.



Security Sector Reform, in other words, is termed as security sector governance, security sector transformation, security sector development, security sector review as well as security and justice reform (AUC, 2008). It is the process through which those security sector actors are adapt to the political and organizational demands of transformation via adhering to the democratic norms and principles of good governance such as transparency, accountability, the rule of law, and adequate oversight of security systems in general (Ejdus, 2009).

However, the mere existence of SSR does not guarantee the overall security, wellbeing and development of citizens and state. Hence, Wulf (2004) argued that to have a successful security sector reform, there must be democratic institutions in line with the realization of a democratic politics by the government, civil servants and security actors itself. Therefore, the existence of a genuine and democratic institution and the full-fledged realization of democratic norms and principles are indispensable aspects for effective SSR. Hence, it will create a vacuum of security between the government and citizens and finally it begets the loss of state legitimacy (DFID, 2005).

## **2.1. The Challenges of Security Sector Reform in Africa**

At the early inception of SSR in Africa, most of the States in the continent have understood that SSR would be pertinent for early recovery from protracted conflicts, sustaining their economic development and the whole peace building effort at the regional and international level (UN SSR Unit, 2011). However, the security sector reform was prone to divergent challenges that hampered not to meet its ultimate objective.

Joseph (2003), pointed out the obstacles of reforming the security sector in Africa. Accordingly, the challenges of SSR in Africa is complex and attributed in the institutional nature of the security sector itself and it needs the rearrangement of such fragile institutions in such a way that there would be strong oversight of civilian and the community in general. To do so, it needs the commitment and dedication of leaders to implement the policies and strategies of SSR. Likewise, DAC in its guideline has also identified the constraints of SSR in Africa and it encompasses; lack of local ownership, lack of adequate funds, fragmented in implementation, lack of political will, weak government leadership and inter-agency collaboration, lack of transparency and participation, lack of policy and strategic frameworks (DAC, 2005). Lack of local ownership, among other things, is a serious hindering factor for most Africa states.

Hence, it is at this juncture that in most cases the African security institutions in general and the military and police in particular have shown unremitting deficiency in protecting the security and rights of its people. In this regard, Bandix and Stanly (2008) delineated that the security forces in Africa are the mirror of their colonial security institutions and solely served the security and wellbeing of their political elites than the society at large. Others also added that, many of the security problems in Africa stem from the security forces than from the people (Mehler, 2009).

## **2.2. Modern Police in Ethiopia**

As historical evidences show, the emergence of modern police system in Ethiopia was started during the period of Menelik II in 1917, and named as *Arada Zebegna* (Andargachew, 2004). But, the most holistic picture of modern police system was started by Emperor Haile Selassie I (1930-1974). During this period, the numbers of police officials have been increased in order to widen their scope and reach in every corner of the country (Alemayehu, 2010). Hence, for the sake of institutionalizing the police force in 1942, a distinct national police institution was established having its own power and function. The Ethiopian Police Proclamation No. 6/42 stipulated that “The force shall be employed for the prevention of crime, the maintenance of peace and good order, apprehension of offenders, the safety of persons and property and the control of traffic”. However, the police department could not protect the rights and freedoms of citizens rather it served the regime and other nobilities in prolonging their power onto the downfall of Emperor Haile Selassie’s regime (Haile Selassie, 1973 as cited in Yeshiwas, 2014).

After the downfall of Emperor Haile Selassie’s regime, the Dergue government came into power and the structure and composition of police was also changed. The Dergue regime was characterized by the facts that it transferred numbers of qualified police force to the national army and neutralized the police via delegating its power to different organizations (Markos, 2000, p.2 as cited in Alemayehu, 2010). Like that of its predecessors, police force during the Dergue government had served the regime rather than citizens and led to the gross violations of rights and freedoms of citizens (Hassen, 2001). Generally speaking, the development of police in the two consecutive regimes was characterized by the adoption of centralized police system and lack of clear objective and served the regime than that of the society in general.

Following the demise of the Dergue regime, the Ethiopian Federal Democratic Republic government came into power. Hence, the structure of police was reorganized under the policy of decentralization (Yeshiwas, 2014). So, based on the decentralization policy today, the Ethiopian police forces are organized at federal and regional levels. According to the FDRE constitution Art 52(2) & (9), in addition to the federal police the nine regional states and two city administrative shall have their own police force which can be administered under their jurisdiction.

## **2.3. Why SSR in Ethiopia?**

The need and initiatives for adopting SSR across countries is different given the existing political, social and economic conditions. In most cases SSR is more likely needed for states which emerge from long and protracted conflict and instability (UNITAR, 2014). It is intended to strengthen the overall peace building efforts which would be made to bring lasting peace and sustainable development by preventing the recurrence of conflict and protecting rights of citizens. Therefore, the need for adopting SSR is mainly with the objective of transforming the roles, responsibilities and actions of security institutions so that they will be managed and operated based on

democratic norms and principles of good governance and contribute for the overall development endeavor of a state.

Coming to Ethiopia, the need to launch the SSR or locally known to be the JSRP is for different reasons. While the Federal Democratic Republic of Ethiopia government came into power since 1991, it has tried to transform its institution in a way that they can contribute for sustainable development and ride out of poverty. Hence, the then Ministry of Civil Service (today's Civil Service Commission) has launched the 14 national capacity building programs. Of these programs, the justice sector reform program is one given due emphasis at the time (MCS, 2013). Yet, in spite of the efforts made by the government to reform institutions at the time such as the justice system, different problems have been manifested.

However, in spite of the efforts made to improve the security institutions in general and police forces in particular, the reform remains to be below the expected outcome. There are different reasons why the reform program has taken a back seat in Ethiopia. The reform program among others is merely driven by the government without intensive public participation and with little room for democracy and good governance (Wulf, 2004).

Generally speaking, the current condition under which the Ethiopian JSRP and the police reform activities operating across different security force remains to be lip-service than improving their service delivery in practice. The reform programs are not well articulated and designed in line with protecting the rights and freedoms of citizens and could not enable the police force to provide efficient and effective service via adhering to the principles of transparency and accountability.

#### **2.4. The Challenges of SSR and Police Reform in Ethiopia**

Even though the JSRP and police reform was established by setting fascinating objectives which are mentioned above, the program is overwhelmed with different constraints or challenges. Elias argued that the reform program at its early phase was too ambitious followed by fragmentation of the reform process with inadequate grassroots empowerment and harmonization (Elias, 2015). In this regard, the Organization for Economic cooperation and Development stated that while setting goals, it is advisable to be specific, realistic, achievable and pragmatic other than being over ambitious (OECD-DAC, 2007b). But, the Ethiopian JSRP was aimed at addressing the problems of all justice institutions within a short time interval. One of the basic pillars to have an effective SSR is the prevalence of strong oversight control by the parliament or civilian. However, lack of strong oversight control by the parliament of the Federal Democratic Republic of Ethiopia government is also one of the challenges that the Ethiopian JSRP faces today (COI, 2016).

### **3. The Methods**

#### **3.1. Research Approach and Design**

In this research, the researcher employed qualitative research approach. Qualitative research approach helps to examine the decision, attitude, and behavior of people or other phenomenon in dept (Ritchie and Lewis, 2003). To this end, this method enabled the researcher to study the behavior, experience, and performance of police force in their distinctive institution. Since the research problem by its nature needs an investigation of the experience and attitude of the research participants on the reform program, qualitative research method was the most appropriate one. As a result, the researcher used this approach to assess the current implementation, limitations and challenges of SSR in the Amhara National Regional Police Commission.

The researcher employed a case study research design. It is important for studying a topic which is not given due emphasis by any previous researchers. In order to select participants, the researcher employed Non-probability Sampling techniques. Hence, the data were collected from the Amhara Regional Police Commissioners, the Commission's Unit leaders, Police Officers, Special Forces and from the ANRS Administrative and Security Affairs Bureau Officers. Besides these, one of the Kefile Ketema's located in Bahir Dar City Shimbit Kifle ketema Police Station was selected purposefully. It was selected because of the fact that this K/Ketema has a profound interaction with the ANRS Police Commission. Accordingly, officers who are working in the police station were interviewed.

The researcher has interviewed participants until he gets new ideas/ the views of participants are repeated on the same interview questions. Accordingly, the researcher used a total of 28 participants and each of them gave their response based on the interview questions provided by the researcher.

#### **3.2. Data Sources and Collection Instruments**

In order to get the appropriate data different techniques, both primary and secondary source have been used. Primary sources of data were collected through Semi-structured interview, Key informant interview and Focus Group Discussion. Whereas, secondary sources of data were collected through document review. Hence, the following documents such as; journals, books, reports (at international, national and regional levels), thesis/dissertations were consulted. But in order to get relevant and empirical data, the researcher has relied more importantly on primary sources of data. The collected data was analyzed through thematic analysis technique. It is essential to associate an analysis of the frequency of a theme with one of the whole content and give opportunity to understand any issue in a wider spectrum (Marks and Yardley, 2004). Therefore, the data collected via interview, key informant and focus group discussion were analyzed thematically.

## **4. Data Analysis and Interpretation**

### **4.1. The Implementation of SSR in Amhara National Regional State Police**

#### **Force**

According to the participants SSR practiced in their institution through different reform tools like BPR and BSC. The ANRS Justice System Reform Plan since 2011-2015 affirmed that the justice system reform program encompasses the judiciary and law enforcement bodies. It is aimed to speed up democracy and good governance, ensure rule of law and respect for the rights and freedoms of citizen. Accordingly, the JSRP includes three subprograms, i.e. justice sector reform sub-program; law enforcement bodies (Police, prosecutor and prisons) reform sub-program; legal education, training and research reform sub-program. Each sub-program has specific projects to be accomplished within each institution. For example, the law enforcement body reform sub-program has 31 projects and one of these projects is police force capacity building project (the ANRS justice Bureau GTP I JSRP Plan document, 2011).

Therefore, the study concluded that the reform program in the ANRS is practiced through different sub-projects and programs. But in the case of ANRS Police Commission, it is practiced in the form of the so-called civil service reform tools (BPR, BSC and 1 to 5 arrangements) and through the establishment of community policing program. Besides, it is also tightly controlled by one of the regional executive body (the ANRS Administrative and Security Affairs Bureau).

#### **4.2. Challenges of Police Reform Program in ANRS Police Commission**

Challenges are those hindering factor that contributes for the low performance and inadequate implementation of SSR. Hence, there are different challenges that hampered the police reform programs not to be implemented genuinely in the ANRS Police force and it includes;

**Political Interference:** undesirable interference of government officials is the major hindering factor that affects the reform programs in the study area. Most of the interviewees indicated that the Police institution should be non-partisan/run its activities independently and serve the people equally. However, the structural organization of the Police Commission is accountable to the ANRS Administrative and Security Affairs Bureau and everything should pass through this institution. Therefore, from the outset the Commission is not strictly separated and functioned independently provided that it is under the control of the ANRS Administrative and Security Affairs Bureau. Therefore, the study concluded that lack of strict separation from other government institutions and the tightly control and interference of officials from such institutions has affected the overall reform activities of the police force in the ANRS Police Commission.

**Lack of Competent Leadership:** The other challenge that hinders the reform programs is lack of competent and effective leader. Those leaders assigned in different positions of the ANRS Police Commission are not based on

their merit rather they are appointed based on their affiliation/dedication to the ruling party/government. This, in turn, led to the backlash performance of the institution in general and the police force in particular. So, it is plausible to say that lack of quality leadership in security institutions has an impact on the overall implementation of SSR and the service delivery of police force.

**Inadequate Resources:** it includes insufficient number of both human and material resources in the institution. The reforms program in the ANRS Police Commission had no sufficient human and material resources. The police commission is understaffed. Even the existing personnel are not well trained and lack skill to use different technologies. Besides, the material resources are also inadequate which affects the reform program. For example, those technologies and materials such as; C.C.TV Camera (Close Circuit TV Camera), modern guns (Shotgun, Handgun etc), Masks, Vehicles and Motorcycles and biochemical laboratory which are used for forensic investigation are not fulfilled.

**Lack of Continuous Capacity Building:** There is also lack of continuous and consistent capacity building. One of the reform tools used to enhance the capacity of police officers is through providing short- or long-term trainings on different issues such as protecting the rights of citizens; proper handling mechanisms of citizens who are suspects in custody; utilization of modern technologies; the code of conduct and mechanisms of accountability and others. The Amhara National Regional State Zikre Hig under part two article 3 (a, b and c) stated that police forces shall take basic police training related to their professional and service competency (the ANRS Zikre Hig February 25<sup>th</sup>, 2004). However, in spite of some efforts made to provide trainings, much has not yet done. In other words, it is not given due emphasis by the government and other stakeholders.

#### ***4.3.Measures Taken to Address Challenges***

The measures taken by the ANRS Police Commission and other stakeholders to address the challenges of police reform program in general and the service delivery of police force in particular are inadequate. Indeed, different measures have been undertaken to improve the reform program and service delivery of police. For example, to address lack of adequate budget they mobilize the people to contribute something for the police force through collecting different material particularly from hotels and resort owners. Besides, in order to have consistent capacity building in the ANRS police force, the Commission has started to create link with some NGOs which are found in Bahir Dar city like Finote Hiwot and World vision. Despite the fact that such attempts are there in the ANRS Police Commission, measures are not consistent and up to the standard. Therefore, it is concluded that in most cases the measures taken by the ANRS Police Commission to improve the police reform program and their service delivery are limited to the staffs of the Commission. They are not adequately addressed to the members of police officers working in different stations of Bahir Dar City.

