

Ethiopian Civil Service University

Proceedings of
The 8th National Research Conference

on
Public Sector Transformation and Development

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The 8th National Research Conference

on
Public Sector Transformation and Development

Edited By:
Dr Zerihun Doda, RPCO Director

Layout and Design:
Mr. Tesfay Gebremeskel, Publication Coordinator

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Edited by: Dr Zerihun Doda,
Director, Research Affairs Directorate
Email: doffanaz@gmail.com/ zerihun.doda@ecsu.edu.et

Layout & Design By: Mr. Tesfay Gebremeskel
Journals and Publications Coordinator
Email: tesfay.ethiopia@yahoo.com

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Message from the Vice President for Research & Community Services

Ethiopian Civil Service University (ECSU) was established to support the transformation drive of building capacity of the public sector both at federal and regional levels through providing specialized education, training, research and consultancy programs and services. The University has been organizing scientific forums such as workshops and conferences with the aim of disseminating scientific research outputs and enriching the same to maintain its quality at different times.

Against this backdrop, the 2023 conference was organized under the theme, 'The Seventh National Research Conference on Public Sector Transformation and Development.' A total of about 168 abstracts were collected by the 8th National Research Conference Organizing Committee. Of these, 125 were collected from higher education and training institutions, while 42 were funded by ECSU in the 2013 E.C. (2020/2021) calendar year. A total of 82 full papers were further reviewed for conference presentation eligibility, of which 40 were approved, passing through a rigorous review process. Of these, 36 papers were successfully presented at the conference.

Vol. 1 of this proceeding contains 14 papers of the 36 that were successfully presented during the two-day conference and passed rigorous post-conference presentation revision process. The papers have been enriched through the incorporation of comments and suggestions gained during the conference. The papers in this volume are categorized into the thematic areas of the Urban Governance & Peace and Development, and Economy & Development

Finally, the VPRP presents this proceeding with a great pleasure and sense of honor to all relevant stakeholders.

Dr. Alemayehu Debebe

July 2023

THEME 1: URBAN GOVERNANCE, DIPLOMACY, PEACE & DEVELOPMENT

1.1. Illicit Firearms Trafficking: Contributory Factors, Consequences and Challenges to Control in Selected Areas of Ethiopia

¹Abdo Beshir, ²Abdulfetah Endriss, ³Melaku Tefera, and ⁴Sisay Tessema,

Lecturers, Ethiopian Police University

E-mail: abdobeshir6@gmail.com

ABSTRACT

Currently, illicit firearms trafficking become a great threat to the peace and security of Ethiopia. In 2021, in all parts of the country, the seizure of illicit firearms is the agenda of many media, security organs, and the people. Thus, this study aims to examine the factors, routes, consequences, and challenges of controlling illicit firearms trafficking. The study covered purposively selected areas of Ethiopia. It employed a qualitative research approach, exploratory design, and purposive sampling. Accordingly, 19 inmates, 32 police officers, 9 militias, 9 community elders, and 10 FGD were conducted. Then, data were thematically analyzed. The key finding revealed that demand-related factors include self-defense, gun culture, monetary benefits, and the weakening of peace and security in the country. The identified major key actors were truck drivers and their assistants; agents/brokers; security forces those crossing border to come back with illicit firearms, misuse of ammunition while on active duties, evading weapons from training and military camps, and selling confiscated and escaped members' weapons. The government's challenges to control illicit firearms include complicated modus operandi, networks & corruptions, the difficulty of controlling the country's borders, outflows of firearms from military institutions, lack of coordination and cooperation, and difficulty to apprehend/detention of traffickers. The study showed that illicit firearm trafficking resulted in the death of many children, the elderly, and youths which broadly affects the economic, social, political, and psychological aspects of the study populations. Therefore, the study recommends that the law enforcement measure of the government must be effective in the prevention of illicit firearms trafficking to curb the problem of good governance, protecting the border, and increasing the control of illegal trades which immediately factors for illicit firearms trafficking, legalizing the security agencies malpractices, and providing continuous training for law enforcement agents and community as well.

Keywords: Illicit Firearm, Factors, Routes, Consequence, and Challenges to Control, Ethiopia.

INTRODUCTION

The problem of illicit firearms trafficking is multidimensional. As to the Small Arms Survey, weapons are manufactured and traded both licitly and illicitly. Identifying and tracking of illegally manufactured and trafficked firearms is very complex. Further complicating issues, most firearms are produced legally and then diverted into the illicit market (Rigual, 2014). Globally, it estimated to more than one billion firearms; the vast majority are in the hands of civilians which counted about 857 million (85%), 133 million (13 %) are in military arsenals, and 23 million (2%) are owned by law enforcement agencies (Karp, 2018). Out of all global firearms holdings, roughly two-thirds of

the estimated totals are in the hands of non-state actors and civilians out of which 100 million are reported to be in Africa (Arsovska & Zabyelina, 2014).

Continent wise, Africa is the most affected region in terms of proliferation, circulation, and use of illegal weapons mainly because of lax institutions, porous borders, and corruption (Chelule, 2014). Many conflicts have earned intractable status in Africa because of the constant flow of arms to fighting parties. Due to the arms control measures in Africa are not sufficient to pattern the threat, the dimensions, and proportions of inter and intra-state conflicts have led to the label Africa as a crisis-ridden continent. Thus, regulating these conflicts may be a tough task unless arms supply to the fighting parties are controlled (Nwaorgu & Nwankwo, 2017). Tilahun, et al, (2020) also revealed that illicit firearms trafficking continues to destabilize the African continent, fuelling crime, conflict, and terrorist activities. As a result, Sub-Saharan region also affected by recurrent armed conflict experience the most organized forms of illicit arms trafficking, sometimes involving large quantities of weapons and specialized armed groups.

The influx of an array of weapons into the horn of Africa, where conflicts already exist as a matter of reality, has been a readymade market for the arms, which takes the lion share for the devastation occasioned on the governments of Rwanda, Somalia, Uganda, and Ethiopia battling their own internal dynamics, among others (Griffiths-Fulton, 2002). On top of this internal dynamics, some countries of the region are known to support rebels and private dealers in other countries of the greater region, adding a unique mix to the proliferation. Hence, trafficking in firearms constitutes one of the most challenging and pressing problems in Eastern Africa (Chelule, 2014).

According to Greene (2000), Ethiopia is one of the countries which are greatly affected by illicit trafficking of firearms. Despite the different arms control measures, Ethiopia is ranked high in terms of the ease of access to firearms, for instance, as to regional center on small arms (RECSA) workshop report, in Ethiopia it is estimated that there are more than one million weapons illegally possessed by individuals (RECSA, 2006). Illicit firearm trafficking present in most forms of violent crimes and increase the power of organized criminal groups and causes economic problems (Small Arms Survey, 2014) and it provides a platform for non-state actors to further their interests through violence (Chelule, 2014).

Today, illicit firearm trafficking has reached an alarming rate in Ethiopia. According to Tilahun, *et al.* (2020), firearm trafficking scored the highest (6.5/10) among the identified criminal markets mainly due to the trafficking of arms across the border with Sudan. Addis Ababa Police Commission has seized 10,732 illegal pistols and 99,785 bullets within nine months within the confines of the city starting from July - March 2018 (New Business Ethiopia, 2019). Illicit firearms' trafficking is a particular concern across Ethiopia's eastern border and is connected to the country's military presence as part of an AU peacekeeping force. Arms trafficking activity has increased in the country over the past few years. It was reported that in 2018, Ethiopian security forces seized 21 machine guns, more than 33,000 handguns, 275 rifles and 300,000 bullets in different parts of the country. In response to a spike in small arms trafficking, in January 2020, the Ethiopian parliament enacted new gun control legislation, which prohibits the sale and transfer of firearms, establishes a registration and licensing regime for current firearms owners, and increased punishment for violations of the gun control measures from 3-15 years (Tilahun, *et al.*, 2020). In between 2003 and 2004 Ethiopian Police reported that there were 9,531 arrests and prosecutions for illegal arms transfers and possession (Mehari, 2008). However, the anti-terrorist act, firearm and other related regulations have not been successfully implemented to prevent illicit trafficking of guns and violent crimes associated with illegal firearm trafficking (Desalegn, 2017). Furthermore, illicit firearm trafficking is a medium threat to money laundering in Ethiopia (Tilahun, *et al.*, 2020).

The tricky related to firearms has attracted the attention of some researchers in Ethiopia and a few studies have been conducted. However, the number of studies and the knowledge obtained from those studies are not sufficient to explain the magnitude of the problem related to firearm trafficking in the country. For instance, Aemro (2016) has conducted study on the regulating proliferation and misuse of small arms in Eastern Gojjam Zone of Amhara Regional State and revealed that the magnitude or number of small arms possessed and circulated in East Gojjam Zone was high. However, it missed to address issue related to firearm trafficking in Ethiopia. Cochrane and Hadis (2021) in their study conducted on ‘farmers buying guns: the impact of uncertainty and insecurity in rural Ethiopia’ revealed that the illegal weapons trade has expanded in scale and geography followed the historic change of leadership in 2018 in the country. The reform was unable to reduce the rise of uncertainty and insecurity, and the potential for even more deadly violence with more people purchasing weapons in the country. However, it missed to discuss the magnitude, consequence, and government’s challenge to control the issue of illicit firearm trafficking in Ethiopia. Mehari (2008) in his study conducted on ‘Arms control and arms traditions in Ethiopia’ depicted the existence of the practice of gun culture; value attached for weapons like being having it is considered as respected, warrior race and self-protected. However, the study overlooked the issue related to firearm trafficking in Ethiopia. Desalegn (2018) in his study on ‘societal derivations for the illegal gun trafficking in Addis Ababa, Ethiopia’ revealed that illegal gun trafficking takes place have negative impressions on residents of the city, limit the right of people to movement, and since they assume as they are part of illegal gun trafficking society’s trust in the police for security purpose has been diminished. However, it mostly focused on societal apprehension to the illicit gun exchange and overlooked to discuss major issues of illicit firearm trafficking, particularly why people need firearms, who are the key actors for illicit firearms trafficking, what the major routes are, and what the major challenges of government to control it in Ethiopia. Additionally, from personal experiences, there is no automated database of gun ownership registration under the federal government and there is no clear counting system of how many guns are available across the country. Regarding this issue there are different practices in federal and regional governments. It is also not clear clear whether gun ownership is a right or privilege under the Ethiopian law.

Therefore, as the preceding discussion has shown, the studies so far conducted did not sufficiently address the issue of illicit firearm in Ethiopia. Hence, the main aim of this study is to explore factors for illicit firearms trafficking, its routes, consequences, and challenges to control in Ethiopia. Based on this, the paper sets out to achieve the following specific objectives:

1. *To describe the demand related factors of illicit firearm trafficking,*
2. *To identify the key actors in illicit firearm trafficking,*
3. *To explore the consequences of illicit firearm trafficking,*
4. *To examine the challenges to control illicit firearms trafficking.*

METHODOLOGY

The study areas covered purposively selected parts of Ethiopia. Depending on the data from Federal Police Commission Firearm Control, Licensing and Consultancy Directorate (2019), certain areas were identified as major routes for firearms trafficking throughout the country. Based on the direction of the routes or geographical proximity the areas identified as routes or hotspots for issue under the study were categorized into five clusters. These are: *Northern cluster*: Gonder, Dessie, DebreBirhan, ShewaRobit, Kemisie, and Ataye; *Eastern cluster*: Adama, Harar city, Dire Dawa, Jigjiga, Togo Chalie, and Semera; *Western cluster*: Nekemte, Gimbi, Assosa, Gambella, Bedele and Jimma city; *Southern cluster*: Shashemane, Aje, Moyale, Hawasa, Konso (Karat) and Arba Minch, and *Central cluster*: Addis Ababa and its surrounding cities (i.e., Burayu and Sebata). Based on the different

police reports, most of the selected areas are traced for their prior seized history or typically suspected of the illicit firearms circulation in the country. This is due the nature of the areas/routes: the link it has with other neighbor countries particularly with Sudan, Somalia, Kenya, and Djibouti; gun culture of surrounding community; and everlasting weapons assisted conflict areas.

This study was relied on qualitative research approaches because it used to understand a contributory factors, routes, consequences, and challenges to control illicit SALW in Ethiopia from the perspectives of the local population it involves and helps researchers to gain a rich and exhaustive understanding pertaining to issue at hand. Also, it used to discover the quality of the issue under the study, meanings that participants or informants attach for their actions, how interpret situations and what their perspectives (Leedy & Ormrod, 2010), regarding factors for illicit firearm trafficking, its consequences, and challenge to control in the country.

Due to its least studied area in Ethiopia and novelty of the issue, the study was employed exploratory design. Here, the major aim of this study was to explore the factor for illicit firearms trafficking, major routes, consequences, and its challenges to control. According to Stebbins (2001), exploratory research is usually conducted when there are few or no earlier studies to which references can be made for information. In terms of time, the study used a cross-sectional design which lets the study explore in a single time interval.

The study populations were the inmates detained due to the firearm trafficking, police officers, militias, and community leaders (i.e., Edir chairpersons, Aba Gadda, Uggaz and traditional elders) in the selected area. A purposive sampling technique was employed to select in-depth interview informants and FGD participants. Its sample size would be determined based on data saturation point.

Among the methods used to collect data one was interview (i.e., in-depth interview & key informant interview). In this study, two types of interviews were carried out. The first one is an in-depth interview that was held with 19 illegal firearms traffickers who were serving prison in the study area. Secondly, key informant interview was held with 32 police officers, 9 militias and 9 community elders/leaders (i.e., Edir chairpersons, Aba Gadda, Uggaz and traditional elders) to explore information pertaining to factors for illicit firearm trafficking, major routes, its consequences, and challenges to control it in study area. To address the participants, a set of semi-structured interview questions were prepared for both in-depth and key informant interview. Also, focus group discussion (FGD) was carried out at each cluster by organizing participants into two groups based on their similarities of status. It was undertaken by arranging participants into two groups at each cluster based on their similarities of status. At each cluster, the first FGD participants composed police officers and militias while the second group included community leaders (i.e., Edir chairpersons, Aba Gadda, Uggaz and traditional elders). In both groups, 8-12 participants took part and as a total 10 focus group discussions were conducted. The process was facilitated by FGD guide that used to keep discussions on intended ways.

In this study, both the primary and secondary sources of data were used. To undertake this study successfully, the contribution of both sources was great. Therefore, the primary data were obtained from the respondents using interview and FGD. Likewise, the secondary data were obtained from global reports, national legal documents or proclamations, journals, articles, semi/annual reports of Ethiopian federal and regional police commissions, federal and regional correctional institutions, criminal records, and others similar documents. To ensure trustworthiness of the data, multiple data sources (i.e., in-depth interview, key informant interview and FGD) were used. In this regard data triangulation was used to upturn the credibility of data being collected. Thus, the trustworthiness of the data could also be assured through data triangulation. Since the data of this

study was gathered through qualitative methods (i.e., interview and FGD), they were analyzed by transcribing the data and determining the common themes or to categorize words and textual forms data in their themes.

RESULTS AND DISCUSSION

Based on the data obtained from different corner of study areas, demand related issues that motivated firearms' traffickers, key actors of the issue, its consequences, and the challenges to control illicit firearms trafficking were intensively discussed. They are discussed below.

Demand Related Factors for Illicit Firearms Trafficking

Demand is basically the interplay between motivation and means. These determine whether individuals are deterred or have an incentive to acquire firearms in the first place. Specifically coming to the motivation factor, it refers to the internal processes of decision making, personal values and attitudes, impacting how people are disposed of the need for survival within the environment in which they live (self-defense), due to historical factors which extends to larger social context of gun culture, for their personal benefits, and deterioration of peace and security.

Self Defense

The introduction of weapons accounted for more than centuries ago. Literature provides that self-defense has existed as the most urgent concern for their welfare. McIntyre and Weiss (2003) posit that the presence of firearms is an indicator not only of uncontrolled proliferation, but also of perceived need. Self-defense is perhaps the most provided rationale when people try to justify possession of firearms. All participants interviewed as well as FGDs conducted have confirmed that self-defense is, indeed, the main reason people rely on when asking for registration of weapons. With guns close at hand, they feel a sense of security towards themselves and their properties. The demand factor pushes people to believe that by possessing firearms, they can defend themselves from any attack that targets their lives and their properties. An elder interviewed at Semera town of Afar, who is a community leader, asserted that: *The head of the family with boys, who can carry guns, are mostly armed, which is meant to protect the household and the animals that are the basis of its life. Every young man who is keeping cattle in the desert are keeping guns to protect themselves and the cattle from attacks either from humans or animals* (M, 49, KII).

The elder went on to say our community uses firearms for self-preservation based on capacity of our revivals. If our neighbors or revivals will better equip with modern firearm and we don't have them equivalently, then we will be vulnerable. Thus, it changes with time when in the beginning we used to have single shot weapons and now, we have automatic ones.

Also, the northern parts of Ethiopia and peripheral areas have practiced possession of weapons with a strong belief that it gives them optimal protection from whatever attack that comes to their way. In the northern part of the country, people have a long tradition of possessing weapons. This tradition has also been part of the long years of wars, both internal and international, and civilian unrests that have plagued its history. In terms of the internal conflicts accompanying the turmoil of the historical past, major civil wars have begun in the north. A head of Gondar city's police crime prevention department said that:

The wars that the country has fought, predominantly, began in the northern part and it has shaped the popular belief that they need to be ready for any eventual war. Historically, the center of power used to be in the north (M, 45, KII).

Similar conception is found in the peripheral parts of the country, the people have proximity to the porous borders that the country shares with its neighbors which facilitated the easy availability of firearms as well as necessitated the demand for its possession. A community elder interviewed in Semera has posited that: *The people of the periphery lead pastoral way of life which brings them into direct contact with communities from the other side of border, which often have different competing interests and who are also armed* (M, 49, KII).

The conflict of interests they face are multifarious where they have to contend with an armed society from their immediate boundary, different wild animals that will ultimately look at their livestock as food, the regular army of the neighboring state manning the boundary and the absence of the Ethiopian law enforcement on all side of the border necessitates arming oneself as a self-help mechanism for their protection against the onslaught of the neighboring community. The focus group conducted in the city of Harar has yielded the same result where the participants stressed the competitions for precious resources for their livestock like that of land, water, and others. They also have ever present danger of cattle rustling against each other, competition over control of trade routes, and the like. An elder interviewed in Jigjiga also affirmed that: *The issue of firearms is the issue of survival in a harsh environment where pastoralists must roam vast & inhabitable environments in search of fodder for the livestock. They must contend with wild animals, attack from neighboring communities and competition for resources pushes them towards caution* (M, 51, KII).

Furthermore, an informant from the federal police commission stated that the notion of self-defense is well established reason people provide whenever people are accused of illegal possession. In general, the sense of attachment people has to guns is mostly determined by the threat they feel around themselves and their property.

Gun Culture

The participants of the study have forwarded the idea that there is a deeply rooted culture of carrying guns as a symbol of pride and substance in various parts of the country. There are diverse motivations at play when it comes to the reason behind their demand for acquisition. These beliefs have, affirming the assertion that firearms are an integral part of the strong belief to be armed, morphed into a culture of appreciation for firearms as an important member of the household. The extents to which the firearms possessed by the community are appreciated beyond the practical value are best illustrated according to an elder man interviewed in Gondar city:

Firearms are likened to the hearts of the people. It's lavishly kept, and used in major ceremonies like funerals, weddings, holidays, and important occasions. It's used to avenge the loss of life of loved ones, defend the owner from attacks and defend the boundary of the country in the face of attacks. All in all, it's a member of the household, if not the favored child. (M, 80, KII)

Additionally, an elder from Jigjiga goes on to say that they have developed a culture of arming themselves due to cultural values they have. Any young man who can take of cattle will have to be armed as a matter of custom. He says that:

In the past we used different traditional equipment like blades, swords, and spears. But in recent past, we have begun to use modern weapons for protection which is now shifted as a part of our society's life (M, 51, KII).

An elder man interviewed at Aje town of Oromia stated that a person who owns better weapons like M-47 and rifle respected and considered to be a great heroic man. Therefore, from different corners of the country people give different cultural values for firearms which shows that it is used for proud of holding it, to be considered as hero, to be respected and considered as a sign of affluence.

Monetary Gain

This study revealed that demands by the people shows that there is a ready market for firearm traffickers. The data gathered unanimously indicated that there is huge monetary gain associated with firearm trafficking and selling. An FGD conducted in Harar city with police officers and militia, where the participants have forwarded the issue of the attractive monetary gain as: The gain that the seller gets from a single gun could be as little as thousands or more. If the last trader on the ladder sells a few and gets huge sums of money, then you can imagine how much money the wholesaler makes after he brings the guns to the country. It's more attractive than any business activity (FGD, 2020)

The inmate from Debre Birhan correction also confirms that a single AK-47 could fetch a profit of more than 5000 birr per agent. *I used to be the son of a farmer who tilled the land of the family. But when I saw the kind of money gun sellers are making, I decided to become a gun seller myself. The successful trafficking of a few firearms to an area in most demand is worth more than what I would gain in my farm for a year* (M, 27, IDII, 2020).

Deterioration of Peace and Security

There are ample studies that connect the dots when it comes to ineffectiveness of the law enforcement institutions and the demand for arms. According to Vacha and McLaughlin (2004), ‘...handgun ownership is associated with past victimization, perceived risk of crime, and perceived ineffectiveness of police protection within low-income communities where these concerns may be congruent with real risks.’ This phenomenon is also apparent in some parts of Ethiopia. An interview with a crime investigator of the SNNPRS regional state police at Hawassa showed that conflicts are abundant, and it is difficult to find a peaceful area from at least risk of violence. The same source stated that the police understand they are not able to contain sporadic fighting and mob justices that saw the demise of many souls and the destruction of countless properties. Further he said: *The police are very wary of the political developments that are proving unpredictable where a single event can ignite the already highly politically charged environment* creating anger which could occur at any moment, and they may be overwhelmed to stop it (M, 41, KII).

An inmate interviewed at Hawassa correction facility argues that demand for firearms is very much exacerbated due to the instabilities observed, he believes that: *“people are resorting to private initiatives to protect themselves from any attack that come their way. They have no faith in the police”*. The recent crisis and the felt victimization have convinced segment of the people in the area to rely on their own self initiative than wait for the police to protect them, which has proved fatal in recent past experiences. According to a community elder from Aje town of Oromia, taking into consideration the abject realities of the state at this time, there are felt and perceived threats that necessitate believes that derive the motivation associated with the demand for firearms. The elder believes that: *In and around the times of the change in leadership of the government, or what's known as the reform, there were struggles in different parts of the country. The struggle has utilized armed violence that affirms the faith people have for firearms and to demand more* (M, 47, KII).

In the same vein, a community leader from Asossa town argues that there are angers observable from the sporadic violence that is observed in the area and inability of the regular law enforcement

authorities to come up with a lasting solution to the problem has brought about the need to protect oneself through private initiatives than put faith in the collective security.

An FGD conducted in Harar city have yielded the result that the violent disturbances observed repeatedly over the course of a mere three years ago have created a sense of helplessness on the part of the community against the regular law enforcement and community inability to protect them. The head of crime prevention department of the Harar police commission agrees and states like this: “*we know the felt helpless of the police officers on the face of the enormity of the riots and we know that people are buying firearms in order to protect their family and possessions*” (M, 50, KII).

The same idea is expressed by an elder from Ataye town of Amhara regional state. He said that the level of insecurity seen in the immediate environment has contributed towards the creation of a sense of need for self-sufficiency is that is deriving the demand of firearms, and the acquirer feels a little more secured from any attack. Also, a head of the Gondar city crime prevention head discussed that the felt need of arming oneself as a definite assurance against unwarranted attacks as well as the display of firearms as a deterrent against forthcoming threats. Similarly, the head of the Gambella city police argues that the area is experiencing repeated violences that is testing the people faith in the formal sector. He says that. *Inter communal violence among the residents and the abduction of children from the border land communities by the Murle of the South Sudan have really eroded public trust in the formal security sector and people do feel the need to arm themselves as a guarantee for their safety* (M, 50, KII).

Furthermore, a Dire-dawa police commission crime prevention officer stated that the security challenges observed has created a favorable environment for the traffickers because there is a willing customer because people are not feeling secured. He explains that:

The fact that these communities are armed because of the gun appreciating culture and the constant need to protect themselves against attacks or the threat of wild animals for their livestock as they are on the move, have created a very wary community for its safety. When instability is added into the mix, there is a huge demand that’s exploited by the traffickers (M, 32, KII).

The same argument is forwarded from the FGD conducted in Harar city. The participants argue that most of the communities of the eastern part of the country are pastoralists foraging wide range of pastures that cross sect both internal as well as international boundaries. They elucidate that the pastoralists foraging could ultimately result in competition with other communities creating a flashpoint for conflicts to occur. Whenever conflicts loom, traffickers have an open and willing customer that will be eager for the illicit firearms trafficked (FGD, 2020). An inmate interviewed at Nekemte city prison administration briefed that the main reason for circulation of illicit firearms is an easily availability of black markets in the past, particularly during inter-ethnic conflicts happened between Oromia and Benshagul-gumuz regional states. On top of this, what complicates the situation further is that of political instabilities. In this regard, crime investigation expert of the Somali regional state provides that the community increase the number of arms to compliment what they have and possess new weapons. He states that: *The recent instabilities have seen fighting between different ethnic groups inhabiting the eastern part which brought about the massive displacement of people and border area clashes have once again reaffirmed their faith in self-protection, and the past insurgency movements in these areas have left a lasting impact. The remnant firearms of past insurgencies and continuous instability of the neighboring states have created a continuous source for the community* (M, 40, KII).

Therefore, weak security apparatuses that don't exude confidence in safeguarding the peace and security expected are directly responsible for societal demand for arms. Hence, the societies have developed a long habit of self-preservation and self-reliance resulting in a heavily armed portion of the Ethiopian states. They prefer and usually take matters into their own hand and do not rely on law enforcement institutions as a guarantor of societal peace and security.

The Key Actors in Illicit Firearm Trafficking

The proliferation of illegal firearms in Ethiopia has existed in different forms long before the government admission as to the enormity of the problem and its threat to the peace and security of the Ethiopian state. According to Federal Police crime investigator, the issue of SALW in Ethiopia is not new. Also, the head of the crime investigation, special crime investigation directorate director posits that.

The issue of SALW is not novel; what has changed now is that the country is in some form of transition and the media has identified the role SALW is playing in instigating as well as multiplying the effects of various conflicts. Of course, the volume and techniques associated with the trafficking has evolved to a more sophisticated level than was true yesterday (M, 47, KII).

When it comes to the type of firearms that are trafficked, it is not the same for every place. They are place specific depending on the need of the acquirer. According to federal police investigation head interviewed said that the phenomenon of SALW in Ethiopia can be seen from two perspectives: Rural gun demand mainly revolves around AK47 and above while city gun demands inclined towards handguns like that of Smith and Wesson, Makarov, star, and others. The main reason behind these patterns, according to the head of the crime investigation bureau, is that population residing in rural areas are usually found further apart from each other. The threats they face are mainly some forms of communal violence and wild animals, which cannot be alleviated with weapons like handguns rather they need long range and thus they need long distance weapons. On other hand, a crime prevention officer from Addis Ababa police commission argued that city dwellers, usually, exploit short distance and less powerful weapons. Thus, this explanation is mainly attributed since, in the city, the police are present within a fair distance and the preference for weapons is based on convenience to carry, and the most evoked reason they attribute to possession is fear of crime against them.

Regarding the patterns in mind, there are various categories of trafficking that are involved in trafficking firearms. As far as the sources of these weapons are concerned, the data collected has identified two main areas of concern; the domestic trafficking that involves weapons that already exist in the country and on the other hand weapons entering the country from the border areas. Below, the discussion presents the key actors in illegal firearms trafficking.

Drivers and their Assistants

Of all the people that were apprehended, the most visible ones are drivers. Particularly, cross border truck drivers that accept these weapons from outside of the country and transport to central areas of the country. A head of the federal police commission crime investigator said:

Drivers are the most partaker ones when illegal firearm trafficking is concerned. They are mostly approached by another middleman to transport guns and ammunition for a commission that's more attractive than their salary. Once at their destination, they contact the person who is going to take the goods (M, 47, KII).

Once in the country, they are provided with a phone number to transfer the weapons to and even if apprehended, they can only furnish information about the people who provided the weapons out of the country. Even if the internal receivers are apprehended, they only know the next level of the chain that distributes the goods and avails the firearms to the agents who in turn sell them to individuals.

Agents

All participants of the study point towards the involvement of agents as the go between for the movement of firearms. They facilitate the movement of firearms from one part of the country to another, either accepting the firearms that were already transferred from border areas or moving firearms from internal sources of weapons. They are many in number and each has their own network used to accomplish the task and dispense the weapons to the individual buyer. An investigator interviewed from the federal police crime investigation:

They are illusive to catch and are difficult to detect. They handle small amounts of firearms and after the sell they augment. Even if they are caught it's very difficult to prove that they are doing it as a business and they are simply punished for the single sell of the firearm when they are apprehended unless they are repeat offenders (M, 47, KII).

One inmate from Debre Birhan correction center confirms the fact they do facilitate and are difficult even to trace. The only visibility exhibited from the agents' side is only to the buyer and is some case to the supplier. To safeguard the lucrative trade, the identification of agents is difficult and even if they are apprehended, they either are convicted for possession which entails 50 birrs fine or eight days imprisonment according to article 808 of the revised criminal code of Ethiopia. Even if they are cooperative for the police, they only know the supplier and if the supplier is not found, it's difficult to understand the chain of supply involved.

Security Forces

The security sectors were found as a source to supply as well as trafficker of illicit firearms for trafficking. Its involvement ranges from turning a blind eye to traffickers, selling weapons from government issued institutional firearms, procuring from border areas firearms, and selling them to the domestic market, extends to selling ammunition from training center and camps. The data gathered from different parties confirmed the same notions. It illustrated further as follows:

Border crossing: one of the top leader police officers interviewed in Jigjiga has witnessed that members of the Ethiopian defense forces, federal police commission, regional police and sometimes the militia are known to cross the border areas into Somalia. Sometimes cross into the country in areas where there is no border control, or they conceal them in different ingenious ways. An FGD conducted with police officers and militia in Harar city provides that, these acts are rampant, especially in logistic vehicles of the security forces because they usually travel with the necessary logistics for the forces stationed in border areas and return with illicit firearms bought from these border lands.

Training and military camps: military training camps are used to supply illicit firearms, particularly ammunitions to traffickers or buyers. There is a strong implication in training camps, according to 47 years old elder man interviewed at Aje town of Oromia, there are allegations that the remnants of ammunition used in the training of troops and officers find their way into the hands of civilians. They are trafficked to different areas, to the people living nearest to the training camps. Likewise, military camps are also implicated in selling firearms to different members of the community for a price. Shashemene city crime investigation head has told the recent event of investigation carried out due to defense forces higher officers involved in the selling of PKM (also known as *Metreyes* in local

languages) and Snipers. After an investigation into the matter, two higher officers and members have been implicated and were prosecuted. The firearms were also recovered from the members of the community.

Misappropriation: there are also incidences of misappropriation of ammunition from among defense forces members and federal police who are in active duty. Former members of defense forces interviewed at Harar city correction center, attested to the fact that there are misappropriation of ammunition and selling them to the community happens within the defense forces members.

Deserted members: it is the phenomenon that takes place whereby members of the defense force escape from their duties without notifying the authorities. Through this situation sometimes they take the firearms they sold arms and ammunition to community or resellers. Some gathered data unanimously confirm the fact that these are indeed one of the ways that firearms end up in circulation. This is true for both the police as well as the defense forces. The most concerning fact about the desertion of soldiers selling their arms, incidentally, illustrates the state of government issued arms, is that unrecovered firearms might still be registered in the hands of civilians. For instance, one of the most surprising facts is that some of these firearms are transferred to several hands before they are licensed by civilians. There was a case where a member of the federal police commission who deserted his post and was able to sell government issued firearm and surprisingly enough, the weapon was transferred to four individuals and the fourth person was able to register the weapon in his own name.

Confiscated weapons: within the security forces, there are circumstances that strongly suggest that when firearms are confiscated, they may still re-enter the illegal market or be subjected to trafficking. The eastern data from both interview and FGD with Police at Harar city shows that both the police and defenses are implicated in disarming civilians during unrest or regular enforcement activities may net individuals possessing arms and instead of handing over the firearms to the appropriate authority, they sell them to members of the community or resellers. Inmates who were former defense forces members, interviewed at the Harar correctional center confirm as *“there are some members as well their immediate leaders that sell weapons seized during security sweeps. Sometimes they sell their own ammunition or sell the ammunition of their colleague which they steal from”*. On the side of the police, especially Special Forces, once they apprehended an individual possessing firearm without appropriate registration, either from custom check points or from regular security sweeps, they simply hand over the individual to investigators without the exhibit, i.e., the firearms. At the end of the day, if the firearm is brand new, they will use it for themselves or sometimes sell the weapons to others. An expert of crime investigator from the Somali regional state says that *“we have seen and prosecuted a few for selling the firearms seized during their execution of duties. They sometimes are known for seizure firearm from individuals’ members of the community and selling them back to others.*

Government Challenges to Control Illicit Firearms

According to the views of participants of the study there are quite a lot of challenges that government encountering to overcome the issue of illicit SALW in Ethiopia. These are: techniques employed to escape SALW, networks & corruptions, difficulty of controlling country’s borders, outflows of SALW from military, lack of coordination and cooperation, and difficulty to apprehend or detention of traffickers. These are discussed as a follow:

Techniques Employed to Escape SALW

There are several techniques that the traffickers employ to traffic SALW from place to place. Based on the expression of top official police officers who interviewed in Harar city, most of traffickers are

used more advanced techniques to leakages SALW as well as to escape from apprehend or detection of their activities from revenue and custom authority officers or checking points, and security agencies like police, defense, militia, and other concerned authority. His idea is stated as a following:

Illicit firearm traffickers use different parts of vehicles to hide SALW from the sight of law enforcement agents to easily arrive at place of deport where it would be accumulated or resoled. Among the bodies of vehicles which are used as hidden planetary are: container of oil/gasoline, tanker, petrol flasks, etc. (male, 50, KII).

Likewise, the data collected from FGD participants of police and militia held at Shashemane city indicated that while they arrive near to checking points or ('kella' in local language), the trafficker uses different types of transportation mode to seepages firearms. As soon as they close to the checking points (kella), they would be changed mode of transportation into animals, on foot, Motor Bicycle, Bajaj, and others to pass through a checking point without getting the attention or divert the attention of law enforcement agents by appearing as local community who routinely travels on the route for their day-to-day life and then they easily arrive at area of their target (FGD, 2020). Also, an interview conducted with one of higher police official at Semera town confirmed that traffickers use different *modus operandi* to circulate firearms within and out the region of the country. They use animals such as camels and donkey to transport firearms from Djibouti border to woredas like Eldear and mandea and then shifted to vehicles to transport to the central area of the country (M, 38, KII).

On other hand, the traffickers also hide firearms in different contraband and non-contraband items. One of the informants who interviewed at Adama city said that *"traffickers employ techniques like splitting the firearms into its different spare-parts to minimize its size and to easily hide them into different unsuspected devices such as inside of large size electronic devices, food oil, tape, clothes and other"* (M, 38, KII).

Therefore, illicit firearms traffickers used different modes of transportation around checking points, splitting the bodies of firearms into small pieces, hiding them into different unsuspected devices and materials which may be contraband or non-contrabands to easily circulate them.

Networks & Corruptions

The data collected from the subjects of the study depicted that a network of illicit SALW traffickers and their assistants was playing a great role in challenging government organs to control illicit firearms circulation. The broadness and invisibility of their networks which exist everywhere or at every point of checking point is the vital hurdle to control over this malicious activity. An inmate who was detained at Adama correctional center wants to say: *"some of drivers or their assistants are among the network of the traffickers of the issue. At every checking point of revenue and custom authority there are their networks who can assist them by having some benefits for their efforts of smoothing a pass before their arrivals"* (M, 26, IDII).

FGD held with police and militia at Shashemane city showed that, the issue of corruption has been liable for numerous illicitly trafficked SALW in Ethiopia. Some of custom authority officers, security agents and other individuals who were engaged in related responsibility have been accused of firearms seepages through corruption on several occasions (FGD participants, 2020). Also, an inmate who was detained at Burayu correctional center has depicted that *"Illicit SALW traffickers rationally calculate and deploy personnel at each & every checking point to pass firearms by means of bribery that can be done through highly integrated network of all responsible bodies"* (M, 39, IDII).

As FGD participants that held at Asosa city thoroughly discussed the issue, there are a lot of networks that provide support as to firearm trafficked and traffickers not apprehended. But sometimes they are controlled due to non-presence of subset of the network at the revenue & custom authority checking point or if disagreement may happen between the networks for span of interests. Otherwise, when there is committed leadership and responsible personnel at the 'kella', the weapons and traffickers are easily controlled (FGD participants, 20202). Also, a 29 years old male inmate who was escaped from military institution and accused of illicit SALW and thus, incarcerated at Harar city correctional center has portrayed that the selling of firearms by the soldiers has been accredited to a high level of corruption in the military institution, but military personnel selling different firearms and bullets to persons who are not legally legitimate to hold them as per the law of the country.

Difficulty of Controlling Country's Borders

Since the borders that country shares with different neighbor countries are too wide, Ethiopia has faced the challenges to control its borders absolutely (FGD participants, 2020). Also, an interviewed police official of FBI endorsed that *"Ethiopia's border size is a reason for the country's vulnerability which making the country more disadvantages in terms of controlling inflow of illicit firearm trafficking from different neighbor countries like Somalia, Sudan, Kenya and Djibouti"*. An interview conducted with police official at Gonder city revealed that *the inflow of illicit firearms and ammunition through the borders should be blamed for poor supervisory of security sectors like defense force, federal police and others concerned bodies"* (M, 45, KII). Also, during FGD discussion at Harar city with police and militia, the participants shared the nation that indicates inflow of illicit firearms are criticized for inability of the Ethiopian's customs authority, security agencies and others concerned bodies to protect the country's border and others significant areas.

On other hand, internal border conflict can also intensify inability to control country's border which results in high circulation of the firearms from state to state. A police informant interviewed at Dire-dawa city conveyed his notion as below:

Within a country, states' border conflict can also smooth the movement of firearms because it may divert the attention of the authority to the other issues related to conflicts. The conflict will have two roles in the case for firearm trafficking; one is provoking the rises of demand for firearms and the second is intensifying freely inflow of firearms due to diversion of attention of authority (M. 32, KII).

Outflows of SALW from Military Institution

The leakages of SALW from the military store or from equipped individuals (personnel firearms sales) were another scenario which challenged the government to control the illicit SALW trafficking. Here it is better to consider the stories shared by informants, which mention how firearms and bullets are sold for money to civilians. A community elder at Aje town stated that:

Most of the civilians get access to the bullets from military camps found around their area of residential. The military officers would sell the bullets to the community of their surround to fulfill their personal needs. Then it will be utilized by the community themselves or trafficked to other areas where there is high demand for the items (M, 47, KII).

Likewise, a police official of crime investigation at Shashemane city was confirmed the view stated above by saying that *"during different investigation there are a number of cases which traced to military officers for their leakage of abundant bullets, pixels, Kalashnikov, M-14 and even group's firearms like snapper"* (M, 43, KII).

Therefore, the above conceptions show that there are outflows of SALW from military stores or from the hands of officers by the means of sale to the civilian which considered as another source for illicit firearms trafficking. It also challenges the government to handle every similar issue.

Lack of Coordination and Cooperation

There is no coordination and cooperation among concerned bodies like security agencies, revenue & custom authority, and community to control issue of illicit firearm trafficking (FGD, 2020). An interviewee who was a coordinator of investigation unity of Harar police commission wants to say that:

In our route specifically around Harar city there is no cooperation among security agencies like regional & federal police, defense forces, militia and no more cooperation of community to handle the issue of illicit firearms trafficking effectively. This is a reason why different types of firearms are trafficked and easily passing through all points of checking points or 'Kella' and easily distributing throughout the country (M, 44, KII).