As the findings of Denney and Demelash (2013) rightly mentioned, the role and engagement of civil societies in SSR programs in Ethiopia is very limited because of different reasons. As such, the effectiveness of SSR remains

to be at stake given that the engagements of civil societies are insufficient. Therefore, the role of stakeholders to improve the reform program and service delivery of police is not well planned and adequate enough, with the exception of some movements.

## **5. Finding and Conclusion**

### **5.1. Conclusion**

The study was intended to assess the current implementations, limitations and challenges of Security Sector Reform in Ethiopia with a particular reference to the Amhara National Regional State Police force. The study set out major objectives and to meet these objectives, research questions were prepared. Accordingly, the first finding of the study shows that SSR is practiced in the Amhara National Regional State Police Commission. It is practiced in the form of BPR, BSC, and 1 to 5 arrangements and through community policing. But, it is not exclusively compiled and documented as it is there in other security institutions in Ethiopia.

The study also concluded that the police reform programs in the ANRS Police Commission are not effective enough to improve the service delivery of police force in particular and the whole structural organization of the Commission in general. Even some reform programs are missing its objectives and serve as a political instrument for the government at large. This study has identified the major challenges of the police reform in the ANRS Police Commission. These include; political interference, lack of competent leadership, inadequate resources, lack of continuous capacity building, lack of access for education, lack of adequate budget and incentives. Hence, the study concluded that political interference, lack of human and material resources and competent leadership are the most serious challenges that affect the reform programs in the ANRS Police Commission.

Based on the findings of the study, the measures taken by the ANRS Police Commission and other stakeholders to improve the reform programs are inadequate. So, while measures are taken it should be inclusive and consistent. The role of civil societies including different NGOs working on security and justice sector in the ANRS Police Commission is very limited. This is so, because of the fact that the 2009 Charities and Societies Proclamation adopted by the parliament of our country (Ethiopia) restricted the contribution of different non-governmental institutions.

Lastly, the study concluded that in order to improve the effectiveness of the police reform program and service delivery of police force in the ANRS Police Commission, the most serious challenges that are mentioned above should be solved as soon as possible. In addition, Stakeholders like NGOs should have the room to fully participate in the reform activities of the Commission. If so, the service delivery of police force will be improved and this, in turn, leads to protection of the rights of citizens and ensure good governance and democracy at large.

## 5.2. Recommendation

Based on the research findings mentioned above, the study recommended the following measures to be taken to cop up the challenges and improve the police reform and its service delivery in the Amhara National Regional State Police Commission.

- As the research finding shown the ANRS Police Commission have no compiled and documented reform program rather the reform activities are implemented through the so-called civil service reform tools. So, to have a meaningful reform program which can fit with other security institutions in the country, the ANRS Police Commission should have a unit which would oversee and reorganize its plan and strategies for effective implementation.
- As the study indicated one of the challenges of police reform in the ANRS Police Commission is political interference. The Commission is supposed to be under the authority of the ANRS Administrative and Security Affairs Bureau which is one of the political institutions in the Regional State. So to handle this, the Amhara National Regional State Council which has the highest authority in the Region, should separate the Commission and make it directly accountable to the ANRS Head of Government Office. Because such forms of political structure have had a negative impact over the independent function of the Police Commission. As the experience of other countries such as Kenya shows the police forces are independently established and they are under the Office of the Country's President (Omeje and Githigaro, 2012). This would probably enable police force to exercise their duties freely and improve service delivery.
- The Commissioners who are in power in the ANRS Police Commission should give due emphasis to improve the performance of police officers in service delivery via adequate technical and operational trainings. Especial emphasis should be given for police officers working in different police stations and hear their voices.
- Lastly, the researcher instigates others to conduct a research on evaluating the performance of SSR in the Amhara National Regional State Police Commission. This issue is not yet investigated by this study because of time limitation and the technical nature of SSR. Because in order to know the satisfaction of citizens over the service delivery of police, one has to evaluate the performance of the reform activities in the Commission.

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# Challenges and Prospects of Cooperation Over Shared Waters: A Comparative Analysis of the Nile And Jordan River Basins

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## Abstract

*The study examines challenges and prospects of Cooperation in the Nile and Jordan River basins comparatively. The study is underpinned by the significance of pivotal riparian states thereby considers Egypt, Ethiopia and Sudan from the Nile and Israel, Jordan and Palestine from the Jordan River as pivotal riparian states. The study identified that domestic politics, geopolitics and water regimes are major determinant factors of cooperation in both river basins. Egypt's unchanged domestic legal system and Israel's exceptionalism both in the sense of statehood and government type are domestic political factors that impede cooperation. Egypt's contentious approach towards Nile basin states and Israel's geopolitical calculation alongside of Jordan River are major geopolitical factors affecting cooperation. The mere existence of water regimes does not bring effective cooperation. Comparing the two river basins, this holds true to the Jordan River basin. The finding of the study shows that, domestic politics, geopolitics and water regimes are indeed determinant factors of cooperation and the prospect thereof in both river basins. The dynamic nature of these factors would make the prospect of cooperation much higher in the Nile River than the Jordan River basin.*

**Key words:** Cooperation, Domestic Politics, Geopolitics, Water Regimes, Pivotal States, Nile River, Jordan River

## 1. Introduction

Water is a life itself. Every human community needs water for drinking, cooking, washing, agriculture, industry, energy, transport, rituals and even for hygiene.<sup>i</sup> Not only is the human community, all lives on the earth are dependent upon water for their very survival. However, water is unevenly distributed which resulted in the disparity between supply and demand. Given its indispensable value, accesses to and the governance thereof has become the central feature of contemporary international politics. Inter-state conflicts, if not outright wars, over water is the common trend of the world. The conflicts between Pakistan and India since 1951-1971 over the Ganges River, similar conflict over the Ganges River between Bangladesh and India soon after Bangladesh has become independent in 1971 from Pakistan were instances. India's dispute with Nepal, the conflict between Turkey, Syria and Iraq over the Tigris-Euphrates Rivers was the other indication for the existence water conflicts. Navigational conflicts between England and Russia since 1829 over the Danube River, the conflict between China and Myanmar over the Mekong River<sup>ii</sup> were instances as well.

While it was assumed that shared waters could and would be a source of conflict and even war, it has been demonstrated more recently that they can serve as a strong unifying force if addressed cooperatively. Different

datasets show that unlike other natural resources like oil, trans-boundary Rivers are driving forces for cooperation. A database compiled by Aaron Wolf comprising all the water agreements on international watercourses, shows that states tend to find ways to reach an agreement rather than to engage in conflict over shared water resources. According to the data given by the Basins at Risk project (BARP), from the years 1948–1999 and 2000–2008, there were prevalent trends of cooperation over water than conflicts. In this regard, cooperative events recorded by the BARP from 1948-1999 outweigh the conflictive events. Put another way, out of the total datasets collected, only 28% of it were conflictual and 67% of it were cooperative with the remaining 5% of neutrality. Similarly, from 2000-2008 only 33% recorded events were conflictive whereas 63 % of were cooperative with the remaining 4% of neutrality.<sup>iii</sup> This shows that trans-boundary Rivers, unlike other natural resources, are likely to be cooperative than conflictive though it is difficult to discern. The Nile and Jordan River basins are not exceptional to this trend. Domestic political dynamics, regional politics and the existence of flimsy water regimes are very determinant factors for the cooperative and conflictive nature of these river basins. This study critically examines the state of cooperation and the prospect thereof on both river basins comparatively by looking the relation of basins states based on these three factors.

### **Domestic Political Factors**

#### **Ethio-Egyptian Relations: Domestic politics as a line of dichotomy**

As far as Egyptian domestic politics is concerned, the rise to power of Gamal Abdel Nasser (1918-1970), Egypt's authoritarian-populist leader, was of paramount significance. Nasser was regarded as the first Egyptian ruler who laid the foundation of an independent and bold foreign policy.<sup>iv</sup> Egyptian foreign policy during his reign has been a reflection of the domestic reforms. Most importantly, the policy categorically put the quest for the dominance of the Nile waters and the Red Sea as its major purpose. In an attempt at domestic reforms, Nasser considered unilateral development on the Nile as a necessary condition. To this end, he began to build a dam across the River Nile in southern Egypt, the Aswan High Dam (AHD), which provide electricity to neighboring villages and towns and increase the amount of cultivable land available to peasant farmers. This unilateral decision to build the AHD, symbolized the country's new hydrological strategy designed to free Egypt from the fantasy of upstream states.<sup>v</sup> Therefore, the change of political regime in Egypt formed a turning point in the history of the Nile River water development in Egypt. The political motive of the dam was clearly expressed by Nasser as "we shall build a high dam, but before building the dam, we have first to build the dam of dignity, integrity and liberty and then we could realize our hopes of building the high dam".<sup>vi</sup> Therefore, the dam was the unilateral development of Nasser to store more water from the Nile River with the aim of unifying the Nile valley under its domination and pledge its water security. This thereby sent a message to Ethiopia that the dam was an assertion to delink and demystify Ethiopia from being the source of the Nile River. Succeeding regimes of Egypt, with different diplomatic approach, followed the Nasserite philosophy over the Nile even today. One manifestation for this is its constitution

of 2014 that purports its historic water quota as told by the 1959 water agreement held with Sudan. Hence, Egypt's unchanged domestic legal system, which emboldens other riparians, over the use of the river water made the course of cooperation to be a fantasy<sup>vii</sup>.

With the exception of their language, Ethiopia and Sudan are two independent states drilled up on the same territory<sup>viii</sup> and therefore their domestic politics, in itself other than Sudanese jealousy alignment with Egypt against Ethiopia, has nothing to do (contributes nil) to water cooperation in the Nile River. The relation of the two states in this regard has begun to take a turbulent face with the conclusion of the 1959 Nile water agreement between Sudan and Egypt. From this time onwards, Sudan was serving as the right hand of Egypt's destabilization against Ethiopia.

The other factor that deteriorated their amicable relation in relation to internal political dynamics was their mutual destabilization policy. Sudan, in all possible aspects, has been assisting anti-Ethiopian insurgents and as retribution, Ethiopia has been aside of South Sudanese insurgents. However, since 1999, the relation between the two states seemed to be amity.

### **Sudanese-Egyptian Relations: Identity as Domesticated Policy**

Prior to the independence of the South, Sudan was the microcosm of Africa and the Arab world. It has an Africanized South, identified as Christians with African languages, and Arabized North, Islamic with Arabic language, contents.<sup>ix</sup> The process of ta'rib or Arabization of the *Sudan* has begun *with the influx of Arab Muslim nomads and more on the Anglo-Egyptian condominium rule.*<sup>x</sup> What were important in the ta'rib process were the political significance of Arabization and the making of Sudan an Arab state. The linguistic map of Sudan was changed through three ways. Firstly, many of the Sudan's languages were claiming fewer and were facing potential extinction. Secondly, English was no longer the chief language of post-primary school education, having been replaced by Arabic through successive government decrees.<sup>xi</sup> Thirdly, Arabic was continuing to spread as a spoken language. Hence, the process of Arabization and Islamization of the Sudan particularly the southern part of it has resulted in the fraction of the Sudan into the north and the south which resulted in the independence of the later since 2011. Thus, politicized identity, associated with power politics and geostrategic, undermined the cooperative efforts between the states.

Identity as domestic politics is the master variable that put malicious pattern of interaction between Middle East states. This holds true to the pivotal riparian states of the Jordan River. These identities are manifold and choppy in nature orchestrated by governments based on their political creeds and psychosomatic needs. Most important in this regard is Israel's doctrine of exceptionalism. The ideological aim of Israel's exceptionalism has been intentionally schemed and attained by impresarios. Israel's sense of exceptionalism has mainly been drawn upon four principal stances. Chosen-ness, a villa in the jungle, sense of statehood and government type and its achievements to won support from the west. Added to this is the Arabs hateful insight of Israel as a "thorn in their

fresh” that appears to negate a priori, any substantive multilateral cooperation with its immediate neighbors sharing the river water.

## **Geopolitical Factors**

Geopolitics has played a great role in determining the national security and threat perceptions of basin states. The location of states in this regard is paramount. Geographically, Egypt, being located between two continents, amongst others has an essential geopolitical position in the Middle East and North Africa. It controls the Sinai Peninsula, the Suez Canal and Red Sea all which increased its bargaining power worldwide.<sup>xii</sup> At the top of all is the Nile River, on whose waters its survival depends and on whose flow it formed a historical relation with Sudan, particularly the southern part, as a best option to march towards the source. Thus, its geographical position consisting of different coastal lines and water bodies given by nature boosted its economic power on the one hand its significance to the superpowers on the other hand. Besides, it increased its bargaining power against the Nile projects under taking by upstream states. This geostrategic significance thereby influenced great powers to look into Egypt with their considerable and all inclusive aid. In such a way, Egypt can contain any aid given to the upper riparian states from the international institutions and donor countries by lobbying that upstream countries would use the aid for dam purposes on the Nile River. The case for this was the regression of the World Bank (WB) from providing the aid to the construction of the GERD, which Ethiopia is unilaterally undertaking. Such international backing thereby impeded the efforts of cooperation between the basin states.

The second geopolitical factor that impedes the course of cooperation in the basin is regional politics (rivalry) which can be expressed in terms of mutual destabilization. Thus, in spite of the growing importance of domestic political factors, geopolitical influences were also important in making matters worse in the basin. Important in this regard is Egypt’s subversive activities against Ethiopia. Subsequent rulers of Egypt believed that Egypt’s long term and permanent interest in the water of the Nile River could be secured through following a short-sighted policy of weakening, destabilizing and keeping Ethiopia backward.<sup>xiii</sup>

Under the umbrella of nationalism and pan-Arabism, Nasser has commenced subversive activities against Ethiopia and he was successful in instigating (if not reviving) an anti-Ethiopian sentiment in the wider Arab world, which manifested itself in the moral and military support to Eritrean rebels in northern Ethiopia. The radio-broadcast that propagate as Muslims were victims of the Christian affiliated imperial regime was the case. Accordingly, Egypt has served as a safe haven for the Eritrean insurgents from where the Eritrean liberation front (ELF) has emerged.<sup>xiv</sup> ELF has served as a right hand for the destabilizing policy of Egypt against Ethiopia and playoff the Sudan against Ethiopia by distributing falsified pamphlets and rumors. The Somali irredentist

movement who sought to separate Ogden from Ethiopia was the other case to this. Erich has clearly noted this as “simultaneously, as the Eritrean movement in Cairo was beginning to take shape, the Egyptians opened another Islamic Arab bridgehead in the horn.”<sup>xv</sup> Mesfin Wolde-Mariam has clearly stated it as the Somali’s attempt of armed invasion of Ogden is absolutely the mindset of the Arabs other than the Somali’s.<sup>xvi</sup>

The Ethio-Egyptian political conflict during the 1970’s was clearly reflected on the Nile waters issue. In no time, the hydro political conflict between the two states was escalated when president Anwar el Sadat announced, in Haifa in 1979, as part of his political maneuver plan with Israel to divert section of the Nile water, so that its water could reach the Naqab (Negev) desert via the Sinai peninsula (the peace Canal).<sup>xvii</sup> Sadat’s attempt of transferring the Nile out of its natural basin to Jerusalem as a foreign policy instrument has brought political animosity in the basin particularly between Ethiopia and Egypt.

The doors of close cooperation were wide opened only with the coming into power of Hosni Mubarak in 1981 in Egypt and EPRDF in Ethiopia.<sup>xviii</sup> Diplomatic exchanges over the use of the river and the operation GERD were held. However, because of the persisted mistrust and suspicion between the states, their diplomatic exchange and cooperative effort has no longer survived. Morsi’s bombastic attitude towards Ethiopia and its GERD has totally undermined the gleam of cooperation since Mubarak. The coming into power of El-Esis has changed the bombastic diplomatic relation of Egypt with Ethiopia over the Nile River. However, as he told in his presidential inauguration, Nile is his policy priority.

Regionally, Egypt is tirelessly working in finding alliances from the basin countries and recourse different tactics in its bid to win diplomatic war against Ethiopia. Accordingly, Sisi is keen to play the policy of appeasement at times containment in the regional hydro-politics of the Nile River. He has been appeasing African states particularly the Equatorial states of the basin, South Sudan and its historical subverting agent, Eritrea, through substantial aid and multi-faceted partnership as a means to contain Ethiopia. In this regard, Sisi visited Tanzania, Rwanda, Chad and Gabon on 14 August 2017.<sup>xix</sup> The visit particularly to Tanzania and Rwanda, the first since Gamal Abdel Nasser in 1968, was very much informative. The prominent agenda that Sisi has had at hand in his tour was Egypt’s national security as told by the Nile River. The location of the states visited and the timing itself indicated that his visit was far apart from either trade partnership or regional security. Rather, it is to appease Tanzania and Rwanda to concede Egypt’s Nile position in the head of state’s summit to be held in Burundi.

Egypt’s emphasis on promoting ties with Tanzania and Rwanda in this regard is intentionally calculated to breakdown Ethiopia’s alliance with the upper Nile Basin countries against the majority. Besides, Egypt is critical of how dangerous it is to rely on a single state, Uganda, as a mediator in the Nile waters issue. Consequently, it could be argued that Egypt’s effort to have a relation with Tanzania and Rwanda is to lobby them to be in its side

in the Nile water negotiation. The failure of El-Sisi to get the heartbeat of Rwanda and Tanzania with the official state visit of Ethiopia's Prime Minister, to Sudan, though not a coincidence, has created regional diplomatic tension between the two states. The tour to Chad and Gabon was to dissemble the true phase of his visit to Tanzania and Rwanda.

Proxy war against Ethiopia is the expedient of Egypt. Egypt was/is backing all possible insurgents, in arming, financing and training against Ethiopia under Sisi's leadership. The Oromo liberation front (OLF), Ginbot 7(G7), the Ogden National Liberation Front (ONLF) and its formidable alliance, Eritrea in this regard, were its destabilizing agents. Not only this, Egypt was the main promoter of Eritrea's land and port lease for Saudi Arabia and the United Arab Emirates.

Egypt and Uganda were in a *tit-for-tat* secret deal since 2016 to achieve what the former Ugandan intelligence operative; James Moises described as "two different interests." Egypt wanted to revive its failed diplomatic campaign to stop Ethiopia's construction of the dam. To this end, Egypt sought Uganda's friendship as a regional ally to its proxy war against Ethiopia. Reciprocally, Uganda was failed to destroy the South Sudanese rebel groups in itself and thereby Uganda sought military assistance from Egypt to realize its dream. These two different interests united Cairo and Kampala as a sneaky strategy against Ethiopia.<sup>xx</sup> Moises told to the South Sudanese News Agency (SSNA) that Ugandan president has proposed to the Egyptian president in December 2016 that if Cairo provides Juba weapons and ammunition it wants to destroy the SPLM/A-IO then, Uganda would support any campaign that Egypt wants to launch against Ethiopia. Furthermore, Mosuveni promised el-Sisi that Uganda would bring on board other East African countries to back-up Cairo. South Sudan has always been looking at Ethiopia in a doubting eye because of Ethiopia's hostage of the SPLM/A-IO's leader, Reick Machar from 2013 to 2015 after a bloody ethnic civil war was breakout in the country. Due to this, the president of South Sudan agreed to cooperate with Egypt in dissident activities against Ethiopia. All these regional diplomatic carousal of Egypt is to make Ethiopia busy of proxy wars and stop the construction of its dam. However, all these have been changed with the internal political transformation and the regional diplomatic charisma of the newly elected prime minister in Ethiopia.

Global alignment of basin states with super powers and financial institutions highly impede the course of cooperation. Aid either from developed nations or IFI, even if it is well-meaning in itself, can adversely affect the spirit of cooperation in all aspects when receiving states use it for mutual destabilization and when aid is inconsistently provided (Al-rodhan and Kuepfer, 2007:69). The jaundiced eye of donor countries and funding institutions increased the degree of mistrust and tension in the basin. For instance, out of the total estimated cost of \$1.3 million for the AHD, \$400 million was covered by the US, Britain and the World Bank while nothing has

provided for the GERD.<sup>xxi</sup> Beyond its biased treatment, the UNDP has advocated that the Nile is the life vessel of Egyptians and urged that Egypt would suffer chronic water shortage in the years to come because of the GERD. EEC, ECA Arab Development Bank for Africa (ADBA), and the League of Arab States Association (LASA) all of which purported the water rights of Egypt against the interest of Ethiopia. One factor for this is Egypt's power of international backing.

The Sudanese-Egyptian relations have recently witnessed a remarkable deterioration. The Halayeb triangle, the Nile River and regional politics are line of corrosion. The Halayeb problem, like many other border controversies, goes back to the condominium rule of Britain over the two worrying states. While the border between the two states since the time was drawn based on the 22<sup>nd</sup> parallel that put the territory in question under Egypt's control, it was given for Sudan by the then interior minister of both states since 1902. However, Egypt has held on and disqualified the agreement and thereby the triangle has remained to be a flash point in the relation of the two states. Besides, both states are mired in regional politics. Their engagement in South Sudanese and Yemeni civil war has exacerbated the tension. The most salient issue they have in common is that they both are Nile estuary states. Notwithstanding their historical relations over the use of the river, Sudan's attitudinal change and sense of cooperation with Ethiopia over the Nile dossier has highly worried Egypt. This thereby degenerate their relations and affect the sprite of cooperation.

### **Israeli-Palestine Relation: Geopolitical Factors**

From its very existence, Israel was very much careful of two basic and intermingled variables. The first of which is geopolitical position that would save the fledgling state from external threats. This includes not only threats to Israel's existence, but also threats to the economic well-being of its population and capacity for future growth through the absorption of large segments of the Jewish Diaspora. Water is central to Israel's geopolitical considerations. The need to a secured water resource has played a crucial role in Israel's geopolitical calculus with respect to its border with Syria, Palestine, Egypt, Jordan and the Lebanese. The second variable that Israel has insisted on was state and society building. Here too, water was vital since the absorption of Jewish immigration and the creation of a Jewish demographic presence in as much of Palestine as possible was a necessary prerequisite for achieving statehood. Once the state came into being, it became necessary to absorb large numbers of immigrants from Europe and the Middle East to strengthen its demographic pressure in the Negev desert. This meant that water would have to be transported southwards in order to make large-scale settlements. Agricultural enterprises without water, both ideologically and economically were of crucial in the pre-state and early-state periods (owing in part to the lack of a significant industrial base), was far-fetched. Hence water played a central role in the economic and demographic development of Israel and in matters relating to borders with riparian states of the basin. Frequently, geopolitical and state-building elements overlapped when it came to the water issues.



Hence, spreading the population and the partial de-urbanization of Israel in the country's early years were seen as necessary for both geopolitical and state-building reasons.

Geography and politics are deeply intertwined in Israel, and the country's strategic culture, possible to say its existence, is profoundly shaped by geopolitics. As has been explained above, Israel perceived itself as a small, unique and regionally isolated country surrounded by potential enemies which do not formally recognize its existence and thereby viewed its own geo-strategic environment as hostile, unpredictable, volatile, and replete with dangers. As a result of this acute perception of vulnerability as well as its history of existence, Israel has developed a 'siege mentality' alongside a sense of being under constant threat.<sup>xxii</sup> Thus, the notions of geopolitical vulnerability and regional isolation are crucial to the country's unambiguously realist foreign and security policy established based on realist hard-power politics that engulfed all alternative ends of negotiating remarks.<sup>xxiii</sup> Because of this reason, most Arab states are seen by Israel as the actual coalitions seeking Israel's destruction or truncation.

Territorial expansion has been taken as a national security issue in Israel.<sup>xxiv</sup> Although agreements', concerning power transfer to the PLO over the occupied territories was made by the leader of the two states in the interim DoP, it was suspended by Israel due to its geostrategic interest over the areas mentioned. The very recent plan that Israel has intended to build more than 2,000 houses in West Bank and Gaza for the Jewish émigrés including 30 homes in the flashpoint Palestinian-majority city of Hebron and the settlements of more than 25,000 Jews in the Negev desert that allowed Israel to divert significant amounts of water from the Jordan River and the shift of its capital from Tel-Aviv to Jerusalem is the case for the breach of the interim agreement.<sup>xxv</sup> It is because; Israel understood that divided cities are encapsulation of geopolitical conflicts due to different political, economic, spatial, and cultural dimensions. Jerusalem which played a dual role, politically and religiously, is a best instance.

The other geopolitical factor that impede the course of cooperation between riparian states in particular and the Arab-Israeli in general is the intervention of super powers in the internal affairs of basin states. The geostrategic importance of the region to its water and land transit and the vast petroleum and natural gas, are the magnets that draw outside powers to the region. In their effort to gain competitive advantage(s) in the region, these powers built and reinforced internal division between riparian states which in turn blocked their geopolitical integrations.<sup>xxvi</sup> Due to this, basin states allied themselves with superpowers to gain military support and financial aid. Thus, the involvement of superpowers in the internal affairs of riparian states has defaced the peace process. The US assistance of Israel since 1967 and the Soviets patronage of the Arab armies since 1973 in this regard were best instances.<sup>xxvii</sup> Unlike Obama, Trump's presidency and his recognition of Jerusalem as the capital city of Israel and the shift of its embassy there gave Israel leverage. Generally, so long as Israel does not accept the two-state solution that allowed the return of the occupied territories to Palestine and the denial of Palestine to the

one-state solution that allowed the domination of Israel over the Palestinians, peaceful relation, not to mention cooperation, between the two states is a castle in the sky.