The lack of strong security agents & committed personnel, and absence of a strong network of communication that used to feed the appropriate information at the right time resulted in better opportunity for traffickers (M, 40, KII). Similarly, there is also no good cooperation from the community to support security agents in providing information regarding illicit SALW trafficking (FGD participants, 2020). An informant who was expert of crime investigation at Somali state police has shared the idea that *"if there is no cooperation from the community in assisting concerned bodies by feeding appropriate information regarding the illicit firearms, the activity of trafficking is too easy for traffickers"* (M, 40, KII).

In general, the study showed that there is a problem of coordination and cooperation among stakeholders like militias, police forces, defense forces and community to easily handle the issue.

Difficulty to Apprehend or Detention of Traffickers

FGD held with police and militia at Bahirdar city showed that illicit firearm traffickers are not easily submitting themselves to law enforcers. Also, the participants of FGD, which held at Harar city with police and militias narrated like a following:

As the challenge of controlling illicit firearm traffickers is concerned, they would not submit themselves peacefully rather than trying to escape and even they attempt to attack security officers. As a result of this, at the end of 2019 one police has been died and the other was highly injured in Harar city (FGD, 2020).

The other technique used by traffickers is sending illicit firearms by drivers or their assistant to escape from apprehension or detention if the firearms were controlled. An interviewee who was an expert of crime prevention at SNNP regional police commission has been discussed as follow:

Even though firearms are controlled at different checking points of revenue and custom authority, mostly traffickers are not apprehended or detected rather than drivers or assistant of drivers. They send the firearms by hiding in different parts of vehicles or into other carried items based on the consent of the drivers or sometimes without knowledge of the drivers/assistants (M, 41, KII).

The other *modus operandi* that was used by some of security sectors are passing through checking point without searching. The idea of participants of FGD that held at Harar city has described as *"firearms traffickers who were from the defense force or police members would be wear a military uniform to pass through checking points without searching of their vehicle or their physical body"*.

Therefore, the above conceptions are the challenge for government to know the sources, motives and techniques used by illicit SALW traffickers in general. Regardless of securing the above issues it too difficult to handle an upheaval of SALW trafficking in Ethiopia.

Consequences of Illicit Firearms Trafficking in Ethiopia

Development studies have identified the indirect effects of firearms by pointing to the link between illicit trafficking of firearms and instability, which, in turn, are seen as responsible for several socio-economic effects (reduced productive economic activities, limited possibilities for education, malfunctioning health structures) that hinder a nation's or community's development (Frank, 2012). Ethiopia is not immune from it. The problems are.

Economic Loss

In this study, informants, inmates, militia's, Elders, and community leaders from almost all clusters and sites reflected that illicit trafficking of firearms causes economic loss on many families in Ethiopia. For instance, from the interview made with an inmate's, who are farmers, in the Northern cluster (Gonder, Bahir Dar, ShewaRobit, DebreBirhan) stated that illicit trafficking of firearms causes economic loss through buying firearms by selling their property.

Social

Social disintegration linked to gun culture is most clearly reflected in areas severely affected by militarization. It can be argued that widespread social trauma is, therefore, a result of firearms trafficking in an unstable environment. This was also approved in all clusters of this study. This was also clearly expressed in an assessment made by the federal police commission crime investigation Bureau, information storage and post analysis division in 2018. The document revealed the social impact of illicit firearms by creating quarrels between groups and individuals.

Psychological

Another effect of illicit trafficking of firearms is its psychological impact. An informant (*M, 47, KII*) who is head of Ataye city police administration also raised the psychological effect of internal displacement resulted from illicitly trafficked firearms. An informant who is the head of Gonder city police department stated the problem as follows.

Considering an individual planned to work hard and enhance the quality of life in the community but unfortunately his/her brother killed a person. So, after that this person might face psychological impact as he/she thinks when he/she will be killed because his brother kills instead of thinking about how to work and enhance his/her life. This is because in this community's culture, the killer's brother has the greater probability to be killed (*M, 50, KII*).

Political

According to an interview made with an informant (*M, 40, KII*) in the Eastern cluster, expert on crime investigation department in Jigjiga city expressed his idea about the effect of illicit trafficking instigated to political instability for the government and threatens and hurt the community as well as individuals which undermine the development of the country.

In relation to this, an informant (*M, 80, KII*) who was head of peace and reconciliation Shengo (Elder) from the Northern cluster in Gonder replied that, in the Amhara region illicit trafficking of firearms and its effect resulted for the absence of communication within the political leaders in different zones and woredas.

Escalate Internal Displacement

An informant (M, 50, KII) who is head of Gonder city administration police department, Gonder site, provides that around one million people were displaced as result of the conflict between Amhara and Qimant. Furthermore, in an FGD made in Ataye, because of illicit firearms violence many civilians, civil servants, investors, and merchants displaced from Ataye city.

Peace and Security

The head of crime prevention department at Eastern Wollega zone police expressed about the existence of firearm trafficking are resulting different attacks from known or unknown various fanatic groups on the formally equipped governmental force like defense force, police, militia or against other innocent community which diminish the confidence of government's formal force to control over the issues. The other in-depth interview made with head of shashemene crime investigation department revealed that.

If there is a high rate of firearms trafficking in the country several people get a chance to easily possess a firearm. This can create a good occasion for several firearms to remain unregistered. Therefore, it can complicate the investigation process of crime committed by use of firearms. These inflows of illicit firearms are resulting in the disturbance of our societal peace and tranquility at country level and therefore, it is a great threat for community in their day-to-day life as well as for government itself (M, 43, KII).

Increased the Commission of Crime

Homicide: The head of the crime prevention sector in the Amhara region, in Bahir Dar confirms the issue as follows.

The prevalence of illicit trafficking of firearms increases the commission of crime of homicide. When we assessed /evaluated the annual crime commission, most of the homicide crimes were committed through firearms, from this almost 65 per- cent of homicide was committed through illicit firearms (M, 52, KII).

The crime investigation officer in Oromo nationality zone of the Amhara region (kemishe), stated that *“due to simple and silly causes an individual has killed seven individuals in Dawa-Chefa”* (M, 35, KII). This informant also responded about *“the intentional homicide of his six brothers in a single household.*

Robbery: In a FGD made with police and militia in the Ataye town, participants replied that through illicit firearms a Generator, camels, cattle were robbed and even in a Police firearm store many firearms were looted by different groups who were armed with heavy illicit firearms. In addition, an informant interviews a head of crime investigation in the Ethiopian federal police commission stated, *“that majority of car, house, robbery in Addis Ababa city is committed through firearms which are illegal”* (M, 47, KII).

Kidnapping: An informant who was from Gonder city police official responded about the effect of illicit firearms trafficking for the crime of kidnapping and hostage taking as follows.

The traffickers use the firearms to kidnap youths, child, and individuals and in return to take money from their hostage taking. For instance, in the rural areas of Gonder the traffickers kidnaped a child to receive money from kidnapped families. However, his family refuse to pay the money required by the illicit firearm traffickers, as a result the trafficker's vanished the eyes of the kidnapped child because they refused the money they asked and then sent him away (M, 50, KII).

Also, FGD conducted in Gonder city revealed that kidnapping of drivers in this area becomes the common practice and resulted in different crises. For instance, a heavy vehicle driver, the resident of

Maksegnit town driving from Metema/Shinfa to Genda wuha, was kidnapped in area called Lemlem Terara with his assistant. To discharge the driver and his assistant from the kidnappers, their families paid around 350 thousand birrs. However, unfortunately the driver was died after he joined his family due to severe injury on his forehead that was beaten by the bandits (FGD, 2020).

CONCLUSION

The trafficking of firearms in Ethiopia is an imminent and ever-present threat to the country. Even though there are no official figures to substantiate the claim, there may be more firearms in the hands of civilians than the law enforcement organs. In terms of the motivational factors that necessitate the acquisition of firearms, one of the urgent needs of the people. These intrinsic value systems or internal processes of human decision making propel the demand. From the study conducted, there are cultures that attach significance to the possession of weapons. They form part of the daily life of the people, they are a source of pride and confidence for the owner. The other thing is that of deterioration of peace & security indifferent parts of the country has experienced in recent years has brought forth the weakness of the law enforcement institutions to respond and give assurance to the people that they can protect them. These short comings have propelled the need from different parts of the country to demand firearms as a safety mechanism just in case violence erupts. In addition, there are different sectors of the community that use it as a self-defense instrument. The need arises as a response to the constant need to protect oneself from different criminal problems that exist within society.

In terms of the actors involved in this illegal firearm trafficking, there are no master minds caught and prosecuted for the crime. These actors are mostly hidden from the outside world and only transact through a dark web of networks that are difficult to crack. The most visible actors that are seen are drivers, agents that facilitate the sale and movements of weapons and the study has shown that the security sector is also complicit in facilitating the trafficking aspect. There are sources that illustrate the security sector, from the militia to the police and the defense forces, have involved in border crossing the weapons to the country, re-enter weapons collected, leak weapons and ammunition from their own, and in other ways are aiding the trafficking.

When it comes to the consequences of firearms, they have far reached impacts from political, social, economic, psychological, to that of displacement and instability for the whole country. In connection with the control efforts of the law enforcement organs, there are networks that exploit the monetary incentives as their target than preventing the illicit weapons trafficking, the issue of the military involvement has also hampered the effort to curtail the trafficking to its full potential. The country's borders are another issue that hampers control as it's a very large area with poorly manned and porous with troubled neighbors, entailing movements of goods in and out with little effort. Finally, the difficulty of apprehending and punishing traffickers because of the difficulties of cracking the ingenious techniques used to traffic the arms and mostly, the traffickers evade detection.

RECOMMENDATIONS

To overcome the fleeing techniques that are used by smugglers of SALW the government should advance its personnel mentally as to exceed traffickers by know-how of modus operandi they may practice. Further.

- The Ethiopian borders should be subjected to regular control and inspections by considering the huge borders that country have at all direction. Proper inspections should be conducted

by security agencies at neighboring borders to prevent SALW smuggling to the central area of Ethiopia.

- Responding to the core causes of illicit SALW trafficking requires good governance, because the problem of good governance results in poverty and other socioeconomic illness. The socioeconomic failure on the part of the state to deliver the necessities of life amounts to the instinct for survival, including engaging in illegal trades such as the trafficking of illicit SALW.
- In some case security agents and regulatory bodies like revenue & customs authority agents have compromised their duty and engaged in corruption and other related activities that endanger countrywide security. Thus, corruption as a trouble to Ethiopia's development and national security should be addressed by structural patterns and practicable legislation without partiality. Accordingly, the corrupted security officers, regulatory agents and other failed government officials and their networks should be responsible for the feat of illicit SALW circulation.
- It is better to create awareness for community, security agents, regulatory agents, and other concerned bodies concerning how illicit SALW trafficking (uncontrolled SALW) exacerbated poverty, internal/external conflicts, social ill, depraved governance, development deficit, lack of citizenship rights, gender inequality, etc. Having the above mental setup all concerned bodies like security agencies (i.e., defense forces, federal & regional police force, and militia), custom authority and community should cooperate to handle the issue. It should be regulated through well designed regulation that inspected by licensing and firearm controlling office of the federal police commission with other concerned institution of regional and federal government.

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1.2. Public Order Policing During Crisis: A Critical Analysis of Police Response in Crises Affected Areas of Ethiopia

¹Abdo Beshir, ²Abdulfetah Endriss, ³Melaku Tefera, and ⁴Sisay Tessema,

ABSTRACT

Policing is the foundation of a strong state that realizes peace, order, and stability for its citizens. This study aims to explore public order policing in Ethiopia and specifically assessed police response to public disorder in some selected crisis-affected areas of Ethiopia. The study used a qualitative approach and exploratory research design. Purposive and snowball sampling was employed to select the participants of the study. Data was collected through interviews, FGD, personal observation, and document review techniques. Accordingly, 33 key informants with governmental officials (including prosecutors, experts from the peace and security office, human rights commission officers, journalists, and police); 20 in-depth interviews with victims and their families, religious and community leaders; and 8 FGD were conducted. The data of the study were thematically analyzed. The findings show that there were signs or pre-indicators of unrest and the situational incidents that happened in each crisis-affected area served as a pretext for a disorder to happen. By using such indicators Police did not play a proactive role because of many factors such as waiting for an order from higher commandant/government officials and police officers' ideological dilemma that immersed them in the tricky of partiality. Hence, the crisis resulted in socio-political, economic, and psychological problems in the community of crisis-affected areas. The study concluded that police had minimal preparedness and hence were not successful in managing, prevent, minimize, or stopping damages. Therefore, police organizations must always be done security threat assessment to proactively handle damages due to crises; the police chain of command should empower decentralization during crises, raise the level of awareness to police officers regarding the police profession and provide immediate response for public calls.

Keywords: Crisis, Public Order Policing, Police Response, Ethiopia

INTRODUCTION

Crises have become an inseparable part of life's routines. Around the world, humans face various threats and disasters, both natural and human-caused, the frequency and severity of which is greater now than ever in the past (Scheuren, Waroux, Below, Guha-Sapir, & Ponserre, 2008). The crisis can be conceptualized as a chaotic situation that threatens the current order; as the situation persists, the known reality undergoes a drastic change, and the public's ability to comprehend and attribute meaning to what is happening is seriously challenged (Seeger, Sellnow, & Ulmar 2003). So that the public experiences stress, fear for the future, and at times helplessness (Van de Walle & Turoff, 2007). This situation leads the people in conflict crises area to raise the issue of public order.

Public disorder is a condition characterized by widespread criminal and political violence and intimidation against targeted groups or individuals. Public order succeeds when widespread criminality and violence are reduced to the bare minimum, perpetrators pursued, arrested, and detained and the local population can move and live freely without fear of undue violence (Justice Law and Order Sector, 2011). Large-scale crises present complex dangers, which include, in addition to the threat or damage to human lives, the collapse of infrastructures, technological and communication systems, as well as obstruction and blockage of roads that may impede rescue teams' access (Seeger et al., 2003).

Handling these situations through responding to public disorder, becomes the role of public institutions, including national and local governments (Lowrey, 2004), especially police have a substantial communicative role. Because the public has a right to receive, always, reliable, and up-to-date information, to be able to make informed choices on which the safety and welfare of the individual and his/her family will depend (Ulmer, Sellnow & Seeger, 2007). Police are at the frontline of the criminal justice system to give immediate responses for public disorder (United Nations Office on Drugs and Crime, 2010). Thus, police institutions are responsible for upholding the laws of their jurisdictions and protecting people and property at the time of crisis and disorder (Treglia, 2013).

Police-citizen interactions are one of the primary points of contact between citizens and law when there is public disorder. In a consensual model of policing, officers can select how to respond to an incident because they have the legal and practical capacity to choose from various options (Winter, 2015). Police meet the expectations of the community, by supporting the victim and making it clear that the suspect/offender (wrongdoer) is dealt with fairly and correctly (RAND Corporation, 2015). Paradoxically, in conflict and crisis contexts, large segments of the population especially marginalized and neglected communities that are denied or otherwise lack access to justice, security, and other public goods may see justice and security actors themselves as direct sources of injustice and insecurity (Organization for Economic Co-operation and Development, 2007).

Boin and Overdijk, (2013), and Devitt and Edward (2008) in their study on crisis management and crisis leadership suggests that during a crisis, bureaucratic and command structures can negatively affect the internal and external flow of information. The study on law enforcement leadership styles and organizational effectiveness also suggests that police leaders avoid traditional bureaucratic cultures and must empower decentralized decision making (Schafer, 2010 & Decker, 2018). However, few studies specifically examine law enforcement leadership in complex, stressful, and urgent circumstances that require public order policing. For example, Willem de Lint (2004) on his assessment of public order policing in Canada found that public order policing is innovating a hybrid police form in which control and service are practiced simultaneously in a morphing of intelligence-led and community policing orientations. But this study focused only on how police respond to public protest and crowd control during mobs and riots that ignore police response before and after unrests.

Available literature in Ethiopia has indicated that the absence of independence in police hampered public order policing. For example, Baker (2015) on his inquiry found that in Ethiopia the police are regime agents to enforce the Anti-Terrorism Proclamation of 2009, but the regime has fallen back on violent public order policing. Hallelujah (2009) also noted that the police in Ethiopia are seen as a force that increasingly moved towards unprofessionalism and political partiality. For Denny and Demelash (2013) transformation in policing in Ethiopia requires a broader decoupling of the police from the politics. This has hampered the independence of the police and its vital contribution to a peaceful and democratic system. Even though, police are expected to be professionally independent to uphold the rule of law and guaranteeing the safety and security of all the inhabitants of the country, in Ethiopia, policing is embedded into politics as the police are required to enforce the laws that are enacted by the government and influenced by the ruling party (Workneh, 2016).

In Ethiopia, even though police play countless role in protecting people and their property during crisis, there were conditions where police have been highly challenged to give immediate response to public order. Hence, Ethiopia saw a significant increase in internal displacement in 2018 because of inter-communal conflict in several pockets of the country (Ethiopian humanitarian response plan, 2019). They added that at the peak of the crisis, almost three million Ethiopians were displaced to

flee their homes, the world's largest conflict-related internal displacement and crisis in any one country that year.

The studies conducted so far did not sufficiently address the issue of public order policing and police response during crisis in Ethiopia. Therefore, the study explored police response in controlling or preventing crimes in progress and minimizing damage shortly after crisis occur in some selected crisis affected areas in Ethiopia. The main aim of the study was to explore police response to public order policing in some selected crisis-affected areas of Ethiopia. Thus, this study sets out to achieve the following specific objectives: to identify factors that hinder police to provide immediate response to public disorder during crisis; and to assess the consequences resulted due to a lack of immediate police response in the study areas.

METHODOLOGY

Based on the severity of the crisis, loss of life, property damage, and different social crisis like displacements (EHRC, 2020), study areas were purposively identified. Accordingly, this study addressed the cities/towns of Adama, Chiro, Hirna, Harar, Diredawa, Itaya, Asela, Dodola, Agarfa, Goba, Batu, Shashemene, Hawassa, Burayu, and Addis Ababa. The study depended on crises that occurred from 2018 to 2020 in the study areas. Ethiopian Federal Police Commission Anti-Riot Directorate report (2020) confirmed that the above areas were experienced potential public disorder (violence) post political reform era of 2018 in Ethiopia and the disorders did not get immediate police responses.

The study relied on qualitative research approach. Given the fact that police response for public order policing during crisis is the least studied area in Ethiopia and novelty of the issue, an exploratory research design was employed. Because exploratory research is usually conducted when there are few or no earlier studies to which references can be made for information (Stebbins, 2001).

The target population included government officials (municipality officials, prosecutors, peace, and security official and police officers) of the selected cities/towns, Zones and Woredas; victims/ family of victims of crisis; eyewitness among residents; and community and religious leaders. Purposive sampling was used to select key informant interviewees from government officials like municipality officers, prosecutors, security officers and police officers. Snowball sampling was also employed to select in-depth interview participants from victims/ family of victims, and eyewitness among residents of the study area.

Regarding method of data collection primary data were collected through interview, focus group discussion and observation, and secondary data were obtained through document review. Twenty (20) in-depth interviews were held with victims/family of victims of crisis, elders eye witness among resident's, religious and community leaders, and thirty three (33) key informant interviews were held with government officials (municipality officers, prosecutors, peace and security officers and police officers) of cities/towns administrations, Zones and Woredas, experts from Ethiopian Human Rights Commission, journalists from mass media agencies (Fana TV, ETV and Nahoo TV) and officials from Ministry of Peace. Also, eight FGDs were organized out of which five were conducted with police officials and experts, and three of them were conducted with victims and community leaders of the study areas. The overall situations of victims or family of victims of the crises (physical damages of human and property related, psychological situations, etc.) were observed. Additionally, different documents like news of mass media; Ethiopian Human Right Commission reports; minutes; and reports of police, security bureau, and municipality were reviewed. To this effect, interview and FGD guide, observation and document review checklists were prepared and properly utilized.

Data were qualitatively analyzed and for this purpose thematic analysis was employed. Regarding trustworthiness the researchers tried to assure credibility, dependability, transferability, and conformability. It was done through using multiple data sources or data triangulation; involved peer review to review and examine the research process and the data analysis to ensure that the findings were credible/are consistent; and examining if data support the finding, conclusion, and interpretation. In this study the ethical principles were carefully considered. The participants were well informed about the purpose of the research, expected durations and procedures as well as the issue of confidentiality and privacy were respected.

RESULTS

Factors that Hinder the Police to Respond for Public Disorder

Study finds that police were challenged to respond for public calls due to several problems which are discussed below.

Establishment of Informal Groups and Its Recognition by Government

The past few years, especially after the government has made over all reform and change throughout the country during 2018, it was also the time when there was formation and acceptance of strong informal groups such as Kero/Kare represent Oromo, Fano/Satenaw/ Atsewochu represent Amhara, Hego represent Somalie, Ejato represent Sidama, Zerma represent Gurhage, etc. than formal institutions. Inappropriate recognition and giving responsibilities for the above-listed informal groups generated many complications throughout the country. Victim in-depth interview participant who was owner of burned hotel at Goba revealed the experience as follow:

I can say a group of individuals who were organized by the name of Kero was almost all substituted the governmental structure. They can take any measures and act as formal governmental bodies. Illegitimate recognition by higher officials makes this informal group do what they want without a sense of responsibility and accountability, which impacts negatively reconsidered on the state itself. They were done what they want to do due to inappropriate recognition from government bodies. As a result, some of them were joined a terrorist group like a Shane and did a visible instigation of the people out of their group based on their ideology, ethnic and religion.

This idea also supported by key informants from Shashemene city administration that there were occasions where Kero attempt to distribute lands by their own power and provide incentives for officials that indicate the substitution role of government structure with informal one. Other senior police officer who served 20 years in west Hararge zone stated that there was informally organized youth who intimidate and asked wealthy people to pay money for them otherwise they will damage their property without the recognition of security sector. These informal groups collect from 8-10 thousand of Ethiopian birr per individuals and leave out from the surrounding after collected huge amount of money.

In the case of Harar regional state, one of the senior commissioners with high position in peace and security sector disclosed as it was also time that norms of the society were highly violated by individuals who call themselves as Demina on the arena to fulfil their own interests. Since this group act as double jokers, sometimes act as a legitimate law enforcer and on convenient time as illegal.

(participating in crime). It highly challenged police to control the strikes. On other side, informant from Harar region peace and security office confirmed that *“there was distrust of community towards*

members of police, because public suspicious that some of police officers supporting the informal structures and violating the rule of law. As a result, there was senses of fearing of police to not harm them than safeguard”.

Similarly, in Diredawa city administration the informal groups have done beyond instigating the unrest and participating in the conflict. FGD discussants from Diredawa police commission claimed that informal groups such as Kero, Satenaw, G-7, etc. established office whereby they exercise investigation, prosecution, and even give judgments by their own which was a clear indicator of eagerness to substitute formal government structures. Some members of society used to stand and participate in this ideology and groups. Some others fear accountability of not to be punished in the future and not to be targeted by extremist groups and even police fear to against their deed. In general, Chiro town police FGD discussants stated that since unnecessary recognition for informally organized groups by government undermined the police, most of them focused only to protect themselves and their office.

During the state statehood question of Sidama people, the group so called Ejeto was declared 11-11-11 as a motto that the final date when their question needs to be answered. It was when the division of the security sectors, particularly police had begun to like Sidama, and South Nation and Nationalities People’s (SNNPR) police force that led the regional government to decide the freezing of Sidama police force temporarily. There were mobs, destruction of properties of others group, injuries and death which caused due to inappropriate police responses. Also, public allegations as police were taking side and not remain neutral was observed at Hawassa city.

Chain of Command

There were two contrary ideas regarding immediate response of police during the crises. On one side some participants argue that police should be guided by the principle of chain of command that asserts doing what they are ordered by their immediate boss or not to do what they are not ordered. On other hand, since the police is professionally trained and authorized to serve the community in the manner to keep peace and order of their community, they have the responsibility to respond immediately any crises that affect the community without precondition such like waiting for directives/order from immediate leader. In relation to the divergent notions, the participants have the idea to say like follows:

Concerning the hierarchy and the chain of command, the police officers those were participants of FGD held at Dodala town of west Arsi zone discussed that as a principal police force should be guided/directed by command/order which provided by immediate bosses found at each chain of command. This was the reason why most of the police members were kept mute on the day crises happened following the assassination of artist Hachalu Hundesa. Because it is the officer who becomes liable for his/her action, if not ordered by his/her immediate leader to do so. Also, one of the interview informants that conducted at Bishoftu town has discussed the same idea below.

During conflicts it is very important to keep the chain of command in the line of duty, so to act there must be a command from upper bosses. For example, after the killing of artist Hachalu there was peaceful demonstration, which is turned to violence, hereafter to disperse it some police officers were waiting for command while others were engaged in directly.

In contrary to the above notions, the interview made with one of crime prevention official of Agerfa Woreda police has stated that the big problem of police force is waiting for order to take action/measure from every chain of command. In our Woreda this was the reason why non-responded crises have occurred in different times, particularly following killing of artist Hachalu Hundesa that

reached high climax and resulted in massive destruction of property and loses of life. For me, in every aspect of crises, waiting for order is like a game of coming back to office for receiving order even while we encountered red-handed issues like theft (male, 30, KII).

Concerning the chain of command there were no difficult problems at Woreda level within police chiefs and officers rather the problem was found at zones and regional level that they didn't respond for the crisis report. For instance, the prosecutor interviewed at Hirna town of Western Hararge was provided the following details:

At the time of disturbance police at Woreda level were ready to prevent the mob. Thus, while the protest began, they immediately reported to Zone officials and waited only for permission to act. However, for the report made at 8:00 pm o'clock in the morning no response was made until 3:00 pm o'clock. Even when they gave us a response, it did not allow the police to act. Therefore, the strict chain of command with the absence of higher officials' responsiveness challenges operational police officers not to respond for public disorder happened in our Woreda (male, KII)

Based on the expressions of top-level police leader who was interviewed at Asela city of Arsi zone, on the day crises happened due to the murder of artist Hachalu, most of their police members were remained silent and hold back from taking any action (measure) that ceased the crises by waiting for an order from immediate bosses or upper leaders of each chain of command. However, on that day most of higher police officials of the police commission had directed them to not take any action except deterrence effect until the order would be given by them. If not, they told as they are a risk taker (male, 52, KII).

Fear Aftermath of Their Action

There was a threat of outcomes of their action by police or fear of consequences of their measures against mob. They fear that if they take any action, and it will result in any unexpected negative outcomes like injuries, death or other damages that will be followed by liability. For instance, if their action resulted by any kinds of injuries or losses of life, they feel that the consequence is going beyond liability that issued by the government. It can be also resulted in revenge like attack, threat, even killing of individual or his/her family (i.e., child, wife, father, or mother) by victims' family or any other group associated with the deceased (male, 45, KII).

Likewise, the data collected from FGD participants of police officers that held at Dodola town indicated the existence of fear of counterattack from community. Because, while police take an action and if their action resulted in unexpected outcomes, the communities immediately identify who take that measure/action and then they will act to revenge him/her. For instance, the one participant discussed the idea like follows:

On the crises happened due to the claim of activist Jewar Mohammed as government withdraws his security, our police forces were taken an action to secure the environment. Following that event two of our members were intimidated by different groups and even via social Medias like Facebook for long period of time and they suffered a lot. During such difficulties the police institution didn't give them a guarantee and thus it is difficult to carry out any kind of operation without instruction/order given by the concerned body. Also, on the same day one of our member has taken a measure and resulted in a death of an individual who was among the strike. However, he suffered a lot of difficulties from police organization as well as from community. On that moment he was forced to pay 'guma' which means paying blood price or compensation for family of decease (victims) that follows homicide and used as ritual of purification after murder as per Gada system of Oromo.

Therefore, such like events enforce us to think that if we take any action on similar occasion without order/command of leaders we will be responsible for, and no one is on behalf of us (FGD participants).

One of the informants who was prosecutor of Dodola town has given the idea corresponding with above views. The police forces are already discouraged to not play the role of taking measure while something wrong is occurred. If they take some action, they will be punished and even sent to prison without justification. So, the police are in position to frighten of acting in response of public call (male, 32, KII).

Also, there were a fear of exclusion from social life, lack home to rent and any other societal services by surrounding community (male, 45, KII). For instance, while the police take such immediate response and resulted in negative consequences, the government didn't support police or not stand beside them rather considering the issue as an offence and accuse them of further liability (male, 52, KII). Furthermore, one informant who was a leader of police at Arsi zone shared a notion that endorses preceding concepts as a following:

It obvious that there was retaliation attack of police members by violent groups/community, particularly those strictly enforces the law as per rule and regulation during the occasion of serious crises. For instance, for the same case my own house was burnt by a group of rebellion on the day on which artist Hachalu was killed (male, 52, KII).

Also, one of informants who was serving as security guard of Wegegen Bank at Shashemane city stated that there was increment of anarchism in our community which more exacerbated because of reform that government propagated in 2018. This is also not an easy issue to affect the quality of police response. Because it can increase the fear of backlash in police due to expansion of lawlessness among different groups of community (male, 38, IDII).

Partiality of Police in Providing Service

According to the informant who was among the leaders of Bale Zone, it is difficult to serve the community in the right ways and in impartial minds when the police or the security forces are infiltrated in ethnic, religious, and political affiliation. The conflict occurred during the death of artist Hachalu has been aggravated by the fact that the police were the source of that problems, including government officials who play the role in coordinating and inciting the youth (male, 38, KII). To some extent there were also some police officers who covertly follow the ideology of political parties they may cheerfully enjoy the destruction of the country (male, 45, KII).

In the same fashion the security and administration official who interviewed at Dodola town said that: "security personnel particularly police forces, militia, etc., were tagged into the religion, ethnic groups, and political parties. Even, a person who works impartially for the public and for the truth will be fired or replaced or sent to other remote areas by some officials. Due to this case, innocent groups were severely attacked, and but police and other law enforcers remain silent" (male, 30, KII).

Regarding the issue informant who was journalist at Ethiopian broadcast corporation (EBC) has explained his observation of area such as Nagele Arsi, Goba and outskirts of Addis like following:

In these areas even if they arrive on time, police were not willing to help the victims, because they collaborated with the attackers. To concrete the experience with example, in Burayu town during the attacks the police didn't arrive on time. They reason out that there was not enough number of police officers, and their commitment and willingness were very low, and they claim that they were not given a proper command.

An informant who was a peace and security advisory of West Harerge Zone made a detail about this concept by saying that “there were undisciplined police officers who violated police ethics that can be expressed in terms of taking side for their religion, ethnic groups, prioritizing one’s own benefit, etc.”. Likewise, as to interview made with one of Fana Broadcasting Corporation (FBC) journalist, some of the police officers who were supposed to protect and serve the population didn’t have enough understanding about the profession how to serve their people impartially. As a result of this, they usually stay behind/regret any calls for help or intervention by leaving behind their oath and commitment. The journalist continued with the second reason, as most of the police officers are dominated by the politic rather than the rule of law; they are affiliated towards certain political ideology or group, plus they predict the results (as to what will happen due to the conflicts) beforehand, and they stay silent from the law enforcement activity.

Leadership and Coordination Issues

On the day of crisis, particularly the crises that happened due to murder of artist Hachalu, most of police leaders were on a training that was organized by regional police commission at different training center and for Bale zone it was organized at west Guji zone (Bule Hora town). To some extent this was also considered as a factor that made for the lack of immediate responses collectively, because due to the training some leaders were off duty. However, those who were on duty and represented couldn’t have minimized those losses caused due to non-responded crises. Thereof, there was a problem of police leaders which gives opportunities as to crisis more intensified and resulted in unimagined loses of life and property damage (male, 45, KII)

Also, there was not enough preparedness. According to one of the informants from west Harerge zone peace and security office, the police lack the preparation to respond proactively. His idea is discussed like below:

Even in normal circumstances, police should gather information and verify evidence when there are indications of problems by considering the questions of the people. Then, depending on the verified evidence, police should plan and make necessary preparedness in hotspot areas to give immediate response for public call proactively. However, with this regard, local police officer’s activity was minimal which they couldn’t accomplish order from courts and gangster proactive operations. There were informal groups with hidden agenda who had detailed information and readiness more than police to disturb the peaceful demonstration and instigate for strike supported by police less preparedness makes the unrest beyond police control (male, KII).

However, since the event of artist Hachalu happened at midnight without any preparation, the police forces were easily attacked. Particularly, in some area like in Agerfa of Bale zone, there were mass of rebellions which were too much and go beyond the available police force on time to control (male, 45, KII).

Likewise, the notion presented by one of interviewee who was eyewitness of Shashemene crises was presented like this:

...from the situation I observed that there were overcrowds or massive number of rebellions who were collected on the moment of crises occurred due to death of artist Hachalu that even more exceeded the proportional ration of police to control. Before they rash into destruction, at the beginning rebellions seem collected to express their grief. In the demonstration the participants firstly went out to the streets and manifest their saddened by the killing of artist Hachalu by mourn and express their feeling. As for me this is one factor that may hinder the response of police for crises occurred,

because there was mismatch of ratio of population to the police members. However, in the police leadership there was a deficiency of forecasting such like events as well as difficulties (male, 38, IDII).

Therefore, the reason why those all destruction of property and loss of life have occurred was due to lack of quality leadership and coordination among police officers and leaders (chief commanders); particularly in Agerfa of Bale zone (male, 30, KII).

Lack of Cooperation among Security Sectors

In the different situations of crisis, the major problem for security sectors like regional police, federal police, defence force, administration, and security office, etc. lacks cooperation as they are serving for the same goal.

For instance, one of the kebele's officials of Shashemane town revealed that there was absence of cooperation among security segments. Habitually, there is no culture of working together to achieve better results. That was why every security sector moving around the city was damaged. Even some of the defence forces were laughing while the city was on the destruction. Therefore, our country is at the risk if there is no cooperation between security sectors like defence forces, federal police, regional regular police and Special Forces, and the militias (male, 31, KII).

In addition to this, one of east Harerge zone police officials have said: "on the day that artist Hachalu has died; the security sector committee problem rose from chief of Defence force who was running the hidden agenda of TPLF and tried to sabotage the effective implementation of the security committee's plan. That also affected the members of the defence force and as a result they showed negligence for the crisis".

On another phase, as to inmates who serving prison for the crises happen in Shashemane surroundings, instead of keeping the harmony among the police and community most police officers like to treat people inhumanly in every aspect. They even apply different kinds of revenge and resentment than providing awareness for something that wrongly happened. Due to these reasons most of the time the people are not willing to stand or cooperate with the police force when problems occurred such like crises, (male, 33, IDII).

Even though there were exhibited problems of cooperation in many places, to some extent there were areas which worked better to synchronize among security sectors. As to the data collected from peace and security advisory of west Harerge zone indicated that, after having permission from their respective higher officials, security sectors have completed their task by dividing hotspot and targeted areas with greater responsibility.

For instance, in the case of Chiro town and zone, placement and division of tasks undertaken in a manner like Federal Police for Oda Bultum University and surroundings; Defence Force for Mieso and Asebot woreda, regular police with their respective town and Oromia Special Police Force patrolling the major road and every area that need additional force. With this assignment good cooperation was observed to minimize the consequences of strike. But the cooperation of other stakeholders (woreda/zone administrators, and others) with police was not good rather they prompted the strike by creating good governance problems, and refrain from facilitating logistic support to the police (male, KII).

Shortage of Manpower and Facility

Even if it was not an immediate cause of the crises, there was a shortage of supportive materials like vehicles, police equipment and deficiencies of manpower were not easy

concerns. For instance, according to zonal peace and security office of West Harge zone, before and on the day of artist Hachalu death, only two police officers were sent to kebeles where crisis has started. Even they moved on their foot and arrived after the crisis has caused higher consequences (male, KII).

Among others, the top-level official of East Harerge police has discussed that still the police response is not fully effective, because of logistic scarcities and absence of sufficient police force (male, KII). In addition to the preceding concepts, the FGD participants have detailed as the following:

During the crisis there were no police materials like police sticks, helmet, ‘chis bomb and other riot controlling equipment that leads police to hesitate from acting in the gatherings of protestors. Regarding shortage of manpower, one participant argued his experience that there is high police turnover, while I was chief of woreda police station: - It was expected to cover 37 kebeles that require 154 kilo meters travel to reach only with a total of 29 manpower.

Also, informants interviewed at different police organization highly confirmed the challenge of logistic and manpower in majority of police intuitions. For instance, in the case of Hirna woreda there is shortage of guns for police and more than 20 officers assigned to operation only with police baton during the disturbance which makes them vulnerable for risk. In terms of manpower there were small numbers of police officers with inappropriate equipment (male, KII). Likewise, in the case of Dire dawa city there was serious logistic problem for police and absence of sufficient police force. Therefore, during the crisis the issue targeted is only police problems rather the external factors like those discussed in so far to respond crises immediately (male, KII).

Furthermore, one of the study informants who were prosecutor at Hirna town stated that there is also a quality problem even for those available police officers. The informant expressed it like this: *“some of police officers didn’t have good police stand; even we are afraid on behalf of them while they escort prisoners other than fighting with gangsters. That is why during the crisis in a woreda of having more than 40 police members only 20 of them were actively confronting the crisis”*. In addition to the above problems, since the budget for the police department is the woreda administration office, police department is to be under influence and forced to accept any order from administrators or politicians.

Consequences due to Lack of Immediate or Late Police Response

As a result of lack of immediate and late police response, the data that has been collected from the study areas showed the occurrence of enormous repercussions which affect individuals, family as well as nation. The identified consequences are categorized under economic, social/psychological, and political classifications. They are discussed as follow:

Economic Consequences

Lack of immediate or late police response resulted in economic consequence such as burning and destruction of properties, robbing, illegitimate possession, impediment on investment, roads blocking, economic disempowerment, economic segregation, immobility of tourists, individuals exposed to beg on the street, etc.

Burning and Destruction of Properties: individuals’ property, religious institutions, business centers and government institutions were the target of the destruction. Also, residential houses, hotels, marker centers, peasants’ crops and other properties were burned. Based on observation and interview analysis at Agerfa town, the degree and extent of burning and destruction varied from place

to place. In this place around forty-seven (47) governmental offices have been demolished including the police department during crises occurred following the murder of artist Hachalu.

According to the participants of the FGD from Ambentu village of Bale zone; crops, residential houses, animals, and crop miller of the village were burned based on their owners' identity and ideology of being in and out the group. A victim who was from Goba town said: *"my hotel was number one tourist destination at Goba town and a hotel which hosts different training and ceremonies including governmental events. But amazing it was burnt at presence of police and changed to ash"*.

The reports of Ethiopian human right commission (EHRC, 2020) revealed that a food oil company and its vehicles were burnt down to ashes at Burayu. Moreover, demonstrators have broken down other people vehicles, bank of Abyssinia and commercial bank of Ethiopia's Sansusi branch were damaged. It added that there were severe property destruction and damage at the city of Shashemene during the killing of artist Hachalu. As per the report, in this city, 20 buildings, 35 residential houses, 78 vehicles, 79 hotels, 36 Bajaj, 17 motor bicycles, 28 shops and 2 schools, and several governmental organizations were burned. Also, the researchers' observation during field work and FGD conducted with police leaders at Shashemene city confirmed the severity of the destruction and burn of the properties.