### **Israeli-Jordanian Relation: Geo-Strategic Importance**

The geo-strategic importance of Jordan has been both an advantage and liability for Israel. It is because on the one hand, the very position of Jordan and its usual involvement in the Palestinian issue has put Jordan at the locus of any solution to the Israeli-Palestinian conflict. On the other hand, the leading role of Jordan in the region next to Egypt has never been an easy threat for Israel.<sup>xxviii</sup> The involvement of Jordan in the 1948 Israeli-Palestinians conflict was strategic aspiration and territorial expansion. The intention of king Abdullah I at the time was expanding the territorial land mass of Jordan through seizing the West Bank, Gaza and east Jerusalem.<sup>xxix</sup> This led these states to the six day war of 1967 wherein Israel was bestowed with geopolitical and hydro-political alterations. The Yarmouk River, the major source of the Jordan River, is the line of warlike relation between Israel and Jordan.<sup>xxx</sup> Despite the existence of this relation however, the communiqué between them was developed into an open negotiation after the Gulf war and the subsequent Madrid conference which finally has resulted in the signing of the peace treaty of 1994 between Jordan and Israel.<sup>xxxi</sup>

### **Flimsy Water Regimes**

Both River basins have been the subject of various treaties many of which were bilateral and colonial manifestos. The 1891 Anglo-Italian Protocol, 1902 Britain-Ethiopia Agreement, the 1906 Tripartite Treaty, the 1925 Anglo-Italy Agreement, the 1929 Anglo-Egyptian Agreement and the 1959 Sudanese-Egyptian agreements were there from the Nile River. The Sykes-Picot Agreement of 1916, the British mandate for Palestine in 1917-1948, the Balfuor Declaration, the French mandate for Syria and Lebanon in 1920-1946 on the other hand was colonial agreements in the Jordan River. The Nile River has also been subjected to the various institutional setups though not the Jordan. Hence, the study will discuss both bilateral and institutional frameworks held on both river basins by the riparian states of the basins with their efficacy for cooperation.

### **Water Regimes and Their Efficacy For Cooperation in The Nile River**

#### **The 1959 Egyptian-Sudan agreement for the full utilization of the Nile River**

The 1950's was the year of Egypt's Aswan High Dam planning for the collection of the total annual flow the Nile River. Before commencing the project however, Egypt found that it was important to get agreement from Sudan and international recognition for financial and technological assistance for the dam. In this regard, the International Bank of Reconstruction and Development (IBRD) required a secured water allocation for Sudan and compensation to the population to be displaced due to the project. Soon after independence in 1956, the

Sudanese government found that the 1929 agreement was unfair and needs to be changed. Accordingly, the Sudan sought the establishment of a new *modus operandi* that improves its water share from the Nile River.<sup>xxxii</sup> Consequently, the 1959 water agreement was signed between the two downstream states for the full control and utilization the Nile flow. At the beginning of the agreement, both parties claimed large amount of water to irrigate their respective large amount of irrigable land. Accordingly, Sudan sought 44bcm of water to irrigate 2.22 million hectares of land whereas Egypt sought more water than what Sudan claimed to irrigate 7.1 million hectares. This difference for the time being has delayed the agreement. As its development priority however, Egypt quickly entered into the agreement and like it or not, Sudan had to come to commit itself to the agreement.

In such a way, the agreement came to being with the following principles; the average annual flow of the river is 84bcm as measured at Aswan and to be shared between Egypt and Sudan at 55.5 and 18.5bcm respectively, the annual water loose due to evaporation and other factors was agreed to be 10bcm which would be deducted from the yield of the Nile before shared was assigned, Sudan, with prior notification and the agreement of Egypt, would construct projects that would enhance the flow of the river by preventing the evaporation loose in the sudd swamps of the white Nile in its southern part, the claim, if raise, of the other riparian states would be handled together, Egypt would construct the AHD and Sudan would construct the Rosaries dam.

By no means, the agreement has mentioned the water rights of upstream states. Let alone the upstream states, the water allocation between the two signatory States was unfair and irrational. Indeed, many Sudanese were dissatisfied with the way this agreement has been negotiated and signed. This shows that Egypt never want to hear the voice of equitable share of the river water. All in all, both the colonial agreements made between the masters on behalf of their respective colonies and the 1959 agreement made between the independent States of the basin as well, was favored the downstream states particularly, Egypt. Because of this, Egypt necessitated those agreements to be binding and be accepted by the co-basin states. Conversely, co-basin states particularly Ethiopia, dithered the essence of the treaty since it was against their national interest that could not be accepted without reciprocity. Such incongruity thus has created basin wide animosity. In conclusion, not only the 1959 agreement, but also all the aforesaid agreements were good for nothing for upstream countries in the one hand and for achieving basin wide cooperation on the other rather were invented for establishing comprehensive colonial regimes for the benefit of Egypt and the Sudan *vis-a-vis* their protectorates.<sup>xxxiii</sup>

### **The Hydromet (Hydro-Meteorological Survey of the Equatorial Lakes) of 1967**

The Hydromet, formed in 1967, was the World Meteorological Organization (WMO)'s project organized for the purpose of assessing meteorological data on the Equatorial Lakes and the spillover effect(s) these lakes would put on the riparian states nearby the equator.<sup>xxxiv</sup> In fact, it was made on the basis of the goodwill of downstream

over the White Nile and thereby made some countries observers. Being exclusionary in nature, its planned objectives were remained rhetoric and it failed to address the issues to which it was molded.<sup>xxxv</sup>

### **The UNDUGU of 1983**

The undugu also called the “brotherhood’s” organization was formed by the auspices of the Organization of African Unity (OAU) to bring cooperation on infrastructure, environment, cultural exchange, transaction, electric power and water resource development between the Nile basin states.<sup>xxxvi</sup> However, it has brought nothing better than the Hydromet. The major water sources of the river were subtle observers which made the effort of establishing basin wide cooperation to be a fantasy. Though it was attended by different officials, they were busy of protocol activities than what it was strived for.<sup>xxxvii</sup> As a result; it has been disbanded with no fruit.

### **The TECCONILE**

Upon its formation, it was loaded with ample objectives including assisting member states to develop their own national water master plan that would be integrated to the basin wide water management, develop water infrastructure, work for capacity building, skill creation for basin wide environmental protection, prepare a preliminary study for basin wide institutional and legal arrangements, assist efforts in the determination of equitable entitlement of each riparian states to the Nile River.<sup>xxxviii</sup> However, none of these objectives were implemented. Egypt was the main player, agenda maker, and tour leader of the group. Being hateful to the establishment of effective basin-wide cooperative framework, Egypt insisted on technical issues to validate its expertise as a better option to overwhelm upstream states. As a result, some upstream states opted to have an observer status until 2002’s conference. Thus, the TECCONILE in itself has failed to achieve basin wide cooperation for equitable allocation of the river water.<sup>xxxix</sup>

#### **5.1.1. The NBI (1999)**

It is an initiative through which the nine riparian states get-together to ascertain equitable utilization of the water for all co-basin states on the basis of win-win approach. It is governed by the Nile-COM, a body bestowed with the power to enterprise guidelines and policy directions related with the Nile water.<sup>xl</sup> Notwithstanding the existence of mistrust and wrecker attitudes that might impede the effectiveness of NBI, it came up with remarkable aims, objectives, programs and organizational structures.<sup>xli</sup> It has opened the room for basin- wide negotiation. The major achievement within NBI was that Egypt for the first time has recognized the water rights and the principle of equitable utilization, though not in practice, of the upper riparian states. Besides, NBI has created the culture of rapprochement of experts, ministers, head of states of the basin and other stockholders regarding the Nile River. Thus, it appeared that it had ignited hope and optimism for the riparian countries to attain their anticipated objectives of a shared vision. Despite the soundness of the visions, plans and organizational structures however, it is not out of doubts. The two downstream states, as some upstream countries have been done

previously, do not signed and ratified it. These states particularly Egypt wanted to keep the status quo. It was at the end of 1999 that Egypt started to reveal its halfhearted stance for cooperation and the provision of NBI particularly the principle of equitable utilization. Since then, there were propaganda war exchanges between the government of Ethiopia and the government of Egypt.

In the later negotiation of the 2002 conference and particularly in 2009-2010, the NBI entered a turbulent period of confrontation. After ten years of negotiation, Egypt refuted to sign the draft agreement and calls back to the 1959 water agreement. In such a way, Egypt argued that the current share of the Nile River would not be questioned and any construction upstream must receive Egyptian agreement before realization. In a meeting of NBI water ministers, officials and international donors held at Sharam al-Sheikh, Egypt remained obstinate, saying that the historical agreements would not be renegotiated and replaced by the new deal.<sup>xlii</sup> Generally, NBI was supposed to signal a turning point in the geo-partnership of the basin states that would bring riparian states into cooperation. However, what optimism there was, having been replaced with power politics, national security claims and established rights of the downstream states remain impervious.

### **The CFA**

In 2010, Ethiopia, Uganda, Rwanda and Tanzania have initiated and announced the CFA which by March 2011, signed by six and ratified by three upstream states. Egypt and Sudan although took part in launching the NBI in 1999, they boycotted the initiative after CFA was signed in 2010. Accordingly, the two downstream countries particularly Egypt refuted to sign the CFA. The reason behind for its rejection as Egyptian officials, Mahmoud Abu Zeid, said that the signed CFA text has been changed before signing that was started in 2010. The signed CFA text is therefore different from the draft agreement negotiated by all the countries and to which Egypt has agreed on 43 out of 44 articles. Egypt has regretted from its membership not to lose its status quo by signing the CFA. In relation to this, Mahmoud Abu Zeid, argued that Egypt's policy to maintain the status quo must be supported by retraction of signing agreements that intended to replace those historical agreements. Thus, Egypt wanted to have, in the new framework, a reference to the historical water uses of the 1959 agreement. Hence, Egypt is seeking to have an alternative agreement signed by the heads of states, which will accommodate a number of principles governing the management of the Nile water through CFA. The head of state's summit called by Ugandan president, Yoweri Museveni in this regard was an indication of Egypt's partial return into NBI.

In the summit Egypt pushed for the regional countries to replace the CFA with a new CFA by proposing pre-conditions. What Egypt's reservation towards the CFA formerly was articles 14(b) which stated about water security. However, in the summit, Egypt put pre-conditions in order to admit the NBI. Of the pre-conditions (the articles) that Egypt sought to be renegotiated was the use of terms that was already signed in the CFA. Article

2(a) says that “Nile River basin means the geographical area determined by the watershed limits of the Nile River system of water which would be used in reference to environmental protection, preservation and development” and article 2(b) says that” Nile River system means that the Nile River and surface water including ground water which would be used in reference to water utilization.” The signed CFA used the term “Nile River system.” Consequently, Egypt argued that the use of the term river system instead of river basin is the breach of the NBI shared vision. Egypt wanted the term river basin that includes all the water resources. But upstream countries opposed because the term river basin includes the territorial land mass of the basin states which contravene the sovereign existence the states themselves.

The amendment of the framework or protocols stated under article 36 of the signed CFA was the other point that Egypt sought to be renegotiated. As it has clearly stated under article 36 of the signed CFA, as much as possible, the parties to the CFA shall make any efforts to reached on the agreement through consensus and if all the efforts at consensus have been failed and no agreement has been reached, then the two-third majority decision of the parties shall be taken as the last resort. Conversely, Egypt argued that the amendment procedure should be by consensus because Egypt feared that since upstream states outnumbered the downstream states, majority decision is not yet acceptable. Planned measure which stated under article (8) was the other point of discussion in the summit.

Article 14(b) was the main issue of the discussion. The annexed article both in the draft and the signed CFA is still a line of departure. While the upstream states opted the phrase “not to significantly affect the water security of any other Nile basin states, downstream states particularly, Egypt, demanded the phrase “not to adversely affect the water security and current uses and rights of any other Nile basin states. The reason is the desire of Egypt to incorporate the essence of the historical agreement to maintain its status quo. In relation to this, Mahmoud Abu Zeid warned that it would be difficult for Egypt and Sudan if they do not insisted of their historical agreements and Egypt will not sign any agreement without notifying its historical uses. He added that it is a breach of its constitution if Egypt signed the CFA the way it is now.<sup>xliii</sup> He concluded that CFA will not be legally binding on Egypt though it will be ratified by six riparian states rather it is going to be binding on the ratifying states only. Accordingly, the summit has been dispersed without putting common ground on the issue being discussed. Therefore, no common ground has been reached regarding the functionality of the CFA.

The current approach of Sudan with Ethiopia on the one hand and to the CFA on the other is remarkable. It is because, Sudan understood that the Grand Ethiopian Renaissance Dam (GERD) is tantamount important in reducing silt and other side effects of the flow of the Nile river particularly in its summer season besides the electrification that Sudan would get from the dam. Thus, Egypt’s backing of Sudan seems irrelevant. Instead,

Egypt is running to lobby the equatorial riparian states through substantial aids. In so doing, Egypt was lobbying and corrupting the government of Burundi not to sign the CFA, in exchange of substantial aid. Despite Egypt's diplomatic pressure however, Burundi inked the agreement. Recently, Egypt has a close intimacy with Uganda, Tanzania and South Sudan. The reason behind this friendship is to cement its (Egypt) position in the CFA.