Robbing of Properties: during the crisis both the properties of individuals and government were robbed by protestors. In some areas properties were first robbed before burning immovable assets. Gold shops, electric breakers, animals, motor bicycles, shop items, hotels, fertilizer from wire houses and valuable properties of individuals from residential homes, etc. have been aggressively robbed. The regional and federal police force does not intervene despite the fact there are considerable police forces (Ethiopian Human Right Commission Report, 2019). FGD conducted at Ambetu reported that before burning of my houses the whole properties (crops, chairs, bed, jewelers, television, clothes, animals, and many other affluences were ported to another places. Interview made with victim at Dodola town portrayed that during activist Jewar call of surrounded stated his experience like following: "...my shop was totally robbed. The shop was my only source of income and to my family as well. Due to robbing of commodities and the cash from the shop, I remained empty hand to support myself and my family, and thus forced to become dependent on others to survive."

Illegitimate possession of properties/ improper enrichments: the interview made with senior municipality official of Shashemene city identified that one of the very intentions of some protestors of crisis was to possess properties of others and become wealth at the expenses of other efforts during the crisis were clearly observed. For instance, there were a group of individuals who took others' properties forcefully during the crises like Bajaj, Isuzu car, caws, and other properties from market centers (FGD with community and religious leaders in Goba town).

Impediment on Investment: the data collected, and the observations made have shown that investment has been seriously affected due to the happening of the crisis in the study areas. The reasons accounts for this result where the roads were closed for several times for several days; transportations were locked; mobility of people from place to place restricted; both domestic and international tourists were bunged; and business activity centers were locked. It is obvious most of the potential investors' demands peace and security to invest their capital, even investments which were already commenced were forced to close and stop their functioning due to weak protections/guarantee from police forces. This occasion pushes the potential investors not to invest their capital and resulted in obstructions on incomes/earns of crises affected cities and the nation as well (FGD participants).

Road's blocking and Immobility of tourists: mobility of people from place to place for purpose of economic, social, political, and other were locked; the transportation was restricted; police cannot use patrol car to intervene crisis; creates favorable conditions for inflation of commodities price and create conducive environment for the development of criminality behaviors, etc. Also, in the study areas there are many tourists' destinations cities. But the unrest and chaos in the areas cannot attract tourists to visit different tourist attraction sites. Simultaneously, the police force was not in apposition to protect such problems, so that they cannot feel secure. For instance, the data obtained from tourist guide at Bale zone indicated that both domestic and international tourists are not coming since the crises to visit Sof-omar tourist site. Thus, the flow of tourists has been drastically decreased.

Economic disempowerment: those who accumulate affluence by their efforts were forced to lose their assets. Seizing or devastating of the properties of others within a day /overnight which improperly empowered others would be disempowered those owners the property. The properties of innocents were burned and demolished which makes their lives full of tragedy. While some others enjoy the robbed wealth, the livelihood of many innocent citizens becomes misfortune. For instance, it exposed daily laborers for economic crises and even difficult to pay for rental houses and daily livings. Then, the life of some of them were depended on begging at the street were observed (interview with a victim in Shasemene). Additionally, a victim interviewed at Ambentu village of Agerfa town was a model farmer who was awarded by the Oromia regional government in 2010. Now, every of her properties was burnt and her family looking for help. Also, an old woman whose property was burned Shashemane forced to live with other volunteers (FGD participants).

Social and Psychological Consequences

Beyond the loss/damage of property, the crisis resulted in citizen's greater scarification of life, hopelessness, psychological impact, and frustration. The details have been discussed as follows.

Cruel, brutal, and inhuman killing of innocent: the most dreadful and desperate thing that touches the moral of observers which also violates/degrades human nature has been observed. The morals and ethics of the people are degraded. Killing of humans like animals was not ethical and moral in most country, particularly in our Ethiopia since before, but now it has been exercised. Based on the data obtained from interview, a man was miserably slaughtered by protestors and his body parts were separately cut off by knife at Dodola. According to the data obtained from the city municipality of Burayu town, 29 citizens have lost their lives and all of them were males. In the same area, a young girl has cruelly killed, after she experienced the death of her father and uncle in front of her, while she is hiding her younger brother. As per the report of EHRC report (2020), in the Bishoftu town following murder of artist Hachalu 4 people were killed brutally and several people were injured.

Psychological fear: there are threats and fears due to the trauma of what happened, in the past, at the time of crises. This situation also created depression in the mind of affected groups because they thought there was a lack of guarantee about what will happen in the future also. For instance, a son who was his father and mother were killed in front of him by gun at Shashamene now became mentally ill. Also, there was the threat of being encircled again so that they remain restless for 24 hours without sleeping. Since the attacks were based on marginalized groups based on ethnic, religious and ideology there were suspicions and fears of living harmoniously with others those who are believed out of the groups. Some family members of victims do not go to see the burned properties again due to psychological trauma. They added that "we be afraid now something can be done against our lives again" (FGD participant). Many victims explain no bright but dark future and thus many individuals become hopeless. Some victims were reluctant to explain the details of the crisis. They fear similar problems may reoccur if they disclose the facts. The interview made with

victims at Shashamane add that they believe nothing will be restored despite the fact many concerned government bodies are cognizant of the problems. Interview with prosecutors at Chiro town showed that some frustrated citizens sold their remaining property and migrated to other places where they perceived they would get guaranty of their life and property.

Degrading of Social cohesion and Stigmatization: significant numbers of respondents at all most study areas explained that the incidents escalated hostility between religions and ethnic groups. Sense of living in harmony and solidarity among ethnic groups is pivotal for a nation but not the case in point due to the results of crisis. Since the base for attacks was the identity, people caught in dilemma and suspicious to live harmoniously with other religious or ethnic groups and thus togetherness was degraded. Stigmatization of minor groups from informal social associations such as *Edir* (association used to support each other during various social events) and *ekub* (group used to support each other economically), etc. were experienced. Some ethnically/religiously minor dwellers in different study areas were deprived or isolated from social services, political affairs, and economic developments (FGD participant). Unlike the above, senior political officials and police in the study areas believe deprivation and stigmatization has been restored even though victims do not accept it. But facts on the ground show the problem is not yet rectified.

Displacement of people: even though the degree varies from place to place in nearly all areas of the study many people were displaced from their living areas. According to the data obtained from a religious leader at Dodola town, around 264 officially known people were displaced from their home. The document showed that among displaced people there were vulnerable groups such as kids, elders and women were involved. Following the murder of artist Hachalu more than 100 households were displaced from the area so called Ambentu. Even those who remained there stayed there full of fears and feeling of being unsecured because they did not have opportunity to go anywhere (FGD participant). In general, study data showed that there was massive displacement of people from several study areas like Agarfa, Itaya, Goba, Burayu, etc.

Political Consequences

After those attacks most people, particularly the victims, lost their interest in the government and the security bodies. Thus, they don't want to participate in any political activities. It is detailed as follows.

Denial of Justice: according to community and religious leaders of FGD participants at Goba town, some of perpetrators of attack were not brought to justice system; however, some innocent members of minor ethnic/ religious groups were detained by false evidence while those who killed/damaged property were freed. Also, police members who were involved in attacks during the crisis were not made accountable and punished accordingly. What has been done was only shifting their workplace. Similarly, those who didn't carry out their responsibility of enforcing the law (omission of their responsibility) and were simply observed without any reaction to control the perpetrators while the destruction and loss of life were taking place. Similarly, interview with an old businessman whose property was damaged at Itaya town during crises stated as follows: ...I was taken to Hatosa wereda office by the name of personal protection while my property actively in destruction. Then paradoxically I detained and accused of the destruction of others' property because I was from a minor ethnic group of the area.

In general, regarding justice the data gained from victims and officials are not alike. The victims believe justice is not given and restored whereas some interviewed police and government officials explained that justice has been given.

Lack of trust in Government: almost all victims interviewed in the study areas believed and have feeling of being unsecured and lack of trust on the government, particularly on police. FGD discussant added that they do not think the government will protect them from similar attacks if any similar attack happens in the future. Also, they lost confidence in government remedial measures. As per the interview with Police at Harar city, it also resulted in mistrust among the members of police and community, frustrations of community, etc. According to the data obtained from the one of the journalists after the attacks, individuals who were faced atrocities don't want to live in that area again, because they believe that they will get attacked again because they don't believe the responsible government body and the police will give them enough protection. Another journalist from Ethiopian Broadcast Corporation added the same witness to the situation the people who survived the atrocities don't want to live in the same area where they have experienced attacks due to lack of trust in the security systems.

DISCUSSION

According to the United Nations Office on Drugs and Crime (2010), Police are at the frontline of the criminal justice system to give immediate responses for public disorder. They are often called upon to intervene when an act of violence is in progress or shortly after it has occurred. According to the present study, police were not totally responded for public call in some areas whereas lately arrived and tried to respond in some other areas after property damages, injuries and loss of life has occurred. Treglia (2013) has stated that police are responsible for upholding the laws of their jurisdiction and should protect the lives and property of the people at time of crisis and disorder. The finding also indicated that crises and attacks had occurred; even though the police were there to provide different reasons they did not stop the attacks. According to De Lint and Potts (2004) where there are divided societal conditions, police will use force more indiscriminately and comprehensively and will look for force multipliers to reinforce their disputed authority. Where there is strong consensus and authority is accepted, force will be minimal and restricted. Schwartz (2015) discussed that policing denotes to any organized activity that seeks to make sure communal order, security, and peace through hindrance, deterrence, investigation, justice, and punishments and Schwartz argued that police should uphold the rule of law so that order prevails. Baker (2015) also claimed that public order policing is often planned in terms of policing designed to trot out political demonstrations, protests, and riots in order that folks and property are not vulnerable. However, in Ethiopia, this study showed that whenever there is a chaos or violent demonstration, police were not active at all; almost they arrived being late after major destructions. This happened even in the areas where police get early notice to take precautionary measures. But police should be prepared ahead of time and the

appropriate national policing capabilities that are required to counter national threats like terrorism, organized crime, public order threats, and so on (Home office, 2015).

Pertaining to factors that hinder police to provide immediate responses for public orders during the crises, the finding indicated that police leaders and officers were in the dilemma to provide directives and to act independent of others as per the police profession which endorse taking of proportional measure/action during public disorder. Also, some of the police officers were immersed in the tricky of partiality to provide services (i.e., on the base of political ideology, religion, and ethnicity). According to US Dep't of Justice (2003), among good principle of policing one is serving community without discriminatory based on race, color, or national origin. Ethiopian Federal Police Commission

Establishment Proclamation 720/2011 article 24(2) also claims that in exercising police functions, it is prohibited to make discrimination based on race, nationality, color, gender, language, religion, political outlook, social background, wealth, birth, or any other stand. Also, the result of this study indicated that there was non-cooperation among security sectors and shortage of facility and budget in police organization which showed as there was a vital role that government to play in capacitating and creating smooth working environment for police organization, specifically of operational level officers.

The other objective of this study was the consequences due to lack of immediate or late police response following the crisis. Among the consequences one was economic costs which resulted from the destruction of governmental organizations including police department/stations, individuals' properties, business centers, etc. Beyond the damage of property, the crisis also resulted in scarification of life, injuries, citizen's greater hopelessness, psychological impact, and frustration. Garver (2020) and Brown (2020) argued that crisis is destructive, dangerous, and frightening that results in serious damage to property or the serious disruption to the life of the community. Huet-Vaughn (2015) also argues that public disorders result in physical injury and highly associated with negative economic consequences. Such public crises can also result in deaths, injuries and disability to men, women, and children (Maccini & Young 2009). As noted by Watts (2010) some types of crises result in acts of violence, rioters are taking advantage of dire circumstances to destroy property of others. In addition, those frustrated citizens, particularly minority groups sold their remaining property and displaced or migrated to other places where they perceived that they would get guaranty of their leaves and properties. Also, after the attacks most of the victims lost their trust in the government and the security bodies. Furthermore, they did not want to participate in any political activities and lacked a sense of belonging to other communities. The above finding is also supported by the concept that indicates that most public disorders or violence cases result in psychological trauma to the people (Case & Paxson, 2006; and Maccini & Young, 2009). Furthermore, the crises can lead citizens to feel more threatened and have a broader impact on social cohesion and entrenching negative attitudes toward other minority groups (Fielding, 2011).

CONCLUSION AND RECOMMENDATIONS

Conclusion

In the time frame of this study, Ethiopia has been experienced numerous violent demonstrations. However, police did not provide immediate responses; mainly in some areas they reached too late to the calls of victims, in some other areas they appeared but did not provide any reactions and in some other areas they were totally absent from the scene due to different factors. These were waiting for order of higher officials (extreme chain of command); feared the consequences of their measures (frighten aftermath of their action); partiality of police members in providing service due to infiltration, ethnic and religious difference; lack of good leadership, coordination, and coordination among security; and shortage of manpower and facility. Lack of immediate responses, late response, or non-responded public disorder resulted in huge property destruction, injuries, and loss of human lives. Finally, other/further than the scarification of life and property damage, the crisis resulted in people's psychological trauma like hopelessness, frustration, worry of future guaranty, displacements, and lack of trust from police. It also resulted in some psychological and social related consequence like fear of each other's, brutal and inhuman killing, degrading of social cohesion, stigmatization, and displacement of inhabitants. Regarding political aspects there was a sense of feeling of denial of justice and lack of trust in government, particularly in police institutions.

Recommendations

- *Police and security bodies should assess the situation and identify threat levels prior to the happening of crises. Thus, a continuous threat assessment must be done, especially in areas where ethnic and religious differences and antagonism are highly observed.*
- *As far as the researchers' document review is concerned, there is no guide for police used during operation at crisis. Police should have document like police emergency response plan that guides on how police respond and with whom work cooperatively during conflict and crisis situations in the country.*
- *Depending on pre-crisis organizational intelligence, police chain of command during crises should empower decentralization during crises. During times of chaos, an inherent characteristic of most crises and leaders must be more autocratic, directive, and assertive.*
- *As police doctrine stated, police should be free from political interference. Whatsoever the case is, police should never and ever compromise the safety and security issues and should give immediate response for public call other than waiting order from higher authorities.*
- *There should be a family protection programs to those police officers who came from the community where they brought up during and after keeping public order, so that the officers maintain public order without fear that their family are attacked or targeted. Contrary to this there should be a clear system in which guilty police officers and leaders put under scrutiny and get appropriate correctional measures.*
- *Special attention must be given to police stations where most firearms are stored. There must be adequate facilities like firearms and riot control equipment; secured stockpiles; especially in areas where there is a high probability of recurring attacks and conflicts. In such areas a security force must be stationed permanently, and it should be strengthened through different security materials/inputs.*
- *A continuous training on the police professionalism, rule of law, constitution and human rights should be given to police officers that can maximize police professionalism and minimize their infiltration. Also, police institutions should be free from any political intervention and independent to serve its people professionally.*

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1.3. The Return of Great Powers Rivalries in the Horn of Africa: Regional Security Implications

Abebe Alemu

PhD Candidate, Institute for Peace and Security Studies, Addis Ababa University

E-mail: abebelm324@gmail.com

ABSTRACT

In recent times, the Horn of Africa has experienced the return of great power rivalries. To examine these issues, data were collected from secondary and primary sources. What emerges from this analysis is that the two great powers have competing strategic interests in the Horn of Africa. America is working to deter the Chinese presence in the Horn of Africa. On the other hand, China is working to widen its spheres of influence in the Horn of Africa. China introduced its BRI-funded projects that serve as economic means of political interventions. This Chinese political and economic presence in the Horn of Africa has become a concern for the US interests in the Red Sea region. This has brought a major security challenge to the region. First, the presence of competing great powers in the Horn of Africa has exacerbated the Horn regional conflicts. The geopolitical competition between China and the US has made regional conflict resolution difficult. The protracted civil war in Ethiopia is a case in point. Second, the two great powers have extended and consolidated their military presence in the Red Sea region. This has brought securitization of ports and militarization of the Horn region. And third, great power rivalries between the US and China at systemic level has been reflected in the Horn of Africa. For example, the Indo-Pacific regional security dynamics are integrated with the Horn's regional security dynamics. The integration of Indo-Pacific security space with the Horn of Africa has cast a long shadow on the Horn of Africa.

Keywords: Great Powers, Horn of Africa, China, and America

INTRODUCTION

In recent years, China and the US are extending and consolidating their military presence in the Horn of Africa (Melvin, 2018a). As part of its military presence, the United States (US) established its Camp Lemonnier military base in Djibouti in 2002 (Zhixiong, 2018). Besides, China established its first overseas military bases in Djibouti in 2017 (Styan, 2022). Constructed at a cost of \$ 600 million, the base is 0.5 square kilometers in size and staffed by close to 400 military forces (Fakude, 2021).

The Chinese and American military base in Djibouti has become a topical issue. Security analysts and policymakers hold divergent opinions on the great powers' military presence in a small state of Djibouti. For example, Alao *et al* (2018) stated that foreign military presence in the Red Sea region ensures smooth resource flows. Stated differently, extra-regional powers are playing a critical role in fighting maritime crimes. In doing so, foreign military presence in strategically important regions such as the Horn of Africa plays an important role in the stability of the global political economy. Besides, Wuthaw (2020) stated that the military presence of great powers in the Horn of Africa has reduced regional conflicts.

However, other security analysts and policymakers have different opinions on the deployment of foreign military forces in the Horn of Africa. For example, Melvin (2019b) stated that America and China are competing great powers. The advent of competing great powers in the Horn of Africa has

negative security implications. Two points stand out in this regard. First, foreign military presence in the Horn of Africa has casted its long shadow on the regional distribution of power. Verhoeven (2018) stated that extra-regional powers provide military training to their client states in the Horn of Africa. This close security cooperation between basing states and the host states in the Horn of Africa brings changes in the regional power distribution. Second, the Horn regional states have different positions about the new foreign military presence in the region. The Red Sea littoral states have a sovereign right to welcome foreign military bases in their territories. Solomon (2019) writes, foreign military outposts have become a source of income for the Red Sea littoral states. On the one hand, the advent of foreign powers in the Horn of Africa has negative regional security implications. The problem has come from the dilemma of how to reconcile regional interests and states' sovereign rights.

Taking the military presence of competing great powers in the Horn of Africa, the purpose of this study is to address the return of great power rivalries in the Horn of Africa and its regional security implications. To get a deeper understanding on the influx of foreign military forces in the Horn of Africa and its security implications, the present research relies on both secondary and primary data sources. Secondary data sources such as books, journal articles, magazines, newspapers, and research reports were consulted to highlight the competing relations between China and the US in the Horn of Africa. This does not mean that primary data is not applied to discuss the relations between China and the US in the Horn of Africa.

When relevant, primary data sources were employed to discuss great power rivalry in the Horn of Africa. Besides, key-informant interviews were held to generate qualitative data on security implications for foreign military base establishment in the Horn of Africa. Scholars such as Yin (2011) pointed out that collecting data for qualitative research requires interaction and communication with the selected key-informants who have first-hand knowledge on the issue under discussion. In the same way, to examine the recent foreign military presence in the Horn of Africa and its regional security implications, a series of semi-structured interviews were held with relevant key informants. Thus, key informants such as academicians, security analysts, senior diplomats and Ethiopian government officials were the main key-informants for the present study.

Based in Addis Ababa, these key informants are presumed to have a good understanding of the recent foreign military presence in the Horn of Africa. The major aim of conducting key-informant interviews with senior government officials, diplomats and security analysts is to answer the following research questions. First, what is the nature of relations of China and the US in the Horn of Africa? Second, how have the relations between the two great powers affected the national and regional security of the Horn of Africa? To delve into these issues, the article proceeds into four sections. The first section provides the introduction part of the research. The second section considers the competitive relations between America and China in the Horn of Africa. The third section examines the national and regional implications of the presence of two great powers in the Horn of Africa. Finally, a conclusion is given.

America and China Competitive Relations in the Horn of Africa

The US and China have competing relations in the Horn of Africa. First, the two great powers have diverging models of economic developments. Beijing discredits the western model of economic developments and promotes state-led economic activities (Lei, 2020). These state-led economic activities provide China with a comparative advantage in the Horn of Africa. As a senior American diplomat noted, 'China has devoted considerable state-directed and state-supported financing systems to projects in different parts of Africa' (Bolton, 2018). Several points stand out. First, China

provides continuous financial support to its state-owned companies (SOCs) investing in the Horn of Africa. The Chinese SOCs have access to government loans and other forms of support. On October 27, 2022, Tadele noted, ‘the Chinese government provides support to SOCs investing in the Horn of Africa. Besides, Thrall (2015) writes, the Chinese state-led economic model gives political leaders the ability to intervene in the economic activities. This leads to the second factor.

Chinese companies offer lower contract agreements to the investment projects in the Horn of Africa. A key-informant interview with international trader indicates Chinese support to its SOCs. On April 05, 2022, Belaineh stated that to replace other foreign companies, China offers lower contracts to the host states in the Horn of Africa, including Ethiopia. These measures have enabled the Chinese companies to win projects at lower costs than the Western companies. Third, China has engaged in constructing roads, railways ports power plants at lower costs. These activities are making a tangible difference in the economic transformations in the Horn of Africa (Gavin, 2021). To construct these projects, China incurs short term losses for long term gains. Fourth, China does not consider the issues of human rights and democracy as the criteria to conduct business in the Horn of Africa. As Magu (2019:127) writes, ‘China works with autocratic governments. This in turn strengthened the Chinese presence in many parts of Africa.’ Finally, Chinese companies are ready to invest in conflict-prone regions of Africa. Heath (2018:39) writes, ‘China accepts a higher degree of risks in some resource-rich regions.’ China, in the name of peacekeeping, provides security protection to these companies that invest in conflict-ridden regions. These measures have provided China important leverages to extend its spheres of influence in the Horn of Africa.

On the other hand, the US has no economic card to play in the Horn of Africa. Vertin (2020) stated that in economic terms, the US cannot match the kind of loans, trade relations and investments that Beijing provides to the Horn regional states. Instead, America considers China as a predator commercial actor in the Horn of Africa. ‘The US accused China of conducting mercantilist trade relations with Horn regional states that violate international economic laws,’ said Bolton in 2018. This has resulted in systemic competition between the two great powers in the Horn of Africa. China is in a better position to offer a broad array of benefits to its clients in the Horn of Africa. On the other hand, the US has no economic benefits to be disbursed to its clients in Africa (Gunnness *et al*, 2022). Bolton is not secretive about resource shortage. In his speech delivered at the Heritage Foundation on December 13, 2018, Bolton remarked, resources from the US government are constrained, there is no doubt about that. This has eroded American ability to furnish benefits to its allies.

Second, the US and China are competing for client states in the Horn of Africa. As Gunnness *et al* (2022:66) write, the US and China are working to win ally states in Africa. This is to get African votes in international organization. African states make up the largest portion of the United Nations (UN) membership. Both great powers seek to get African votes in the wider international diplomatic relations (Thrall, 2015; Lei, 2020). In other words, the voting pattern of African states have become important for great powers in international organizations. The recent US move to get African votes in the UN General Assembly that condemned the Russian invasion of Ukraine is a case in point. America called for an immediate withdrawal of Russian forces from Ukraine in the UN General Assembly. On 03 February 2023, the UN General Assembly passed a resolution. The African votes were mixed. In the Horn of Africa, for example, America got support from Djibouti and Somalia. On the other hand, Ethiopia and Eritrea resisted the US moves in condemning the Russian invasion of Ukraine (UN General Assembly Resolution, 2023). In so doing, the two great powers seek to peel away African states for their own purpose.

Third, the US and China have been engaged in systemic competition. America is a reigning power working to maintain the existing international order. This goes with what Lemke (2002:23-24) dubbed, ‘the reigning powers works to maintain the *status quo*. On the other hand, the rising powers are revisionist powers.’ The rising powers work to change the current distribution of power. The same is happening in the current international distribution of powers. China and the US are the two rising and *status quo* powers respectively. The two powers engaged uneasy relations in different parts of the world. The Horn of Africa is one of the bones of contention between these two great powers. China and the America consider the Horn of Africa as their own spheres of influence. Thus, China is expanding its military presence in the Horn of Africa. Chinese military presence in Djibouti is seen as a strategic concern for the US interests in the Horn of Africa (Bolton, 2018). The Chinese military base is close to the US military base in Djibouti. It is just six miles away. The US is worried about by proximity, secrecy, and the nature of Chinese military base in Djibouti (Vertin, 2020). Hence, the Horn of Africa has become the bone of contention between the two great powers.

Chinese and American Relations in the Horn of Africa: Regional Security Implications

The recent Chinese and American military presence has casted its long shadow in the Horn of Africa. The security implication of great powers emerged from their competitive relations in the Horn of Africa. A key-informant interview with strategic thinkers indicates these competitive relations. On January 15, 2021, Getachew stated that ‘projecting powers in the Horn of Africa are not altruistic. They have their own agenda. They are extending their military forces in the Horn of Africa to secure their self-serving interests. They have been engaged in competition to get their share in the Horn of Africa.’ **These competitive relations have national and regional security implications in the Horn of Africa.**

First, the advent of competing great powers in the Horn of Africa has exacerbated regional conflicts in the Horn of Africa. Scholars such as Bert (2011) contend that war among great powers has declined in contemporary international relations. These great powers do not go to direct confrontation. Instead, they fight proxy wars in different parts of the world. The same is true in the Horn of Africa. In recent times, China and the US have been engaged in proxy wars in the Horn of Africa. For example, concerned by close security and political relations between Ethiopia and China, America has been using proxy forces including the Tigray People Liberation Front (TPLF). As Munene (2022:3) writes, the US legitimized insurgencies and delegitimized legitimate governments in the Horn of Africa. Besides, Seyoum (2022:17) write, ‘the US has supported the Tigray forces in their war with Ethiopian government.’ This is to get loyal proxy forces in the Horn of Africa. Ethiopian prominent scholar, Beyene Petrose, criticized the US policy towards Ethiopia. In October 2022 edition of *Zemene* magazine, ‘at the beginning Americans were supporting the Abiy administration. Later, they changed their policy towards the current administration. The US needs proxy forces in the Horn of Africa,’ says Beyene. America is working to satisfy the needs of its client states in North Africa. Beyene (2022) further noted that America pressured Ethiopia to accept binding rules about the use of Nile River. Ethiopia did not accept. The Americans have become very frustrated. They started to dismantle the current administration and replace it with loyal proxy forces.

Considering the US pressure in his administration, Ethiopian Prime Minister made important remakes in different occasions. ‘Foreign powers are supporting the TPLF in its war with us. They provided sophisticated satellite images to the rebels,’ Abiy stated in June 2021. Abiy Ahmed did not name the country that has been providing political and moral support to the TPLF. However, it is presumed that Americans have become patrons for the TPLF. In another workshop, Abiy (11 November 2021) stated, ‘the main intention of the West is to remove the current government and

replace it with their loyal forces. These efforts are like the 1991 regime change in Ethiopia. To remove the Mengistu regime, foreign powers supported the TPLF materially and politically.’ From Abiy’s remark, the involvement of external security actors in the internal politics of the Horn of Africa has been exacerbating regional conflicts.

On July 07, 2022, Abiy addressed the lawmakers about the destructive role of foreign powers in his administration. He stated, ‘አሁን በኢትዮጵያ ውስጥ የተቀናጀ ግራጫ ጦርነት እየተካሄደ ነው። የውጭ ሀይሎች ሳይበረዩ ዋና፣ የውክልና ጦርነት፣ የመረጃ ጦርነት እየተካሄዱበት ነው። ይህንንም ለማከናወን በኢትዮጵያ ውስጥ የሚገኙ ልዩነቶችን በማባባስ ሀገሪቱን መበታተን ነው። የውጭ ሀይሎች ስራቸውን ለማቃለል በመንግስት ውስጥ ወኪል አላቸው።’ translates literally ‘external security actors employed hybrid wars to weaken Ethiopia. These hybrid wars include information war, cyber war, and proxy war. These are aimed to replace the existing government with their loyal forces.’ From Abiy’s remark, several points are clearly visible. First, the US is working to make domestic problems worse in Ethiopia. Second, the hybrid war is aimed to widen domestic grievances. These two strategies are aimed to create schism between state and society in Ethiopia. Third, the West has local proxy forces in Ethiopia. These are aimed to weaken Ethiopia and by extension to control the Horn of Africa. These competing external interventions have exacerbated regional conflicts. Abdi (2021) stated that American foreign policy towards Ethiopia, and by extension to the Horn of Africa, is designed to perpetuate regional conflicts. ‘Systemic competition between great powers have implications in Ethiopian internal politics,’ says Adem, Ethiopian foreign policy experts in the Ministry of Foreign Affairs, in 2022.

Second, the Horn of Africa has become a venue where great powers are playing out their foreign rivalries (Handy, 2022). For example, the Indo-Pacific regional rivalries between the US and China are exported into the Horn of Africa (Lei, 2020). Extension of foreign rivalries in the Horn of Africa has regional security implications. Like the Cold War great power rivalries, the recent great power competition between China and America are pressuring Horn regional states (Tekeda, September 01, 2022). For example, the US is pressuring Horn regional states not to form a security alliance with rival external powers. The US policy of “either you are with us or against us” does not offer neutrality as an alternative foreign policy option (Gabriel, 2022). For example, in 2014, the US pressured Djibouti not to allow the Russian military base establishments in the country. To achieve its objectives, as indicated in the previous discussions, America increased military base rent from \$30 million to \$60 million (Dahir, 2021). Its effort to thwart the Russian security presence in Djibouti was successful. To reduce Chinese security in the Horn of Africa, the US has tried to dissuade Djibouti to stop its relations with China. However, Djibouti has never accepted the US diplomatic pressure and allowed the Chinese military establishment in its territory in 2017.

In addition, the competitive relations between China and the US are felt in Ethiopia. As Michael and Verhoeven (2022:2) noted, Ethiopia is a pivotal state in the Horn of Africa drawing the attention of American and Chinese interests. Indeed, in terms of population, geographical size and potential for economic growth, Ethiopia is intrinsically important state in the Horn of Africa. Besides, Ethiopia serves as a springboard for extra-regional powers to extend their spheres of influence in other parts of Africa. For these reasons, China is increasing its relations with Ethiopia. Ethiopia’s expanding cooperation with China and the geopolitical shift towards Beijing has become an obstacle for the US interests in the Horn of Africa (Michael and Verhoeven, 2022). To thwart the Chinese military presence in Ethiopia, the US is extending its pressure on Ethiopia. These pressures are explained in the following dimensions. First, America has been extending political and diplomatic pressures on Ethiopian political leaders. Fisseha (2021) stated that the US has become very concerned by the Chinese deep presence in Ethiopia, and by extension in the Horn of Africa. To reduce the Chinese deep presence in Ethiopia, America has employed economic tools to achieve its geopolitical interests

in the Horn of Africa. As Gabriel (2022) noted, America has employed economic sanctions to achieve its geopolitical interests in Ethiopia, and by extension in the Horn of Africa. For example, America terminated Ethiopian access to the African Growth and Opportunity Act (AGOA) preferential trade agreements that provided tax free to textile and leather products in the US market. The US policy of terminating Ethiopia from AGOA preferential trade agreements has its own implications. First, this policy does not solve the domestic conflicts in Ethiopia. It even exacerbated domestic conflicts. As Robel (2022:8) noted, ‘the AGOA suspension has cut hopes, not conflicts in Ethiopia. It is the innocent women who have become victims from the termination. In addition, Gabriel (2022) contends that sanctions on Ethiopia do not secure the US interests in the Horn of Africa. It was done undiplomatically. International experiences indicate that sanctions did not bring peace. It is innocent people who are suffering from sanctions. In this case, Kegley and Rymond (2014:226) write, ‘sanctions are seldom effective in bringing changes in the policies of target states. Besides, sanctions rarely successful in preventing war.’ As Staibano (2005:13) writes, American unilateral sanctions have become less successful in meeting its targets. For example, the sanctions in Iraq in 1991 affected the civilians. The same is true the US sanctions against Ethiopia. As indicated above, it is innocent women that have become vulnerable to the US sanction on Ethiopia.

Lakachew (2022) stated that the US economic sanctions did not solve the human rights situation in Ethiopia. It even exacerbated the lives of innocent women working in industrial parks. Over 3,500 workers have lost their jobs. Lakachew (2022) further stated that the US has extended its economic pressure on Ethiopia under the guise of humanitarian interventions.

Third, the presence of competing great powers in the Horn of Africa has resulted in the growth of foreign security interests in the region. As noted earlier, Chinese security interests in the Horn of Africa relate to its commercial interests. These commercial interests include protection of ports, logistics hubs and sea lines of communications. To protect the sources of extraction, transport and investment destinations, China extended its military forces in the Horn of Africa. The use of military forces to secure commercial interests has resulted in competition for ports, logistics hubs and sea lines of communications (Melvin, 2019b). America, on the other hand, extended its military forces to secure its narrow security interests. As Xing (2020) noted America has securitized the Horn of Africa and used to follow a hard power strategy to achieve its interests. For them, the lack of military bases in the Horn of Africa is an existential threat for external security actors. This has led to securitization of the Horn ports, logistics hubs and sea lines of communications. Thus, China and America have keen interests to secure their objectives in the Horn of Africa.

Fourth, the Chinese and American military presence in Djibouti has presented a major challenge for the existing regional security structure (Lulseged, 2022). The build-up of military bases in the Horn of Africa has taken place on a bilateral relation. This indicates that much of the base deals have bypassed the regional security architecture. A key-informant interview with experts working for Intergovernmental Authority for Development (IGAD) officials depicts this. For example, Abebe (2021) stated that, ‘we are not consulted on the relations between external security actors and Horn regional states.’ Abebe (2021) went to say, ‘IGAD, for instance, was not consulted on the strategic implications of the foreign military presence in the Horn of Africa.’ This indicates that military base agreement is made between basing states and host states in the Horn of Africa. In doing this, external security actors have undermined the regional integration process. For example, the US is not happy what Ethiopian political leaders are doing about regional cooperation. In 2020, Ethiopia, Eritrea and Somalia agreed to form a new regional block-the Horn of Africa Cooperation-with another neighbor to join the latter (Gabrial, 2022). Based on common economic and social and security interests, the block is to increase the relations between these three states. However, the US is not interested in such

kinds of African institutions at various levels. Rather than supporting this regional block, the US has preferred to work with each Horn regional state on a bilateral basis. Considering the US bilateral relations with Horn regional states, Gabriel (2022:22) concluded, 'the US prefers to focus on individual states rather than adopting a comprehensive regional strategy.'

Great powers are not only hindering regional cooperation. They are also undermining the formal state structure. Basing powers do not conduct relations with formal state structure in the Horn of Africa. Instead of working with formal state institutions, China and the US prefer to conduct personalized relations with political elites. The International Crisis Group (2019) stated that extra-regional powers prefer personalized relations to formal state structures. The Chinese close relations with the Horn elites are the cases in point. In this regard, Gunness *et al* (2022) noted that Chinese relations with the Horn regional states is based on the relations between the Chinese Communist Party (CCP) and Horn governments. These close relations are explained into two aspects. First, China supports political elites working with Beijing. China provides military armaments to increase client regimes' capability. Second, the CCP works with African incumbent parties. The close relations of CCP and Ethiopian Prosperity party are the cases in point. This indicates that the foreign policy of Horn regional states falls in the hands of private interests of politicians. Horn strategic experts are worried about the close relations between foreign political parties and Horn political parties. 'In the Horn of Africa, foreign policy making is in the hands of a few political elites. Personalized relations between external security actors and Horn regimes and political elites have implications on democratic transition in the Horn of Africa,' said Handy November 22, 2022. Basing agreements are made between Horn political elites and foreign security actors. In other words, the security agreements are concluded in non-transparent and informal ways, often involving only elites (Melvin, 2019b). The informal military base agreements have promoted personalized and patronage-based politics in the Horn of Africa. Foreign military presence in Djibouti is a case in point. Styan (2021) stated that political power has taken on patron-client relations in Djibouti. The highly personalized rule of Guelleh has used a patronage system to control political power in Djibouti (Vertin, 2020). After two terms of election (in 1999 and 2005), Guelleh wanted to amend the constitution for his reelection for a third term in 2011. Despite political tension in Djibouti, Guelleh was elected for a fourth term in 2016 (Styan, 2021). He was even reelected for the fifth term in 2020.

It is highly likely that he will be elected in the coming 2025 election. Money from port revenues, military base rents, and foreign direct investments has been used to get votes. As Styan (2021:74) noted, the presidential patronage machine will have sufficient funds to ensure patronage networks deliver the 100,000 votes to ensure his re-election. From this analysis, foreign powers are strengthening authoritarianism and democratic transition has become difficult in the Horn of Africa. This indicates that external security actors are working with governments that are not accountable.

Fifth, great powers have engaged in infrastructure investments. This has implications for Horn's integration into international markets. These direct investments and connection to the international market have become an important source of income for Horn regional states. Besides, infrastructure investments have stimulated economic transformations. However, a critical analysis of foreign direct investment in the Horn of Africa has its own criticisms and pitfalls. First, Chinese economic investment is a soft power strategy having political and security implications. Su and colleagues (2018) stated that the Horn states' dependence on Chinese economic activities in the region leads to political leverage. Istvan (2023) noted that China is extending new dependency on the Horn regional states. This leads to the second one. The new infrastructures are built on debt. For example, two-third of Djibouti's debt is owed to China (Carbone, 2020). This debt has its political implications. China extends its foreign direct investments in the Horn of Africa to extend its political influence. This is

to bring Horn regional states under its spheres of influence. As Su *et al* (2018) noted, heavy financial dependence has brought Chinese political influence into the Horn of Africa. To make matters worse, China has a tradition of acquiring strategic assets for debts. For example, following the failure of Sri Lanka to pay its debt, China acquired the Hambantota port for a 99-year lease. Like Sri Lanka, China is deliberately expanding its influence through debt in the Horn regional states (Su *et al*, 2018). In a similar vein, China expanded its loans to Djibouti. Currently, Djibouti is not able to pay its loans. Thus, China is considering controlling the Doraleh multipurpose port. The Chinese influence is not limited to Djibouti. It has implications to Ethiopia.

This indicates that Ethiopia is more affected by the Chinese and American military presence in the Horn of Africa. Ethiopian vulnerability relates to its location in the Horn of Africa. After 1991, Ethiopia became a landlocked state and depends on the Red Sea littoral states for its international trade. The bulk of Ethiopian agricultural export products are shipped through Djibouti port. Currently, Djibouti is under the influence of foreign military forces. Substantial foreign military presence and huge foreign direct investments have given extra-regional powers a considerable power to influence the port services and the internal politics of Djibouti. The presence of competing international powers in the Red Sea has brought security threats to the Ethiopian trade relations with other external states. The presence of competing foreign military forces in the Horn region is directed at Ethiopian external interests. Muchie and Ayferam (2016) stated that foreign military base establishment in the Horn of Africa has indirect implications to Ethiopia. These implications include blockade of ports, attacking vital strategic sea lanes and hindering the movement of import and export products.

CONCLUSION

In recent times, China and the US extended and consolidated their military presence in Djibouti. The military presence of these two great powers has become a double-edged sword for the Horn of Africa. On the positive side, the two great powers have contributed regional peace and stability through security assistance and security cooperation. Particularly, Chinese engagement in infrastructure investments in the Horn of Africa has implications on the regional integration, and by extension regional peace and security. In addition, both China and the US have been playing a constructive role in fighting transnational security threats in the Red Sea region. This is very important for smooth flows of goods across the Red Sea region.

However, the military presence of China and the US in Djibouti has negative security implications. These implications arise from competing relations between the two great powers. China wants to widen its spheres of influence in the Horn of Africa. To do this, China employed both debt-trap diplomacy and dual-use port strategy. These strategies are aimed at bringing the Horn regional states under their spheres of influence. On the other hand, the US has been engaged in reducing the presence of China in the Horn of Africa. To do this, the US employed coercive diplomacy, geo-economics, and the use of proxy forces. Thus, the Horn of Africa has become an area of great power rivalry in recent times. Great power rivalry in the Horn of Africa has undermined the regional integration process. This is explained in the aspects. First, the US and China are working with each Horn regional states. Base deals are done bilaterally. Second, the US and China military presence has implications on Ethiopian leadership role in the Horn of Africa. The presence of great powers in the Red Sea region has changed the regional balance of power in favor of the Red Sea littoral states. The income from military bases rents and port investments has empowered their power vis-à-vis Ethiopia. These have implications on Ethiopia leadership role in the Horn of Africa.