## **Water Regimes and Their Efficacy For Cooperation In The Jordan River**

### **The Eric Johnston Plan (1953-55)**

A special envoy Eric Johnston, from the US was sent to negotiate an inclusive plan for the equitable allocation of the Jordan River and to surface the tension erupted between Israel and the Arab States of the basin.<sup>xliv</sup> The plan was called the unified plan established based on the Tennessee Valley Authority (TVA). As a regional cooperative framework, the plan was made based on the needs and consumption of each State and the available resources mainly based on quantity than quality by ignoring the geographical borders separating them.<sup>xlv</sup> Accordingly, each State explained their need and consumption level. Consequently, it has provided 400 MCM/yr to Israel, 720 MCM/yr to Jordan, 132 MCM/yr to Syria, and 35 MCM/yr to Lebanon.<sup>xlvi</sup> Put another way, Israel was allowed to use 40 % of the water and the remaining 60% was reserved for a joint exploitation between Jordan, Syria and Lebanon.<sup>xlvii</sup> Besides, the plan favored Israel to use Lake Kinnert (Tiberias) as its storage capacity for the Jordan water and allowed the kingdom of Jordan to build a dam at Maqarin for the storage of the Yarmuk River with no reference to the Litani and other tributaries to the Jordan River.<sup>xlviii</sup>

In fact, it was made to address two basic purposes. The first is to help Israel to be on its position and claim its recognition by the Arab States and secondly to resettle the Palestinian refugees on the Jordan valley. In such a way, both sides were agreed on the plan. The plan at its initial stage was successful particularly on the technical issues. Israel amongst others was cautious of the legal binding nature of the plan. However, it was not formally ratified by basin states though they accepted it as a *Defacto* water allocation (quota). Israel was cautious because Israel would no longer receive aid from America if rejected the unified plan in the one hand and America promised Israel \$10 million surplus food program.<sup>xlix</sup> Notwithstanding its good attempt and in fact laid a lesson to the 1994 peace treaty between Israel and the kingdom of Jordan, all the intended objectives were remained rhetoric and the plan was no longer accepted by the Arab League of the basin.<sup>1</sup> Two basic reasons determined the demise of the Johnston plan. The first was political ramification. The Arab league States in the basin claimed that accepting the water negotiation of Johnston and confirming the water right of Israel by implication means accepting and recognizing Israel as a State which none of them dreamed to be and where Israel was conceived by many as 'thorn in the flesh of the Arabs'.<sup>li</sup> So, without surfacing the political arena and border issues between Israel and the Arab League referring Palestine; it would be absurd to negotiate over water, the Jordan River.

The second was the distrust of the Arab League to America's tacit approach in the region. The League worried that using the good approach of its envoy; America would penetrate its economic relation over water particularly with Israel.<sup>lii</sup> Therefore, the Johnston's plan was abandoned in 1955 by contributing nil to the cooperative management of the river mainly because of the rejection of the Arab states of the basin attributing their nasty political relation with Israel. Following the failure of the Johnston plan however, otherwise bilateral agreements over the Jordan River have been concluded that embellish the existing spoiled tension.

### **The 1993 Oslo Accord**

The persistent intifada of the Palestinians against Israel was the genesis of the Oslo accord. As early as 1970's and 1980's the issue of the future status of Palestine and the occupied territories were highly debated.<sup>liii</sup> Tensions and warlike interactions were the day to day happenings between the two states. After lots of causalities from both sides, the Oslo accord also called an interim agreement was signed between Israel and the PLO on 13 September 1993. The agreement was an interim because it was limited for five years only. Letters that signify mutual recognition, declaration of principles (DoP) on interim self-government arrangement, protocol on economic relations, the status of the Gaza strip and Jericho and agreements on preparatory transfer of power and responsibility were amongst the basic point being discussed.<sup>liv</sup> The major aim of the declaration was giving an everlasting solution to the strife between the two perturbing states. Consequently, as it has been clearly explained by Selby<sup>lv</sup> and the exchange of letters between the two leaders, it was meant for the fabrication of external bureaucracy in the name of transferring power from the Palestinian insiders to the PLO outsiders returning from Tunis. Besides, the agreement was not a comprehensive arrangement since it lacked the basic issues of strife, the status of Jerusalem, border and territorial issues, Jewish settlements in the lands of the Palestinians without considering what will be the future of the Palestinian refugees. These were the foremost concerns that the Palestinians were strived to be discussed. Rather, the agreement claimed that all these issues would be resolved within the five year interim period<sup>lvi</sup> and Rabin; the then prime minister of Israel has made no assertion other than the recognition of PLO as the representatives of the Palestinians<sup>lvii</sup>. The agreement identified water as the cardinal pathway for cooperation, but reluctantly mentioned the need for the establishment of the Palestinian Water Authority (PWA). Being reluctant, the agreement has vaguely and fuzzily referred the rights and allocations of water between the Israeli's and the Palestinians. Accordingly, the Oslo I was concluded with pledging Israel and dissatisfying the Palestinians and both of them have failed to secure what they have promised.<sup>lviii</sup>

Upon its failure to address those basic issues, an interim self-government over the areas of the Gaza Strip and the Jericho was signed in 1995. This agreement was said to be the Oslo II. In the agreement, Israel agreed in principle to withdraw its military force and civilians from Gaza and Jericho. However, Israel refused the withdrawal of the settlers and Jerusalem was remained parts of Israel. What was the intention of Israel at the time was protection of



Israeli's identity as a Jewish state under a secured environment? Israel knowingly agreed to the accord since these areas were dry lands that would not have significant effect on the water supply of the Israelis. The most important legacy of the Oslo II was the joint Israeli-Palestinian management of the west bank ground water resources.

### **The Peace Treaty between Israel and Jordan (1994)**

It was the treaty that surfaced the intimidation between the two states. Though it was a bilateral treaty, it has been made within the principle of international water law and the Helsinki rules. In the treaty, border demarcations, security issues, diplomatic and future bilateral relations beyond water has been discussed. The two states recognize the equitable and reasonable water allocation based on the internationally accepted principles, quotas and the set grounds for the joint management and protection of the quality of the river waters. The principle of not to cause significant harm has also been considered. Notwithstanding its bilateral nature, it has paved the way for a cooperative management of the Jordan River and its main tributary, the Yarmuk. But it does not mean that it provides an everlasting solution to the basin. Mutual suspicion is continuing. From the very beginning, Jordan sought that the agreement must, among others, focused on strategic decisions; the factor that would turned the two states in particular and the region in general into intractable intimidations. However, by no means, Israel tolerates any agreement on strategic sights since it took its strategic position as a matter of security.<sup>lix</sup>

### **Prospects of Cooperation on Both River Basins Comparatively**

Based on the finding given above, the study draws five and two main prospects in the Nile and Jordan River basins respectively. One of the prospects that study draw in the Nile River is fractured cooperation via NBI with no common ground. As there is no clear understanding between riparian states on the use of the river and the implementation of the NBI, yet states do not reached on the common ground. The second is unilateralism through mega dams (upstream) as the most likely scenario. Since there is no consensus on how to harness the river water on consecutive meetings, member states particularly upstream are opting to take actions by building their own mega dams. The Grand Ethiopian Renaissance Dam (GERD) is the best instance for this. Therefore, it can be characterized by the co-existence of fractured cooperation and unilateralism through mega dams as the most likely scenario for the time being. The third is partial cooperation excluding downstream states if possibility two is real. The forth is partial cooperation excluding Egypt if possibility three is real and if Sudan continue on the right now. Right now, Sudan is intimately working with Ethiopia and agreed to collaborate on other issue areas beyond the Nile. The fifth is genuine cooperation through the establishment of permanent Nile river basin commission (PNRBC) if possibility four is real. I.e. the position of upstream states including Sudan will force Egypt to be abided by the guidelines of NBI so that it will pave the way for genuine cooperation in the basin.

Though it is difficult to determine the fate of the Jordan River due to the ever-changing nature of the region, the study identified two possibilities of cooperation. The first is flawed cooperation between Israel and Jordan but with the domination of the Israel. Even though, the two states agreed to use the Jordan river based on the principles of equitable and reasonable utilization since 1994(the peace treaty), the stand of Israel is undermined on its strategic determinations. The second is partial cooperation via establishing institutional setups between Israel, Jordan and Palestine. This possibility may be true if Israel and Palestine agreed on mutual recognition (accept a two solution). However, it so difficult to argue in such a way since Israel is snatching most strategic sights of the co-basin states like the Golan height backed by the super power of the world, US and as reports show, Israel will control the west bank and annex it to its territory. This habit of aggrandizing strategic sights and egoistic nature Israel will quell the possible prospects of cooperation over the river.

### **Conclusion**

Governance of shared water resource has become one of the defining features of contemporary regional and international politics. This study focused on the governance of the Nile and Jordan River basins comparatively thereby analyzing the challenges and prospects of forging cooperation. It argues that domestic political dynamics, geopolitical factors and international water regimes determine cooperation in the governance of water in the Nile and Jordan River Basins. Egypt's securitization of the Nile River throughout its regimes with unchanged domestic legal system and Israel's exceptional mentality and its contemplation of basin states as "others" and reciprocal aversion and contemplation of Israel by the Arab's as a thorn in their flesh has engulfed the culture of cooperation.

In terms of geopolitics, cooperation in the Nile and Jordan River basins is affected by three interrelated factors. These are the spatial power of the states, regional political rivalry and the extent to which pivotal riparian states allied themselves with global powers. In the case of the Nile River, the geographical setting of Egypt is paramount. Egypt is the confluence of different water courses, the Nile River, the Suez Canal, the Indian Ocean and the Red Sea all of which made Egypt a coastal state in the MENA which increased its trade partnership with the outside world which allowed the flow of different goods and services into it. This increased its patrimony from global powers. Regionally, Egypt's relation with Nile basin states is characterized by appeasement as well as containment. Especially, its foreign policy towards Ethiopia is mainly focused on weakening, destabilizing and keeping backward through proxy wars. Besides to this is halting Ethiopia's development by cutting international funds from international institutions and donor states through its bargaining power. All these geopolitical maneuvers affect the attempts at cooperation in the basin. On the other hand, mutual siege mentality and de-recognition of each other is the curse for the prevalence of effective cooperation in the Jordan River. Geopolitical calculations and state and society building are taken as a matter of survival for the fledgling state in the basin. Strategic places such as the Golan Height, Gaza, the West Bank, Jericho and east Jerusalem, are seen as buffer

zones and economic as well as settlement sites for the mass immigrants of the Jewish community and the Diasporas. The Jordan River is the hub for these objectives to be at stake. Its patron-client relationship with global powers especially, the US, gave it a full heart deterrence of the Arabs particularly the Palestinians through territorial expansion and construction of illegal houses for settlement on the lands of others. America's perpetual aid and its keen interest for such deeds especially at the time of Trump's presidency, is at the expense of the Palestinians in particular and the basin states in the general.

Most importantly, the study found that the mere existence of water regimes, either in the form of legal agreements or institutions, doesn't create mutually cooperative milieu. In particular, the exclusionary nature of the agreements has created a climate of mutual mistrust and suspicion. Comparatively, this holds especially true to the Jordan River basin. This can be explained by two major factors, the nature of legal agreements and the asymmetrical power relation between pivotal states. Similarly, the institutional attempts are defective in terms of their mandates. Related to this, the hegemonic status of Israel has tilted the playing field to its favor. Although to a different extent, both Jordan and Palestine often complain about Israel's self-serving hegemony.

The major conclusion of this study is that domestic politics, regional dynamics and international water regimes are indeed important variables in determining the cooperative dynamics in shared water resources. The level of their impact however is neither equal nor constant. Importantly, these three factors affect and condition one another. The dynamic nature of these variables would make the prospect of mutually beneficial cooperation much higher in the case of the Nile River than the Jordan River basin.

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# Assessing the Management Practices of Ethiopian Civil Service University in Respect of the Five Public Management Functions

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## Abstract:

*For Organizations executing in a complex and dynamic environment, assessing their management practices regularly is an antecedent condition to realize their objectives and excel. The objective of the study was to critically assess the management practices of Ethiopian Civil Service University in terms of the five public management functions, namely: policy-making, planning, organizing, leading and controlling. The research approach was mixed type (qualitative and quantitative survey). The target population for the study included all academic staff (311 including 47 expatriate staff) and administrative staff (960); altogether amount 1271. The researcher took 30% of the above population as a sample to get more reliable data and adequate information. To carry out this study, 382 respondents were selected through stratified sampling method for questionnaire. The qualitative data were collected through Focus group discussions with one FDG comprising 8 members selected purposively from Student and administrative support division. In addition interview was conducted with 10-directors and 5 team leaders selected through purposive sampling method. The quantitative results indicate that the management practice of the university has been in short of establishing the necessary public management functions identified and set as the model for successful implementation of organizational goals in public institutions. The findings also indicate that the effectiveness and efficiency in service delivery in the university has been practiced somewhat satisfactorily; and the inconvenience in obtaining supportive services like resources, facilities and technologies from administrative departments haven't been solved. The study further indicates that the practice of management bodies in attending international conventions and symposium on leadership has been limited; and information solicitation and feedback system hasn't been established well. In all of the cases, the qualitative result confirmed the quantitative findings. Therefore it is recommended that the top level managers as well as middle level managers have to be afforded with short term and in-service training to comprehend inclusive management skills, employees have to be motivated to face the challenging realities of the day to day interactions, middle level managers (directors) have to be empowered to take initiatives and contribute to the success of organizational goals. In addition, it is recommended that the financial system has to be decentralized to avoid the inconvenience in obtaining supportive services; solicitation and feedback system has to be established to ensure transparency and accountability. Lastly, it is necessary to assess regularly the management practices of the university to ensure that the public management functions are carried out in order to realize the set goals of the University.*

**Key Words:** Public Management, Practice, Assessment, Managers, Regular



# **1. Introduction**

## **1.1. Background of the study**

Effective leadership in any organizations is a crucial component of overall organizational success (Qatar, 2015). The effective leadership of universities is a crucial issue for policy makers, leaders themselves and for university staff. Gibbs, G, *et al.* (2009) state, that leadership is a critical factor in sustaining and improving the quality and performance of universities.

A study result also shows that university leadership is fundamentally different from leadership in other contexts and demands additional competencies (Thompson, J. 1992). Effective leadership in any organization is a crucial component of organizational success. Many aspects of leadership and management are common to most organizations. But colleges and Universities presents special challenges due to their fundamental character (Rowley & Sherman, 2003). As Brown (2001) suggested leadership in universities face unique challenges because of the different settings in which leadership must be applied across administrative departments, academic departments in student and faculty organizations (Lewis & Smith, 1994).

The challenges to leaders in higher academic institutions centers on balancing the demands between administrative control & faculty autonomy (Bennett, 1998 & Bimbaum 1992; Brown & Mosham, 2002). Universities are complex systems that constantly develop & renew themselves; while at the same time shaping the society at large (Burkhordt, 2002). Leadership in academia poses unique challenges and is described as demanding. Despite the importance of leadership for the advancement of the academia (Billiot, 2011) empirical research in this area is still relatively scarce.

While management practice is among the important factors for institutional success, there is little empirical research that measures the effectiveness of the practice. In this regard, Aitikin (1994) stated that the academic management is the least studied and most understood position in higher education. Although quite a number of scholars have written about the organization and governance of higher education, few have examined management practices and their effectiveness in higher education. Even these few studies remain limited in scope and currency (Thompson, 1992; Valentine, k, & Robert, W. (2009), Dwell, J, & Herbert, S. 2003). Moreover, to the best of the researcher's knowledge studies carried out so far to scrutinize the status of management practices in Ethiopian higher education institutions in general and Ethiopian Civil Service University (ECSU) in particular are scarce. Furthermore, in its Strategic Framework for Vision Plan 2015, ECSU has pointed out the missing elements where the university needs more energy to scale up. It indicated the threats that would happen if the management follows the usual way of leadership/inadequate mechanism for building visionary leadership to achieve the stated goal of the University.

This implies that there is a need for an empirical study that examines the current status of management practices in terms of Public management functions. Hence, this study attempted to assess the current status of management practices in ECSU by focusing on the following research questions.

## **1.2. Research Questions**

RQ1 what does the current management practice of ECSU look like in terms of Pub management functions?

RQ2 what critical elements does the management miss to be efficient & effective in discharging duties & responsibilities?

RQ3 what major challenges the ECSU is facing currently with respect to Public management practices?

RQ4 how can ECSU address the management related challenges identified through this strategy?

## **1.3. Major Objective**

The main objective of the study was assessing the management practices of the ECSU in terms of public management functions

## **2. Concepts of Public Management Functions**

### **2.1. Leadership /Management**

The contemporary debate of leadership literature is distinguishing the clear difference between leadership and management both in workplace and in theory. As the study result of David Kozak (2003) indicated, both leadership and management concepts are different in theory but they are used interchangeably in workplace. Even though they are distinguishable functions, they are closely related and one cannot be effective irrespective of the other. This study further indicated the reciprocal relationship between leadership and management. Some of the major issues indicated by this study are: (1) an effective management should possess leadership skills; (2) an effective leader should demonstrate management skills; (3) managers deal with systems, processes, budgets, equipment and things while leaders deal with visions and people. Thus, organizations need both strong leadership and strong management for optimal effectiveness.

### **2.2. Defining Public Policy**

A definition that is appropriate for our purpose, is supplied by dye (1987:3)” This definition contains the common denominator of most definitions but not to envisage the whole picture other perspectives are needed. An early of definition by Easton (1953:108) is the authoritative allocation of values through the political process, to groups or individual in society.” Others have defined policy as: a kind of guide that delimits action “ (starling, , 1p 75: 4 ; a projected program of goals, values and practical”, (Kaplan of lass well, 1 p70:71); A proposed course of action of a person, group or government within a given early providing obstacles and opportunities which the policy was proposed to utilize and overcome “ (Freiedrich, 1963:70) and a purposive cause of active followed by an action or set of actors in dealing with the problem or matter of concern” (Anderson, 1979:32).

Jones (1977:4) considers public policy, in four distinct phases,” specified means to achieve goals, specific actions taken to implement programmers and the measurable outcomes of the programmers. This function refers to the policy-making processes and standardized policies and mechanisms that are designed to facilitate the policy. The management of the organization must

strengthen the policy-making committee. This committee must develop policies for the organization to align them with the goals by taking into consideration the uniqueness of the problems and challenges. All employees must be involved in the development of policies. Employees must be given in-house, in-service training on policy development. These policies must be reviewed annually. Schermerhorn (2005:196) regards policy as a means for making decisions and action. Clarity in the policy process ensures confidence and stability. It enables the organization to focus on its key role which is the delivering of the services. Cloete (1998:159), regards policy implementation as a means to service provision.

Regarding policy implementation as a means to service provision, both studies showed that for organizations to be effective;

- Procedure manuals that are kept in departments and sections must be reviewed and implemented.
- Managers in the organization must be sent on formal training in the interpretation of policies.
- Key policies that need immediate implementation must be read and interpreted in the top and middle management meetings.
- Brochures with policies must be displayed in relevant departments and sections.

## **2.3. Planning**

### **2.3.1. Definitions and Types of Planning**

In most simple sense planning is deciding in advance what to do, how to do it, when to do it and who is to do it. Planning bridges the gap from where we are to where we want to go” (Koontz, *etal.*1980). In the public sector context, it can be argued as is done by Cloeat (1978) the planning has to follow after policy making when policy constituents a statement of an intention to satisfy a societal need. As such planning is a set of processes which must be carried out to find the best course of action w/h has been identified and described with the policy statement. This view of planning in the public sector context is also shared by starling (1982:189) where he states that policy is a statement of goals and of the relative importance attached to each goal. The policies are translated in to a plan by means of planning processes where policy goals are specified as specific objectives to be attained. A program is a proposed set of specific actions intended to implement the plan. It is also clear that planning has a variety of meanings.

According to starting (1982:186-189) and Garter (1981:229-231) planning has the following meanings in a public management context.

**National planning-** a situation where a government attempts to influence the national production processes interrupts of the amounts and types of goods and services that will be produced.

**Development planning-** the type of plans used by the developing nations to set out the main measures that are needed to improve the national output and the standard of living of their citizen.

**Physical or land use planning** is also called city planning, urban planning or regional planning. These plans are concerned primarily with the physical location and design of development projects such as housing projects, roads and other physical infrastructure.

**Management planning**- can be seen as reasoning about how a public organization will reach its objectives in the future by a proper assessment of opportunities and threats and the taking of correct decisions at present.

**Budgeting planning** –could be viewed as a part of managerial planning. A budgetary planning shows how the expected revenues in a particular period will be raised and spent.

Plans, as the result of the planning process, are also often classified by their time frame according to Robbins (1980:132-133).

- **Short term plans** - usually cover a period of less than one year.
- **Intermediate** – are to five years.
- **Long-term** - above five years.

### **2.3.2 The Importance of Public management planning**

Planning contributes to the effective handling of change planning permits the public manager and prepare for change as well as to some extent to shape such change. Planning contributes to the smoothing out of the transitional phase experience during change from one situation to another. Planning provides direction as it contributes to the development of a sense of purpose for the organization. Plans supply information about what is to be achieved, by when and who will be responsible for the necessary action in this regard. Planning provides opportunities for increased participation by interested parties in the activities of the organization. Planning creates higher levels of predictability by attesting uncertainty to a certain extent. Employees and citizens gain a better perception of what is expected and may act in accordance with the guide lines set by the planning processes. Planning facilitates control by providing means to evaluate whether activities conform to expected standards. This function refers to the planning processes and mechanisms that are designed to facilitate the planning work.

Lewis et al (2001:6), view planning as a means to achieve particular goals in the future. Planning must project future needs of the organization. The existing resources must be assessed and compared with future needs of the organization. Management must ensure that shared vision, synergy and accountability of all the employees are enhanced. The operational plan of the organization must be developed with set standards and time frames. The individual operational plans must be developed and aligned with the operational plan of the organization. The activities of individual operational plans must be clear, realistic and simple. To motivate employees, feedback on the activities of the organization must be given to all employees during interactive meetings. The human resource manager must benchmark and share best practices with other organization on human resource planning (Basu, 2004).

The human resource manager must develop a five-day induction Program me for all newly-appointed employees, and invite the CEO of the organization to welcome the newly-appointed employees on the first day of induction. The human resource manager must also develop a booklet on orientation and distribute it to all managers in the hospital.

## **2.4. Organizing**

This function refers to the arrangement of functions and people into specific areas and their levels of responsibility. The management of the organization must ensure that the organizational hierarchy is maintained. The work processes must be strengthened. Staffing norms must be developed according to the approved plans of the organization Employees must be placed correctly according to capabilities. Organizing must be done according to the approved plans. Employees must be placed correctly, according to their expertise. Management must fund and fill the vacant unfunded posts. Management must benchmark with other organization Management must encourage team building, and appreciate contributions made by lower-level employees when doing their work.

## **2.5. Leadership and motivation**

This function refers to management and leadership factors that impact on service delivery. Although the organization ensures that expectations are clarified for employees, employees must be given a chance to constructively criticize management. To ensure transparency and openness in leadership, management must use the Participatory leadership style to support employee participation and empowerment. To ensure transparency and openness, suggestion boxes must be introduced in the departments and sections for the employees to make suggestions. All deserving employees must be given incentives for outstanding performance. Mass meetings and road shows must be conducted with the lower level employees, to give feedback.

Motivational days must be introduced and a motivational speaker invited to motivate and empower the employees. Employees must interact with one another more effectively and maintain a shared vision of the organization. To empower subordinates for high positions subordinates must be given work of a position higher than that which they hold while the incumbent of the position is away on leave. To multi-skill subordinates, a program me of work rotation within the department must be drawn. Managers must attend external formal courses on leadership. They must also attend national and international conventions or symposium on leadership. The in-house, in-service-training short courses for managers on leadership must be introduced. Management must design and promote top management team-building sessions where vision, mission and empowering principles are articulated. Management must develop and publish the management critical assessment of the management practices and principles of an empowered team-based organization. Management must assess the organization continuously and use feedback to make adjustments in leadership.

Management must publicize achievements in internal newsletters with photos of successful teams. A Celebration Day (Open Day) must be held where the key legislators, community and the press are invited to view and appreciate success. A formal recognition system must be established to honor individuals and teams that significantly contribute to improve the organization.

## **2.6. Controlling and Evaluation**

The function of controlling refers to the management function involving the process of monitoring activities to ensure that they are being accomplished as planned, and correcting any significant deviations. This also includes aspects on how well people perform in the university (Performance Management System).

The performance of the employees must be assessed and evaluated continuously, to enable the organization to achieve its objectives. Control must be exercised in all the departments and over all employees. Employees of the organization must be made aware of budget control, and control measures to control costs against allocated budgets must be strengthened, and employees evaluated on a quarterly basis.

## **3. The Methods**

### **3.1. Research approach**

The research design for the purpose of study was descriptive survey. It describes what actually exists within a situation, such as current practices and situations of different aspects of the management practices. According to Mouton (2001:148), descriptive studies are “studies that are usually qualitative in nature which aim to provide an in-depth description of a group of people.

Since the present study is concerned with assessing the management practices of Ethiopian Civil Service University, the researcher has assumed that mixed type of research was the most appropriate method to be used. The reason why the researcher preferred mixed approach was:- to develop a more complete understanding of the phenomenon under study settings; to cross-validate or corroborate findings and to provide a well-validated and substantiated findings. So, the approach was both qualitative and quantitative in nature. As mores, (2003) indicated in concurrent research the investigator gathers qualitative and quantitative data at the same time and analysis are conducted separately yet concurrent. Thus, the findings from both qualitative and quantitative data analysis were triangulated and the integration was done at the interpretation phase of the study.

### **3.2. Population and sample size**

Study population is an aggregation of elements from which the sample is actually selected. Accordingly, the study population of this research paper was Consultants, lecturers, researchers and administration staffs working in the University. As the data from ECSU HR indicates the number of academic staff (311 including 47 expatriate staff) and administrative staff (960); altogether amount 1271. The researcher took 30% of the above population to get more reliable data and adequate information; and the sample size was  $1271 \times 30\% =$

### **3.3. Sampling Frame**

To carry out this study, 382 respondents was selected through stratified sampling method for questionnaire

Table 1 respondents of the study

Employ Category	No of population	No. of sample Size	Ratio
Academic staff	311	$311/1271 \times 382 = 93$	24%
Admin staff	960	$960/1271 \times 382 = 289$	76%
Total	1271	382	100%

Source: University HR report (2018)

After determining the sample size of the respondents for questionnaire, the researcher used convenience sampling/opportunity sampling to get individual respondents. The reason why the researcher used this kind of sampling technique was that it was appropriate to take nearest individuals or those who are available and willing to participate as respondents. Thus the findings of this study are not generalizable to the wider population since the study was based on convenience sampling.