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1.4. Post-migration Economic Dynamics of Migrants and the Role of Urban Governance: The case of Nekemte City, Western Ethiopia

Gemechu Merga

Lecturer at College of Social Sciences, Mettu University

E-mail: gemechumergas@gmail.com

ABSTRACT

The fundamental shift in the world's population from predominantly rural to predominantly urban has recently crossed the halfway mark showing no signs of abatement. The over whole purpose of the study was to investigate post-migration economic dynamics of rural-urban migrants and the role of urban governance in Nekemte City, Western Ethiopia. Specifically, the objectives delved on assessing post migration economic condition, its determining factors, and the role of urban governance. The study used longitudinal research design (with qualitative and quantitative approaches) where data was collected from randomly selected 184 migrants through survey and key informant interview. The study uncovered that the variation of annual income, amount of saving, access to education and job satisfaction of migrants before and after migration was statistically significant at ($p < 0.001$) indicating a general improvement in economic condition in post migration. As per regression analysis, gender of migrant, level of education, job type, years of stay and access to loans were found to significantly determine income change in post migration. Moreover, legal problems of informal settlements and violence owing to low police service were found as urban governance problems in the area. Conclusively, it's evident from the finding that if well managed, rural out migration could potentially improve the wellbeing of the migrants and cities and thus, the national and regional governments need to devise policies and strategies that foster rural-urban linkage for promoting greater economic opportunities.

Key words: Economic dynamics, Migrants, Post-migration, Urban governance

INTRODUCTION

Migration is a worldwide phenomenon, with movements encompassing both internal and international across borders. The world has an estimated 244 million international migrants and 763 million internal migrants. In other words, migrants constitute more than 1 billion people, or one-seventh of the world's population (UN DESA, 2017). By 2050, urban areas in developing economies are projected to host between two to three billion new migrants, accounting for 95 per cent of global urban growth, with African cities taking the lion's percentage of the increase (Awumbila, 2014). Empirical reports of UNEP, (2016) reveal that, though urban areas constitute only less than 2 per cent of Earth's surface, they possess the lion's share (80 per cent) of economic output and between 60 and 80 per cent of energy consumption. About 97 per cent of global GDP is produced by industry and services employing about 65 per cent of global working population where most of these activities concentrate in urban areas to use the advantage of economies of scale and agglomeration economies (Satterthwaite and McGranahan, 2010).

Rural urban migration is specifically seen as exacerbating pressure on urban social services, environment and employment, and there is an underlying postulation that the phenomenon is leading to rising levels of urban poverty (Awumbila, 2014). Nevertheless, despite the existing adverse outlook of urban expansion in Africa, urban areas are becoming the leading destination and center of human development (UN-Habitat, 2012). In its outlook towards urban areas facing more

challenges than the country in migration governance, the IOM (2015) suggested that the issue deserves the forefront of urban planning and sustainable development. The authors further pointed out that UN Habitat reports continued to undermine migration issues. For instance, the World Cities Report of UN Habitat (2016) advocates a rights-based approach, which is potentially an argument against urban expansion. The report appears to address urban socio-economic problems thereby advocating “the right to the city” at the cost of “the right to food” of migrants (Aerni, 2014). However, rights could not be attained without putting institutions into effect (Juma, 2013). Furthermore, according to Aerni, (2016), the rationale for giving less emphasis to the challenges of internal migration is mainly, the western states are highly influenced by international migration than internal migration.

It was also reported that policies that aim to limit rural-urban migration consider migrants as cause for current urban problems with the assumption that rural migrants come to urban areas along with their poverty though the policies fall short of meeting the desired socio-economic objectives. For instance, a review of population policies in emerging economies reveal that the attempt to limit rural-urban migration remained not only unsuccessful but resulted in enduring social inequalities (McGranahan and Martine, 2014). Tacoli (2006) further added that rural-urban migrants make use of the relocation to improve their socio-economic condition and there exists limited empirical evidence to conclude that rural-urban migration contributes to urban poverty. Reports of UNDP, (2006) also confirm that though international migration attracted much emphasis in the current migration issues, the role of internal migration is by far significant in the size of people involved and its contribution in poverty reduction through remittances.

According to IOM (2022), rural-urban migration plays a significant role in reducing poverty level using the social and economic opportunities that urban areas provide which are absent in the countryside. It was also reported that upon proper management, migration can potentially generate prospects for improved living standard while serving as a weapon to overthrow poverty and materialize economic growth (UN DESA, 2019). The ever flourishing of large cities in Asia and sub-Saharan Africa obscured the demographic and socio-economic importance of smaller urban areas mainly due to distinctions in the criteria used to define urbanity from rurality. However, these smaller urban areas can potentially contribute to regional development and assist rural transformation through diversification of household livelihoods. The report of UCLG, (2016) revealed that smaller urban like areas are crucial in the emerging interest in territorial approaches to regional development. In addition, Ahmed, Sugiyarto, & Jha, (2010) cited in Hazrat, Zahid and Iqra (2022) stated that, the role of migration in exchanging new information and its provision in the development of efficient skills in many arenas both in developed and developing economies should not be underestimated.

Studies show that mishandling of migrants can potentially cause social, economic, and environmental challenges whereas good treatment helps to stimulate economic growth and contribute for sustainable development. For instance, Tacoli et al., (2016) argued that urban policies that underestimate migrants would result in economic and cultural segregation. On the other hand, urban policies that assume migrants as a threat to urban life would cause the victim of crime, discrimination, and socio-economic divergence among its people (Ahmed, 2012). According to (Sassen, 2015), urban policy makers encouraging migrants to become entrepreneurs would reap economic growth in the long run. These entrepreneurial migrants engage in various sectors of the available opportunities contributing for socio-economic growth of the city while generating additional funds as a taxpayer which support further expansion of urban social services.

A study conducted by Naila, Raza Rahman and Imran (2021) in Pakhtun regions of Pakistan and Afghanistan, identified low level of urbanization and industrialization as the leading factors of

underdeveloped economy which was linked to rural dominated setting, subsistence agriculture and social psychology of the area. Further, the scholars recommended expansion of planned urbanization as a mechanism of changing the social psychology of the agrarian population of Pakhtun-inhabited areas. Muhammad and Khadim (2020) argued that even though economic development is a common objective of almost all countries, the most important point is what controls economic development and how countries ensure the development of the factor so to have their economy grow sustainably.

Migration researchers argue that reaching a comprehensive migration theory is hardly possible owing to the dynamic nature and complexity of the issue (Castles and Miller 2009). On theoretical base, this study mainly adopted push-pull model introduced by (Lee, 1966) focusing on the stimulating roles of two factors (push and pull) prevailing in two different geographic areas (place of origin and destination) respectively. The rationale for using this theoretical approach is the fact that it can adequately address the consequences of migration at places of destination at micro scale (Abebe, 2014).

Projections for urban population Ethiopia, which is one of the least urbanized countries in the world, indicate that the proportion of people living in urban centres will double itself over the next four decades from 17% in 2010 to 38% in 2050 (UN DESA, 2011). Nekemte city, the capital of East Wollega zone is among the highest migrant receiving urban areas in Ethiopia. For instance, the study conducted by Ayenalem, (2009), on major causes of urban growth in Western Ethiopia reported rural-urban migration as the main reason and put Nekemte city among the fastest growing urban areas with well over the national average growth rate for major urban (4 percent). There is lack of sound knowledge and understanding of determinants of economic condition of rural-urban migrants in the study area. Abebe, (2014) pointed out that, in Ethiopia, most of the existing literatures revolve around international migration while only limited research focused on internal migrations most which are indeed conducted by European researchers. It was also reported that local level of migration studies is absent from many scholars' enrichments (Mitara & Murayama, 2008). On top of that, there is apparently negligible research work conducted at empirical level in the study area which prompted the researcher to conduct a study on the issue with the objectives of assessing determinants of economic condition of rural-urban migrants at place of destination.

THE RESEARCH METHODS AND MATERIALS

Description of the Study Area: Nekemte is a zonal capital of East Wollega zone found in Oromia regional state, western Ethiopia. Geographically, it's located at 9⁰3'0"N latitude and 36⁰29'0"E longitude which is found at 330 kilometers to the west of the capital city of the country (Addis Ababa).

Projection of 2007 census data (CSA, 2007) using the then average growth rate for urban areas (4%) showed that the city has a total population of 116,762 where about 55, 533 and 61,229 were males and females respectively in 2020. Tom (2018 p. 9) reported that the share of the lifetime migrants from the population of Nekemte city accounts for about 73.82 per cent. Official sources also indicated the existence of 4,100 recent migrants in the current study zones of the city. The major economic activities practiced in the city are trade, hotels, and restaurants. Urban agriculture like dairy, beef and poultry farming are becoming important sources of income and employment for considerable fraction of the people in the city. Furthermore, constructions, wood and metal works are areas of temporary employment opportunities (Nekemte city Administration office, 2020).

METHODOLOGY

Longitudinal research design with quantitative and qualitative approaches of data collection and analysis was employed in the study. In the process of obtaining a manageable size, from the existing seven sub cities, Chalalaki sub city was purposively selected grounding on relative concentration of migrants in the city. According to official source, the sub city is further divided in to twelve zones (Nekemte City Administration, 2020). Accordingly, the researcher purposively selected the last four zones (zone 09, zone 10, zone 11 and zone 12) grounding on relative proportion of migrants. A sample size of 184 migrants was statistically determined and randomly selected proportionally from 4,100 migrants in the study area based on the size of migrants in each zone.

Data Collection Methods: Relevant data for the study was gathered through questionnaire from migrants. The questionnaire was mainly sought to elicit information of migrants' demographic characteristics, economic condition before and after migration. Moreover, interview was also conducted with purposively selected community representatives and officials from the urban administration to enrich the survey data.

Method of Data Analysis: Analysis of quantifiable data was conducted through descriptive and inferential statistics using SPSS version 20. T-test was used to test the significance of income change before and in post migration while regression statistics was used to determine the major predictors of the change. In addition, qualitative findings were analyzed along with survey results through triangulation.

Model specification: The study attempted to determine as to what explanatory variables are more responsible for change of income in post migration using logistic regression model. The independent variables tested include gender of migrants (MIG_GEND), marital status (MIG_MAR_ST), educational status (MIG_ED_ST), years of stay (MIG_YEA_ST), types of job (MIG_JO_TYP) and migrant place of origin (MIG_OR) whereas migrant income condition (MIG_INC) was dependent variable.

Thus, the equation is written as

$$\text{Logit} (P_i) = \log \left(\frac{P_i}{1-P_i} \right) \beta = \beta_0 + \beta_1 X_{1i} + \beta_2 X_{2i} + \dots + \beta_k X_{ki} \quad (1)$$

Making some arrangements of equation the above model or relation can be written as.

$$P_i / 1 - p_i = (e^{\lambda_i} / (1 + e^{\lambda_i})) / 1 / (1 + e^{\lambda_i}) = e^{\lambda_i} \quad (2)$$

Where, $P_i = E (y_i = 1/x_i) = e^{\lambda_i} / (1 + e^{\lambda_i})$ (contributed to income change)

$1 - p_i = 1 / (1 + e^{\lambda_i})$ (did not contributed to income change)

RESULTS

Table 1 T-tests of the socio-economic condition before and after migration

Variables	Before migration (mean)	After migration (mean)	T-test	Sig.
Annual Income (in ETB)	2,206.52	5,320.65	6.10	p<0.001
Amount of saving (in ETB)	339.6 (19.6%)	3,532.6(92.4%)	8.65	p<0.001
Educational level	2.24	2.92	4.31	P<0.001
Job satisfaction	1.64	3.84	17.85	p<0.001
Social security	4.32	1.67	37.13	p<0.001

Source: Survey result, 2020

Rural-urban migration has a potential to positively affect migrants' economic conditions. It's apparent from (table 3.1) that the mean variation of migrants' annual income and amount of saving before and after migration was statistically significant at $p < 0.001$ indicating a general improvement after migration. In a nutshell, the mean annual income has shown an increment from ETB 2,206.52 before migration to ETB 5,320.65 after migration indicating an encouraging trend. Moreover, migrants were used to save only ETB 339.6 per capita (with only 19.6% having saving account) before migration which has shown an impressive increment to about ETB 3,532.6 per capita (more than ten times) with 92.4% having saving account after migration.

In addition, the mean variation of the educational status and job satisfaction before and after migration was statistically significant at $p < 0.001$ showing an encouraging increment after migration. The result of interviews uncovered that most of the migrants were upgrading their educational status using the available educational opportunities operating in various programs. Most of laborers and merchants follow their schooling in evening programs and others in weekend and distance extensions while accomplishing their livelihood activities and educations side by side. However, social security condition of the migrants was also tested to have statistically significant difference ($p < 0.001$) indicating a discouraging condition in post migration. In line with this, migrants, particularly working as daily laborers in the city stated that they feel socially insecure as they are working without any insurance contracts and absence of formally written work agreements.

Table 2 Regression Analysis of the Major Predictors of Income Change

Model summary

Model	R	R square	Adjusted square	R	Std. Error of the estimate
1	.969	.939	.936		884.56222

Coefficients ^a					
Model		Unstandardized Coefficients		Standardized Coefficients	t
		B	Std. Error	Beta	Sig.
1	(Constant)	-6992.990	1261.578		-5.543
	Gender of migrant	-4901.904	477.316	-.705	10.270
	Marital Status	-97.623	156.484	-.020	.624
	Educational status	356.746	154.884	.106	2.303
	Years of stay	164.537	54.011	.146	3.046
	Job type	1641.402	133.256	.503	12.318
	Place of origin	-51.732	174.823	-.007	.296
	Own house	-870.854	455.088	-.117	1.914
	Access to loans	2843.127	451.299	.167	6.300

a. Dependent Variable: Migrant Income After migration

Source: Survey result, 2020

Progress of income in post migration (table 3.2) was regressed on predicating variables (migrant gender, migrant job type, access to loans, years of stay and educational status) indicated ($F=296.45$, $p < 0.001$ with $R^2=93.9$) suggesting that 93.9% of the variation is predicted by the listed factors in the model. In a nutshell, gender of migrant ($\beta=-.705$, $t=-10.270$, $p < .001$), job type of migrant ($\beta=.503$, $t=12.318$, $p < .001$) and migrant access to loans ($\beta=.167$, $t=6.300$ and $p < .001$) were observed as the

major predicting variables of income of migrants. In addition, migrant educational status ($\beta=.106$, $t=2.303$, $p=.022$) and years of stay ($\beta=.146$, $t=3.046$, $p=.003$) were found to have statistically significant contribution in post income change of the migrants. Conversely, migrant marital status ($\beta=-.020$, $t=-.624$ and $p=.534$), place of origin ($\beta=-.007$, $t=-.296$ and $p=.768$) and migrant own house ($\beta=-.117$, $t=-.1914$ and $p=.057$) were tested and regressed to have statistically insignificant contribution to income difference between pre and post migration.

DISCUSSION

The study disclosed a statistically significant and an encouraging trend of migrants' improvement in their income and amount of saving, educational status, and job satisfaction after migration to the city. In other words, migrants were found to meet their expectation of higher wages in urban areas through real life experience in post migration. These provide strong evidence of the positive impact of rural-urban migration on migrants' socio-economic conditions in the study area. Consistent with this finding, a study by Sethurman (1981) shows that, almost two-thirds of the male and female migrants reported to be better off in their monthly income after migration than before. Furthermore, using a multicollinearity analysis, (Kazi, 2018) found statistically significant improvement in economic conditions, increased savings, improved poverty level and education of children in post migration at place of destination. In addition, Ojong Ejoh M. et al., (2021) by using meta-analysis observed significant positive association between delivery of credit facilities and the improvement in child nourishment and increased birth control practice.

The finding of Henderson et al. (2017) also found that recurrent drought in Africa caused increment of urban expansion which eventually resulted in improvement of migrant income owing to the relative concentration of manufacturing and other service sector opportunities in urban areas. Further, Ali, Abdullah and Abdelghani (2020), using structural equation modelling, found that women 's accessibility to microfinance has contributed positively to consumption expenditure and most importantly, reduced poverty among households in Egypt.

However, when it comes to social security, the migrants were surveyed to be ill-treated by the urban administrators as they believe that additional immigrants exacerbate pressure on the limited urban social services. Migrants claim that they live within insecurity from the government as their slums are being demolished, frequently evicting hundreds of households to become homeless. On the other hand, interview result from urban administrators confirmed that rural urban migrants add pressure on the limited urban land and social services and thus their informal settlements are not legally accepted which eventually results in frequent demolishing. In relation to this finding, Umar et al., (2018) reported that though post migration welfare condition of migrants has shown relative improvement, the social protection of migrants was found to be low indicated by absence of insurance contracts and formal work agreements with their employers. Similarly, according to the report of UN Habitat (2012), the existing low capacity of cities to accommodate the increasing immigrants has resulted in adverse policy prescription of governments and city authorities on migration to urban areas.

On the other hand, migrant attributes particularly gender of migrant, level of education, job type, years of stay and access to loans played significant role in income change in post migration. Consistent with this finding, Umar et al., (2018), reported that the personal background of migrants, such as educational status, work experience, and monthly income have a significant positive effect on the quality of their employment. Similarly, studies that focused on controlling factors of migrant's welfare at destination areas found that migrants' extent of success is a function of human and social

capital (Shah, 2000), duration of migration period, the standard of working situations and prevalence of social networks (Akay, et al., 2012).

CONCLUSION

The overall purpose of the paper focused on assessing determinants of economic condition of rural-urban migrants at place of destination. It was investigated that the economic condition (income and amount of saving), educational opportunities and job satisfaction of the migrants has shown an encouraging trend and a general improvement in post migration. However, legal problems of slum settlements and violence owing to low police service around informal settlements were found to increase migrants' dissatisfaction to live in the area. On the other hand, genders of migrant, job type, years of stay, access to loans, and educational status were found to positively determine income change of migrants. Furthermore, the contribution of urban governance for post migration income changes and social security was found to be insignificant. Conclusively, grounding on these findings, the author concludes that if managed intelligently and humanely, rural urban migration could be an opportunity rather than a challenge for sustainable development of cities.

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1.5. Multiparty Democratic Politics in the Ethiopian Ethnic-based Federalism: A Critical Analysis of Challenging Factors

Yohannes Tamiru

PhD Candidate, College of Law and Governance, Ethiopian Civil Service University

ABSTRACT

Ethiopia is one of the most ethnically diverse polities in Africa employing a form of pluralist federalism known as “ethnic federalism” since 1991. This form of federalism was introduced to accommodate the country’s ethno-national diversity and, as such, ensure overall stability of the Ethiopian body politic through building “one political community” wherein inter-ethnic solidarity can be promoted among the country’s “nations, nationalities, and peoples” (NNPs). The Ethiopian ethnic-based federalism has been applied in a context of multiparty democratic politics. Ethnic federalism coupled with multiparty democracy as the ‘best’ possible model of governance was, therefore, hoped to alleviate the ethno-nationalistic conflicts engulfing the country for long. However, it is asserted in this article that ethnic federalism could not ensure democratic stability by supporting the growth of stable multiparty democratic politics, but rather stifle it through strengthening radical ethnic political forces. The key objective of this study is thus to explore the main factors challenging the prospect of building a stable political community in an ethno-federal context cohabited by both ethnic and multi-ethnic political forces, and to suggest a possible redesign of the present federal model to enable it to deal with these factors more effectively. To meet this objective, a qualitative research approach has been employed. Data for this study were, accordingly, collected by key informant interviews, focus group discussions, desk reviews, and documentary analyses. The study reveals that ethnic federalism has been the first and foremost factor challenging the development of stable multiparty democracy in federal Ethiopia primarily through cultivating and enabling radical ethno-nationalist forces at the detriment of ‘moderate’ and ‘centrist’ multi-ethnic political forces. The study also discloses that the embellished constitutional recognition accorded to ethnicity has been the other important factor adversely affecting the development of stable multiparty democracy by restraining alternative cleavages other than ethnicity from coming into the political scene as potent factors of political mobilization. Above all, the study exposes that ethno-political polarization has become a stark factor in undermining stable multiparty politics by-actually or potentially destabilizing the Ethiopian federation. The article generally concludes that it is hardly possible to ensure stable multiparty democracy in an ethnic federal context replete with highly polarizing and antagonizing political discourses cultivated by ethnically defined party system under the current Ethiopian federalism. It is suggested therefore that the Ethiopian federation needs to be redesigned in a manner that subdues the salience of ethnicity and in a way that strikes ‘right’ balance between individual and group rights in the interests of crafting stable political democracy. Undertaking authentic and all-inclusive national dialogue capable of addressing divisive historical issues supposedly existing among Ethiopian ethnic groups would also commendably support the process of building democratic stability.

Key Words: Multiparty Democracy, Ethnic Federalism, Consociation, Centripetalism, Ethno-nationalist forces, and Multi-ethnic political forces

INTRODUCTION

Most countries today are diverse in ethnic, linguistic, cultural, or some other aspects of the human phenomena (Kymlicka, 1995; Robert, 1993). Ethiopia, like many other African societies, embraces a mosaic of nationalities speaking a multiplicity of languages (Bahru, 2002), which makes Ethiopia a home to more than eighty ethnic or linguistic groups (Berhanu, 2007). As such, Ethiopia has introduced a federal model of governance rooted in ethnicity, hence the name ‘ethnic federalism’, since 1991. The launch of the ethnic federal model has long been justified by its advocates as the only way to maintaining Ethiopian unity and averting the balkanization of the Ethiopian state although this model has at times been construed by others as a road to crumbling of the Ethiopian state altogether.¹

Despite such arguments on the federal design, Ethiopia underwent a transition from autocratic rule to ‘democratic order’ through the championship of the former Ethiopian People’s Revolutionary Democratic Front (EPRDF) in 1991.² The transition has opened the political space for an exercise of multiparty democracy in ethno-federal Ethiopia for the first time in the country’s political history. This has in turn given rise to the proliferation of various political parties widely in the ethnic camp and to a limited extent in the pan-Ethiopian multi-ethnic camp.³

Political parties are the heart and soul of contemporary democracy (IMD, 2004). Some of the major functions of political parties in any democratic system include representation; elite formation and recruitment; goal formulation; interest articulation and aggregation; socialization and mobilization; and organization of government (Heywood, 2002). Most important of all, political parties not only compete but also work together as stakeholders in building up the common good of citizens (IMD, 2004). In ethnically plural or conflict-prone societies such as Ethiopia, political parties seem to assume a further role in stabilizing the body politic, in which party politics is organized and run.

In ethnically divided societies that are ridden with a myriad divisive agenda, the importance of political parties is more magnified as they are the most important political structures affecting the political stability of transitional democracies and their move towards consolidating democracy (Reilly, 2008). Stable and institutionalized party systems are chiefly considered as crucial requirements for a multiparty democratic system to consolidate (Huntington, 1968).

The system in which Ethiopian political parties operate also known as the Ethiopian party system has, however, been characterized by a greater degree of political or ideological polarization and a higher level of fragmentation (Alefe, 2013; Merera, 2007; Solomon, 2014). Essentially, party system refers to patterns of relationships and interactions existing between or among political parties in a democratic political system (Hofmeister & Grabow, 2011; Scarrow, 2009).

¹ For more information on this, see Assefa (2012).

² For detailed information on the processes and characteristics of the transition, see Kassahun (2003), Lyons (1996), & Vaughan (1994).

³ For the reasons on the wider progression of the political forces in the ethnic camp but not in the pan-Ethiopian multi-ethnic camp, see Kassahun (2003) & Vaughan (1994).

The rise of ethnicity has been a significant departure in Ethiopia's modern history and politics because it aligned Ethiopian political forces into ethno-nationalist and pan-Ethiopianist camps as of late 1960s (Asnake, 2009; Merera, 2003). Since then, political forces have been in a continuous state of antagonism, which in turn has markedly affected inter-ethnic relationships and the overall stability of the Ethiopian body politic (Yohannes, 2021). The Ethiopian history of party politics since the 1960s in general and multiparty politics since 1991 has been a curse of history dominated by political polarization and fragmentation between and among political parties, which time and again failed to set a common agenda that could effectively mobilize millions of Ethiopians for a common good (Merera, 2007). In the reign of the former EPRDF, the Ethiopian multiparty democracy has failed to develop inclusive national discourse by hardening ethnicity into a primary identity (Abbink, 2006 & 2011), while multiparty democracy as the 'best' possible model of governance coupled with ethnic federalism was hoped to resolve the ethno-nationalist conflicts engulfing the country for long. Predicated on such context, this article makes an in-depth exploration of the main factors challenging the prospect of building stable political community, doing so with an eye to suggesting some way outs.

The article is organized into five sections. The first is the introductory section, which sets the background for this study. The second section briefly articulates the problem addressed by the study. The third section sets out the theoretical and conceptual foundations of the study. The fourth is the "results and discussion" section, committed to critically analysing the main factors challenging the FDRE's constitutional prospect of building stable federal community in a context of competitive multiparty democratic politics. The last section provides concluding remarks.

No dispute arises over the fact that the scholarly community has been endeavoring much since the 1960s to come up with some institutional solutions that could favorably support the growth of stable political democracies in ethnically divided societies that are replete with ethno-nationalistic conflicts. A great deal of the theoretical and empirical literatures generally suggests the use of multiparty democracy rooted in some form of pluralist federalism as a better institutional solution for divided societies to deal with the seemingly intractable ethno-nationalistic conflicts that so often characterize them.⁴

However, it is worth noting that even the generally recommended institutional model, that is, 'multiparty federal democracy' could bring the opposite outcomes in ethnically plural societies as apparently observed in federal Ethiopia unless the chief system actors namely the political parties are not able to work together to ameliorate the most fundamental and deep-rooted socio-political ills these societies are confronting. The context in federal Ethiopia seems to signify a political condition wherein ethno-cultural differences have increasingly been solidified and reinforced than being mitigated, hence, fostering federal disunity. The key multiparty democratic institutions upon which responsibility rests in this regard are political parties and the party system in which the parties operate.⁵

⁴ *In fact, there is no 'cure-all-institutional-medicine' that provides a standard solution for all the socio-political malaises that various political societies face as their context greatly differs one another.*

⁵ *For deeper understanding and appreciation of how party politics and party systems markedly affect the whole operation and functioning of the Ethiopian federation, see Erk (2017).*

The party system in federal Ethiopia is the most outstanding factor, which would determine the fate of the future of the Ethiopian federation (Assefa, 2012; Erk, 2017). Most importantly, the dominance of the federal political system by regionally based ethnic parties is risky unless counterbalanced by multi-ethnic parties that bridge ethnic parties at the centre, which otherwise take multi-ethnic federations to deadlock at best and national fragmentation at worst (Assefa, 2012).

The post-EPRDF period appears to underpin the notion that the party system and party politics are the crucial factors affecting the stability of the Ethiopian body politic and the prospect of the Ethiopian federation. This is mainly because: one, the stability problem⁶ of the federation manifesting particularly in the last times of EPRDF has worsened with the Front's dissolution; two, the domination of the political landscape by ethnic political forces and their contradictory narratives in a somewhat widened political space started to galvanize inter-ethnic suspicions and animosities (Yohannes, 2021) resulting in various forms of ethnic conflicts and violence.⁷ In view of this, the capacity of the Ethiopian ethnic-based federalism to advance stability and hold the federation together in a competitive context of ethnic politics has become under question.

This article, therefore, aims to explore the main factors challenging the prospect of building a stable political community in an ethno-federal context cohabited by both ethnic and multi-ethnic political forces. In so doing, constitutional factors such as ethnicity and ethnic federalism and some extra-constitutional factors including party doctrines and ideological pillars dictating the former ruling coalition, EPRDF, and the present governing party, Prosperity Party (PP), have been deeply scrutinized. In specific terms, the rationale behind the relative stability ensured during the reign of EPRDF; the capacity of the Ethiopian ethnic-based federalism to uphold stability in a context of competitive ethnic politics; and the justifications underlying the formation of PP as well as the challenges such multi-ethnic political forces are confronting have been profoundly dealt. To meet these objectives, a qualitative research approach has been employed. The data for this study were, accordingly, collected by using desk reviews of relevant journal articles and monographs, elite-interviewing, focus group discussions with academicians and prominent politicians, and various documents.

Theoretical and Conceptual Foundations

Multiparty democracy and the role of political parties in ethnically divided societies

Democracy is recognised as the most successful political system in which political and socio-economic human rights are respected and conflicts are resolved in a peaceful manner (IMD, 2004). Since the start of the third wave of democratization in 1974, various multiparty systems have been introduced in new, restored, and emerging democracies around the world (UNU, 2008). Ethiopia is one of the 'multiparty systems', which has introduced multiparty democracy since 1991.

Multiparty politics, however, is no guarantee of peace, security, and development. It may empower vulnerable groups, increase transparency, mediate conflict, and achieve redistribution of income to the poor—but multiparty politics may also subvert the broader process of democratization by

⁶ It should, however, be noted that relative 'peace and stability' was made possible for most part of EPRDF's rule, arguably due to its hegemonic control of the socio-economic and political space.

⁷ For detailed information on various forms of recent ethnic conflicts and violence, see IOM (2019 & 2020).

empowering already dominant elites, marginalizing minorities and, perhaps most seriously, mobilizing ethnic, regional, and religious groups against each other (UNU, 2008). Political parties play the central role in the platform of multiparty politics so much so that they have long been recognized as the most essential component of representative democracy carrying out various functions such as organizing voters, aggregating, and articulating interests, crafting policy alternatives, and providing the basis for coordinated electoral and legislative activity (Reilly, 2008). Well-functioning political parties are thus central in multiparty democracies not just for ensuring representative government but also for advancing the process of democratic development in transitional democracies (Reilly, 2008).

The importance of political parties in transitional democracies is more magnified in conflict-prone societies⁸ on the ground that political parties in these societies are the most influential institutions that most directly affect the extent to which social cleavages are translated into political cleavages. In that way, the political parties strongly influence the political dynamics producing either highly exclusive/polarized political discourses or inclusive/less polarized politics, which in turn positively or negatively affect the overall stability of ethnically divided polities. In connection with this, while some parties in such societies adopt “catch-all” strategies designed to elicit support from across different segments of the electorate to win elections; others seek to represent ethnic cleavages explicitly, and appeal for votes predominantly along ethno-cultural lines (Reilly, 2008).

Party systems in ethnically divided societies would, therefore, have multi-ethnic parties, mono-ethnic parties, and non-ethnic parties considering ethnicity-based classification of political parties. In that, the multi-ethnic parties are associated with aggregation of ethno-social cleavages, while mono-ethnic parties are linked with articulation and translation of ethno-social cleavages into political cleavages. Non-ethnic parties, on the other hand, neither aggregates nor translates ethno-social cleavages as they dwell on other ideological or developmental issues, and hence working for blocking the transformation of ethno-social cleavages into political cleavages (Bogaards, 2007). In view of this, the party systems in ethnically divided societies could correspondingly be categorized as multi-ethnic party systems, ethnic-party systems, and non-ethnic party systems based on the mobilizing capacity of ethnicity in such societies (Bogaards, 2007). The most important question that often takes the centerstage in the political life of ethnically divided societies, however, is the issue of whether multiparty democracy at all could be functional in a polity dominated by various forms of ethnic diversity. Closely associated with this issue is the subject of how ethnicity as a politically salient cleavage would be properly managed in ethnically divided societies to prove the functionality of stable multiparty democracy in such societies. The question of how multiparty democracy works in ethnically divided societies has hitherto been revolving around two major institutional theories of democracy, namely consociationalism and centripetalism. The search for appropriate institutional theories/approaches capable of advancing stable multiparty democracies in ethnically plural societies indirectly pertains to the issue of studying the nexus between multiparty democracy and ethnic pluralism.

The Nexus Between Multiparty Democracy and Ethnic Pluralism

⁸ Conflict-prone societies are societies commonly understood as ethno-culturally divided societies where ethno-cultural divisions could play, or are playing, marked roles in national politics and hence party politics (Reilly, 2008). Ethiopia is one of the most salient examples in this regard because ethno-cultural politics is constitutionally recognized and openly practiced.

There has been a long-standing argument among scholars regarding the viability of multiparty democracy in ethnically plural or divided societies. In this respect, Elischer generally commented that the view of many scholars as to the viability of multiparty democracy in ethnically plural societies has been negative. As a result, democratic race is regarded as a hotbed of instability and conflict in ethnically segmented societies (Elischer, 2013).

Some group of scholars preferably known as advocates of liberalism, championed by Mill, strongly argued that democracy could be exercised only in relatively homogenous societies that managed to organize and run their politics in a 'nation-state' model. The existence and advancement of multiparty democracy and free democratic institutions, which are conceived to be the key underpinnings for the functioning of democracy are thus said to be "only next to impossible" in divided societies (Mill, 1972, p. 230). Once the issue of viability of multiparty democracy has become a point of controversy in the political arena of divided societies, two eminent scholars started to dominate the academic and political scene with two different political conceptions or theories each attempting to show how multiparty democracy can also work in ethnically divided societies, however. The scholars are Arend Lijphart and Donald Horowitz-each of them having exponents as well as detractors on their side.

The commonality between the thoughts of Horowitz and Lijphart is that they both appreciate the potency of ethnicity to influence multiparty politics in ethnically divided societies. They are different in the way they approach ethnicity, and thus the institutional/constitutional solutions they proposed for these societies too, however.

Accordingly, Lijphart asserts that ethnicity can only be recognized and represented by ethnic political forces as it is, and thus cannot be subjected to political manoeuvring by ethnically 'other' political forces. In this light, ethnic communities vote along ethnic lines despite the possibility that other political forces may come up with broad-based political programmes to gain support from across ethnic lines. Hence, ethnicity cannot be transcended, and it must be the centre of politics in ethnically divided societies (Lijphart, 1969). Smaller ethnic communities, according to Lijphart, may otherwise lose in electoral competitions thereby making them to be ruled by the decisions of the majority putting their interests aside. Consequently, the defeat of the ethnic communities in political games may in turn drift them towards ethnic violence (Lijphart, 1969).

For these reasons, Lijphart has proposed an institutional design known as consociationalism, which he thinks best fit to ethnically divided societies. Consociationalism is described by Lijphart as a power-sharing model of democracy founded upon four important pillars. The pillars are "grand coalition" of ethnic leaders from all significant segments of a society; minority veto that seeks mutual agreement among the coalition partners over key governmental decisions; proportional representation of all significant groups in elected and administrative offices; and segmental or group autonomy via federalism or similar devices with respect to cultural and societal life (Lijphart, 1977 & 1992). Closely associated with this, Lijphart suggests a parliamentary system of government as a more enabling system for consociational democracies to flourish (Lijphart, 1991 & 2004).

Consociational democracy entails "government by elite cartel designed to turn a democracy with a fragmented political culture into a stable democracy" (Lijphart, 1969, p. 2016). From this, it may be noted that Lijphart regards ethnic communities as fixed and static entities that need to be politically represented as they are in a way that takes ethnicity for granted to act as a main organizing principle of politics in plural societies. Lijphart thus seems to advance the primordial conception of ethnicity,

which treats ethnicity as a naturally determined, given trait rooted in hostilities of ethnic sentiment.⁹ Owing to this, consociationalism has been attacked for promoting a creation of a political environment in which ethnicity freezes and radicalises rather than being mitigated or moderated thereby igniting never-ending ethnic conflicts and violence among ethnic groups (Horowitz, 1985; Reilly, 2004).

To deal with such critics on the consociational design of Lijphart and propose alternative institutional design capable of supporting stable multiparty democracy in ethnically plural societies, Horowitz advanced a different conception on ethnicity and how it may well be managed. Contrary to Lijphart, he posits that ethnicity is something that can be manipulated politically to pursue some desired political objectives. Hence, for Horowitz, members of ethnic groups in ethnically divided societies may vote for multi-ethnic or non-ethnic political parties with better policy alternatives and political programmes other than ethnically organized political parties, which claim to represent members of the groups. Ethnicity, therefore, can be transcended (Horowitz, 1985). Stated differently, people need not necessarily organize themselves in ethnically defined political parties. Even when people may have to organize around ethnicity; the ethnicity-based parties can potentially evolve into a continuum of ‘mono-ethnic party type’ to ‘multi-ethnic alliance party type’, and eventually to ‘multi-ethnic integrative party type’, whereby ethnicity can be surpassed (Horowitz, 1985).

Thus, Horowitz emphasizes the need to design institutions that offer incentives for political elites to garner some level of electoral support across members of all ethnic groups. In this regard, he has proposed alternative vote and presidential democracy because these respective electoral and government systems compel political elites to obtain broader or crosscutting electoral support from several ethnic communities, which in turn induces the political elites to come up with moderate and accommodative stances on ethnically divisive issues (Horowitz, 2003).

More specifically, Horowitz, for instance, asserts that majoritarian electoral systems, particularly the alternative vote, give parties and candidates a robust incentive to seek popular support across group lines, as this system demands that political contestants maximise votes to win elections, hence encouraging them to adopt moderate stances on ethnically divisive matters (Horowitz, 2003). In other words, majoritarian electoral systems are thought to bridge ethnic differences by rewarding moderate politics, on the one hand, and punishing extremist politics, on the other (Norris, 2008). This implies that Horowitz seems to uphold constructionist conception of ethnicity¹⁰, which comes in sharp contrast with Lijphart’s ostensibly primordial reading of the concept of ethnicity. The prominent scholar, Reilly, who has been largely supporting Horowitz’s ideas, later called such model of democracy ‘centripetalism’ (Reilly, 2004).

A point that deserves even more emphasis regarding the seminal work of Horowitz is his theory of party competition in ethnically divided societies and the challenges supposed to confront these societies. In that, he elaborates various types of party configurations predicted by ethnicity, such as ‘ethnic parties’ and ‘coalitions of ethnic parties. Equally important of his contribution is the endeavour he put forth to categorize party systems of ethnically segmented societies as ‘ethnic party systems’, ‘multi-ethnic party systems’, and ‘non-ethnic party systems’. It is hence worthwhile to

⁹ For an account of primordial ethnicity, see Geertz (1963) & Shils (1957).

¹⁰ For elaboration constructionists’ characterisation of ethnicity, see Yang (2000).

review Horowitz's categorization of party systems of the ethnically plural societies to clarify how ethnicity shapes party systems and what Horowitz called the logic of 'ethnic coalitions of convenience' and 'ethnic coalitions of commitment' (Horowitz, 1985) affect the nature of party systems in divided societies.

Although Horowitz underlines the importance of ethnic parties and ethnic party systems as building blocks of party politics in ethnically divided societies, he has never denied the possibility that multi-ethnic and non-ethnic parties may also coexist. Three major types of parties have been identified by Horowitz: ethnic parties, multi-ethnic parties, and non-ethnic parties. The focus of Horowitz has been confined to analyzing and understanding the nature of ethnic and multi-ethnic parties and party systems that blend a variety of types of parties, however (Horowitz, 1985).

Ethnic parties in pure sense seek to mobilize only the votes of their own ethnic group (Gunther & Diamond, 2003). Ethnic parties therefore lack transferability across communal boundaries thereby compelling them to take any action at any cost to remain a primary choice by their groups they claim to represent, particularly should there be an intra-group competition with a potential of 'ethnic outbidding' (Horowitz, 1985). Because of this, ethnic parties are keen to take radical positions, and the positions assumed by the parties are often irreconcilable with the interests or positions of other ethnic parties thus aggravating ethnic divisions and paving the way to ethnic violence and regime collapse (Elischer, 2013). Gunther and Diamond (2003) are of the same idea that the electoral logic of ethnic parties is to harden their ethnic base with highly particularistic, exclusive, and polarized appeals to ethnic groups they claim to represent. As a result, the more a party is ethnic, the less it will integrate citizens into a nationwide polity and the more the citizens will gravitate to identify themselves with some ethnic group by breeding identification with sectional divisions. Thus, ethnic parties' contribution to society can be divisive and even disintegrated (Gunther & Diamond, 2003). Regarding the potentially disintegrated impact of ethnic parties, Elischer (2013) notes that the effect of ethnic parties is not restricted to the party itself or the ethnic group it claims to represent. Rather, once the door of the political landscape is opened for ethnic parties, many ethnic parties may emerge in the name of ethnic groups consequently leading to a high degree of party fragmentation. Sooner or later, this would make formation of government a cumbersome and lengthy process (Elischer, 2013). Simply put, multiparty systems that are dominated by ethnic parties potentially lead to "fragile coalition politics at best and political instability at worst" (Salih & Nordlund, 2007, p. 48).

Ethnic parties seem to have an increasingly growing significance in ethnically segmented societies, although they are not the only game in the town of such societies. In this respect, Horowitz has contributed a great deal of knowledge for analyzing and understanding alternative political concepts and organizations, such as 'multiethnicity' and multi-ethnic organizations by means of which party politics can be structured in ethnically segmented societies. In view of this, Horowitz (1985) has established an organizational or coalitional spectrum ranging from 'ethnic coalitions of convenience' to 'multi-ethnic alliance' that potentially extends even to the 'multi-ethnic integrative party' archetype predicted by parties' goal, timing of coalition, adopted electoral methods, and the parties' position on divisive ethnic matters. The first multi-ethnic coalition arrangement is regarded as 'ethnic coalitions of convenience' that is established by an association of ethnic parties with a sole aim of forming a government by securing a legislative majority. The convenience coalition is formed post-election implying that the parties forming the government fight elections in separate slates. After the election, the seats each party gained will be pooled merely to form a majority government. The ethnic parties forming the government therefore are not committed to addressing incompatible ethnic interests of the groups they claim to represent. The second multi-ethnic coalitional arrangement is designated as 'ethnic coalitions of commitment'. It is, as its name implies, an arrangement created

by two or more ethnic parties to meet twofold aims of (1) forming a government, and (2) addressing or reducing ethnic conflicts. Although ethnic coalitions of commitment are formed post-election like coalitions of ethnic convenience, the former seeks making negotiation among the ethnic parties regarding divisive ethnic issues before election even though the commitment coalition is formed after election. Due to this, ethnic coalitions of commitment pursue not only pooling of seats that enable them to form a government but also pooling of some votes among the coalition parties to show their commitment to reducing ethnic conflicts. Ethnic coalitions of commitment can therefore be said to blend 'convenience' and 'commitment' elements together. Yet, ethnic coalitions of commitment are temporary structures like ethnic coalitions of convenience except that the former is formed with a view to moderating conflict on top of forming a government. The third multi-ethnic party arrangement is 'multi-ethnic alliance' whereby several ethnic parties come together with a coordinated and committed approach to addressing ethnic matters considerably. Multi-ethnic alliance parties are, therefore, akin to ethnic coalitions of commitment in the interest both must moderate or address ethnic concerns or conflicts though in varying degrees. The fourth multi-ethnic party arrangement not expressly dealt in the organizational/coalitional spectrum formed along ethnicity is 'multi-ethnic party'.

Multi-ethnic party is an arrangement that spans the major ethnic groups in conflict. Multi-ethnic party, however, provides one and united organizational identity though ethnic flanks can generally be identified, and ethnic blocs may move in and out of the party. For this reason, multi-ethnic parties are unified parties electorally as well as organizationally. Multi-ethnic parties are thus different from multi-ethnic alliance parties on the ground that the former promotes singular identity both in the electoral and organizational arenas, while the latter advance's singular electoral identity and unified as well as separate organizational identities (Horowitz, 1985). It is also worthwhile to recognize that multi-ethnic parties and multi-ethnic alliance parties share a similar feature in the sense that both have a platform to deal with ethnic issues though multi-ethnic parties seem to deal with ethnic issues only implicitly, whereas multi-ethnic alliance parties enjoy an explicit stage in which ethnic matters can be dealt and addressed (Horowitz, 1985).

On top of the four party configurations discussed thus far, Horowitz (1985) has also identified another party arrangement called 'multi-ethnic single party' whose existence implies nothing about its commitments regarding ethnic matters. Here, Horowitz seems to gloss over the distinction between what he called 'multi-ethnic single party' from 'non-ethnic' parties as both party typologies structure party politics on non-ethnic lines of competition. Should that be so, the endeavour to identify parties as multi-ethnic single party and non-ethnic party intuitively becomes meaningless, and hence purposeless.

Non-ethnic parties are also additional types of political parties potentially structuring party politics in ethnically divided societies, though they are a rarity in such societies (Horowitz, 1985). In this regard, Elischer, in his book dealing with ethnicity and party formation of Sub-Saharan Africa, discerned five most common party typologies manifesting in Sub-Saharan Africa: the mono-ethnic, the ethnic alliance, the catch-all, the programmatic, and the personalistic party. In that way, Elischer has attempted to show the diversity of African political landscape as opposed to the traditionally assumed thoughts regarding African party typologies that it is merely ethnically defined. Elischer thus demonstrates that while ethnic parties dominate in some countries, non-ethnic parties have become the norm in others (Elischer, 2013).

It is therefore clear that multi-ethnic or non-ethnic parties may emerge in ethnically segmented societies. These parties are not sustainable, however (Elischer, 2013; Horowitz, 1985). About the fragile nature of multi-ethnic and non-ethnic parties in ethnically plural societies, several factors have

been identified though on a piecemeal basis. Accordingly, Horowitz (1985, p. 438-439), for instance, argued that ‘coalitional durability’ problem of multi-ethnic organizations could be attributed to (1) difficulty to “surmount the pure contractualism that brings the coalition into being, but which can equally jeopardize it the moment there is a failure of reciprocal advantages; and (2) lack of effective steps to limit the coalition’s vulnerability to centrifugal electoral forces”. At this point, it may, however, be crucial to note that Horowitz (1985) has attempted to differentiate the intensity of vulnerability of each of the multi-ethnic party arrangements. Ethnic coalitions of convenience are described to be the most vulnerable coalition arrangements as their formation is fundamentally conditioned by the motive to form government. In other words, ethnic coalitions of convenience never entail negotiations and ensuing policies that compromise divisive ethnic matters thereby making them prone to instability and collapse. Ethnic coalitions of commitment are stated to have relatively good sustenance potential compared to ethnic coalitions of convenience because they somehow strive to address ethnic matters.

Multi-ethnic alliance parties, by implication, are noted to have more advantages for survival over ethnic coalitions of commitment not only because they are created with an underlying tenet of permanence but also on the ground that they entail a coordinated approach to moderating divisive ethnic matters to a considerable degree (Horowitz, 1985). Multi-ethnic alliance parties therefore seem to be the one with a higher leverage to sustain even better than unified multi-ethnic parties for two important reasons, one, the multi-ethnic alliance party provides an explicit platform in which ethnic discontents and issues can be discussed and negotiated thereby underpinning the party’s sustainability. Two, multi-ethnic parties can effectively compete with ethnic parties by means of the ethnic components they comprise. Hence, multi-ethnic alliance parties could act as ethnic parties of a sort at election time. Multi-ethnic alliance parties, as a result, tend to develop adaptability to resist flank pressures (Horowitz, 1985).

However, Gunther and Diamond (2003) assert the other way round regarding the coalitional durability problem of multi-ethnic structures pointing out that one of the main reasons for the vulnerability of what they called it the ‘congress party’¹¹ is its breadth. Gunther and Diamond, accordingly, posits that the broader the party is, the more vulnerable it will be to fracture along ethnic and regional lines. Elischer (2013), on his part, points out that fierce competition that multi-ethnic parties face when contesting with ethnic parties for the same electoral clientele may incapacitate the multi-ethnic parties because ethnic parties focus on hardening and radicalizing their ethnic base leading to ‘ethnic outbidding’. In a related argument, it is stressed that the ethnic outbidding effect by ethnic parties would bolster in a condition in which multi-ethnic parties lack alternative cleavage lines to cut across ethnic divides and mobilize a greater number of individuals thereby pushing them to disintegrate into ethnic wings. Eventually, lack or dissolution of the multi-ethnic parties leads to a “bankruptcy of moderation” within the party system (Reilly, 2004). Following that, the formation, sustainability, and stronghold of ethnic parties would be inevitable. Above all, ethnic parties have become ubiquitous thus fostering ethnic radicalization and concomitant ethnic violence (Elischer, 2013).

¹¹ What is known as the ‘congress party’ by Diamond and Gunther corresponds with the ‘multi-ethnic alliance party’ of Horowitz.

RESULTS AND DISCUSSION

A federalist façade in a centralist front: explaining the relative stability during EPRDF's rule.

What holds the Ethiopian federalism together in the last three decades in a context of stark legitimacy deficit of the ethno-federal constitutional order¹² and a highly polarized and fragmented system of parties? Not the ethno-federal Constitution, it was EPRDF that held the Ethiopian ethnic federation together (Thomas Fleiner & Lidija Fleiner, 2009). Stated differently, the true workings of the Ethiopian ethnic federalism could be more explained and understood not by mere investigation of the ethnic politics within the formal institutions of the federal system rather by examining the ethnic politics within the dominant political party, EPRDF (Erk, 2017). This is because the EPRDF had been an inseparable part of the workings of the Ethiopian federalism (Erk, 2017). In this vein, some claimed that once the EPRDF loses control of power, the fate of the Ethiopian federation will be uncertain or will wither away with it (Clapham, 2009; Minase, 1996).

The 'uncertainty or the withering away hypotheses appear to be partly witnessed following the rifts within EPRDF in reaction to the popular protests observed largely in Oromia and Amhara regional states since 2016. At the height of the popular protests, some member parties of the former EPRDF, namely the Amhara National Democratic Movement (ANDM) and the Oromo People Democratic Organization (OPDO) not only stood on the side of the protestors¹³ but also allied one another leaving the Tigray People's Liberation Front (TPLF)¹⁴ off-guard thereby making EPRDF a divided house (Semir, 2019). The popular protests culminated in April 2018 with the ascent of Dr Abiy Ahmed into premiership. Sooner, the ANDM, rebranding itself as Amhara Democratic Party (ADP), flirted with Amhara nationalism more than ever even though it echoes diverse voices and interests on questions of ideology (strong vs. moderate Amhara nationalism), while the OPDO, in the same fashion, rebranded itself as Oromo Democratic Party (ODP), and vacillated between Oromo nationalism and pan-Ethiopian nationalism (Semir, 2019). The appearance of the ODP as the leading force guiding the political liberalization in the first periods of the 'reform' had further alienated the TPLF and relegated it to rule the Tigray regional state (Semir, 2019).¹⁵ The Southern Ethiopia People's Democratic Movement (SEPDM), as a representative of the highly multi-ethnic Southern Nations, Nationalities, and People's regional state, was unstable as it was bewildered by an increasing number of regional statehood and identity based questions raised by various ethno-cultural groups living in the regional state. The TPLF by contrast seemed a stable political organization, although it frustrated with the new balance of power looming within EPRDF's member parties (Semir, 2019). The fracture of the EPRDF and the associated internal incoherence had become a major roadblock to enforcing law and order as opposed to the strong and effective law enforcing practices and capabilities of the

¹² For detailed information on the legitimacy problem of the Ethiopian ethno-constitutional federal experiment, see Gedion (2013) & Tsegaye (2010).

¹³ Interviews with prominent politicians in the former ADP and ODP circles, 16 November 2019.

¹⁴ TPLF was portrayed by many as the leading and core group of the former EPRDF coalition. For more on this, see Merera (2003) & Semahegn (2014).

¹⁵ The remaining two member parties of the EPRDF such as the Southern Ethiopia People's Democratic Movement (SEPDM) and the TPLF kept silent without undergoing any change apparently as opposed to the changes occurring in ANDM and OPDO.

Front (Semir, 2019). This consequently led into internal displacement of more than 3.1 million Ethiopians induced mainly by ethnic and border-based disputes between the country's ethnic groups in 2018 (IOM, 2019). Of the 3.1 million and above internally displaced Ethiopians, more than 1.2 million were displaced solidly due to inter-ethnic ferocities (IOM, 2020).

In November 2019, the EPRDF ceased to exist, and a successor party-Prosperity Party (PP)-was established by the three member parties of the EPRDF, namely ADP, ODP, and SEPDM along with the previously affiliate parties of the EPRDF (Lyons, 2021). The establishment of PP may be considered a political watershed in the governance history of the Ethiopian federation because this party was established in the absence of TPLF (a main architect of the Ethiopian ethnic-federal constitution)¹⁶ due to the TPLF's refusal to join PP.¹⁷ The TPLF had been a core or a leading group in the EPRDF's coalition¹⁸, making it a centre of gravity in the politics of the former EPRDF. It would not thus be exaggerated to say that a federal governance of Ethiopia without the TPLF by the newly established party, PP represents a political watershed in Ethiopia's federal politics in at least two significant ways. First, it has become increasingly difficult for the PP to be internally united for confirming peace and security¹⁹ through collective action, which as a result has fostered ethnic-based killings and internal displacements of many Ethiopians. This, therefore, might evoke a question of viability of a multi-ethnic unified party like PP to rule in ethnically divided polities such as Ethiopia. Second, it hints the high risk of the ethnic federal system to hold together with pluralistic multiparty system.²⁰ One can see that federal Ethiopia has been in an ostensibly pluralistic multiparty system following the refusal of TPLF to join PP thereby creating a ruling political opposition to the PP in Tigray regional state since November 2019. Following the 2018 political change, the TPLF considered the 'new' EPRDF (EPRDF minus TPLF) in almost the same way opposition political forces had been viewing the former EPRDF (Semir, 2019).²¹ The implication has been so serious that even the refusal of one of the member parties of the EPRDF to constitute as part of the PP has placed huge strains on the functioning of the federation let alone the possibility of running the federation by an alliance or coalition of newly elected, contending ethnically-based opposition political forces.

The principal political fault line between Ethiopian political forces traces its origin going back to the 1960s movement of Ethiopian students popularly known as the 'Ethiopian Students Movement' (ESM). The rise of ethnicity has been a significant departure in Ethiopia's modern history and politics

¹⁶ For information on the main contributors to the making of the present Ethiopian Federal Constitution, see Semahegn (2014).

¹⁷ In fact, there are some procedural and substantive issues echoed by the TPLF for its refusal to form part of the PP. For information on this, see ICG (2019).

¹⁸ For details on the leading role of the TPLF in the former EPRDF's coalition, see Aalen (2002), Abbink (2000 & 2011), Lyons (2021), & Merera (2003).

¹⁹ Interviews with various academicians and political elites, 19 April 2022, Addis Ababa.

²⁰ The term 'pluralistic multiparty system' is used here to refer to a political environment, in which more than one political party is in control of political power either in coalition or separate ruling of entities such as constituent units in federal systems by different political forces. See Thomas Fleiner & Lidija Fleiner (2009) for this.

²¹ TPLF's view of the 'new' EPRDF as opposition force gets all the stronger when EPRDF was replaced by the PP.

because it aligned Ethiopian political forces into ethno-nationalist and pan-Ethiopianist camps as of late 1960s (Asnake, 2009; Merera, 2003).²² Since then, political forces have been in a continuous state of antagonism, which in turn has markedly affected inter-ethnic relationships and the overall stability of the Ethiopian body politic (Yohannes, 2021). While ethno-nationalist forces generally favour the present ethno-constitutional design along with its salient features, pan-Ethiopianist forces repudiate the ethnic federal system and its striking features such as the right of secession (Semir, 2020). That is why the federation found itself in a highly devastating civil war between the federal government forces (apparently pan-Ethiopianist force) and the TPLF forces²³ (ethno-nationalist force) as of November 2020 just a year after the dissolution of the EPRDF or the birth of the PP.²⁴ This seems to suggest that pluralistic multiparty system has little viability in the current ethnic federal context of Ethiopia cohabited by ideologically warring political forces.²⁵ And it remains to be seen whether the present Federal Constitution will still be able to hold contending ethnic nationalisms²⁶ together when the PP has to hand over power to a genuinely pluralistic multiparty system.

The relative ‘peace and stability’ assured during the reign of EPRDF for close to three decades could thus be asserted to spring not merely from the federal constitutional order, but rather largely from the one-party dominant political party system established by the EPRDF and the extra-constitutional doctrines such as revolutionary democracy and democratic centralism employed by the Front to such an end.

No dispute arises over the fact that multiparty democratic politics was officially launched in Ethiopia the moment the TPLF/EPRDF force controlled state power in 1991. The EPRDF’s political conception of democracy was, however, based upon the Marxist-Leninist philosophy whose ideals of democracy are squarely different from the liberal conception of democracy (Abbink, 2011;

²² For detail on the origins of, as well as divisions among, Ethiopian political forces since the late 1960s, see Asnake (2009) & Merera (2003).

²³ In the civil war between the federal government forces and the TPLF forces, ethno-nationalist forces such as OLF-Shene are apparently on the side of the TPLF. OLF-Shene is an armed group claiming to fight for the liberation of the Oromo. The group calls itself the Oromo Liberation Army/OLA. OLF-Shene as a splinter group of OLF has been strongly accused for ethnically targeted killings of dozens of Amharas in East and West Wellega. There exists an attitude that OLA could be the hidden force working to advance the objectives of the long-aged and the popularly known Oromo liberation Front/OLF, which entered into Ethiopia to struggle in peaceful means following the ascent of Dr Abiy. Anyways, OLF-Shene is an armed ethno-national group designated by the HoPR as terrorist group along with the TPLF in May 2021. These two groups have been accused of targeting and attacking civilians and causing damages on public infrastructure.

²⁴ It must be noted here that one of the major factors often raised by ethno-nationalist forces such as the TPLF and the Oromo Federalist Congress (OFC) for their protest of the succession of the EPRDF by PP has been their perception that the succession heralds an end to ethnic federalism. For more on this, see ICG (2019).

²⁵ A point worth mentioning at this juncture, therefore, is the fact that the civil war can be partly attributed to differences in ideology among Ethiopian political forces. This implies that the current federal system was simply imposed upon Ethiopian peoples by the then ethno-nationalist forces who managed to control the country. See Kymlicka (2006) for this. Simply put, the present federal system reflects only the story advanced by ethno-nationalist forces, but not the ideas and views of other political forces, namely the multi-ethnic ones. For detailed information on this, see Vaughan (1994). This has made the present federal experiment a high point of controversy and a reason for continuous antagonisms among Ethiopian political forces.

²⁶ For detailed elaborations on the contending ethnic-nationalisms greatly impacting the stability and future fate of Ethiopia, see Merera (2003).

Hagmann & Abbink, 2011; Merera, 2011). EPRDF was constructed as a communist political organization baptized by Marxist-Leninist ideology (Asnake, 2009; Merera, 2003; Semahegn, 2014). The Front could not nonetheless continue officially as a communist organization due to the change in the global socio-economic and political context early in the 1990s, which marked the end of communism, on the one hand, and the uncontested rise of capitalism, on the other (Data, 2012; Semahegn, 2014). Thus, EPRDF had to construct a peculiar hybrid ideology that draws on some elements of both neo-liberal capitalism and Marxism-Leninism (Abbink, 2011; Data, 2012). This hybrid ideology is ‘revolutionary democracy’ (Abbink, 2011; Data, 2012). Revolutionary democracy was thus an ideology crafted to reconcile the TPLF/EPRDF’s socialist legacy with global capitalism and market liberalism (ICG, 2009). Bluntly speaking, revolutionary democracy was presented as an ideology that underpinned EPRDF’s “third way to governance” (Data, 2012, p. 65).

Although revolutionary democracy had been one of the elusive concepts in the lexicon of the EPRDF, it can be understood from the preceding explanations that revolutionary democracy mainly refers to a Leninist ideology adopted by the EPRDF to hegemonically control the socio-economic and political space in an officially declared context of multiparty democracy in Ethiopia’s federal system (Merera, 2011; Semahegn, 2014). Basically, revolutionary democracy represents “a self-proclaimed anti-thesis of liberal democracy and is based on the Leninist principle of democratic centralism” (Merera, 2011, p. 664). The ideals of revolutionary democracy such as ‘vanguard party’ are supposed to essentially conflict with the ideals of liberal democracy, and that political alternation is not an aim in EPRDF’s revolutionary democratic regime (Abbink, 2011; Bach, 2011; Hagmann & Abbink, 2011; Merera, 2011). In a nutshell, despite the adoption of a multi-party system and liberal economic policies, EPRDF endorsed the ideological line of revolutionary democracy rejecting parliamentary democracy and defending democratic centralism based on a vanguard party (Abbink, 2011; Bach, 2011; Hagmann & Abbink, 2011; Merera, 2011).

The revolutionary democratic ideology of EPRDF could be said efficacious considering establishing a one-party dominant political system by curtailing opposition politics not only of the multi-ethnic/pan-Ethiopian political camp, but also of the ethnic political camp. EPRDF had been predatory of strong and assertive ethnically defined opposition political groups that could mobilize many of their constituencies like the OLF (Kassahun, 2003; Merera, 2011). Otherwise, most of the ethnic political parties have-by the clear admission of the EPRDF itself-been created from above as satellite parties of the ruling EPRDF for an ethnic constituency (Abbink, 2000). Pan-Ethiopian political forces such as the Coalition for Unity and Democracy (CUD) were not tolerated by the EPRDF altogether mainly due to ‘value dissonance’ between the EPRDF and the CUD. In that, the former expounds organization of politics around ethnicity, while the latter resorts to structuring politics crossing ethnic lines²⁷ despite the branding of CUD as an Amhara political organization by EPRDF.²⁸ Needless to say, political forces such as the CUD were not in the political domain of EPRDF because the EPRDF model of ethnic political organization had no interest in trans-ethnic issue politics chiefly due to the

²⁷ Interviews with various prominent academicians, 24 October 2018, Addis Ababa.

²⁸ For additional information on characterization of the CUD during the 2005 election, see Abbink (2006) & Wondwosen (2008).

EPRDF's belief that ethnicity is the right and the primary means upon which democracy could be exercised (Abbink, 2000).

In any case, assertive and genuine political parties whether they take an ethnic political organization form or multi-ethnic one was not tolerated to be politically significant and impactful unless they are associated with the EPRDF regime. The political intolerance of EPRDF towards opposition politics springs from the ideology of revolutionary democracy that never allows the growth of political diversity (Hagmann & Abbink, 2011; Merera, 2011; Semahegn, 2014), and that revolutionary democracy was consciously chosen to fulfil the hegemonic aspirations of the EPRDF leaders at the detriment of political pluralism (Merera, 2011). EPRDF embraced multiparty politics half-heartedly because it never considered the opposition had a right to take power via ballot box (ICG, 2009). Revolutionary democracy could thus be considered as the most significant factor in the development of a one-party dominant political system. This system has, however, positively contributed to restraining polarized political views of Ethiopia's extremely polarized party system, which otherwise would have exploded and destabilized law and order. Stated differently, revolutionary democracy as a central governing ideology of EPRDF helped the Front not only to sustain in power for long but also to creating a one-party dominant system capable of ensuring relative 'peace and stability' for close to three decades in a country otherwise potentially exposed to political instability and insecurity.²⁹

The other crucial extra-constitutional doctrine of EPRDF strongly linked with the ideals of revolutionary democracy had been the 'Leninist principle of democratic centralism'. Democratic centralism is a core tenet of Lenin's version of Marxism (Angle, 2005). Democratic centralism, as its name implies, is described to combine two opposing forms of party leadership: democracy, which allows for free and open discussion, and central control, which ensures party unity and discipline (Semahegn, 2014), and suggests an on-going dynamism between the two poles: democracy and centralism (Angle, 2005). In fact, democratic centralism allows the expression of ideas to a certain point. However, once the vanguard party had reached a decision, all party members including the society have the obligation to abide by those decisions (Semahegn, 2014). After a policy or decision is made by the top leadership of the party, all the people living in that country, let alone members of the party, must abide by it. And thus, the public has no role in contributing its views on the subject since the vanguard party is assumed to act always in the interests of the masses (Semahegn, 2014). Simply put, democratic centralism is about engaging democratic discussion and centralized action at a time. As a product of the leftist movement in Ethiopia, TPLF/EPRDF inherited the organisational principle of democratic centralism and Maoist conceptions of mass political mobilisation from its TPLF founders (ICG, 2009). Consistent with the Leninist conception, democratic centralism of TPLF/EPRDF allows party members to have the right and obligation to discuss agendas presented for them freely, to oppose, support and provide critical comments. At the end of any meeting, however, democratic centralism requires the majority decision to be accepted by the minority. After

²⁹ The 'potential instability and insecurity' assertion is associated with the extremely polarized party system of Ethiopia whose roots went back to the 1960s ESM and the restructuring of Ethiopia post-1991 by the EPRDF along the line of ethnicity, without substantial concord among Ethiopian peoples. See Merera (2003) and Semir (2020) for the political division of Ethiopian political forces on Ethiopia's state history and the varying interpretations of the history by the political forces as well as the correspondingly differing political visions the political forces have embraced.

a decision is made, members have no right to mobilise others against decisions passed by the party (Paulos, 2007). Any opposition to the party's official position can result in serious measures being taken since it amounts to factionalism (Semahegn, 2014). The Leninist principle of democratic centralism has been criticized on various grounds, however.³⁰ Despite such critics, the doctrine of democratic centralism, it could be argued, had been another vital principle underpinning the relative 'peace and stability' seen in the Ethiopian federation for most part of EPRDF together with the doctrine of revolutionary democracy by restraining dissenting views.

The foregoing discussion generally implies that extra-constitutional doctrines such as revolutionary democracy based on top-down principle of democratic centralism were central in holding the Ethiopian federation together for about three decades in otherwise a context of federal multi-party politics brimming with greatly polarizing and antagonizing political discourses disposed to violent ethno-political conflicts. That is why the Federation's relative stability started to wobble since 2016 the moment the extra-constitutional doctrines of EPRDF lost their cogency due to the denunciation of the doctrines by some member parties of the EPRDF, namely the ANDM and OPDO, which stood on the side of the protestors. The defying act of the ANDM and OPDO on contrary to the ideals of democratic centralism, in effect, crippled EPRDF to reassert its central authority and restore stability by taking collective action in Amhara and Oromia regional states. The instability problem has further been aggrandizing following the refusal of the TPLF to form part of the PP since November 2019. In due course, the discord between the TPLF and PP took the federation into devastating civil war, which erupted in November 2020. This, therefore, compels one to question the viability of the current federal system to advance stability in a genuinely pluralistic multiparty system and modestly widen political space unrestrained by extra-constitutional doctrines of governance.

The capacity of the Ethiopian ethnic-based federalism to uphold stability in a context of competitive multiparty politics.

The capability of the Ethiopian ethnic-based federalism for undertaking stable political business thereof promoting the overall stability of the body politic appears to have been partly tested with the modest opening of the political space as of April 2018. Following the political change in 2018, promising political measures were taken to liberalize and widen the political space with an eye to developing competitive party system and fostering Ethiopia's democratic transition. A massive release of political prisoners; the legalization of outlawed groups such as the Ogaden National Liberation Front (ONLF), the Oromo Liberation Front (OLF), and *Ginbot 7*; and the easing of media censorship were, among others, the fundamental political measures taken by the incumbent

³⁰ First, ideals of democratic centralism are contrary to ideals of democratic governance that are enshrined in the Federal Constitution of Ethiopia (Semahegn, 2014). Second, it has fostered subordination of state governments to the decisions of the centre, while the state governments are endowed with numerous constitutional powers; hence restraining the 'self-rule' principle of federalism in the Ethiopian federal context (Assefa, 2012; Semahegn, 2014). Third, democratic centralism has undermined the constitutional principles of accountability and transparency by creating a context in which government businesses were discussed, and decisions made, at party meetings that precede meetings of state bodies (Assefa, 2012; Semahegn, 2014), which in turn inhibit the development of a formal democratic structure (Abbink, 2006; Assefa, 2012; Merera, 2003). Related with this critic is that the decision-making process of the system is largely secretive (Assefa, 2012; Clapham, 2005) and restricted to a tiny politburo or the executive body (Clapham, 2005). Finally, the system of democratic centralism has also been criticized for empowering few individuals exercise absolute power and dominance over ordinary members of EPRDF making members of the EPRDF mere recipients of decisions of those individuals and thus preventing them from asking questions or correcting mistakes in the Front (Semahegn, 2014).

government (the ‘reformist’ government) to such an end.³¹ And it was hoped by many that Ethiopia had been in a right track to politically stabilize and lay foundation for development of stable multiparty democracy.

However, the Ethiopian federation has begun to be engulfed with identity-based attacks and killings, massive displacement of individuals, and destruction of properties in the same year the new premier ascended, just only after some short period of relief and political stability. The continuity of the political crisis in Ethiopia despite a change of leadership in the centre indicates the highly polarizing political tensions that were masked and controlled by the principle of democratic centralism within the former EPRDF coalition, on the one hand. And the same fashion of polarizing political strains that were effectively restrained by the authoritarian culture of EPRDF in the arena of opposition politics, on the other. These two forces: the former EPRDF coalition and the opposition political groups interact in a myriad of ways in the somewhat broadened and liberalized political space leading, however, into ethnically targeted killings of many innocent individuals, massive displacement of citizens, and devastating destruction of the citizen’s hard-earned properties since the political change in 2018.

Most of the atrocities sternly affecting Ethiopian citizens for consecutive years to date following the political leadership change in April 2018 could be largely attributed to the internal political dynamics in the former EPRDF coalition. Although a new balance of power appeared in the EPRDF coalition by assigning the chairpersonship status for an OPDO member (and hence the premiership position), the Front nonetheless failed to immediately set a new plan on how to hold itself together for the federation to politically stabilize and be able to manage conflicts (Semir, 2019). It is evident that the political change in 2018 was made possible because of an alliance created between some ‘reform’ aspiring OPDO and ANDM members from within and the pressures of Oromia and Amhara youth protesters from outside receiving sympathy from some OPDO and ANDM officers, respectively (ICG, 2019; Semir, 2019). Overtime however, even the ‘reformist’ camp within the former EPRDF coalition comprising mainly of OPDO and ANDM groups could not hold the necessary level of inter-group unity in the EPRDF coalition to command over the EPRDF, chart its program and policy, and stabilize the federation (ICG, 2019; Semir, 2019).

The ANDM was the first political party of the four member parties comprising EPRDF, which primarily challenged the ideology of revolutionary democracy and changed its programmatic lines in the first periods of the reform.³² The party, ANDM also renamed itself as ADP. In that way, the ADP organically aligned itself more with Amhara nationalist rhetoric than ever (Semir, 2019). Identity questions of *Welkait* and *Raya* came to be boldly raised by ADP officers as a reflection of Amhara nationalism. Nevertheless, the move of ADP away from revolutionary democracy and official discussions over cases of *Welkait* and *Raya* had created worries on the side of TPLF, a previously influential core group of the EPRDF. Consequently, the TPLF and ADP began to

³¹ *The new premier, Dr Abiy even went to the extent of designating political groups, which normally are called ‘opposition’ political parties, as ‘contestant political parties, not opposition parties’ with a view to conveying a message that both the then ruling party (the EPRDF) and other political parties compete to pursue the same end of creating socio-economically prosperous and democratic Ethiopia.*

³² *Interviews with the former ADP officers, 22 December 2019, Bahir Dar.*

publicize highly conflicting, condemnatory, and incendiary party statements accusing one another although both parties belonged to one political front, the EPRDF coalition.

Essentially, two main reasons could be identified underlying the conflict dynamics between the TPLF and ADP.³³ The first and foremost reason was the ADP's attempt to authentically represent the interests of Amhara people as opposed to its 27-years' rule, by bringing some of the popular issues of Amhara politics on board such as cases of Welkait and Raya as well as rights of 'ethnic' Amharas living outside their 'homeland' state. Raising and politically articulating Amhara interests and issues by the ADP has perceptibly pointed to the rise of Amhara nationalism that had been absent for most part of ANDM's history.³⁴ It is evident that all member parties of the EPRDF coalition save the TPLF had little or no legitimacy in the respective regional states they had long been governing mainly because they were submissive political organizations crafted by TPLF for the TPLF/EPRDF's end (Abbink, 2000; Aregawi, 2008; Berhanu, 2007; Semahegn, 2014). TPLF's feeling of betrayal by ANDM owing to the latter's 'tactical' alliance with the OPDO that brought Dr Abiy into power could be noted as the second important reason producing conflictual relations between the TPLF and ADP. The conflictual and incendiary relations between the once 'sister parties' in the EPRDF coalition-TPLF and ANDM/ADP-suggests that coalition politics particularly of ethnic-based coalition politics is essentially prone to conflictual power dynamics, and thus to political instability unless the coalition is governed by some powerful political group as was the case in the once TPLF dominated EPRDF coalition. The domination of coalitions by some core group would merely serve for some period until internal tensions and external shocks collaborate to 'disturb' the coalition as has been clearly observed in EPRDF's case, however.

It is worth discussing the rising Amhara nationalism in the last days of EPRDF because it has much power in explaining not only the conflictual relations between ADP and TPLF as noted earlier, but also in characterizing the ADP in relation to other Amhara-based ethno-nationalist parties claiming to represent Amhara interests, notably NaMA. In the first place, some members of ADP had various and sometimes opposing political agendas at that time (Semir, 2019). While some of them pursued the Amhara nationalist rhetoric of NaMA, a few more were heavily involved in NaMA's establishment and development. Others considered NaMA's approach of Amhara nationalism too extreme, and thus advocated a more moderate form of Amhara nationalism. Among those who approved NaMA's brand of nationalism, some advocated militancy, while others preferred the softer and political way to secure interests of the Amhara people they claim to represent (Semir, 2019). In the early months of Abiy's government, ADP appeared worried of ascendant ethno-nationalist movements such as NaMA in Amhara regional state (ICG, 2019) because NaMA had received popular attention by the Amhara people.³⁵ It was hoped by ADP that an appointment of Asaminew Tsige³⁶ as Amhara region's security chief would outdo its ascendant ethno-nationalist Amhara

³³ Focus group discussions with prominent academicians and political elites, 21 December 2019, Addis Ababa.

³⁴ For information on organic attempts of constructing Amhara ethnicity and the corresponding Amhara nationalism and its challenges, see Tegegne (1998) & Tezera (2021).

³⁵ Interviews with academic elites, 27 November 2019, Addis Ababa.

³⁶ Asaminew Tsige was a member of the Ethiopian Army. He was a strong opponent of TPLF and jailed in 2009 for his role in a coup attempt, and then pardoned by the federal government of Ethiopia in February 2018 as part of an amnesty by then Prime Minister Hailemariam Desalegn. The assertion is therefore that assignment of Asaminew as security chief

opposition, which is NaMA (ICG, 2019). The appointment of Asaminew thus reflected the ADP's growing ethno-nationalism and its desire to outflank the one-year-old NaMA, an opposition espousing Amhara nationalism. The appointment, however, proved disastrous because Asaminew reportedly directed the assassinations of Amhara leaders in Bahir Dar, the regional capital, and General Seare Mekonnen (Ethiopia's military chief of staff of Tigrayan origin) in Addis Ababa concurrently before himself being killed by security forces (ICG, 2019). From this, it can be noted that the ADP's Amhara nationalism framed during the struggle against the TPLF dominated EPRDF regime had been strongly influenced by the NaMA's new brand of Amhara nationalism, a form of nationalism which seemed sturdier and more assertive. Anyways, Amhara nationalism was stoked with Asaminew Tsige (ICG, 2019; Semir, 2019). The tens of thousands attending his funeral ceremony showed the continued draw of Amhara nationalism, and thus the Amhara leadership's narrow space for compromise (ICG, 2019). The implication that the Amhara leadership would have narrow space for compromise in the face of stoked Amhara ethno-nationalism is underpinned by the theory that ethno-nationalisms often leave little or no space for political middle ground and a political art of compromise (Horowitz, 1985 & 1991; Reilly, 2004). The same holds true for other ethno-nationalisms too. For instance, one of the factors for the loss of warmth of relationships between ADP and ODP once they uprooted the longstanding hegemony of the TPLF in the EPRDF coalition had been the uncompromised stance assumed particularly by radical elements within the OPD regarding conflictual cases such as the present federal system and ownership question of Addis Ababa.³⁷ Radical Amhara and Oromo nationalists were also responsible in worsening the relationships between the ADP and ODP.

The reported assassination of General Seare by Brigadier General Asaminew created some resentment among Tigrayans. Most importantly, the assassination was intensely exploited by the TPLF to reinvigorate Tigrayan nationalism against the newly rising Amhara nationalism and the new federal power.³⁸ Consequently, the relationship between Amhara and Tigray regional states further degenerated. Asaminew had also been accused of worsening the bad blood between Amhara and Oromo by using provocative rhetoric about what he portrayed as 'impending Oromo nationalism' and involving regional security forces in clashes with Oromo militia in an Oromo enclave of Amhara (*Kemise* area) in early April 2019 that left dozens of dead (ICG, 2019, p. 7). Seemingly in retaliation to the early April 2019's damage in Kemise, OLF-Shene took devastating armed measures in North Shewa zone of Amhara regional state that reached an extent of fully destroying the town of *Ataye*. Some dubbed the Kemise area as a reservoir for the propagation of an OLF version of nationalism (Semir, 2019). The preceding discussion over Amhara nationalism implies that stoking some group's ethnic-nationalism would merely fuel other contending ethnic-nationalisms as observed in the cases

of the Amhara regional state by the ADP had considered the person's highly anti-TPLF stance with which to show its (ADP's) loyalty to Amhara nationalism more than other contending political groups such as arguably NaMA.

³⁷ *For details on factors contributing towards worsening the relationships between ADP and ODP, notably before the creation of PP, see ICG (2019) & Semir (2019).*

³⁸ *Interviews with some Tigrayan political elites and regional opposition party leaders, 22 September 2020, Addis Ababa.*

of Tigrayan and Oromo nationalisms, which consequently resulted in vicious cycles of conflicts, harms, and instabilities.³⁹

The OPDO, in the same vein, rebranded itself as ODP following the political change in April 2018. However, the main challenge of ODP was that it oscillated between Oromo nationalism and Ethiopian nationalism (Semir, 2019). In view of this, apparently two competing political wings existed in the high time of the political change. One of the wings had been an advocate of Oromo nationalism fundamentally working for hegemony of Oromo and it was represented by radical Oromo nationalists within and outside ODP network, while the other wing prioritized Ethiopian nationalism engaged mainly in calming rising ethnic nationalisms. The Ethiopianist wing of ODP was popularly known for preaching ‘Ethiopianism’.⁴⁰

The Oromo nationalist wing promoted very radical positions on critical issues such as the existing federal arrangement and the case of Addis Ababa. This wing, for instance, strongly warned of the need for maintaining the current ethnic federal system despite dissenting ideas and views on the existing federal arrangement by other political forces.⁴¹ It also vowed to work for confirming an exclusive ownership of Addis Ababa by one ethnic group, the Oromo (ICG, 2019; Semir, 2019). The Oromo nationalist wing (the radical political group) has generally been advancing a notion that the time is Oromo’s turn to hegemonically rule Ethiopia (ICG, 2019; Semir, 2019) as Amharas and Tigrayans, according to some Oromo nationalists’ claim, did once upon a time (Semir, 2019). For Oromo nationalists, Amhara elites were beneficiaries of the past power imbalance that has now to be reversed in the direction of Oromo elites, while Amhara elites see the Oromos as the new power-wielders and perceive this as a step towards further Amhara subjugation after the TPLF’s iron grip (Semir, 2019).