For interview purpose 10-directors and 5 team leaders were selected purposively. The reason why we use purposive sampling for middle level managers was due to their close working relations and sufficient experience and insights to judge the management practices of the university. In addition, middle level managers are those who receive feedback from their employees and transmit the new information to the top the hierarchy. Furthermore, employees and middle level managers/directors/ are at the front line facing with the challenging realities of the day to day interactions with customers, suppliers and several other peoples from the internal or external environment. One Focus discussion group comprising 8-members was conducted with workers from Student and administrative support wing selected purposefully.

### **3.4. Data Sources**

To attain the aim of this study, only primary data was used. The Primary data gathered from sample respondents (whom are primary Sources) and was chosen through different sampling methods from the total study employees of the University.

### **3.5. Methods of data collection**

The researcher used both questionnaire and interview as data collection instrument. Primary data were collected by using questionnaires which focuses on five domains, namely: policy-making, planning, organizing, leading and controlling for survey research and interview for qualitative part. Both survey instrument & interviews were administered to the participants through personal contacts.

During data collection participants were asked to make sure that they are willing to take part in the study. After gaining a positive response, each respondent was submitted a survey questionnaire with instructions mentioning the purpose of the study and on how to complete the

survey instrument. Interview was conducted using semi-structured questions. Then after two weeks of submission, completed survey questionnaires were collected via personal visits. The participants were administered a survey instruments both in English and Amharic language based on individual preference.

### **3.6. Measurement for questionnaire**

The descriptive part of this study used quantitative data and measures ordinal variables. All statements were with a Likert scale having five points. The response scale that was used includes the following alternatives; strongly disagree, disagree, neither agrees nor disagrees, agree and strongly agree. A Likert scale was chosen because respondents can unequivocally comprehend the question and the scale discriminates well between respondents' perceptions; their degree of agreement or disagreement.

The format of the Likert scale is straightforward and flexible. It is easy to interpret and has a minimal response bias. A five point Likert scale was also chosen because of the use of factor analysis to reduce measurement items for each variable. Other advantages involve the possibility of answering neutral as well as the ability to obtain sum-mated values but the researcher anticipated limitations of the study as this study depends on quantified perceptual & highly subjective data.

To overcome the identified limitations Questionnaire was formulated using every day common-sense language to make respondents understand easily & give reliable answers. In addition, the researcher employed both descriptive & inferential statistics and make reliability test during data analysis in order to minimize subjectivity.



### 3.7. Description of Likert scale and effectiveness of management practices

Table 2 Likert scale description

Scale	Description of the response	Mean Vale	Interpretation	Description of effectiveness
5	Strongly agree about the effectiveness of ECSU management practice	3.8 and above	high	management practice in ECSU is effective
4	Agree about the effectiveness of ECSU management practice			
3	Neither agree nor disagree about the effectiveness of ECSU management practice	3.40--3.79	moderate	management practice in ECSU is moderately effective
2	Disagree about the effectiveness of ECSU management practice			
1	Strongly disagree about the effectiveness of ECSU management practice	<3.39	low	management practice in ECSU is less effective

Source:Zaidatol & Bagheri (2009)

### 3.8. Measurement for semi-structured interview

Interview was set to be acquainted with interviewers and Focus group Discussion participants how they perceive about the existing management practices of the University.

This was done to explore the ideas and insights about different aspects of the challenges of management practices of leadership. Exploratory research, within the social sciences, typically seeks to find out how people react to a setting under question, what meaning they give their actions and what issues most concern them. A method most fitting this type of inquiry involves qualitative methods; in this case semi-structured interviews were preferred. A semi- structured interview guide was used to cover most of questions asked in the survey.

### 3.9. Data presentation and analysis

The data were presented by frequency table & charts; and were analyzed using SPSS 21-version and Excel 2007 program. The researcher employed descriptive statistic methods to analyze the data collected from survey and narrative method for interview and FDG results. The descriptive statistics was applied by using frequencies, percentage, mean and standard deviations to describe the nature of the data collected and summarized in tabular form.

## 4. Results and Discussions

### 4.1. Descriptive Analysis

#### 4.1.1. Response Rate

In this study the sample size for the survey were 382, for FDG and interviews was 23 and the response rate is 94.76%. 362 respondents returned the questionnaire and also 23 respondents for both FDG and Interviews were addressed.

#### 4.1.2. Demographic Characteristics of the respondents

##### 4.1. 2.1 Sex of the respondents

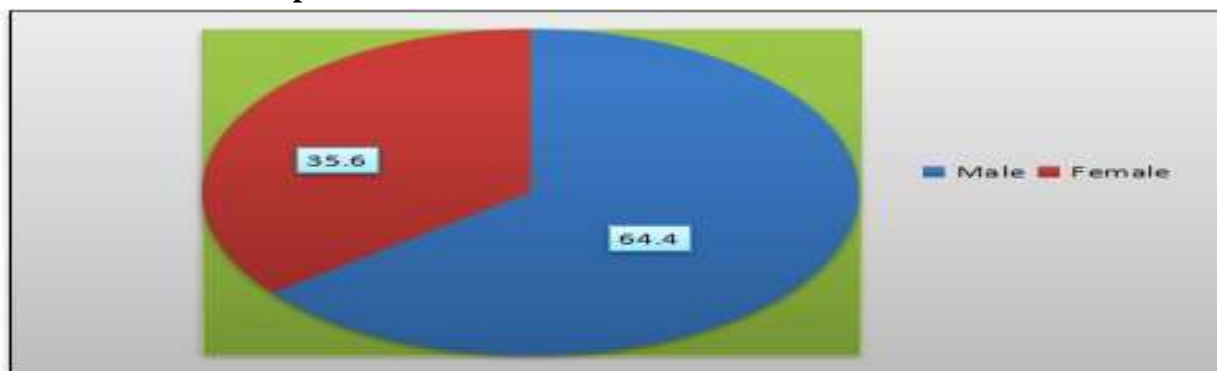


Figure 1 sex of the respondents

Source: Survey 2018

As the above pie-chart indicates 64.4% of the respondents were female while 35.6% were male. It implies that most of the respondents were female.

##### 4.1. 2.2. Education Level

Table 3 Education levels of the respondents

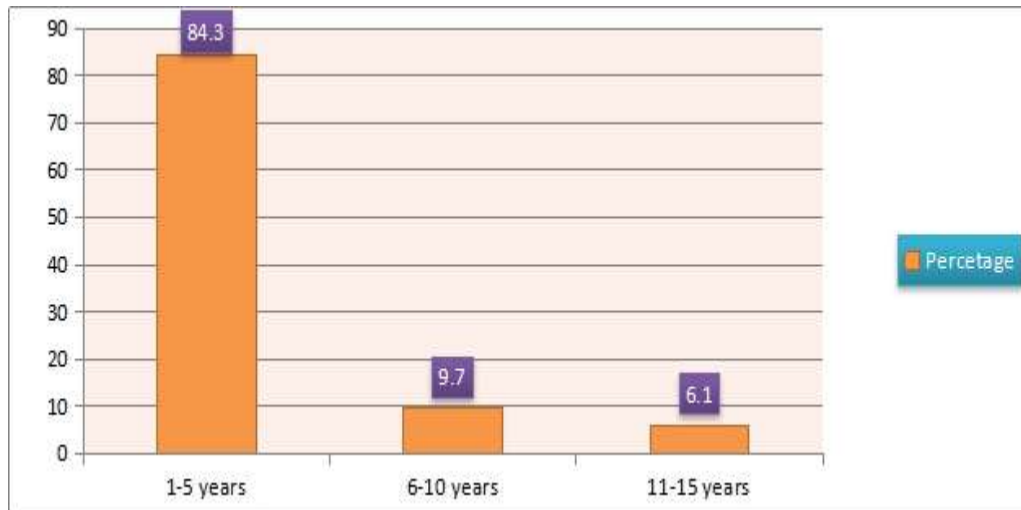
Education Level	Frequency	Percent
PhD	5	1.4
MA/MSc	75	20.7
BA/BSC	14	3.9
Diploma	211	58.3
Others	57	15.7
Total	362	100.0

Source: Survey 2018

As can be seen from the above table, 58.3% of the respondents were Diploma, 20.7% were MA/MSc degree, 3.9% were BA/BSc; and 1.4% was PhD holder. The rest 15.7% were other types.

#### 4.1.2.3 Work experience

Figure 2 work experience of the respondents



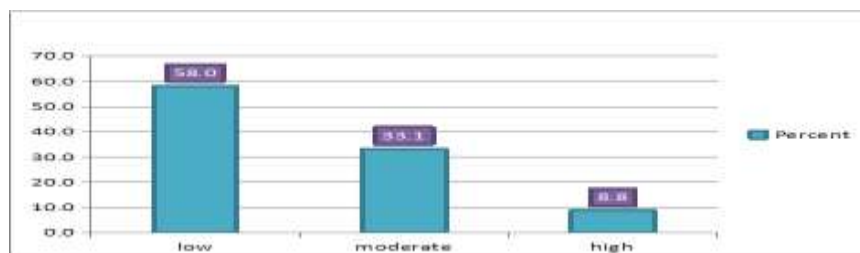
Source: Survey 2018

The results in the above figure revealed that the majority of the respondents fell in the age brackets of 1-5 years of experience (84.3%) and 6-10 years of experience with percentages 9.7% and 11-15 years of experience 6.1%. The results implied that the composition of the respondents was made up of respondents with adequate experiences to understand and provide reliable information on the challenges and practices of the management in the University.

## 4.2 Management practice in terms of public management functions

### 4.2.1 Policy formulation

Figure 3 responses on policy formulation processes

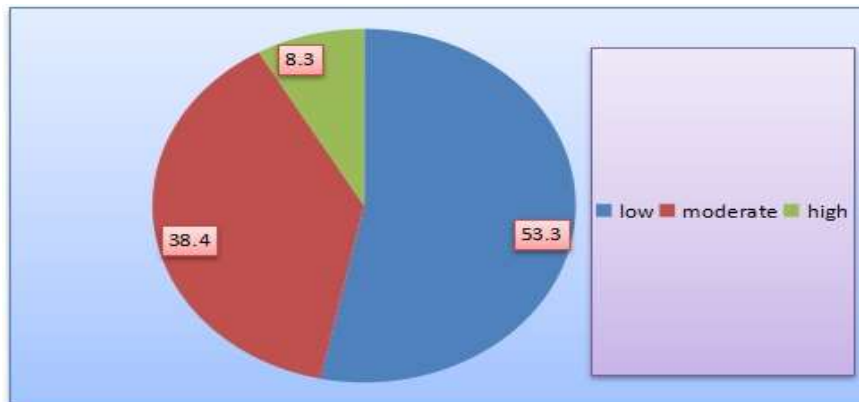


Source: Survey 2018

As the above bar graph showed that the majority of respondent (58%) were ranked the overall performance of policy formulation was low, the other 33.1% of respondent perceive as it was moderate and the remaining 8.8% rated as high in its last year policy formulation performance. The overall result showed that around 91.2% of respondents believe the overall performance regarding policy formulation processes were moderate and below. This implies that, the respondents belief towards the practice that they were not made clear about the ECSU policy, policy manuals were not made available to them, they were not clear about the timely review and development of the existing policy in the University.

#### 4.2.2 Planning

Figure 4 Responses on planning processes

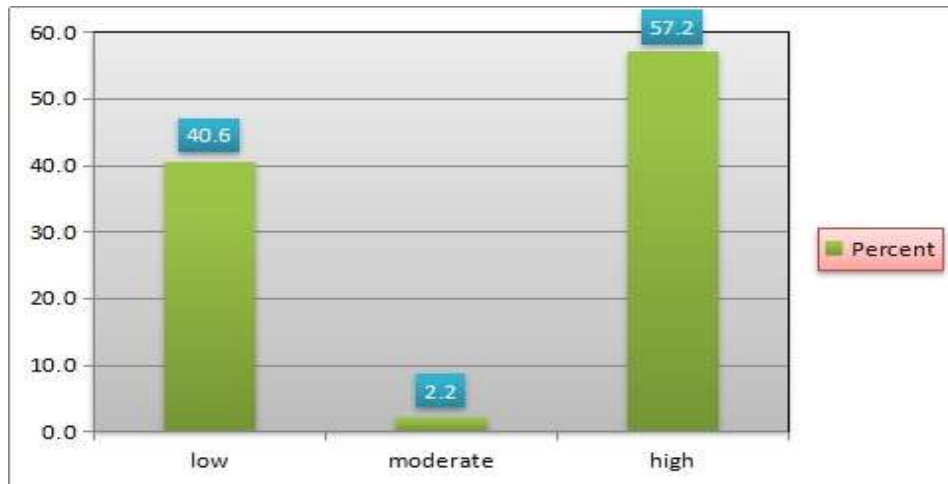


Source: Survey 2018

As the above pie chart showed that the majority of respondent (53.3%) were ranked the overall performance of policy formulation was low, the other 38.4% of respondent perceive as it was moderate and the remaining 8.3% rated as high in its last year planning performance. The overall result showed that around 91.7% of respondents believe the overall performance were moderate and below. This implies that respondents perception about the limited practices of ensuring that employees understood the vision and mission of the University and the limited opportunity of employees in the university to be involved in developing the operational plan. In addition it indicates that the university is not successful in involving employees in the development of its operational plan.