The radical political position assumed by Oromo nationalists outside ODP’s network was spearheaded by popular figures like Jawar Mohammed. Jawar was at the front stage among the radical Oromo nationalists who had long lobbied for ‘greater Oromo heft’ in the federal government of Ethiopia (ICG, 2019, p. 2). Although Jawar played an important role in coordinating the protests that helped bring Abiy to power, his relations with the new premier (Dr Abiy) have taken a turn for worse as he has reproached Abiy for ‘not doing enough for the Oromo’ since taking office (ICG, 2019, p. 2). Quarrelsome ideas like ‘greater Oromo heft’ and lamenting views such as ‘not doing enough for the Oromo’ essentially represent very divisive and nihilist political attitudes arising from the very nature of the Ethiopian ethnic-based federalism, which constantly creates and puts contending ethnic nationalisms in never-ending conflicts. In fact, winning a greater share of the national cake and pleasing the ethnic groups they claim to represent even at the detriment of the interests of ‘other’ ethnic groups has largely been a characteristic feature of ethnically organized

³⁹ It is to be stressed at this juncture that the political narrations of ethno-nationalist organizations such as TPLF and OLF espousing Tigrayan and Oromo nationalisms, respectively were the major factors for an upsurge of Amhara nationalism in the form of ‘reverse nationalism’ aiming at producing counter political narrations to the political discourses of the TPLF and OLF groups. Despite the ‘reverse nationalism’ conception of Amhara nationalism by Amhara nationalists, others perceive it as ‘expansionist nationalism’, however. For details on conceptions as well as origins of Amhara nationalism, see Tezera (2021).

⁴⁰ *Focus group discussions with various academic and political elites, 12 December 2020, Addis Ababa.*

⁴¹ *Interviews with various academic and political elites, 4 December 2020, Addis Ababa.*

political groups.⁴² Stated differently, the present ethnic federal system appears to further aggrandize the ethno-nationalistic conflicts the system was expected to alleviate by rewarding the growth of contending ethnic nationalisms premised in ‘zero-sum-game politics’.

The above discussion on intra political dynamics of the former EPRDF coalition and its interaction with opposition politics hints the potential of ethnic political forces to take radical positions on ethnically divisive issues, and thus the likelihood of Ethiopia’s political space to be dominated by ‘politics of ethnic outbidding’. This in turn would reinforce further ethnic divisions leading into political instability and eventual crumbling of the common state. Ethnic parties are keen to take radical positions, and the positions assumed by the parties are often irreconcilable with the interests or positions of other ethnic parties thus aggravating ethnic divisions and paving the way to ethnic violence and regime collapse (Elischer, 2013). The Ethiopian federation appears trapped in a critical political problem of ‘bankruptcy of moderation’⁴³ due to ethnically polarized and emotionally overcharged politics.⁴⁴

It, thus, seems that the present time is the high time to depoliticize ‘radical’ ethnicity after discussing conflicting constitutional as well as historical matters in an inclusive and authentic national dialogue. Besides, institutional measures such as redesigning electoral institutions in a way that activate broadly multi-ethnic and accommodative electoral and party politics could also be considered in mitigating the ill effects of radical ethnicity.⁴⁵ The move of EPRDF: a coalition of four ethno-regional parties into Prosperity Party, a single monolithic party appears to find its justification from the need to manage the previously discussed contending ethnic-nationalisms and the corresponding hyper ethnicized politics.

Rationales for the formation of prosperity party (PP) and its challenges in a context of competitive ethno-federal politics

Prosperity party received formal recognition by the National Electoral Board of Ethiopia (NEBE) in December 2019. The party was established through the merger of the three former EPRDF member parties such as ADP, ODP, and SEPDM. The party merger also included the formerly affiliate political parties of EPRDF, namely the Afar National Democratic Party (ANDP), the Benishangul-Gumuz People's Democratic Unity Front (BGPDUF), the Ethiopian Somali People's Democratic Party (ESPDP), the Gambela People's Democratic Movement (GPDM) and the Harari National League (HNL). The Tigray People's Liberation Front (TPLF), the core group in the former EPRDF coalition was the only party that refused to join the new party allegedly on some substantive and procedural grounds. There exist four central features that distinguish PP from the former EPRDF.

⁴² For details on the political and electoral character of ethnically defined party systems wherein ethnic parties dominate, see Horowitz (1985) & Reilly (2004).

⁴³ For information on ‘bankruptcy of moderation’ and the setting in which it occurs, see Reilly (2004).

⁴⁴ It should be reminded that the Ethiopian political landscape has been replete with contending political discourses and antagonistic nationalisms since the 1960s. The present ethnic federal model was accordingly created to accommodate these contending ethnic nationalisms without, however, treating their root causes through open public dialogues and discussions. As a result, these contending nationalisms outburst the moment the political space has been modestly opened up since the political change in 2018.

⁴⁵ For more information on electoral system designs supporting inter-ethnic and political moderations, see Yohannes (2021).

These are: the Party's program/ideology, political orientation/position, political inclusivity, and party organization.

The first distinguishing feature of PP from that of the former EPRDF is its ideology. The socio-economic and political programs of PP are governed by the philosophy of pragmatism. Specifically, PP has espoused 'principled pragmatism' as a leading ideological framework governing the party's way of thinking in directing various socio-economic development policies and programs of the country. The thought of pragmatism has been justified by PP resting upon the need to comprehend the complex and rapidly changing socio-economic and political conditions of Ethiopia to offer hands-on solutions to a multitude of questions and multi-dimensional issues raised by Ethiopians than adhering to some ideological purity or certainty. While revolutionary democracy holds some theoretically fixed socio-economic and political considerations⁴⁶, principled pragmatism focuses on apprehending and addressing socio-economic and political issues based upon flexible and more practical contemplations predicated however on certain principles, and hence the name 'principled pragmatism' (PP, 2020b).

The second central feature distinguishing PP from the former EPRDF is its 'centrist' political position. Two major strands of theoretical frameworks prevail in interpreting and explaining the history of Ethiopian state formation. These are: 'nation-building' and 'nation-destroying' or 'national oppression' theses.⁴⁷ From these diametrically opposite interpretations of the history of the Ethiopian state as 'nation-building' and as 'nation-destroying' and the associated respective governance models of 'nation-state' and 'pure multinational state'⁴⁸, one can see that each of these polarized interpretations have had their own problems.⁴⁹ While the nation-building interpretation undermines ethnic diversity and ethnic identity of Ethiopians, the nation-destroying interpretation equally underestimates unity and the common pan-Ethiopian identity. PP therefore asserts that it is time to capitalize on the political middle ground by not reducing the merits of each of these theses and, hence, balancing ethnic identity and Ethiopian common identity.

One of the primary justifications often advanced behind the formation of PP is the need for cementing 'national unity' by calming down rising ethnic nationalisms through creating a political platform wherein ethnic sentiments and common Ethiopian sentiment could be kept in a 'right' balance (PP, 2020a). This is what PP calls 'centrist politics', a political approach that prefers to take middle position in polarized political contexts such as the Ethiopian one replete with historic-political extremes of 'nation-building' and 'nation-destroying' discourses. The 'centrist' political perspective

⁴⁶ For elaborations on the ideals of revolutionary democracy, see pages from 17-19.

⁴⁷ For detailed information on this, see Asnake (2009) & Merera (2003).

⁴⁸ For elaborations on possible governance models such as 'nation-state', 'state-nation', and 'pure multinational state' models, see Stepan, Linz, & Yadav (2011). The present Ethiopian model perfectly falls in the pure multinational state model of these authors.

⁴⁹ The problem is that while the 'nation-state' model and its associated 'nation-building' thesis overemphasized unity at the expense of Ethiopian ethnic diversities; the present 'pure multinational state' model and its associated 'nation-destroying' thesis, in its turn, overemphasized diversity at the detriment of Ethiopian unity. Bluntly speaking, the problematic nation-state model has been challenged since the 1960s and replaced as of 1991 by another equally problematic pure multinational state model, however. This has been the bone of contention in Ethiopia's history of modern politics.

of PP is greatly informed by Abiy's doctrine of *Medemer* about which a book was published in 2019. Differently stated, PP seems endeavouring to synthesize 'middle' or 'third way' perspective that could bring these polarized narratives to some 'centrist' orientation. PP calls this third way orientation 'Grand narration'.⁵⁰

Grand narration is the political perspective PP advocates to comprehending the Ethiopian past and directing the political future of Ethiopia. Grand narration is described to be a synthesis of the two formerly noted theoretical frameworks or interpretive lenses, in which the nation-building framework is considered 'main theses and the nation-destroying framework as 'antithesis' advancing 'unity-based politics' and 'difference-based politics', respectively. Grand narration as a third way perspective is therefore premised rather in 'politics of multinational solidarity' considering some merits from both the 'unity-oriented' pre-1991 political order and the 'difference-oriented' post-1991 political system (PP, 2020a). Despite this, PP would, however, be challenged to govern Ethiopia in a way that balances ethnic identity with Ethiopian common identity by using the so-called 'Grand narration'. This is because the current ethnic federal model appears to echo ethnic differences at the expense of unity as the making of this federal model was rooted in the antithesis of nation-building perspective thus representing only one of the major strands employed to interpret the Ethiopian past, which is the national oppression thesis or nation-destroying perspective. In view of this, PP may seek to initiate for review of the present federal model to restructure it in a way it can balance ethnic identity with overarching Ethiopian identity; otherwise, PP's centrist grand narration would not find an appropriate institutional room to work in and ensure the party's all-inclusive and tempered political objectives and goals.

The third central feature distinguishing PP from the former EPRDF pertains to the party organization espoused by it, something that has to do with an attribute of PP's political inclusivity, as well. PP has come into life as a successor of EPRDF through merging three of the Front's former member parties, namely ADP, ODP, and SEPDM as well as by including affiliate parties of the former EPRDF that were governing the so-called 'developing' regional states such as Somali, Benishangul-Gumuz, Gambella, Afar, and Harari. The affiliate parties were not voting members of the EPRDF and so had little or no role in EPRDF's party affairs, and thus in countrywide political decision-making. The decision that has made former affiliate parties of the EPRDF to be included as part of an 'all-inclusive' multi-ethnic political party, PP has accordingly been appreciated particularly by members of the EPRDF's affiliate parties. They said that the inclusion decision has marked an end of the outmoded political approach of dividing Ethiopian peoples as 'center' and 'periphery'.⁵¹ Undeniably, the former EPRDF bears only the name 'Ethiopian', while it excluded so many Ethiopian groups, such as the ones stated before, mainly due to their pastoralist way of life that was considered unqualified to subscribe to the ideology of revolutionary democracy with which EPRDF was governed.⁵² The inclusion logic of PP goes beyond embracing groups such as the former affiliate parties of EPRDF as the logic extends to providing political space for individual Ethiopians too. The assertion is that millions of Ethiopians, especially urbanites who are of complex ethnic makeup, feel

⁵⁰ Interviews with higher officers of PP, 16 October 2021, Addis Ababa.

⁵¹ Interviews with various political and academic elites of the so-called 'developing' regional states, 21-23 March 2021.

⁵² Interviews with former officers of affiliate parties of the former EPRDF, 9 February 2021.

that they are not adequately represented in the ethnic federal arrangement of Ethiopia (ICG, 2019). This is because not just those ethnically unaffiliated individual citizens are left out of political representation, but that EPRDF's mode of representation arguably delegitimizes them (Melaku, 2019) by sponsoring a singular and largely primordially defined ethnic identity. In fact, EPRDF's mode of political organization could be said a proper-fit when considered from the perspective of the ethnic federal arrangement that basically view Ethiopia as a federation of various ethnic groups. In this vein, EPRDF was a federation of four ethno-regional parties 'representing' some ethnically defined communities. For this reason, an exclusionary politics of EPRDF, insofar as individual Ethiopians who are of complex ethnic makeup is concerned, springs from the bias of the Ethiopian ethno-constitutional federal system that principally speaks about 'knit and well-defined' ethnic groups than individuals. One of the explanations underlying the formation of PP, therefore, seems to lie in the need to confirm the political participation and representation of individuals in Ethiopian politics apart from safeguarding group participation and group rights.

The discussion made above on the central features of PP largely reveals that reconciling ethnic identity with common Ethiopian identity, balancing group rights with individual rights, boosting political inclusivity, reversing ethnic fragmentation and political polarization, and cementing national unity have been the underlying reasons for the formation of PP. It is also worth mentioning that rebranding EPRDF to increase its popularity and legitimacy by Ethiopian groups and citizens have been another factor for the ending of EPRDF and the beginning of PP.⁵³ This implies the desire of Abiy's leadership to move away from a much criticized and highly discredited system of EPRDF. In spite of these explanations, critics contend, however, that the conversion of EPRDF into PP cultivates majoritarian political democracy, at best, and heralds an end of the Ethiopian ethnic federal system by weakening regional autonomy or rights of ethnic groups, at worst.⁵⁴ As such, PP is seen by its opponents as a sponsor of Ethiopian 'civic nationalism' moving from 'ethnicity-based' federalism into 'territory-based' federalism by snatching political powers away from Ethiopian ethnic groups (ICG, 2019) and sliding back to the pre-1991 situation.⁵⁵ Its supporters, on the contrary, present PP as a centrist political organization helpful of mitigating radical ethnic divisions through balancing ethnic sentiment and pan-Ethiopian sentiment thereby cementing national unity and solidarity in an all-inclusive platform recognizing the diversity and contributions of all Ethiopians. In any case, ethnic federalism appears to be one of the first and foremost challenging factors in the 'centrist politics of PP.

Ethnic federalism would challenge PP's centrist politics in three distinct and yet interrelated ways. One is through cultivating a hotbed for ethno-nationalist parties that may structure their party politics along radical ethnicity and in a way that outbids multi-ethnic political forces like PP. This, in effect, could disturb the 'centrist' political orientation of PP in election campaigns and day-to-day political businesses. Ethnic parties lack transferability across communal boundaries and are thus predisposed to take any action at any cost to remain a primary choice by their groups they claim to represent,

⁵³ Interviews with officers of PP, 9 February 2021, at the Party's Head Quarter, Addis Ababa.

⁵⁴ For details on such critics, see ICG (2019).

⁵⁵ Such an interpretation of the move of EPRDF into PP notably by some Oromo and Tigrayan nationalists has been becoming a major factor challenging PP's centrist politics from outside.

particularly should there be an intra-group competition with a potential of ‘ethnic outbidding’ (Horowitz, 1985). Put it differently, the electoral logic of ethnic parties is to harden their ethnic base with highly particularistic, exclusive, and polarized appeals to ethnic groups they claim to represent with a view to garnering the required votes from them (Gunther & Diamond, 2003). Ethnic parties, in pure sense, seek to mobilize only the votes of their own ethnic group (Gunther & Diamond, 2003). One can, for instance, take the politics over Addis Ababa’s ownership. While radical Oromo nationalists vow to work for confirming ownership of Addis Ababa by a single ethnic group (Oromo), PP advances a notion that Addis Ababa belongs to all Ethiopian groups, and yet need to be socio-economically linked with Oromia’s territorial administrations surrounding Addis Ababa in a ‘win-win’ fashion. From these competing political stances, ethnic-political forces promote exclusive and radical politics, whereas multi-ethnic forces foster inclusive and moderate politics. The challenge, therefore, is that the ethnic political forces may have a chance to dominate the electoral space in election periods by promoting exclusive, emotion laden, and radical appeals that cannot be equivalently reacted upon by multi-ethnic political forces like PP due to its ‘compromised and ‘centrist’ political stances over ethnically divisive issues. Ethnic parties often mobilize powerfully emotive symbolic issues of identity (Gunther & Diamond, 2003). In effect, the multi-ethnic forces may lose votes from ‘median voters’ possibly dragged by radical and exclusive politics of some ethno-nationalist forces. In this case, PP may, for example, lose votes in Oromia regional state and Addis Ababa due to some Oromo-based ethno-nationalist political forces pursuing radical politics insofar as Addis Ababa is concerned. This is just one side of the story telling the possible interaction between PP and radical Oromo-based ethno-nationalist forces. The other side of the story will be the political response by other ethno-nationalist forces like NaMA, with vested interest on the case of Addis Ababa, for those Oromo-based ethno-nationalist forces advancing exclusionary politics concerning Addis Ababa.⁵⁶ NaMA, accordingly, could come up with an equivalently radical political position on the ownership question of Addis Ababa as it did once by the time the former ODP declared a statement vowing to work for an exclusive ownership of Addis Ababa by the Oromo group.⁵⁷ In the same vein, the reaction of NaMA on the case of Addis Ababa may consequently attract voters in Amhara regional state and Addis Ababa to vote for NaMA along the line of ethnicity by taking median voters from PP. The cumulative effect could be weakening and dissolution of the multi-ethnic political force, PP. Simply put, radical ethno-nationalist parties might be strengthened by exploiting and filling in the apparent ‘ethnic political gap’ created with the dissolution of the former multi-ethnic alliance organization of EPRDF and the ensuing formation of PP, a multi-ethnic unified party with no ethno-nationalist parties. It is vital to note that multi-ethnic alliance parties can effectively compete with ethnic parties by means of the ethnic components they comprise in a polarized ethnic context. In so doing, multi-ethnic alliance parties tend to develop adaptability to resist flank pressures (Horowitz, 1985). It remains to be seen whether PP as a multi-ethnic unified political force would be challenged by radically moving ethno-nationalist parties in future elections

⁵⁶ *It is worthwhile reminding the once highly strained political confrontations between the former ODP and Amhara-based ethno-nationalist forces, namely NaMA following a statement by ODP. In the statement, ODP vowed to work for securing ownership of Addis Ababa by Oromo. The statement, as a result, created fissures and conflicts among sister parties of the former EPRDF.*

⁵⁷ *It should be noted here that NaMA was building its own narration on who rightfully owns Addis Ababa as a counter reaction to the exclusivist ownership rhetoric of radical Oromo nationalists. See Eyob (2020) for this.*

as well as day-to-day political businesses provided that a reasonably competitive multiparty politics holds. It is to be stressed, however, that PP's Congress is formed out of ethno-regional states from which members of the National Congress are drawn based on population size of the ethno-regional states and number of party members in each regional state (ICG, 2019). This indirectly implies the fact that PP still exists along ethno-regional lines despite the merger and creation of a single monolithic party. The party may, therefore, use its ethno-regional lines/branches acting like a 'congress party' to compete with ethno-nationalist parties in and out of elections. For that matter, congress parties⁵⁸ tend to act differently at different orders of government. Their electoral appeal is to national unity and integration, ethnic sharing, and coexistence at national level, while they stress particularistic issues such as distribution of benefits through a vast array of patron-client networks at local level (Gunther & Diamond, 2003). Such sort of behaviours seems to be somehow observed in PP's politics that PP emphasizes overarching issues like national unity and all-inclusive politics at national level, while its ethno-regional leaders are occasionally alleged of advancing very particularistic agendas at local level, which ostensibly are at odds with the party's overarching, national agendas. This could be a political tactic or strategy employed by multi-ethnic political forces to survive the ethnic-outbidding political challenge they confront from ethno-nationalist forces.⁵⁹ Otherwise, due to radical competition from ethnic parties and lack of alternative cleavage lines, multi-ethnic parties could disintegrate into ethnic wings (Elischer, 2013) leading into a 'bankruptcy of moderation' (Reilly, 2004) in a polarized ethnically defined party system. Such dynamics make multiparty politics tense and conflict-ridden preparing the political environment for serious ethnic violence (Elischer, 2013). Eventually, the prevalence of radical ethnic parties and the political dynamics they produce can lead either to the imposition of an autocratic one-party state—often imposed by a governing multi-ethnic party to avoid the further deterioration of state cohesion—or by a military coup conducted by the army to restore stability and peace (Elischer, 2013). A more concrete case, regarding the difficulty multi-ethnic political forces face in polarized ethnic party systems, could be Abiy's government strain sandwiched between Oromo ethno-nationalists and other ethno-nationalists particularly in 2019/2020. In such systems, acceding to one group's demands risks eliciting violent reactions from other groups (ICG, 2019).⁶⁰

⁵⁸ *Whether PP could be identified as a congress party might be debatable on the ground that it no longer consists of ethnically defined parties unlike the former EPRDF, which was an alliance of four ethno-regionally defined parties. However, PP still seems to exist along ethno-regionally defined wings that arguably make it manifest some characteristics of congress parties.*

⁵⁹ *The potential of such political tactics or strategies, however, seem limited in countries like Ethiopia wherein not only many of the ethno-regional constituencies are habited by ethnically mixed population but also some competing interests exist in few political issues such as the ownership question of Addis Ababa, which consequently could make those political tactics or strategies backfire against the congress party, PP in this context.*

⁶⁰ For detailed information on the difficulty sandwiching the premier and his party between polarized interests, particularly insofar as issues related to the Oromos and Amharas, see ICG (2019). Another more concrete case to illustrate the fragility of multi-ethnic unified political parties in a context of polarized ethnic politics is the fragmentation of SEPDM along ethno-local lines (Semir, 2019). The SEPDM was a broader multi-ethnic political force representing dozens of ethnic groups in the SNNPRS. Technically speaking, such political platforms consisting of many ethno-political groups are known as 'congress party' (Gunther & Diamond, 2003). Members of SEPDM were pulled into their own ethnic constituencies in the face of an upsurge of autonomy and statehood questions raised in SNNPRS at the height of Abiy's 'reformist' agendas than trying to articulate and assert collective Southern regional interests in the internal

Restraining alternative cleavage lines is the second way through which ethnic federalism challenges the ‘centrist’ politics and endurance of PP. Although more recent works on partisan preference in Africa suggest that ethnicity is only one of several factors driving African politics, most scholars studying African politics take the enduring significance of ethnic/communal boundaries as a starting point for their analysis (Elischer, 2013). In black Africa, ethnicity is the most salient factor of political mobilization (Salih & Markakis, 1998). Ethnicity has played a marked role in redefining Ethiopian modern history and politics as of late 1960s and has thus become a primary factor of state organization and political representation as well as mobilization since 1991. Due to this, the Ethiopian party system along with the political parties operating within it has been strongly ethnically defined (Solomon, 2014; Yohannes, 2021). This has made ethnicity the fundamental cleavage primarily structuring party politics in the Ethiopian ethnic federal system. Differently stated, ethnically defined parties are more likely to garner votes and thrive by promoting exclusive and radical agendas over a multitude of ethnically divisive issues in the current context of Ethiopia. This opportunity is created for them by the ethnic federal system, which has uniquely recognized only one form of social cleavage (ethnicity) and enabling it to assume a primary political fault line at the detriment of all other potential cleavage lines. This in turn compels politicians to stick to organize along ethnic lines because such organization of politics pledge them secure electoral support or, in the words of Horowitz, “politicians who can count have something they can count on” in ethnically polarized systems (Horowitz, 1985, p. 295). It is in such a context that PP is established to promote ‘moderate’ and ‘centrist’ political agendas and stances. Durable multi-ethnic parties and coalitions are rare exceptions in ethnically divided societies, and moving to single-party politics in such societies has proved futile (Horowitz, 1985). It is evident that lack of alternative cleavage lines is one of the first and foremost reasons adversely affecting the modest politics as well as the very continuity of multi-ethnic and non-ethnic parties (Elischer, 2013). Based on an ethno-territorial political structure, neither multi-ethnic nor ideological parties representing ‘universal’ values are likely to have a real chance in the future in Ethiopia (Thomas Fleiner & Lidija Fleiner, 2009). It remains to be seen whether PP will survive the challenge springing from ethno-nationalist forces and succeed in its ‘centrist politics’ in a context characterized by a singular cleavage as opposed to the context of multiple cleavage lines sound for the growth of multi-ethnic and non-ethnic political forces.

The dragging potential of ethnic federalism of every socio-economic issue down into ethnicity, just one identity among many other identities, is the third way through which the Ethiopian ethnic federal system challenges PP’s ‘centrist’ rhetoric and politics. PP’s party document notes that PP would not pursue a political direction that exposes Ethiopian peoples to different forms of structure/system-born exploitations based on identities (PP, 2020a). From this, it can be implied that PP recognizes the fact that the current federal arrangement has been systematically disempowering individual

politics of EPRDF unlike ADP, ODP, and of course TPLF. The fracture of SEPDM along ethno-local lines seems to confirm the theoretical assertion that the broader a congress party is, the more vulnerable it will be to fracture along ethnic and regional lines (Gunther & Diamond, 2003). Put it differently, the worse political condition of SEPDM during the EPRDF’s crisis worse than any of the member parties of the EPRDF (Semir, 2019) concurs with the idea that multi-ethnic parties are strongly vulnerable to centrifugal stresses in sharply divided contexts (Elischer, 2013; Horowitz, 1985).

Ethiopian citizens by virtue of their ethnicities in the guise of empowering ethnic groups.⁶¹ This is why PP warns a political system solely depending on a singular identity as something that risks efforts and moves of the Party to ensuring all-rounded prosperity by radicalizing identity-based politics and at the same time relegating idea-based politics (PP, 2020a). This suggests that PP aspires to structure Ethiopian politics around multiple cleavages. It is stressed in PP party document that consociational democracy has been chosen as a transitional strategy⁶² to move towards idea-based politics by crafting civic political culture on a bedrock of multiple cleavages. The goal of exercising consociational democracy would thus be constructing civic political culture, which, according to PP, is a manifestation of modern political system (PP, 2020a). Despite this political calculus, PP would still be markedly challenged both by inside and outside radical ethno-national forces insofar as the ethnic federal system persists in its current form and spirit. The point is that the ethno-national forces would ethnicize every aspect of socio-economic life and, as such, make Ethiopian ethnic groups feel treated unfairly. In effect, the ethno-national forces would collect political profits by mobilizing the groups they claim to represent and aligning them to vote along ethnic lines. This divisive opportunity has, in fact, been provided for them by the ethnic federal system of the country. Needless to mention, the Ethiopian state had long been perceived to favour the Tigrayans for most part of the EPRDF rule. In the same vein, the PP rule has presently been viewed by many to favour ethnic Oromos.⁶³ This is of a lucid implication that the task of building a common state perceived by citizens as ‘neutral’ is ‘second to none’ particularly in the context of Ethiopia where majority of the socio-economic and political issues are ethnicized due to the existing ethnic federal arrangement. And the root cause for this has been the embellished constitutional focus accorded to ethnicity⁶⁴ and the concomitant political practices engendering ethnic tensions, inter-ethnic mistrusts and clashes, and perceptions of grievances based on ethnic origins. Once in place, ethnic parties aggravate ethnic divisions (Elischer, 2013).

CONCLUSIVE REMARKS

The overall analyses and discussions made above on the nexus between multiparty democratic politics and Ethiopian ethnic-based federalism demonstrates that it is hardly possible to ensure stable multiparty democracy in an ethnic-federal context replete with highly polarizing and antagonizing political discourses cultivated by ethnically defined party system under the current Ethiopian

⁶¹ For details on how the ethnic federal system both empowered and disempowered ethnic groups in Ethiopia, see Semir (2019).

⁶² However, one, all the major warring parties, namely the TPLF, NaMA, OFC, OLF-Shene, and the like have not been included in the consociational platform. Two, consociational democracy is just one democratic governance model that could be employed by divided societies as one ‘permanent’ governance structure to bring stable democracy as enunciated by Lijphart (1969). Despite this, PP has simply treated consociational democracy as a transitional strategy to move towards idea-based politics. Thirdly, the intentions of PP to subdue the salience of ethnicity appear to contrast with the primordial conception of ethnicity underlying consociationalism. This is because primordial percept of ethnicity embedded in consociational democracy has a great deal of potential in radicalizing ethnicity than mitigating it. For more on this, see Yohannes (2021).

⁶³ Interviews with academic and political elites of different ethnic origins, 12-18 October 2021, Addis Ababa.

⁶⁴ For details on the overinflated focus accorded to ethnicity in the Ethiopian federal arrangement, see the 1995 FDRE Constitution.

federalism. The existing ethnic-federal arrangement favours territorially concentrated ethnic groups and ethnically organized political forces more strongly than it does individual citizens and multi-ethnic as well as non-ethnic political forces. Very often however, particularistic ethnic parties mostly dwell on cultivating only their own ethnic supporters making political compromises on divisive ethnic issues hard to come by (Horowitz, 2003) as witnessed in some of the cases reviewed in this article, such as the design of the current federal system itself and the ownership politics of Addis Ababa.

The ethnic-federal system of Ethiopia would be increasingly risky in the time to come as it provides no incentives for different political forces to work together and forge polity-wide consensus on divisive ethno-political agendas. Over time, the ethno-political polarization coupled with a progressive opening of the political space could lead to a political environment in which many ethno-nationalist political forces join the central parliament, the House of People's Representatives (HoPR) to the extent that mirrors the ethnic composition of federal Ethiopia. This might, however, occur at the expense of multi-ethnic political forces that could bridge polarised and fragmented ethnic appeals. Bluntly speaking, the consequence of continuing with the current ethnic federal system would be nasty, as this system could create a political stalemate in a legislative parliament replete with highly polarised ethno-political agendas thereby fostering political instability and paving the way to eventual crumbling of the common state. This reminds us of the warning of Donald Horowitz that, in divided societies, elections amount to a census: "under conditions of free elections, groups in polarised societies will line up behind ethnically based political parties representing their respective groups" (Horowitz, 1991, p. 96). This makes durable multi-ethnic parties and coalitions rare exceptions where ethnic divisions are sharp (Horowitz, 1985). Needless to mention, the current ethnic-based federal system has sharpened ethnic division than ameliorating it.

In clear terms, the Ethiopian ethnic-based federalism has challenged the development of stable multiparty democracy primarily by cultivating and enabling radical ethno-nationalist forces at the detriment of broadly accommodative and moderate political forces. Secondly, the federal arrangement has been adversely affecting the development of stable multiparty democracy by restraining alternative cleavages other than ethnicity from coming into the political scene as potent factors of political mobilization. Finally, the ethnic-federal arrangement has undermined the growth of stable multiparty democracy by dragging every socio-economic issue down into ethnicity and, as such, compelling Ethiopian ethnic groups and individual citizens feel treated unfairly, which is inimical to democratic stability.

The Ethiopian federation, therefore, needs to be redesigned in a manner that assigns balanced constitutional status and rights for individual citizens and ethnic groups. Should the Constitution be redesigned in a way it moderates the salience of ethnicity and in a manner that strikes 'right' balance between ethnic and multi-ethnic political forces, some benefits would be accrued. One, it may help in subduing the political force of ethnicity by creating additional competing cleavage lines, in which multi-ethnic and non-ethnic political forces would be more likely to flourish. Two, it may reduce the fear of ethno-nationalists that ethno-regional autonomy would be undermined mainly because the centre would not be interested in undercutting ethno-regional autonomy if a 'right' political balance is created between the centre and the ethno-constituent units in a federal model such as multinational/multicultural federalism. Three, it may also help in managing the current system's proneness to 'ethnic hegemony' and the ostensibly associated unnecessary ethnic-based competitions for hegemony within multi-ethnic political forces such as the former EPRDF coalition and the present ruling party, PP. These political merits would, however, be realized in a federal design such as

multinational/multicultural federalism⁶⁵ potentially creating ‘right’ balance between individual rights and ethnic group rights through moderating the salience of ethnicity. Such a structural solution espousing multinational federalism in reforming Ethiopia’s federal design should also be backed by undertaking authentic and all-inclusive national dialogue capable of addressing divisive historical issues supposedly existing among Ethiopian ethnic groups. In this way, the country’s inter-ethnic solidarity and overall political stability would be commendably promoted.

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⁶⁵ In respect of the characterisation of pluralist federalisms as “multinational/multicultural federalism” and “ethnic federalism”, see Fleiner (2011) & Kemlicka (2006) who describe Ethiopia as an instance of ethnic federalism, not multinational or multicultural federalism.

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2. THEME 2: ECONOMY & DEVELOPMENT

2.1. The Effect of Rural Road Access on Rural Poverty Reduction; Evidence from Selected *Weredas* in Amhara Regional State

Abeje Ewunetu

*Lecturer, Department of Development Economics and Management College Finance,
Management and Development, Ethiopian Civil Service University
Email: aewunetu@gmail.com/abeje.ewunetu@ecsu.edu.et*

ABSTRACT

The development of appropriate road infrastructure is fundamental to economic growth and poverty reduction. Rural roads, especially, are very important for economic development in rural areas. However, despite such importance, data show that Ethiopia's rural road transport has remained low. This study aims at investigating the effect of rural road access on rural poverty reduction. Concerning the methodology, a mixed research approach involving descriptive and explanatory designs was used. This study compares (using propensity score matching techniques) households located in Keble's with road construction to suitable controls. The result from matching revealed that households in villages with good access have up to 6% higher asset index. The results of the study also revealed that women who are employed by road investment projects, on average, have 24% to 25% higher level of self-worth than those who are not employed. It is therefore recommended that local and regional government needs to improve roads in areas where the poor live.

Key words: Effect, Rural Road transport, poverty

INTRODUCTION

Physical infrastructure is often indicated as a key input to economic growth both in developed and developing countries (Roberts et al, 2006). Rural road investment is one of the main priorities of governments in Africa as a mechanism towards reducing poverty. It is also an important aspect considered by the development community in the poverty alleviation process and the provision of more equitable opportunities for rural citizens (P Lombard and L. Coetzer, 2016). A study by Abedi (2008), revealed that Sub-Saharan African countries roads are the most useful way of transport which accounts for over 75% of passenger and freight traffic, and the road network in the region plays a significant role in their socio-economic development. In many developing countries especially in Sub Saharan African transport sector and infrastructure fall far behind that of developed countries (Lulit A, 2012).

Road transport in Ethiopia is the dominant form of transport in the country accounting for well above 90 per cent of motorized inter-urban-rural freight and passenger movements (ERA, 2013). In addition, as indicated in a document produced by CSA and ERA (2013), given the fact that about 83 percent of the population lives in rural areas being engaged in agriculture (which employees 80 percent of the labor force) using road transport (which accounts 90 percent of rural transport), the role rural road transport plays in the country in the role rural road transport and agricultural growth is expected to be tremendous. Recognizing the importance of roads, the government of Ethiopia has embarked on massive investment on road construction by formulating the Comprehensive Road Sector Development Program (RSDP) in 1997. Since then, the RSDP has been implemented in four separate phases, and as part of the fourth RSDP, a Universal Rural Roads Access Program (URRAP)

envisaged to connect rural kebeles by standard rural roads has been set out and implemented (Fredu N and Edris H, 2016). A recent report (World Bank 2018) shows that connectivity and accessibility of rural Ethiopians have substantially improved since 2010, the average travel time to the nearest town decreased by nearly 30 minutes between 2010 and 2016. An additional 6 percent of rural Ethiopians were connected to rural roads during the same period, as the rural accessibility index (RAI) increased from 46 in 2010 to 52 in 2016. As a result, market accessibility improved except for some lagging regions. Therefore, the issue of rural road construction deserves special attention. Hence, this study was concerned on the effect of rural road access on rural households' livelihood improvement. The remainder of the paper has been divided into the following sections: statement of the problem followed by methodology applied. Next, the result and discussion from this empirical analysis is followed by the last section of the paper, conclusion, and recommendation.

Appropriate road infrastructure development is essential for economic growth and poverty reduction. Previous empirical works, Calderon and Serven, (2014), ADB (2012), Fredu and Edris (2016), show that rural roads infrastructure development reduced poverty and improved the quality of life, especially for the poor and narrowed down the income gap between citizens. However, considerable barriers to the growth and development of rural areas in Ethiopia have existed and are also being experienced today.

Due to a lack of integration with urban regions caused by inadequate accessibility and transportation, poverty is frequently much worse in rural areas than in urban centers (Fredu and Edris, 2016). Poor rural accessibility and poverty are extremely linked; when people are isolated, they are unable to harness the economic and social opportunities within a wider geographic region. Poor accessibility also makes diffusion of new technologies difficult, contributes to high transaction and production costs, and limits access to health, education, and other social infrastructure (Hajj and Pendakur, 2000).

Similarly, Amhara region's transportation sector is in its infancy. Most of the people and goods move by use of human and/or animal muscles (Tsetadargachew, 2016). Most of the roads in the Amhara region are dry-weather roads, making access challenging during the rainy months. Additionally, there was a very weak road network connecting the region to the zones and Woreda's. Poverty is pervasive in the Amhara region and the rate is higher than the national average. In 2011, the Amhara region had a child poverty rate of 34 per cent. Based on the 2016 household income and consumption expenditure survey (HICES), about 26.1percent of the population in the region were below the nationally defined poverty line compared to 23.5percent for the entire country (UNICEF, 2018). The road density of the region is one of the lowest in the Ethiopian territory. Areas of the region are highly neglected and remain isolated for a long period of time. High cost of transport and weak competition exerted strange influence on the development and patterns of transport in that region. The low level of transport development results in the lack of territorial interdependence and weak linkage among productive centers (Tsetadargachew, 2016).

There are few studies that have made progress in establishing a clear causal link between the provision of road infrastructure and any wealth indicator, even though literature correctly identifies many of the areas where the positive impacts of such investments are anticipated (i.e., agricultural production, employment, income, health, or education). Most research studies conducted so far were mainly done based on panel data with national coverage. In addition, there is very little information on the status and the role rural roads play in economic development. This is due to the absence of well-conducted research work and lack of disaggregated data. So, the provision of disaggregated information on the effect of road infrastructure helps local government to formulate appropriate

policy. This study is, therefore, unique in that it has specific coverage with primary data making it important for local government. Hence the fundamental research question is.

- *How does rural road access affect rural household's livelihood improvement?*

Specifically, the study aims to.

1. *Analyze the contribution of road development in the study area.*
2. *Identify the effect of rural roads access on livelihood assets (wealth) status of affected households.*
3. *Examine the effect of rural roads access on women empowerment in study area.*

METHODOLOGY

To respond to the research effectively and properly, mixed research approach involving descriptive and explanatory (quasi – experimental) research designs were employed. The researcher employed descriptive research design to examine the effect of road development on poverty reduction of the study area since such design helps the researcher to describe magnitude and practices and processes of rural road access. An explanatory research design was employed to study the effect of rural road access (intervention variable) on the various outcome variables such as livelihood assets and women empowerment by propensity score matching method. This study employed cross-sectional research, mainly due to the absence of longitudinal data on the issues under study.

In the context of this study, treatment group involves those households who reside in the kebeles hosted the investment and directly affected by road access (affected group) whereas the comparison group is the households that reside in the kebekles where road access is absent and so not affected by the event of investment (non-affected group). Both quantitative and qualitative types of data were collected from primary and secondary sources.

Furthermore, data analysis was carried out using descriptive and inferential statistics such as Propensity Score matching model by using STATA version 14. The matching will be based on a distinctive variable, that is, the propensity score. Outcome variables are variables which resulted from access to rural roads. The livelihood index of households was used as an outcome variable to measure livelihood assets status of households. The study constructed indexes to measure women's empowerment which are conceptualized along two dimensions: cognitive (self-worth) and decision making. These standardized indexes are thus used as outcome variables in the PSM model. The methodology is essentially based on studies by Rosenbaum and Rubin (1983).

Sample Size

Two kebele households having access to road (treated) and the other two kebeles with households near to poor road access (control) were selected based on their similarity in social, economic, and agro-climatic characteristics. The sample size was determined using the formula; $n = \frac{N}{1+Ne^2}$. A total of 395 sample farm households of the study were selected using simple random sampling technique from the four-sample kebele's in a proportional to size of each kebele. The table below shows the distribution of sample households by kebele.

Affected kebele	No of households	Sample size	Non affected kebele	No of households	Sample size	Total no of households	Total Sample size
Weyinye	5,838	80	Ledi	7,671	105	13509	185
Dima	8,653	119	Debir Kidusan	6,679	91	15332	210
Total	14,491	199	Total	14,350	196	28,841	395

Source: own computation based on CSA 2007 data, 2021.

Methods

For this study both quantitative and qualitative methods were employed to undertake the process of data analysis. In analyzing the data, the researcher used both inferential and descriptive statistical tools. Propensity Score matching model will be employed to determine the relationship that will exist between dependent and independent variables.

Impact indicators: the impact/ livelihood indicators used in this study were: Household livelihoods Assets index (financial, physical, human, and social capital): Households were asked detailed questions about current ownership of different productive assets, schooling enrolment of families in the households, monthly income and saving, and participation in formal and informal group.

This impact indicators were assumed that road access improves household's livelihood asset capital.

Results

Descriptive analysis

Extent of Rural Road Access

Table 1 shows that, of all respondents, 59.1% replied that the roads in their location are gravel (all-season roads), while the remaining 40.9% indicated that the roads are dry weather roads.

Table 1, major type of road used by respondents.

Type of road	Frequency	Percent
Asphalt	0	0
Gravel	233	59.1
Dry weather	161	40.9
Total	394	100%

Source: Survey data, March 2022

On the other hand, table 4:2 shows travel patterns by distance from the road. As a result, of the total respondents, 43.3% live less than 5 kilometres from the major road, 34.7% live between 6 and 10 kilometres away, and 22% live more than 10 kilometres away.

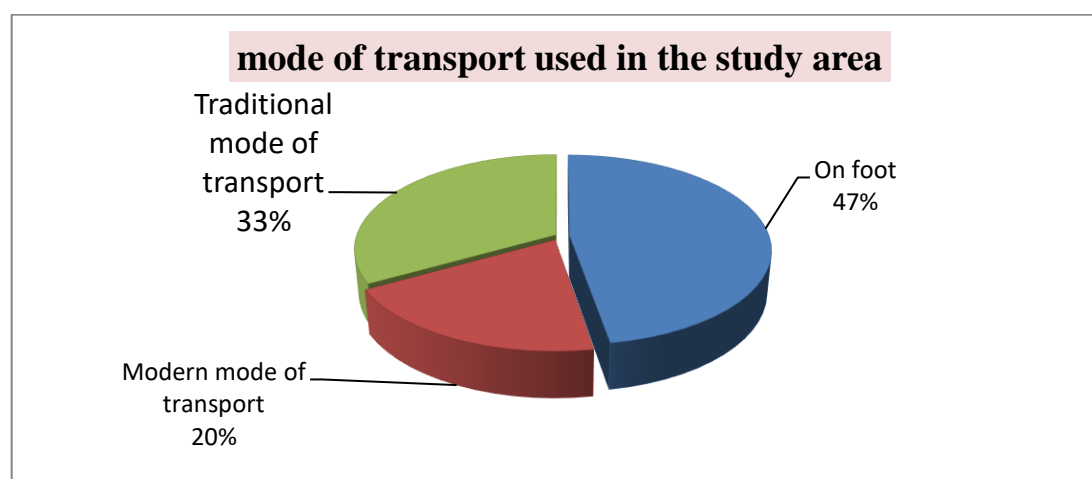
Table 2, Level of Accessibility in the study area

	Distance from all-weather road	Frequency	Percent
Road accessibility	Up to 5 km	171	43.3
	6 -10 km	137	34.7
	>10 km	86	22
	Total	394	100%

Source: Survey data, March 2022

The researcher observes that walking is a common form of transportation in rural areas with limited access to modern modes of transportation. The overall distribution of the major mode of transport used is presented in chart 1. The distribution of mode of transport in chart 1 shows that 47% of them have used foot and 33% traditional mode of transport. The rest 20% have used modern mode of transport (chart 1).

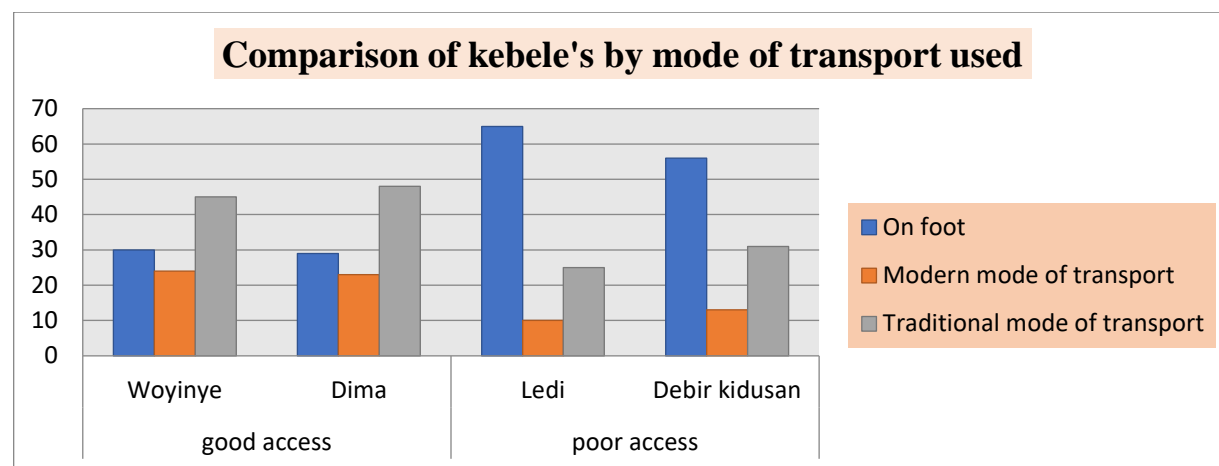
Chart 1: Type of mode of transport used in the study area.



Source: Survey data, March 2022

Chart 1 below compares the modes of transport utilized by households in villages with good access versus households in communities with little or no access. The result shows that the proportion of households in villages with poor and good access tends to use on foot and traditional mode of transport facilitate respectively. In non-affected Keble 's, the dominant mode of transport is foot. Chart 1 also shows that traditional mode of transport was the most used facility for affected kebele households while on foot transport was the second most used mode of transport.

Chart 2: Comparison of households based on mode of transport used by *Kebeles*.



Source: Survey, March 2022

The contribution of road development for improvement of social services

Road access and Agriculture

Agriculture is the major sector for the study area households. A variety of crops are grown by farmers for both personal consumption and for sale. Lack of road infrastructure, however, influences the selling of agricultural products. Farmers use pack animals and human portage to transport marketable agricultural products to far-off marketplaces. As indicated in table 4.3 below, out of the total respondent 79% responded that a road has high contribution on use of agricultural inputs. The table also shows that from the total respondents about 82% of them responded that there are variations in prices of agricultural products between places accessible to road and those with less access. The table below shows respondents agreement.

Table 3; Use of road access for agricultural inputs

Item	Criteria	Frequency	Percent
Agricultural input usage differed across locations with good access to roads and those with low access to roads.	Strongly Agree	117	29.7
	Agree	195	49.55
	Disagree	57	14.43
	Strongly disagree	25	6.32
	Total	394	100%
Prices of agricultural goods are greater in locations having access to roads than in those without roads.	Strongly Agree	122	30.95
	Agree	201	51
	Disagree	27	6.85
	Strongly disagree	44	11.2
	Total	394	100%

Source: Survey data, March 2022

The application of modern inputs is displayed in the table below by distance from a road. According to the table, the rate of fertilizer use by rural households correlates with distance to the road. Households close to the road apply more than two times that of households located more than 11 km from the road.

Table 4: Fertilizer and seed application by distance from road

Item	Distance from road		
	Up to 5 km	6 to 10 km	>11km
Fertilizer and seed use	55% (217)	25% (99)	(20%)78

Source: Survey data, March 2022

Households were further asked what would have happened to their purchase of fertilizers and seeds if the road was not constructed. Table 4.5 below summarizes the response.

Table 5: Purchase of fertilizers and seeds without a road

Purchase of fertilizers without a road	Frequency	Percent
Cannot purchase inputs	64	16.24
Purchase smaller amount	246	62.43
Purchase same amount	84	21.33
Total	394	100%

Source: Survey data, March 2022

Results indicate that the majority (62%) of respondents said they would have responded by purchasing a smaller number of inputs. On the other hand, 16% of the respondents said that they would not have purchased inputs if roads were not constructed. The rest 21.33% said they would continue to purchase the same number of inputs they are purchasing now.

Road and market Access

It is believed that rural roads have made it easier to visit markets. With the development of rural roads, rural communities will be able to interact more with nearby and distant markets. In this survey, questions have been asked regarding the sales of agricultural products and how the marketing of agricultural products has altered because of road development. Table 4.6 below summarizes the result. As the communities in the study sites are predominantly rural, highly dependent on rainfall agriculture, most households sell cereals. The number of households engaged in vegetables and fruits market is quite small, less than 23% of the rural communities.

Table 6: Participation of households in sales of products

Product type	Frequency	Percent
Cereals	224	56.9
Vegetables	51	12.94
Fruits	43	10.86
Other Products	76	19.3
Total	394	100%

Source: Survey data, March 2022

Survey participants were questioned regarding how their sales of agricultural products have changed following the construction of the road and to what extent the changes are attributed to the road to relate to the development of roads. According to Table 4.7 below, most respondents working in the agriculture industry believe that their product sales have grown because of the road's development.

More than 74% of respondents reported that their sales of these products have increased since the construction of the road, which reflects most of the changes in agricultural products produced primarily for the market like vegetables, fruits, and other products. However, the development of roads may or may not be attributed to the growth in sales. More than 30% of the respondents surveyed believe that the construction of roads is solely attributed to the changes. Most, however, think that both roads and other factors have a role in the changes. In general, it can be observed that the construction of rural roads has enhanced the marketing of agricultural products.

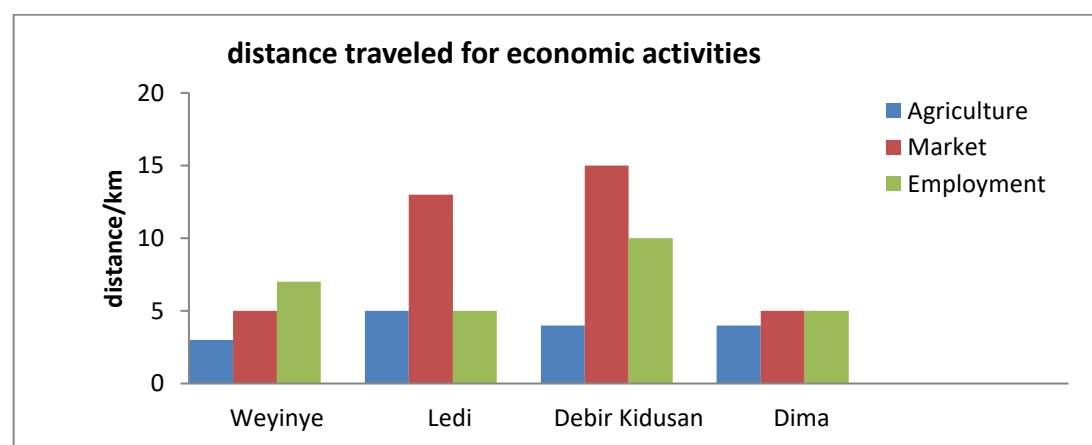
Table 7: Changes in sales of agricultural products

Product type	Change of sales			Change of sales attributed to road	
	Increase	Decrease	No change	All the change	Part of the change
Cereals	67	-	33	31	69
Vegetables	74.5	-	26.5	37	63
Fruits	79	7	14	36	64

Source: Survey data, March 2022

The following graph looks at the objectives of travel. Market travel has been identified as the primary economic mode of travel in three villages. Market travel, however, differs significantly from village to village. The main form of economic travel identified in three communities is market travel. Market travel, however, differs significantly from village to village.

Chart 3: distance traveled for economic activities.



Source: Survey data, March 2022

In Debir Kidusan, the average market distance per person is more than 15 km, which is three times the average market distance in Weyinye. Ledi has a longer market travel than Debir Kidusan. A

probable explanation for this discrepancy in market travel is that Weyinye and Dima both have somewhat working kebele-level marketplaces, whereas Debir kidusan and Ledi don't have any.

Effect Of Rural Roads Access on Wealth Status of Households

Rural households were asked about their participation in commercial activities as well as the kinds of commercial activities they engage in. Only 60 households (15.23%) of survey respondents were involved in business. The types of business operations are compiled in Table 4.8 below. Trading in animals, grain, and other agricultural products is the most typical kind of commercial activity in rural communities. Small retailers make up close to 25% of all commercial operations, which is followed by the trading of livestock and other agricultural products, which accounts for close to 50% of all commercial activity. The third most common type of commercial operation is the sale of local beverages such areqei, tela, etc.

Table 8: type of commercial activities

Activities	Frequency	Percent
Trading of livestock and other agricultural products	30	50
Small shops	15	25
Selling local drinks, food, tea, and coffee	9	15
Barber	6	10
Total	60	100%

Source: Survey, March 2022

Respondents to the study were questioned about whether they began their economic activities before or after the development of rural roads to link the two. As seen in Table 4.9 below, most economic operations (65%) didn't start until the road was built. 77% of commercial activities were started or restarted because of the construction of rural roads if we include those that were functioning before the construction of the road but were closed for a while and resumed after the construction of the road.

Table 9; Operation of commercial activities

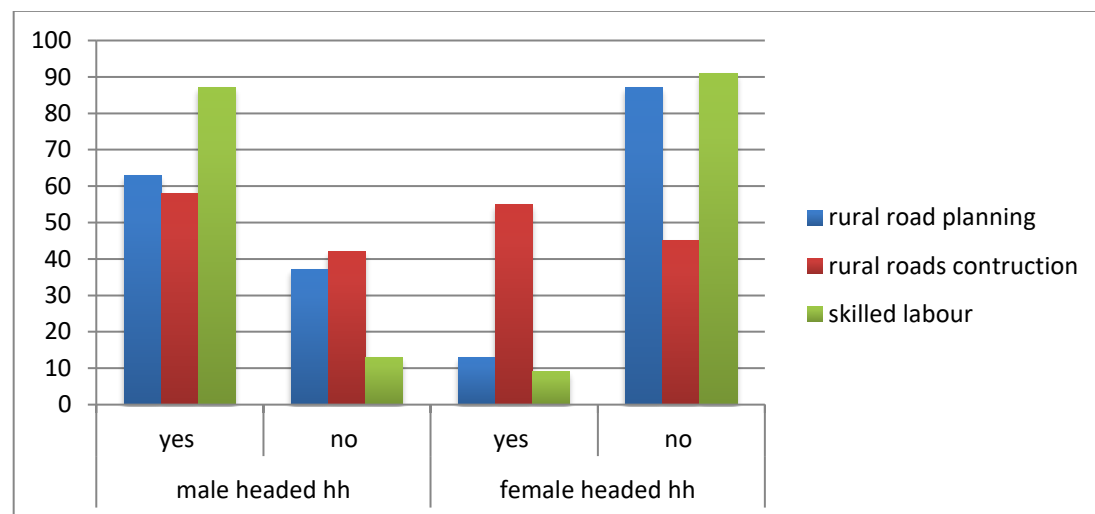
Item	Frequency	Percent
Operating before construction of road	12	20
Reopened after construction of road	15	25
Opened after construction of road	33	55
Total	60	100%

Source: Survey, March 2022

The Effect of Rural Roads Access on Women Empowerment

Respondents were asked their level of participation in different decision-making areas. As can be seen from chart below, majority of decision regarding road planning, construction and participation in skilled labor is made by males. For example, only 13%, 55 %, and 9% of female headed households said ‘yes’ for their level of participation in road planning, construction, and skilled labor respectively.

Chart 4: Respondents level of participation in decision making



Source: Survey, March 2022

Result from the Econometrics Analysis

Evaluating The Impact of Rural Road Access on Household Livelihood

The balancing property was selected in estimating propensity scores. The use of the balancing property ensures that a comparison group is constructed with observable characteristics distributed equivalently across quintiles in both the treatment and comparison groups (Smith and Todd, 2005).

In constructing the matching estimates, common support was imposed. Four matching methods, radius matching, the nearest neighbor and Kernel matching methods were used to estimate the impact. Comparing results across different matching methods can reveal whether the estimated project effect is robust (Khandker et al., 2010). Road access, the dependent variables in the impact assessment analysis, takes the value of 1 if a household has road access and 0 otherwise.

Summary of Variables Used in the Impact Analysis

Descriptive statistics of different variables used in the analysis measured in terms of some demographic and other wealth indicators. The average household size and age of the household head of the total sample were 1.87 and 18-45 years respectively. 50.13 percent of the survey households are female headed and the remaining 49.87% is male headed.

Road = Accessible

Variable		Obs	Mean	Std. Dev.
Family size	174	1.710983	.8336984	
Physical capital	174	5.063218	1.747508	
Average monthly income	174	6595.402	1983.86	
Average monthly saving	174	806.6092	826.756	

ULGDP = non-accessible

Variable		Obs	Mean	Std. Dev.
Family size	220	2	.9215829	
Physical capital	220	3.436364	1.970222	
Average monthly income	220	3738.409	1846.635	
Average monthly saving	220	269.9091	446.7058	

Source: survey 2023

There are some differences between accessible and non-accessible households (road). Overall, demographic characteristics suggest that households in accessible areas are better than those in non-accessible kebeles. This is confirmed by answers on asset ownership. Not only are demographic characteristics very different between project and comparison areas, but responses on financial, social, and human capita are also consistently better in project areas. About monthly saving, on average, accessible kebele households save 806 birrs. And those households in non-accessible kebeles on average save 270 birds.

ATT Estimation Results

This section presents and discusses the estimation results of matching estimators of household livelihood assets and all estimations are bootstrapped standard errors. The researcher used “ATT and t- value” columns to evaluate the impact indicators. To estimate the causal effect of the project on areas that received it, I used kebeles that did not have road access as counterfactuals. Under the assumption that these areas are valid counterfactuals (i.e., they would have followed similar trajectories in the absence of the road access), assessing whether the road access influenced the outcomes of interest is equivalent to examining whether areas that have the road access had a differential change in outcomes, when compared to the comparison areas.

The balancing property was selected in estimating propensity scores. The use of the balancing property ensures that a comparison group is constructed with observable characteristics distributed equivalently across quintiles in both the treatment and comparison groups (Smith and Todd, 2005). In constructing the matching estimates, common support was imposed. Four matching methods, radius matching, the nearest neighbor and Kernel matching methods were used to estimate the impact. Comparing results across different matching methods can reveal whether the estimated project effect is robust (Khandker et al., 2010).

The PSM results presented in table 4.10 below support the conclusion that access to roads does improve household livelihood index, indicating that the difference in asset capital index between households in kebele’s with road access and without road access ranged from 1% to 6% depending on the matching method used. The matching estimators show that the average differences in household human capital (schooling) across kebele households with and without road access do not appear to be statistically significant. This might be because of the free educational services provided in Ethiopia generally and in the study areas.

Table 10: Impact of access to roads on household livelihood: PSM results

Indicator	Matching Method	Treatment	Control	ATT	Standard error	T-test
Phy-Cap Index	SS matching	195	188	0.017	0.024	0.717
	NN matching	195	169	0.030	0.029	1.032*
	Kernel matching	195	188	0.015	0.024	0.643
	Radius matching	195	188	0.011	0.021	0.522
Soc-Cap Index	SS matching	195	188	0.030	0.037	0.800
	NN matching	195	169	0.024	0.047	0.513
	Kernel matching	195	188	0.032	0.038	0.844
	Radius matching	195	188	0.063	0.039	1.627*
Fin-Cap Index	SS matching	195	188	0.051	0.018	2.845**
	NN matching	195	169	0.058	0.022	2.665**
	Kernel matching	195	188	0.048	0.020	2.460**
	Radius matching	195	188	0.039	0.023	1.718*

Source: Survey, March 2022

* Significant at 10% level; ** =significant at 5% level.

It was hypothesized that road access improves household wellbeing and asset ownership. By and large, these results do support the hypothesis that road access increase household's physical capital index in kebeles that have road access. ATT based on all matching estimators were positive and significant (at 10% level of significance). Considering the significant estimators, the mean difference in physical asset ownership index between households in accessible and non-accessible kebele household's ranges from 1 to 3%. This result is a clear indication that households with road access are benefiting thereby improving their livelihood asset ownership.

It was also hypothesized that road access has a positive impact on social capital. The result also showed the existence of positive impact between social capital and road access. The matching estimator shows that the mean differences in household's social capital (participation in formal and informal groups) between accessible households and non-accessible households were statistically significant (at 10% level of significance). Considering the significant estimators, the mean difference in social capital index between households with road access and non-accessible kebele household's ranges from 3 to 6%.

Hypothesis for financial capital stated that road access has a positive impact on amount of household income. As expected, the researcher found that the mean difference in financial capital index between households with road access and non-accessible kebele household's ranges from 3 to 5%. This effect was statistically significant at the 5% significance level.

Evaluating The Impact of Rural Road Access on Women Empowerment

The researcher used propensity score matching (PSM) model to correctly estimate the actual impact of employment on the women empowerment. I estimate the average treatment effect on the treated

(ATT) - the average difference between empowerment level of employed (treated) and non-employed (comparison) women by using PSM matching like nearest neighbour (NN), radius, kernel, and stratification (SS).

By using a combination of matching methods, the impact of road access on self-worth level of women ranged from 24% to 25% in terms of improving the level of self-worth. This implies that women who are employed by road investment projects, on average, have 24% to 25% higher level of self-worth than those who are not paid. As far as decision making index is concerned, the impact of employment ranged from 37.5% to 37.7% improvements in the value of the index. In other words, the difference in decision making index between employed and unemployed women due to employment, on average, was 0.376% 0.376% 0.377% and 0.375 % for NN, SS, kernel, and Radius matching.

Table 11; Impact of employment on women empowerment level: PSM results

Indicator	Matching Method	Treatment	Control	ATT	Standard error	T-value
SW index	SS matching	65	67	0.257	0.070	3.647***
	NN matching	68	39	0.258	0.080	3.244***
	Kernel matching	68	64	0.246	0.064	3.834***
	Radius matching	68	64	0.244	0.054	4.530***
DM index	SS matching	65	67	0.376	0.043	8.817***
	NN matching	68	39	0.376	0.043	8.694***
	Kernel matching	68	64	0.377	0.039	9.781***
	Radius matching	68	64	0.375	0.035	10.621***

Source: Survey, March 2022

* Significant at 10% level; ** =significant at 5% level; *** =significant at 1% level

Generally, the finding in this study reveals that road access is an important tool to increase women household's economic empowerment effort and development process in rural areas. Therefore, assessment of the counterfactual scenario where road is not introduced, and the potential economic impact of the road access show strong rationale for the proposed intervention.

DISCUSSION

The study examined the extent of rural road access in the study area. This part deals with the analysis of rural road access based on data gathered from the study area. The advantages of having access to a road network are measured in terms of decreases in the amount of money needed or the amount of time required by beneficiaries to reach output markets or important public social services like agriculture. Thus, the study finds that in terms of access to all-weather roads and the use of modes of transportation, rural communities in the area under study have varying degrees of accessibility and mobility. The use of modern modes of transportation for agricultural-related activities is sparse, and walking is still the dominant mode of transportation for most farmers. Even though all-weather roads are becoming more accessible, most rural farmers still rely primarily on foot for agricultural transportation. This result is consistent with what other studies have already found (Naod & Bamlaku, no date, Hika, 2017).

The study compared households in Kebeles with good access to those with poor access in terms of the modes of transportation they used. The study shows that households in Kebeles with good and poor access typically use walking and traditional modes of transportation, respectively. The main means of transportation in Kebeles without road access is on foot. The results also show that accessible kebele households most used traditional modes of transportation, with walking coming in second. The implication is that households in villages with poor access have low adoption rates for both traditional and modern forms of transportation.

Interestingly, the result is also consistent with empirical studies elsewhere. For example, Fredu and Edris (2016) found that Walking constitutes well over 80% of all trips in all the four villages with some minor differences among villages in Tigray. Moreover, Naod & Bamlaku (no date) indicated that real consumption per capita for households using traditional mode of transport would increase by as much as 7 per cent when compared with those using foot as a major mode of transport.

Agriculture is the major sector for the study area households. Different crops are produced by farmers for both consumption and sale. However, a lack of road infrastructure influences the selling of agricultural products. As a result, producers use pack animals and human portage to transport marketable agricultural products to far-off marketplaces. According to the survey, households with good road access also have good market access. This suggests that improved road accessibility may help in obtaining market information, lowering the cost of transportation, and improving means of transportation, all which aid in the production of more marketable agricultural products.

Most low-income and developing countries exhibit comparable trends (Escobal, 2002). According to the analysis made by Escobal, (2002), improvements to rural roads may result in lower transport and transaction costs, which may increase the supply of agricultural products available for sale or the effective price paid to the farmer, both of which would raise agricultural income. It can be argued that the absence of roads makes it more difficult to provide these essential services and ensure that rural populations use them effectively. Although the communities in the study areas are rural and primarily reliant on agriculture for their subsistence, it is anticipated that non-farm activities, particularly small business activities, will play a role in diversifying income sources and sustaining the lives of rural households as infrastructure and rural towns grow.

Lastly, the study investigated the effect of rural road access on rural households' livelihood improvement. Matching econometrics modelling approach was used to analyse data. In this regard, the results demonstrate that road access positively and significantly improved the livelihood of accessible kebele households as measured by the livelihoods asset capital index.

The result from econometrics analysis revealed that access to roads does improve household livelihood index, indicating that the mean difference in asset index between households in villages with road construction and poor access ranged from 1% in physical capital to 6% in social capital depending on the matching method used though the result is not statistically significant. Deborah, *et al*, (2008) has found similar findings using survey data from Ethiopia, Zambia, and Vietnam. This article explores how effective such investment is in addressing mobility and social-service accessibility in rural areas. The findings indicate that, in extremely remote areas, road improvements may catalyze the expansion of social-service provision, as evidenced in Ethiopia.

In addition, the study revealed the impact of road access on women empowerment. The first dimension of empowerment is women 's decision making power in a family which is operationalized as the ability of women to make a major decision that affect the life of household members. The second one is self-worth which is conceptualized as women 's awareness about the situation and causes of their subordination at the household level and makes decisions that may stand against

patriarchal culture in the society. The econometrics analysis revealed that by using a combination of matching methods, the impact of road investment on self-worth level of women ranged from 24% to 25% in terms of improving the level of self-worth and the difference in decision making index between employed and non-paid women due to employment, on average, was 37%.

CONCLUSION

This study examined the effect of rural road access on household's livelihood improvement. Access to roads has a decisive impact on the likelihood of household's livelihood improvement among rural households. In line with the empirical evidence I found, roads are imperative for livelihood improvement in rural areas. This study shows households who have better road access accrue more benefits than those with no access. Both the descriptive statistics and the econometric models provide evidence that expanding road networks improve household's income. The government's focus on road infrastructure has therefore contributed to household livelihood improvement in the study area.

In addition, the study examined the effect of rural roads access on livelihood assets (wealth) status of households measured by household livelihood index. Matching econometrics modeling approach was used to analyze data. In this regard, the results demonstrate that access to roads does improve household livelihood index. After matching, the mean difference in livelihood assets index between households in villages with good and poor access is up to 6%. Lastly, the study also finds that, despite the positive sign of the impact values, the engagement of women in paid work has a significant effect on their empowerment level in terms of both self-worth and decision-making dimensions in the study area. After matching, the difference in self-worth and decision-making index between employed and non-employed women is 24% to 25%. Finally, it can be concluded that in a low-income country like Ethiopia improving road access can have strong developmental effects.

RECOMMENDATION

As the study found, the area is poorly linked with road transport and farmers mostly produce for consumption. Thus, rural Keble needs to relate to market centers to collect the products during harvesting seasons. This calls for the adoption of a more intermediate mode of transport. In addition, the result shows that making efforts towards gender mainstreaming in rural road construction increase women household's economic empowerment. Thus, there need to be greater engagement of women in road planning and implementation.

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2.2. Making Investment work for sustainable development: Pressing Need to Integrate Sustainable Development in the Investment Regulation

Abiyot Mogos

Assistant Professor, school of law, Salale University

Email: abiyot00@gmail.com

ABSTRACT

A flourishing Ethiopia based on inclusive growth and sustainable development grounded upon respect for human right and democracy is aspiration of all nations, nationalities and peoples in Ethiopia as reflected under preamble of the FDRE Constitution. Meanwhile investment can be asserted as one weapon to actualize this aspiration, yet it may also cause tragic social, environmental, and human right impacts that undermine effort toward sustainable development unless effectively regulated. Considering this, principles of sustainable development recognized under related international guidance and FDRE Constitution requires balanced integration of economic, social, and environmental pillars of sustainable development in investment governance, but these qualities are missing from the Ethiopian investment laws. Recently Government of Ethiopia realized need to revitalize its investment laws and adopted a new investment proclamation in January 2020. Unfortunately, the revision was mainly dictated by need to support what was dubbed ‘home grown economic reform’ focusing on economic dimensions of investment such as liberalization, facilitation, attraction, retention, and expansion while almost neglecting sustainability dimension of investment like environmental, social, and human rights concerns. This paper is thus intended to devise possible ways of holistically integrating the three pillars of sustainable development into the Ethiopian investment law and aware the stakeholders in that direction. To this end, it employed doctrinal and comparative research that utilizes both primary and secondary sources to draws lesson from emerging trends and experience of South Africa. Accordingly, based on the relevant international guidance and experience of South Africa, the paper devised reforming preamble, revisiting definition of investment, inserting interpretative clause, reforming objective of investment, calibrating investor’s right with sustainable development, inserting investor’s obligation and democratizing investment administration as possible ways of integrating sustainable development into the Ethiopia’s investment law.

Key Words: Ethiopia, Investment law, Sustainable development, South Africa

INTRODUCTION

The flourishing Ethiopia based on inclusive growth and ‘sustainable development’ grounded upon bottom-up approach, respect for human right and democracy is aspiration of all nations, nationalities and peoples in Ethiopia as reflected under preamble of the FDRE Constitution.¹ However, the need to ensure other competing principles like environmental objective was resulted in the inception of the new approach to development also called sustainable. Sustainable development at this juncture implies process that improves living standard of people inclusively while respecting the environment, based on bottom-up agendas and priorities.² It embraces the three interdependent and mutually reinforcing pillars; economic growth, social development, and environmental protection as integral part of development process.³

Meanwhile, the importance of investment as the primary engines to achieve sustainable development objectives in all economies has been strongly affirmed specially for developing countries like Ethiopia. However, investment may also have a tragic social, environmental, and human right

impacts on local communities unless there is effective investment law that will be used to avoid or minimize such side effects of investment. Considering this, sustainable development has important implications for the regulation of investment. While for the investor the main concern is about generating profit, for host countries and communities the main aim is (or should be) to mobilize assets and capabilities to promote sustainable development. In this regard, it has been firmly asserted under different international conference relating to sustainable development to which Ethiopia is participatory, that addressing social and environmental issues, inclusive and equitable economic deal, respect of human right, sustainability impact assessment, and placing people at center of investment process are key aspects of investment process and policy.⁴

¹Para 1& 2 of the preamble of the FDRE Constitution reads ‘We, Nations, Nationalities and Peoples of Ethiopia: Strongly committed, to building a political community founded on rule of law and capable of ensuring lasting peace, guaranteeing 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...**’ As can be inferred from this preambular objective, advancing economic and social development with due respect to fundamental right and is considered key objective of establishing Ethiopian Federation

²Cotula L., Foreign Investment, Law, and Sustainable Development: Handbook on Agriculture and Extractive Industries, (Natural Resource Issues No.31.IIED, 2nded.) (2016)

³ Johannes barge declaration on sustainable development, Johannesburg, South Africa, 2 to 4 September 2002, [hereinafter Johannesburg Declaration]

The principle of integration adopted as the outcome of these conferences dictates integration of economic, environmental, and social concern into the investment process. Ethiopia has actively participated in different international conference on sustainable development and shown up a commitment to implement sustainable development.⁵ Accordingly, the FDRE constitution granted right to sustainable development along with right to environment and dictates every investment program and policy of the country to ensure such right to sustainable development.⁶ However, various study and reports of the alerting institutions have shown that that essence of sustainable development is missing from Ethiopian investment practice and governance. For instance, The Oakland Institute (OI) and Human Rights Watch (HRW) reported mass violation of human right under guise of investment in Ethiopia and forcefully implementing investment project without consultation of local community, and even against their opposition.⁷ It is also questionable that investment project in the country are implemented without making prior assessment or regardless of its social impacts on the society to which the opening of ‘donkey slaughterhouse’s by Chinese company in Bishoftu town ,that is absolutely insult to the cultural right of the local people, is apparent evidence.⁸ Besides, some literature and scholarly articles in ¹Para 1& 2 of the preamble of the FDRE Constitution reads ‘We, Nations, Nationalities and Peoples of Ethiopia: Strongly committed, to building a political community founded on rule of law and capable of ensuring lasting peace, guaranteeing 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...’ As can be inferred from this preambular objective, advancing economic and social development with due respect to fundamental right and is considered key objective of establishing Ethiopian Federation.

⁴ See *inter alia* *Rio Declaration on Environment and Development. Annex I to the Report of the United Nations Conference on environment and Development, Rio de Janeiro, 3-14 June 1992, UN Doc. A/CONF.151/26 (Hereinafter Rio Declaration); New Delhi Declaration on the Principles of International Law Related to Sustainable Development, ILA, September 2002, (hereinafter the New Delhi Declaration), & the Johannesburg Declaration.*

⁵ Federal Democratic Republic of Ethiopia (FDRE), Environmental Protection Authority, (EPA), National Report of Ethiopia, the United Nations Conference on Sustainable Development (Rio+20), Addis Ababa, 2012

Ethiopia has actively participated in different international conference on sustainable development and shown up a commitment to implement sustainable development.⁵ Accordingly, the FDRE constitution granted right to sustainable development along with right to environment and dictates every investment program and policy of the country to ensure such right to sustainable development.⁶ However, various study and reports of the alerting institutions have shown that that essence of sustainable development is missing from Ethiopian investment practice and governance. For instance, The Oakland Institute (OI) and Human Rights Watch (HRW) reported mass violation of human right under guise of investment in Ethiopia and forcefully implementing investment project without consultation of local community, and even against their opposition.⁷ It is also questionable that investment project in the country are implemented without making prior assessment or regardless of its social impacts on the society to which the opening of ‘donkey slaughterhouse’s by Chinese company in Bishoftu town ,that is absolutely insult to the cultural right of the local people, is apparent evidence.⁸ Besides, some literature and scholarly articles in the areas discloses the negative impacts of investment on environment⁹ and the tragedy that investment is causing on human right and social values of local and indigenous community.¹⁰

⁶ FDRE Constitution, Proclamation No 1/1995, Federal Negarit Gazetta, 1st Year No.1, 1995, At Art. 43,44& 89.

⁷ See *inter alia*, Human Rights Watch, *waiting here for Death: Forced Displacement and Villagization in Ethiopia’s Gambella* ,2012; Oakland Institute, *Development Aid to Ethiopia, Overlooking violence, marginalization, and political repression*, 2012.

⁸ The information accessed from Addi’s fortune website at

<https://addisfortune.net/articles/donkey-meat-up-for-export-slaughterhouse-opens/> uncovered that the donkey slaughterhouse in Bishoftu started its operation regardless of the protest by the local community though later forced to closure.

⁹See for instance, Mulugeta Getu, *Ethiopian floriculture and Its Impacts on the Environment, Regulation, Supervision and Compliance*, MIZAN LAW REVIEW, Vol.3 No.2, (2009)

¹⁰ see for instance Daniel Behailu, *Large-Scale Land Acquisition in Ethiopia – Towards Attracting Foreign Direct Investment*, JLAEA Vol. 3 Issue 1, 279-295(2015)

That way, the motto of investment for sustainable development in the country remained unfulfilled promise for Ethiopian people and ended up in political instability that targets the destruction of investment property.¹¹

At this juncture, it can be stated that these and similar burning issues under guise of investment in the country are partly attributable to lack of plausible investment laws that adequately integrate elements of sustainable development. In this regard, Elias Nour¹² and Fikremarkos Merso¹³ have triggered debate that the then Ethiopian investment law failed to adequately integrate the three pillars of sustainable development, though their research has nothing to do with the recently enacted new investment law. In that work, Elias seems to give emphasis on objective of investment laws as the proper place to incorporate sustainable development in Ethiopia's investment laws, but it can state that reforming the objective is the only part of the story and for the better result, the provisions of the laws as whole needs to be harnessed for sustainable development through all possible means. The study of Fikemarkos on the other hand is limited to environmental pillars only. Besides, the current Author¹⁴, has also conducted socio -legal research that disclosed the economic, environmental, and social impacts of investment in the country, and inadequacy of the then investment law of the country in addressing these challenges. Hence, while the prevalence of economic, social and environmental impacts of investment in Ethiopia, and the inadequacy of the then country's investment laws to appropriately integrate the three pillars of sustainable development is established in the literature by the aforesaid writers, none of them has pinpointed a holistic and forward looking ways based on the emerging trends experience of other counties so as to provide road map that serves as basis to equally integrate the three pillars of sustainable development in the Ethiopia's investment law. Consequently, being Inspired by the pressing economic, social (human right) and environmental impacts of investment in Ethiopia and inadequacy of the existing Ethiopian investment laws

¹¹Human right watch (2017) at <https://www.hrw.org/world-report/2017/country-chapters/ethiopia>

¹²Elias Nour, Development and Improved Living Standards: The Need to Harmonize the Objectives of Ethiopian Investment Law, 2013(1) LAW, SOCIAL JUSTICE & GLOBAL DEVELOPMENT JOURNAL, (2013)

¹³Fikermarkos Merso, Green Growth, Investment, Environment and Sustainable Development in Ethiopia, COUNTRY REPORT: ETHIOPIA, 5 IUCNAEL EJournal, 163-171

¹⁴ Abiyot Mogos, making investment work for sustainable Development: A pressing need to integrate sustainable development into the Ethiopian Investment Law", 8(1) OLJ ,51-84, 2019.

to responds to these investment related challenges for sustainable development; and the ignorance of these sustainable development related challenges of investment in the recently adopted investment law of the country, this paper aimed at devising possible ways of holistically integrating the three pillars of sustainable development into the Ethiopian investment law.

It is recalled that Ethiopian government has recently realized the need to revitalize its investment law and adopted new investment proclamation on January 30, 2020, yet the revision is mainly dictated by the need to support what is called 'home grown economic reform' focusing on issues like investment liberalization, facilitation, attraction, retention and expansion¹⁵ while almost neglecting sustainability dimension of investment like social environmental and human rights issues. This study is thus

important timely alert the concerned body to rethink and revisit the new investment law in the ways that fully integrate three pillars of sustainable develop to mobilize investment for sustainable development while mitigating its economic, social (human rights) and environmental impacts.

METHODOLOGY

Research approach

To achieve the desired objective of devising possible ways of integrating sustainable development into the Ethiopia's investment law, the study employed doctrinal and comparative research methodology that drawn lesson from the emerging trends and experience of South Africa. South Africa is selected because she has made revolutionary steps in modernizing her investment laws considering sustainable development objective by adopting the most celebrated investment act that effectively integrate sustainable development into investment regulation.

Data Types and Data source

The study is basically a library based and utilizes secondary sources. The secondary source of data includes various international instruments, guidelines, principles and policy frameworks, the relevant laws of Ethiopia including the FDRE constitution and the new investment proclamation, and the investment Act of South Africa.

¹⁵ Ethiopian investment commission, "Ethiopian Investment Law Reform: Key policy reform and departure points" October 2019.

Research Method

Since the research is doctrinal and comparative, document review was used as a tool of data collection to collect data from secondary sources and pertinent legal documents. The obtained data were critically analyzed, interpreted, and judged for merits and used as input in proposing road map of for integrating sustainable development into Ethiopia's investment law.

RESULT AND DISCUSSION

Reviewing Emerging Trends

The principles of Sustainable Development gradually evolved over time in a series of international conferences. The New Delhi declaration eventually consolidates seven international law principles of sustainable development widely accepted as benchmark in principled assessment of national law and policy on any activities regarding sustainable development.¹⁶ These principles include principle of integration; the principle of common but differentiated responsibilities; principle of precaution; principle of good governance; the principle of public participation; the principle of equity and poverty eradication; and the principle of duty of states to ensure sustainable use of natural resources.¹⁷ Of particular importance at this juncture is principle of integration which conceptualizes sustainable development as being anchored on the integration imperatives that constitute the three pillars; economic growth, social development, and environmental protection, and calls for their balanced integration in any activity relating to development(investment). And, to achieve this desired goal of integration with legal tools, there shall be better and realistic Economic (Investment) law, a better and achievable social law, and better and inclusive environmental law that collectively led to sustainable development.