### 4.2.3 Leadership and Motivation

Figure 5 Responses on leadership and motivation



Source: Survey 2018

As the above bar graph showed that the majority of respondent (57.2%) were ranked the overall performance of leadership and motivation was high, the other 40.6% of respondent perceive as it was low and the remaining 2.2% rated as moderate in its last year leadership performance. The overall result showed that around 59.4% of respondents believe the overall performance were moderate and above. This means that management is somewhat good at giving employees the opportunity to determine the best methods to accomplish their tasks.

### 4.2.4 Organizing

Figure 6 Responses on organizing processes



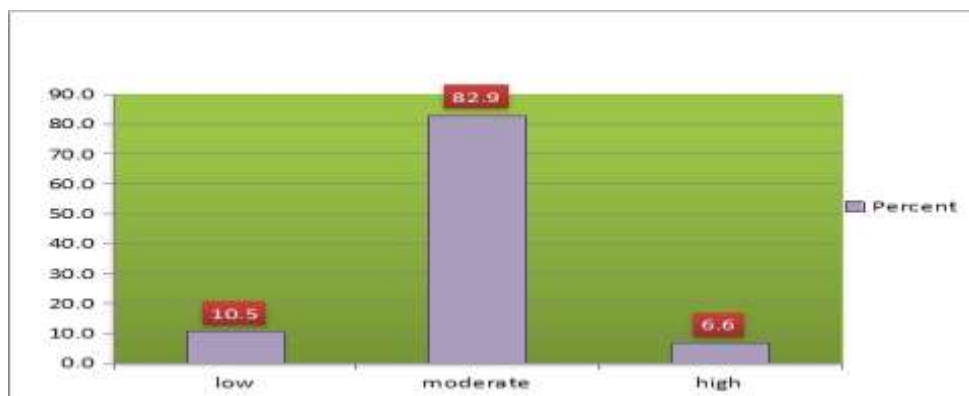
Source: Survey 2018

As the above bar graph showed that the majority of respondent (68%) were ranked the overall performance of organizing function was moderate, the other 14.9% of respondent perceive as it was

high and the remaining 17.1% rated as low in its last year organizing performance. The overall result showed that around 85.1% of respondents believe the overall performance were moderate and below. This means that management hasn't been ensuring that expenditure on personnel does not impede service delivery activities.

#### 4.2.5 Controlling and Evaluation

Figure 7 responses on controlling and evaluation processes



Source: Survey 2018

As the above figure indicates that the majority of respondent (82.9%) were ranked the overall performance of organizing function was moderate, the other 10.5% of respondent perceive as it was low and the remaining 6.6% rated as high in its last year performance in terms of controlling and evaluation. The overall result showed that around 82.9% of respondents believe the overall performance were moderate. This means that management is successful in conducting quarterly assessment and final evaluation of work performance of employees against set targets in the university.

### 4.3 Descriptive Analysis of the perceptions towards the management practice

Table 5 Descriptive Statistics

Items	Mean	SD	Proportion of the respondents			Interpretation
			% high	% moderate	% low	
Controlling& Evaluation practice	3.0138	0.332	6.6	82.9	10.5	Moderately effective
Organizing practice	3.0061	0.481	14.9	68.0	17.1	Moderately effective
Leadership & Motivation practice	2.8311	0.991	57.2	2.2	40.6	Moderately effective
Planning practice	2.5932	0.700	8.3	38.4	53.3	Moderately effective
Policy making practice	2.5597	0.644	8.9	33.1	58.0	Moderately effective
Weighted mean	2.800	0.629				Moderately effective

Source: Survey 2018

To measure the level of effectiveness of the management practice of Ethiopian Civil Service University(ECSU), four major items of the instrument were analyzed with the help of descriptive statistics using SPSS version 21. Thus, the views of the respondents on four items of perception towards the management practice are presented in table 5 above. In this regard the mean score for controlling and evaluation practice is 3.0, SD=0.332 and majority of the respondents (93.4%) rated the practice to be moderate and below. Likewise the respondents rated for the item “organizing” as moderately effective with the mean value 3.0 and SD=0.481.

While talking about the item “leadership and motivation”, above half of the respondents (57.2%) rated as the practice is effective with the mean value 2.8 and SD=0.991. However, the response rate for the remaining two items such as “policy making process” and “planning process” are below the average mean (2.8). In this regard 91.1% of the respondents rated the for the item “policy making process as moderate and below with the mean value of 2.55 and SD=0.644. Nearly the same proportion of the respondents (91.7%) responded for the item “Planning “as moderate and below with the mean value 2.59 and SD=0.700.

Explicitly the overall response for four items indicates the mean=2.8 and SD=0.629. The higher the mean score, the more that respondents agreed with and vice-verse. The figures for standard deviation (SD) also indicate the degree to which responses varied from each other; the higher the

figure for SD, the more variation in the responses. Therefore, this result based on Zaidatol and Bagheri (2009) mean score comparison basis, the overall mean score 2.8 indicates that the current management practices in ECSU as perceived by the respondents become less effective.

Thus, from this finding it can be concluded that, the respondents are dissatisfied with the current management practices in terms of policy making processes, planning processes, leadership and motivation practices, organizing functions; and controlling and evaluation processes. Therefore, such remarked areas of dissatisfaction are good indicators of the root causes for employees' negative perception regarding management practices. In turn, it might have its own impact on employee's commitment and work performance.

#### **4.4 Interview Results**

Regarding the policy making processes the result from interview response indicates that *Ad hoc* committee assigned by the management of the university is responsible to develop the policy in harmony with the mission of the ECSU by taking the uniqueness of the existing problems and challenges into considerations. As the interview respondents mentioned, employees in the university were not made clear about the policy, policy manuals were not made available to employees and review and development of the existing policy has not been done timely.

The function of planning at the ECSU referred to the planning processes and mechanisms that were designed to facilitate the planning work. But the Management of ECSU has limited practices in ensuring that employees understood the vision and mission of the University. Also employees in the university were sometimes involved in developing the operational plan, ensuring that the operational plans of the employees supported the overall goals of the University is rare case. Recruitment, selections and appointments were done by recruit and selection committee including human resource department and orientation of new employees to the job was not a common practice.

Regarding the organizational structure in the university, similar or related occupational classes were grouped together; but when assigning tasks explaining expectations clearly by directors were not a usual practice. As both the interviewees and participants of focus group discussions indicated Personnel expenditure at ECSU impedes service delivery. The respondents tried to point out the major challenges like budgetary issues which need strong and committed leadership to establish the favorable situation and overcome the challenges.

The leadership function at ECSU related to the way management defined what the future of the university would look like, to align people with the vision and inspire them to make things happen. Not enough was done by the management of the University in this area. The management of ECSU should do everything it could to train and develop managers and those employees who show potential in this area.



Control systems at the Ethiopian Civil Service University ensure accuracy of performance data and make employees more responsible for their actions. Comparison between actual and budgeted figures is made and submitted quarterly to the division for final approval before being submitted to the university Planning Office

In summary, the five public management functions in ECSU are executed in a complex and dynamic environment. Thus, it is necessary to assess, regularly, the management practices of the University, focusing on the five public management functions. It is also necessary for management bodies of the university to ensure that the public management functions are carried out, to realize the set goals of the University.

#### **4.5 Triangulating the findings from both sources**

The total percentage of respondents who strongly agree and agree that policies are interpreted and implemented as prescribed in the relevant statutes, is at 51.4%. The result from interview response indicates that *Adhoc* committee assigned by the management of the university is responsible to develop the policy in harmony with the Mission of the ECSU by taking the uniqueness of the existing problems and challenges into considerations. This means that the ECSU is successful in the development and implementation of policies as prescribed in the relevant statutes.

As the interview respondents mentioned, employees in the university were not made clear about the policy, Policy manuals were not made available to employees and review and development of the existing policy has not been done timely. This is confirmed by the survey result such as that the university is not successful in adhering to the relevant policies of the HR when discipline is applied (65.2%) disagreed.

#### **4.7 Major Findings**

This study provides different issues that can help as input for research on the current status of management practices in the university.

First, the discovery from this study indicates that the current status of management practices is somewhat at satisfactory level.

Second, regarding the issue of policy makings and implementation process, major variables such as updating the existing policy manuals, availing the policy manuals to employees in the university, implementation of policies that support personnel development through training and development and adhering to policies when taking disciplinary measures on employees were not in line with the public management functions set as a model by Fox et al (1991) indicated in literature part of this study.

Thirdly, the management practices of the university do not satisfy the planning processes and mechanisms that were designed to facilitate the planning work as set by the model (Fox *et al*, 1991).

The results of this study are similar to the results found by Robbins (1984:15); Kroon (1995:3) ; Griffin (1987:7) and Fox *et al* (1991:6) 8). Notably, these studies found that the main factors which have contributed for the successful implementation of Public management functions. According to Robbins (1984:15), “one of the greatest challenges facing managers in the organization is the successful application of management theory into practice”. Kroon (1995:3) also maintains that “management is the task of all managers at all levels at the organization to create circumstances in which people can cooperate to achieve the stated goals of the organization and it is necessary to enable and direct the organization to achieve its objectives at the highest level of productivity.

Griffin (1987:7-8) further noted that management is "the utilization of resources such as personnel and finances or even personnel management and financial management which are activities that also take place in the public sector”. Fox *et al* (1991:6) maintain that “solutions to public management challenges not only require knowledge, skills and aids but also a constant verification of the applicability and efficiency of actions”.

## **5. Conclusion and Recommendations**

### **5.1 Summary**

The purpose of this study is to assess the management practices of leaders at different levels of Ethiopian Civil Service University and provide insight to management teams to review their management practices and manage effectively. To address the issue the following four basic research questions were developed to guide the study.

- What is the Current status of the management practices of Ethiopian Civil Service University?
- What are the critical elements required for the efficient and effective management of the University?
- What are the major challenging areas the management practices in the university?
- What are the management-related challenges and opportunities diagnosed through this research?

Within view of answering such research questions the researcher employed mixed research design and collected qualitative and quantitative data through interview, focus group discussion and survey questionnaire. The data were analyzed using both descriptive statistics and triangulated the qualitative result to descriptive survey result. Similar results are achieved with different methods and the researcher feels more confident in the validity of the measurement.

It is evident from this study that the existing management practice of the University has failed to fulfill the Public management practice model set by Fox *et al* (1991). The major limitations identified through this study are: - employees in the university were not made clear about the policy, policy manuals were not made available to employees, review and development of the existing policy has not been done timely, limited practices in ensuring that employees understood the vision and mission of the University, employees in the university were sometimes involved in developing the operational plan. In addition, ensuring that the operational plans of the employees supported the

overall goals of the University is rare case; orientation of new employees to the job was not a common practice, when assigning tasks explaining expectations clearly by directors were not a usual practice. Furthermore, personnel and financial expenditure at ECSU impedes service delivery and adequate intervention by the management of the University in this area was not done.

In conclusion, the execution of five public management functions in ECSU are at satisfactory level and thus, it is necessary to assess, the management practices of the University regularly focusing on the five public management functions. It is also necessary for management bodies of the university to ensure that the public management functions are carried out as per the standard set by this model (Public management functions) to realize the set goals of the University.

## **5.2 Conclusions**

Many significant issues come out as a result of this study from the result of this study we can conclude that: -

1. The management practice of the university has lacked to establish the necessary public management functions identified and set as a model for successful implementation of organizational goals in public institutions.
2. The Effectiveness and Efficiency in service delivery in the university has not been well practiced.
3. The inconvenience in obtaining supportive services like resources, facilities and technologies necessary to facilitates the teaching training, consultancy and research processes from administrative departments haven't been solved.
4. The practice of management bodies in attending international conventions and symposium on leadership has been limited.
5. Information solicitation and feedback system hasn't been established well.

## **5.3. Recommendations for practice**

1. In order to establish a well-designed management system, top level managers as well as middle level managers have to be afforded with short term and in-service trainings to comprehend inclusive management skills defined by the model developed by Fox *etal* (1991).
2. To ensure efficiency and effectiveness in service delivery in the university, employees have to be motivated to face the challenging realities of the day to day interactions with customers, suppliers and peoples form internal or external environment.
3. To ensure efficiency and effectiveness in service delivery in the university, middle level managers (directors) have to be empowered to take initiatives and contribute to the success of organizational goals.
4. To avoid the inconvenience in obtaining supportive services like resources, facilities and technologies necessary to facilitate the teaching training, consultancy and research processes, decentralization in financial system has to be encouraged.
5. The University has to set a well-designed solicitation and feedback system to ensure transparency and accountability.

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