These principles of sustainable development and other soft laws, guidelines and principles of international development law had served as a basis and triggered the enactment of the new generation investment laws at international and national level.

¹⁶ M. Barnard, *the role of international sustainable development principles in Enabling sustainable Energy Policy: A south African Perspective*, 15(2) PER / PELJ, 212,207-243(2012) countries.

¹⁷The New Delhi declaration, Principle 1 -7.

The New generation investment laws put sustainable development at the heart of investment process, and systematically integrate economic, social, and environmental pillars of sustainable development.

¹⁸ International organizations like UNCTAD are accelerating the move toward new generation investment laws through preparation of investment policy framework for sustainable development that identifies, consolidates, and directs to the best practice. Of the investment policy frameworks for sustainable development that trigger the enactment of the new generation investment law, the UNCTAD investment policy for sustainable development and Commonwealth secretariat's guide for developing countries¹⁹ are widely used. Both documents cover ranges of issues that relates to linking investment and sustainable development as objective, investor right, investment liberalization, balancing rights of investors and state rights, obligations on investors, corporate social responsibility etc.²⁰.

Recapping Revolutionary Experience of South Africa

As has been highlighted above, the new generation investment laws are emerging, shifting the investment-development paradigm towards sustainable development in terms of both national and international investment policymaking. Of such reform toward new generation investment laws, South Africa exemplifies a revolutionary approach in revisiting her Bilateral investment treaties (BITs) and codifying the provisions of BITs into domestic investment laws in a manner that equally protect investment while maintaining regulatory option for sustainable development.²¹

¹⁸UNCTAD (2015), *Investment Policy framework for Sustainable Development*, Geneva, and New York,2015(hereinafter UNCTAD investment policy framework), p.17.

¹⁹ J Anthony Van Duzer (2012), Penelope Simons and Graham Mayeda, *Integrating Sustainable Development into International Investment Agreements: A Guide for Developing Countries*, Prepared for the Commonwealth Secretariat. (Hereinafter *The GUIDE for Developing countries*).

²⁰ Id. See also *The UNCTAD Invest, ent policy framework*, p.30.

²¹ Mtandazo Ngwenya (2015), *"Promotion and Protection of foreign Investment in South Africa: Critical Review of Promotion and Protection of Investment Bill 2013"*, (Unpublished, PhD dissertation, University of South Africa,)

After conducting review between 2007 and 2010, the South Africa's department of trade and industry (DTI) identified a range of concerns associated with BITs.²²Taking the findings of the review into account, the South African Cabinet decided in July 2010 that South Africa would: refrain from entering into BITs except for compelling reasons; terminate or renegotiate existing BITs; and develop new Investment law aligned with Constitution; consolidate typical BIT provision in the domestic investment law.²³

Accordingly, the government terminated its BITs with a number of European states and proclaimed the protection of Investment Act²⁴, domestic legislation that regulates both foreign and domestic investment and in effect replacing the BITs it was terminating.²⁵The act is organized in 16 sections

dealing with definitions, Investment, Interpretation of Act, purpose of Act, application of Act, fair administrative treatment, right of establishment, NT, Physical security, legal protection, transfer of funds, right to regulate, dispute resolution, regulations, transitional arrangements, short title and commencement. Through all these efforts, South Africa envisions a legal framework for investment that learns from the past and is better attuned to the challenges of sustainable development and inclusive growth.²⁶ Therefore, this approach of South Africa systematically responds to existing challenges to for sustainable development, and other African nations including Ethiopia could learn from this experience of South Africa.

A Roadmap for Revisiting Ethiopia's Investment Law

On January 30, 2020, Ethiopian parliament has ratified a controversial investment proclamation²⁷ that replaced proclamation No.769/2012. It was hoped that the revision will address sustainable development related challenges in the investment regulation to rectify the prevailing social, human rights and environmental impacts of investment on local community. Unfortunately, the revision is mainly dictated by the need to support what is dubbed 'home grown economic reform' focusing on economic dimensions of investment.

²² Ibid.

²³ Ibid, p.2.

²⁴ South Africa Protection of Investment Act, Act No. 22 of 2015 Official Gazette, Vol. 606, No. 39514, 2015(hereinafter the investment Act of south Africa).

²⁵ UNACTAD (2016), Taking stock of international investment agreement Reform, IIA Issues note No.1

²⁶ James X. Carim (2013), "Columbia FDI Perspectives: Lessons from South Africa's BITs review", Perspectives on topical foreign direct investment issues No. 109 November 25

²⁷ Investment proclamation, Proclamation No...? /2020. [Hereafter the new investment proclamation]. The author obtained an unofficial version of the proclamation, and it is reported that it is adopted in January 2020.

such as liberalization, facilitation, attraction, retention, and expansion while almost neglecting sustainability dimension of investment like environmental, social, and human rights concerns. Drawing lesson from the emerging trends and the investment act of South Africa, this section devises possible ways of integrating sustainable development into the investment proclamation as follows.

Refashioning the Preamble

A preamble is "introductory statements at the beginning of a legal instrument that set out the general intentions and key policy consideration of law maker".²⁸ "While not creating substantive right or obligation, the preamble is important as courts can defer to when interpreting or applying substantive provisions."²⁹ The international guidance discussed under section II of this paper and the experience of South Africa reveal that the preamble is starting places to incorporate sustainable development in investment legislation.³⁰ In Ethiopia, the preamble of the new investment proclamation emphasizes on economic pillar with insignificant reference to social development but no reference to the environmental pillar. Hence, taking lesson from the international guidance and South Africa's investment act, the preamble of the proclamation shall be reformed to equally integrate the three pillars of sustainable development by expressly endorsing "sustainable development" as the broader goal of the investment followed by list of key issues that relates to the specific goals on how the three pillars of sustainable development is to be realized.³¹ In this regard, making express reference to

sustainable development with full understanding of the three pillars embedded in it endorses equal integration of the three pillars of sustainable development. Highlighting the key objective on how the three pillars could be achieved will give a blueprint on key issues that shall be recognized in investment regulation.

Revisiting the Definition of Investment

In the investment legislation, aligning the definition of investment with sustainable development will be used to exclude unsustainable investment from the coverage of the law thereby integrating sustainable development in investment governance.³²

²⁸ The GUIDE for Developing countries, p. 46.

²⁹ Ibid.

³⁰ UNACTAD investment policy framework, p.57 & 20; The GUIDE for Developing countries, p.50.

³¹ See the recommendation and/ or option stipulated in UNACTAD investment policy framework, p.57 and 120; The GUIDE for Developing countries, p. 50; the investment act of South Africa, preamble; and the investment proclamation, preamble.

³² The GUIDE for Developing countries, p. 72.

In this regard, the relevant international guidance recommends that states can develop criteria for development-friendly investments such as contribution to the development, requirement of legality and duration.³³ However, under Ethiopian new investment proclamation, investment is broadly defined to include “any kind of expenditure of capital by an investor to establish a new enterprise or to expand or upgrade one already exist”; and the enterprise in this context is defined to refer “any kind of undertaking established for the purpose of profit making”.³⁴

There is not any other criterion that is attached including requirement of legality, duration, or contribution to the economic development that it has potential to attract burdensome protection even to illegal investment or investment that has zero benefit to the development of the country. Therefore, taking lesson from south Africa and the relevant international guidance³⁵, Art 2 of the proclamation should redefine ‘investment’ in the ways that align investment with sustainable development by introducing requirement to be formed in accordance with the law and contribution to sustainable development as criteria of investment.

Inserting Interpretation Clause

This is a very important clause to ensure policy coherence and consistency with relevant legal frameworks. It guides interpretation and application of the investment legislation within the spirit the constitution to ensure rule of law and policy coherence with other sister legislation and international law about cross cutting concepts in sustainable development like human rights, labor standards, social and environmental issues.

Reforming the Objective

The objective provision is very important in investment law as it gives added weight to the objective as an interpretative guide beyond that which is normally attributed to the preamble.³⁷ In this regards, the South Africa’s investment act contains interpretation clause which guides the interpretation of the act.³⁶

³³ Id, see also UNACTAD investment policy framework, p. 94.

³⁴ The new Investment Proclamation, Art.2 (1) & (2)

³⁵ See UNACTAD investment policy framework, at 94; The GUIDE for Developing countries, p. 72; and Investment Act of South Africa, section 2.

³⁶ The investment Act of South Africa, section 3.

³⁷ The GUIDE for Developing countries, p. 93.

Hence, taking this innovative experience of South Africa, Ethiopian investment proclamation shall incorporate an interpretation clause that guides its interpretation in line with sustainable development objective enshrined in the constitution. In this regard, the relevant international guidance recommend that to integrate sustainable development in investment legislation, objective provision should be crafted being consistent with preambular objective, indicating the overall objective of promoting investment to support sustainable development followed by outline of key specific objectives on how to achieve the general objective, and the similar trend is adopted under section 4 of the investment act of south Africa.³⁸ Under Ethiopian the investment proclamation, general objective under Art.5 attempted to recognize economic and social development pillar as objective of investment, but, fails to integrate environmental issues.³⁹ Besides, almost all of the specific objectives listed under article 5 except two seem to capitalize on economic development pillar⁴⁰ and thus the environmental and social development pillars (including human right issues) are not fairly reflected.

Hence, using the international guidance and south African's experience as starting point, Art.5 of the Ethiopian investment proclamation needs to be reformed in manner that explicitly recognize sustainable development as objective of investment. To this end, it is recommended to explicitly endorse 'Sustainable development' without an indication of its constituent pillars or if reference to the pillars is opted, by making express reference to the environmental protection pillar along with social and economic development pillars that were referred in the general objective. Similarly, the specific objective should follow this general objective and indicate a host of key environmental and social development objectives instead of merely listing the objective that capitalizes on economic development pillar. Such specific objective could highlight key issues as to how to realize social development and environmental pillars like public participation and access to justice and information, respect for human right, ensuring minimum labor and environmental standard, respect for tenure security, contribution to poverty eradication etc.

³⁸ See the guidance and/ or option stipulated in UNACTAD investment policy framework, p. 57; The GUIDE for Developing countries, p. 96; The investment act of South Africa, section 4.

³⁹ Stebek, *supra* note 12, p.4.

⁴⁰ *Ibid.*

Re-calibrating Investor's Right with Sustainable Development

The implication of sustainable development with regard to articulation of these standard of protection is that they shall designed in the way that sufficiently attract and protect investor specially foreign direct investment while preserving regulatory space and exception for sustainable development.⁴¹ In this regard, as has been stated earlier, the investment act of South Africa provided standards of protection like national treatment, Fair administrative treatment, physical security, protection against expropriation, and free transfer of funds in way that reflects the South Africa's constitutional principles along with sufficient regulatory space for sustainable development. However fair and equitable treatment has been omitted to reduce risk of litigation while most favored nations treatment is excluded for it believed to be unnecessary repetition if NT is observed. Hence, taking lesson from the south Africa 's investment Act coupled with the UNACTD's recommendation, it is suggested to incorporate additional right such as national treatment with specific exception for sustainable development, qualified right to recourse to international tribunal and physical protection and security subject to the existing capacity. Moreover, to assist sustainable development objective, it is suggested to in insert sustainable development related exception to guarantee against expropriation and right to transfer funds, stipulated under art 19 and 20 of the new investment proclamation, and tie right to hire expatriate provider under art 22 of the proclamation to obligations to train local employees or to give priority for local employee as far as they are duly qualified.

Insert Innovative Provisions on Investors' Obligations for Sustainability

Introducing performance requirement

It is generally asserted that companies/investor have obligation to contribute to economic, social, and environmental progress of host counties and local community through different means like infrastructural development, technology, and skill transfer, create job opportunity, pay fair wages and benefits. To ensure that companies/investors comply with these legal obligations and contribute to sustainable development, there shall be legal arrangements to maximize positive linkages with the local economy.

⁴¹ See UACTAD investment policy framework, p.58.

And one way to achieve this objective is the introduction of performance requirements. Performance requirements are “obligation/requirement imposed on investors requiring them to behave in a particular way or to meet certain specified goals with respect to their operations.”⁴².

They may be imposed as to the conditions for admission and operation of the investment as a mandatory requirement or linked to incentive.⁴³

A well-known performance requirement that can be used to mobilize investment for inclusive economic growth includes local content requirement that requires companies to source from local businesses and to hire from local employees; requirement to achieve a specific level of local jobs; requirement to engage in training work forces; export requirement, technology transfer requirement, requirement to conduct research and development; achieving better environmental or social outcomes etc.⁴⁴.

However, the Ethiopia's investment laws lack adequate rules that explicitly cover all important forms of performance requirement to ensure investment for the inclusive economic growth. Hence, to reap the expected benefit of investment for sustainable development of Ethiopian people in general and the affected local community in particular, there should a legal arrangement that introduce the components of performance requirement under Ethiopian investment law based on the nature of investment, and these requirements shall be imposed as a condition for investment *permit and incentive*.

Sustainability assessments

Sustainability assessment is an integrated form of impact assessment of the proposed project that covers environmental impact assessment, social impact assessment, cultural impact assessment and Human right impact assessment. Sustainability assessment directs investment decision toward sustainable development.⁴⁵ It can be integrated into investment legislation as a condition of approval of investment followed by ongoing monitoring with full consultations, involvement and participation, or consent of stakeholders.

⁴² Suzy H. Nikièma (2014), *“Performance Requirements in Investment Treaties Best Practices Series”*

⁴³ *Ibid.*, P. 2.

⁴⁴ *Ibid.*, pp. 2-3.

⁴⁵ Alan Bond, Angus Morrison-Saunders & Jenny Pope (2012), Sustainability assessment: the state of the Art, Impact Assessment and Project Appraisal, 30:1, 53-62

In Ethiopia, there is no comprehensive law governing sustainability assessment except for environment impact assessment.⁴⁶ Even, for environmental impact assessment, it is not expressly imposed by investment proclamation as requirement to get environmental and cultural impact assessment, it is suggested to make reference to international standards.⁴⁷ Once obligation to make sustainability assessment is imposed, it shall be explicitly endorsed as a condition for application, issuance, renewal and expansion or promotion, or operation of investment permit under Arts.10 to 13 of the proclamation.

Compliance with all laws of the land

The principle of sustainable development require that investors comply with the domestic laws and regulations enacted to protect environment, human rights, labor rights and rights of indigenous peoples of states in which they operate. At this juncture, the UNACTAC draft code for TNC states compliance with domestic laws as the obligation of TNC/investor. UNACTAD investment policy framework recommends incorporation of this obligation into national investment law with sanction for non-compliance.⁴⁸

Taking this as a benchmark, it is fundamentally important to incorporate this obligation under

Ethiopian investment law in mandatory language covering all important laws of the country with bold sanction. In this regard, Art 54 of the new investment proclamation tried to incorporate the investor's duty to observe other laws and social and environmental sustainability values, and this is relatively important development compared to the former investment proclamation. Yet is suggested to refer to the constitution and any other laws of the country including, but not limited to its laws, regulations, and standards for the protection of human rights, labor rights, and rights of indigenous peoples just for better outcome.

⁴⁶ Environmental Impact Assessment Proclamation, proclamation no.29912002, 2002.investment permit. Hence, to complement these gaps in domestic law as regard social,

⁴⁷ The UNACTAD Investment policy framework, at 68; The GUIDE for Developing countries, pp. 285-286.

⁴⁸ UNACTAD Investment Policy Framework, p. 60. See also The GUIDE for Developing countries, p. 290.

Insert Minimum standard on Human Rights, labor, and environment.

Incorporating this Minimum standard on Human Rights, labor and environment in investment legislation is extremely important to minimize the labor, human right, and environmental impacts of investment.⁴⁹ Under Ethiopian investment law, there is no provision that deals with minimum.

standards on human rights, labor, and environment. Hence, it is suggested to include investor's obligation to comply minimum standards on human rights, labor, and environment under Art.54 of the proclamation or in new provision as appropriate. Even if referring to environmental law under the investment proclamation could reinforce environmental obligation, incorporating investor obligation to comply with internationally recognized environmental standard is important to complement and supplement the domestic law of the country.

Enforcement of Investors' Obligations

To ensure enforcement of the investor's obligation under the proclamation, the investment proclamation shall incorporate provision dealing criminal liability, civil liability, and a grievance procedure or align compliance with investor's obligation to investment permit and incentive. ⁵⁰ The proclamation shall also entitle the victim of harm caused by investor to institute civil suit against investor and allow public interest litigation in case the harm is to environment or public at large, and in so doing, it may make cross reference to other applicable law.

Thus, grievance mechanism under Arts 25-27 shall be granted as right for all potential victims of investment in question and claimants including community and civil society.

Democratizing Investment Administration

Sustainable development requires investment administration to be grounded on principles of good governance and public participation. In this regard, the principle of good governance requires investment administration that is built up on democratic and rule of law; respect human right including right to self-determination; uphold legitimate interest of indigenous.

and local communities; dedicates to combat corruption and ensure transparency.⁵¹ The principles of public participation and access justice and information calls for investment administration that ensure full participation of the concerned stakeholders and local communities in all levels of decision-making; ensure right to hold and express opinions and impart idea in relation investment project; provide grievance mechanism for those affected by the investment decision etc.

.⁴⁹ Id. see also The GUIDE for Developing countries, Pp.91-93, and 308 & 332.

However, the qualities of investment administration are not well reflected under the provisions of the new investment proclamation. Hence, to democratize investment administration and ensure bottom-up approach to investment, the provisions of the proclamation which reserves administration of core investment matters to the jurisdiction of federal organ shall be reformed in the way that empowers regional states.

The provisions shall be inserted in the proclamation to ensure grass root public participation in investment administration and provide grievance submission mechanism for those affected by the investment decision.

CONCLUDING AND RECOMMENDATION

Sustainable development implies a process that improves the living standard of people inclusively while respecting the environment, based on bottom-up agendas and priorities. It embraces the three interdependent and mutually reinforcing pillars, economic growth, social development, and environmental protection. Sustainable development has important implications for the regulation of investment. Principles of sustainable development and related international guidance call for balanced integration of the economic, social, and environmental pillars of sustainable development in investment governance. In furtherance of this, new generation investment laws are emerging at both international and national level, pursuing a broader and more intricate investment regime that places sustainable development at the heart of efforts to attract investment.

In this, regard, South Africa exemplifies revolutionary approach in adopting domestic investment Act that is better attuned to challenges of sustainable development and that other African nations including Ethiopia could learn from this experience. In line with the principles of sustainable development and related international guidance, the FDRE Constitution recognized the right to sustainable development and dictates the integration of its three pillars in investment law.

⁵⁰ Suggested on basis guidance provided by The GUIDE for Developing Countries, p. 364.

⁵¹ Inferred from the reading of the New Delhi Declaration, principle, Nevertheless, close inspection of how investment operates and regulated in the country predict that the essence of sustainable development is missing from Ethiopian investment governance. Even though the new investment law could have been used as a tool to mobilize investment for sustainable development, this tactic is not utilized in the revision process. Recognizing this inadequacy of the existing Ethiopian Investment laws in mobilizing investment for sustainable development, this study aimed at devising possible ways of harnessing the Ethiopia's investment law for sustainable development.

To this end, it employed doctrinal and comparative research that drawn lesson from the emerging trends and experience of South Africa utilizing both primary and secondary sources.

Accordingly, on the basis of analysis of the relevant investment policy framework for sustainable development and the experience of South Africa, the paper proposed refashioning the preamble, revisiting definition of investment, inserting interpretative clause, reforming the objective of investment, calibrating investor's right with sustainable development, inserting investor's obligation and democratizing investment administration as possible ways of harnessing Ethiopia's investment laws for sustainable development. Thus, the new Ethiopia's investment law shall be revisited and harnessed for sustainable development as depicted in this paper to realize motto of investment for sustainable development in the country.

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2.3. Ethiopian Direct Tax System; the Reform of 2016 and Perception of business and employment income taxpayers

Amina Ahmed

Asst. Prof, College of finance, management and development, Ethiopian Civil Service University

Email: aminaecsu2020@gmail.com

ABSTRACT

The objective of the study is to analyse the Ethiopian direct tax system focusing on the reform of the 2016 and perception of the taxpayers towards its fairness. To achieve the objective of the study descriptive and inferential research design and mixed research approach was adopted. As a data source both primary and secondary data sources were collected. Primary data was gathered from 768 employment and business income taxpayers found in Addis Ababa via a standard questionnaire. Besides, secondary data were gathered from the ministry of finance and economic cooperation for the period 2007/08 to 2020/2. The collected data were analyzed by using descriptive data analysis tools. To compare the perception of taxpayers and the tax collection performance Mann Whitney U test and paired samples t-test test was conducted respectively. The major findings of the study show that there is a significant variation in the perception of employment and business income taxpayers on the fairness of the Ethiopian direct tax system. The employment income taxpayers didn't believe that the current income tax system of Ethiopia is fair from the different dimensions of fairness while the business income taxpayers agreed to most of the dimensions. The paired samples t-test confirmed that the direct tax revenue shows a significant mean increment after the reform of 2016 than before at 5% level of significance. Therefore, Ethiopian direct tax system needs a major revision or reform to enhance the contribution of business income tax revenue, rental income tax revenue and other taxes. In addition, the tax authority is recommended to employ sound administration and controlling system for the collection of domestic indirect tax.

Key word: Ethiopian; perception; direct tax; fairness; tax reform of 2016

INTRODUCTION

The objective of the fiscal policy of any country, no matter the level of development, is to ensure economic growth and assure sustainable development. To play the main function of the state as well as to achieve the growth objective, governments used spending as the main tool of public finance policy (Macek, 2015). Direct taxation describes taxes that are levied on income, wealth, and capital, whether personal or corporate. Indirect taxation comprises taxes that are not levied on income or property. It includes VAT, excise duties, import levies and energy and other environmental taxes. The fundamental principle in international taxation is that indirect taxes on consumption are charged in the country in which the goods and services are consumed. Consumers bear the burden of these taxes, in principle, as part of the market price of the goods or services purchased (Birhanu, 2018).

Ethiopia has been reforming its tax system for more than 20 years. Comprehensive tax reforms started in 2002/03 as an integral part of economic reforms. The main objective of the tax reforms was to mobilize tax revenues with special focus on increasing the share of direct tax contribution to total tax revenues to ensure fiscal sustainability and to reduce dependency on foreign trade tax which is volatile due to free trade agreements and regional integration from long term perspective (Daba & Mishra 2014). Though reforms are undertaken to enhance the contribution of taxation to the economy the tax to GDP ratio as compared to the 2005 of 12.5% remained low at 13.4 percent in 2015 after 10 years of efforts (which below the sub-Saharan having 18 % share and emerging economies having 20 % share as well the developed economies beyond 30% contribution to the economy).

This decline in the tax-to-GDP ratio implies that Ethiopia raises relatively less revenue than regional peer economies which reflects lower revenues from domestic direct taxes and from taxes on goods and services. Ethiopian raises relatively more revenue from trade tax though there was a large fall since 2009/10. This showed that the high dependence of Ethiopian tax revenue on trade taxes as compared to the peer economies. This may pose difficulties given moves to liberalize and increase trade in Africa by the implementation of African Continent Free Trade Area (AfCFTA) and other regional arrangements like COMESA by which Ethiopia is a part. These arrangements could be implemented by reducing barriers to trade, such as high import duty rates (Harris & Seid, 2021).

Taking into consideration the above observations and facts, the main objective of this study is to analyze the contribution of tax revenue to the economic growth of Ethiopia and assess the tax collection practice from different perspectives specifically the current study will answer the following research questions.

- *What is the long run and short run contribution of tax revenue to the economic growth of Ethiopia?*
- *What is the long run and short run contribution of direct tax to the economic growth of Ethiopia?*
- *What is the long run and short run contribution of domestic indirect tax to the economic growth of Ethiopia?*
- *What is the long run and short run contribution of international indirect tax to the economic growth of Ethiopia?*

REVIEW OF RELATED LITERATURES

Theoretical review of literature

Different theories postulate the causes of economic growth from different perspectives. The following session reviewed the theories starting from the classical economic growth theory up to the endogenous (new) economic growth theory.

Exogenous growth theory

The Neoclassical Growth Theory is an economic model of growth that outlines how a steady economic growth rate results when three economic forces come into play: labor, capital, and technology. The simplest and most popular version of the Neoclassical Growth Model is pioneered

by Solow (1956) and Swan (1956). This theory ‘focused upon the accumulation of capital as the source of growth. If the level of saving exceeded the sum of depreciation and population growth the capital-labor ratio would rise over time and generate growth in output per capita. Growth could also arise if the productivity of a given stock of capital increased because of technical progress’ (Myeles, 2009).

The Solow growth model

The Solow growth model introduces the concept of a steady-state and demonstrates that capital accumulation is not sufficient to ensure continuing growth if not matched by technological progress or equal increases in other inputs (Myeles, 2009). This model analyzes the changes in the level of output in an economy over time because of changes in the population growth rate and the savings rate. The study of Gregory et al., (1992), confirmed the higher the rate of saving, the richer the country. The higher the rate of population growth, the poorer the country is. If countries have the same population growth rate, savings rate, and capital depreciation rate, then they have the same steady state, so they will converge, i.e., the Solow Growth Model predicts conditional convergence.

The augmented Solow models.

While the study of Gregory et al., (1992), confirmed that although the Solow model accurately predicts the direction of the effect of saving and population growth it does not predict the magnitudes. As a result, they augment the Solow model by incorporating accumulation of human and physical capital since omitting these variables from the Solow model is believed by the authors a cause for biases in the estimation of coefficients of saving and population growth in the Solow model. As a result, the study included a proxy for human capital accumulation and found a correlation with saving and population growth. In addition to this, this study confirms that once differences in saving and population growth rate are accounted for, there is a convergence at roughly the rate the Solow model predicts. Finally, the model predicts that poor countries should tend to have a higher rate of return to physical and human capital.

Endogenous Growth Theory

The pioneer of “endogenous growth theory” is Paul Romer who eliminates the assumption of decreasing return to capital which is the main assumption used in exogenous or neo-classical growth theories discussed above. The Endogenous Growth Theory states that economic growth is generated internally in the economy, that is, through endogenous forces, and not through exogenous ones. The theory contrasts with the neoclassical growth model, which claims that external factors such as technological progress, etc. are the main sources of economic growth. The theory is built on the idea that improvements in innovation, knowledge, and human capital lead to increased productivity, positively affecting the economic outlook.

Empirical Literature Review

The study conducted by Bakari et al., (2020) deals with the Nexus among Domestic Investment, Taxation, and Economic Growth in Germany by using time series data from 1972 to 2016. Applying the Co-integration and Vector Error Correction Model Analysis found that there is no significant long-term relationship between domestic investment, taxation, and economic growth.

In addition to this, the study found that domestic investment causes economic growth, economic growth causes taxation, and taxation causes domestic investment in the German economy.

The study conducted by Murat et al., (2015) analyzes the effect of direct and indirect tax in Turkey's economic growth measured by GNP. Using time series, the quarterly data covering the periods of 2006.1 – 2014.04 the results of cointegration test found a long run cause-effect relationship between GNP and direct and indirect tax revenue in the case area. As well the study found a use-and-effect relationship between direct and indirect tax revenues. The rise in indirect tax revenue leads to a rise in GNP and this, in turn, leads to a rise in the direct tax revenue. The other study conducted in the case of the Turkey economy is conducted by Ozpence, & Mercan, (2020) which deals with the nexus of tax burden and economic growth. The study covers time-series data 1970 to 2018 and employs VAR analysis and Granger causality test analysis methods to achieve the objectives of the study. The finding of the study shows that tax burden affects economic growth of Turkey negatively. In addition to this the study found that the tax burden and economic growth are mutual cause of each other.

The study of Iriqat & Anabtawi (2016) was conducted to investigate the causal relationship between GDP and its components (government spending, consumption, investment, and balance of trade) with the tax revenues in the Palestinian economy covering the period 1999 to 2014. The tax revenue was taken as a dependent variable whereas the GDP and components mentioned above were taken as the independent variable. Based on the OLS regression, the findings of the study show that tax revenues granger Cause each of the Palestinian Gross Domestic Product and all the components mentioned above. The study of Ahmad et al., (2018) was conducted to investigate the short-run and long-run effect of the indirect tax on the economic growth of Pakistan using the Auto Regressive Distributed Lag (ARDL) bounds testing approach for co-integrations. Using annual time series data covering 1974 to 2010 found that indirect tax has a negative and significant effect in the long-run while insignificant effect in the short-run.

The study of Ilaboya, & Mgbame, (2012) was conducted to analyze the effect of indirect tax on the Nigerian economy by using time series observation from 1980 to 2011. The study adopted a combination of co-integration and error correction mechanisms. The study found a statistically insignificant relationship between indirect tax and economic growth in Nigeria. On the other hand, the ratio of total tax to total federal revenue had a positive significant effect on the economy. The study of Umoru, & Anyiwe (2013) was conducted to ascertain the effect of taxa composition on the economic growth of developing countries, specifically in Nigeria. Using Co-integration and error correction as methods of empirical estimation with an empirical strategy of disaggregation, the study found that direct tax has a positive and significant effect on the economic growth of Nigeria (GDP). While indirect tax is found to have an insignificant effect on the economic growth of the Nigerian economy. The other study to assess the effect of direct and indirect tax on the Nigerian economy was conducted by Ogundana, et.al. (2017). The study found that indirect tax has a positive and significant impact on economic growth while the direct tax has an insignificant impact on the economic growth (GDP) of Nigeria using an ordinary logistic regression model on the data from 1994 to 2013.

The above session shows that, though inconclusive, taxation is found to have a significant effect on the economic growth of different countries. The current study contributes to the existing bunch

of knowledge by analyzing the effect of taxation on economic growth of Ethiopian economy using a time series data covering from 1990 to 2021.

METHODOLOGY

Explanatory research design and quantitative research approach was adopted to establish the cause-and-effect relationship between economic growth and tax a revenue mobilization in Ethiopia. Secondary data were collected from WDI for the periods 1990 to 2021 on the different variables considered for the analysis. Regression analysis was conducted using time series data from 1990 to 2021 and applying Autoregressive Distributed Lag (ARDL) Models. Since this model is used to look both the long run and short run effect simultaneously and feasible for small sample.

Model specification

To analyze the effect of tax revenue mobilization on economic growth of Ethiopia, the following general estimation model were applied.

$$g = \alpha + \varphi T_t + \varepsilon_t \dots \dots \dots \text{eq (1)}$$

Where **g**, **T_t**, represents growth rate and **tax revenue** respectively and **ε_t** error term, **t** represents the time.

Further the above model was segregated into two, taking into consideration the main classification of tax revenue. The following model was used to analyze the effect of direct tax, domestic indirect tax revenue and international indirect tax revenue on economic growth of the region. Accordingly, eq (1) will be modified as

$$g = \alpha + \varphi DT_t + \delta IT_t + \delta 1INT_t \varepsilon_t \dots \dots \dots \text{eq (2)}$$

Appropriate diagnostic tests and stability tests were conducted to provide a robust result that could be taken as a policy input by policy makers.

Economic growth is proxied by GDP per capita income while the tax revenue, direct tax revenue, domestic indirect tax as well as international tax are measured as ratio of GDP.

DATA ANALYSIS, PRESENTATION, AND DISCUSSION

To analyze the effect of tax revenue and its classification on the economic growth of Ethiopia ARDL model was employed. The following section discussed the descriptive and regression result of the study.

Descriptive statistics of variables under study

Table 1: descriptive analysis

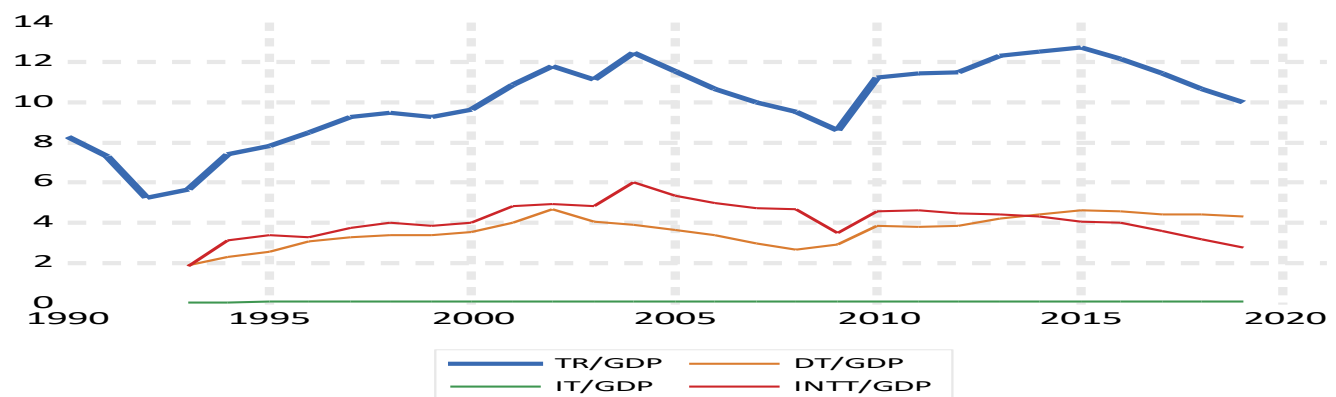
Sample: 1990 2021					
	tax per GDP	DT/GDP	IT/GDP	INTT/GDP	GDPPC
Mean	10.02	3.63	0.07	4.12	423.83
Median	10.34	3.80	0.07	4.07	322.61
Maximum	12.73	4.65	0.09	6.04	852.01
Minimum	5.23	1.89	0.04	1.85	218.10
Std. Dev.	2.00	0.75	0.01	0.87	206.02
Jarque-Bera	2.45	1.57	1.38	0.66	4.50
Probability	0.29	0.46	0.50	0.72	0.11
Observations	30.00	27.00	27.00	27.00	32.00

Source: world development indicators, 2022

The GDP per capita is used to proxy the economic growth of Ethiopia. As shown in the above table, average GDP per capita is 423 (USD) with minimum of 218 and maximum of 852 throughout the study period. The proportion of tax revenue to the GDP is on average 10.3% with 5% minimum contribution to 12% maximum contribution towards the GDP of Ethiopia. The trend analysis shown in the figure below also shows that the contribution of tax revenue to the GDP is changing from time to time and starting from 2015 onwards it is steadily declining. This shows that the proportion of tax revenue to the GDP of Ethiopia is minimal as compared to the sub-Saharan countries having 18 % as well as emerging economies having 20 % share as well the developed economies beyond 30% contribution to the economy.

While analyzing the tax composition of this contribution, on average, 3.6% is from direct tax, 0.06% is from indirect tax while 4.1% is from international tax. The trend analysis in the figure below also shows the mixed trend that is some period of the study there is an increment while from 2014 onwards the contribution of domestic direct tax is increasing while the contribution of international trade is steadily decreasing.

Figure 1 trend analysis of tax per GDP and its components



Source: world development indicators, 2022

Stationarity (unit root) test

By testing the stationarity of the variables of interest one can decide the appropriate estimation technique for the data on hand. If all the variables are stationary or are $I(0)$, OLS can be used to model the data. If the all the series are integrated of the same order but are not co-integrated, OLS can still be used. When the series is $I(1)$ and they are co-integrated both the long-run and short-run relationship of the variables can be estimated by using the OLS and the ECM respectively. Autoregressive Distributed Lag (ARDL) model is used in modeling non-stationary time series data. In addition to this it has the following advantages:

1. It can be used in a mixture of $I(0)$ and $I(1)$
2. It involves a single equation to model the long-run and short-run relationship.
3. Different variables could be assigned different lag-length.

To decide the proper model for analyzing the data on hand, a unit root test was conducted. As shown in table below (see for the stationary test result at appendix B), the variables are combination of both I (0) and I (1) as well none of the variables are of I (2) which leads to the appropriateness of the ARDL model for the data.

Table 2: unit root test summary

Variables	P value At Level intercept	P value at level, trend, and intercept	P value 1st difference, intercept	P value 1 st difference, trend, and intercept	Integration order
LNDT/GDP	0.1384	0.2542	0.0195	0.0721	I (1)
LNGDPPC	0.9903	0.3724	0.0019	0.0058	I (1)
LNINTT/GDP	0.0094	0.1241	0.0000	0.0000	I (0)
LNIT/GDP	0.0121	0.3971	0.0001	0.0002	I (0)
TRP/GDP	0.2370	0.7729	0.0016	0.0072	I (1)

Source: authors compilation based on Eviews 12 result

Table 3: Bounds test for effect of tax revenue mobilization on economic growth.

Levels Equation				
Case 3: Unrestricted Constant and No Trend				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
TRP_GDP	-1.390609	8.020378	-0.173385	0.8639
EC = LNGDPPC - (-1.3906*TRP_GDP)				
F-Bounds Test		Null Hypothesis: No levels relationship		
Test Statistic	Value	Signif.	I(0)	I(1)
F-statistic k	1.449641 1		Asymptotic: n=1000	
		10%	4.04	4.78
		5%	4.94	5.73
		2.5%	5.77	6.68
		1%	6.84	7.84
Actual Sample Size	28		Finite Sample: n=35	
		10%	4.225	5.05
		5%	5.29	6.175
		1%	7.87	8.96
			Finite Sample: n=30	
		10%	4.29	5.08
		5%	5.395	6.35
		1%	8.17	9.285
t-Bounds Test		Null Hypothesis: No levels relationship		
Test Statistic	Value	Signif.	I(0)	I(1)
t-statistic	0.187705	10%	-2.57	-2.91
		5%	-2.86	-3.22
		2.5%	-3.13	-3.5
		1%	-3.43	-3.82

Table 4: ARDL output: the effect of tax revenue mobilization on economic growth

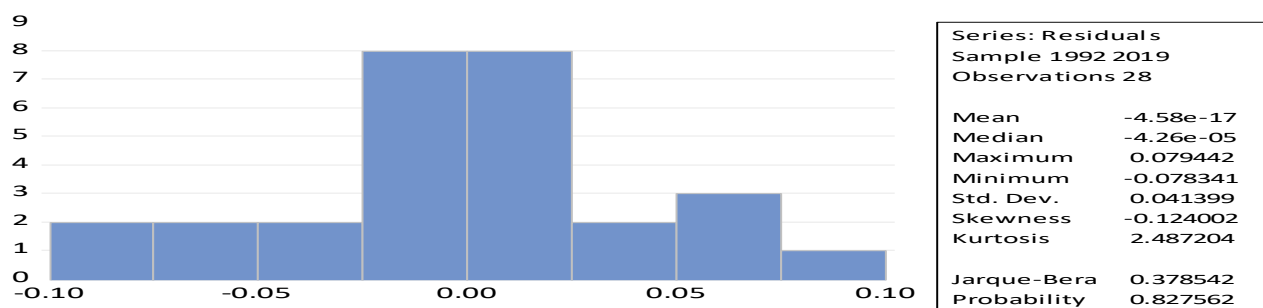
Dependent Variable: LNGDPPC
 Method: ARDL
 Date: 02/17/23 Time: 10:16
 Sample (adjusted): 1992 2019
 Included observations: 28 after adjustments
 Maximum dependent lags: 2 (Automatic selection)
 Model selection method: Akaike info criterion (AIC)
 Dynamic regressors (2 lags, automatic): TRP_GDP
 Fixed regressors: C
 Number of models evaluated: 6
 Selected Model: ARDL(2, 2)

Variable	Coefficient	Std. Error	t-Statistic	Prob.*
LNGDPPC(-1)	1.263083	0.183668	6.876992	0.0000
LNGDPPC(-2)	-0.256883	0.193617	-1.326762	0.1982
TRP_GDP	0.022090	0.009956	2.218877	0.0371
TRP_GDP(-1)	-0.034397	0.013905	-2.473629	0.0216
TRP_GDP(-2)	0.020928	0.010434	2.005797	0.0573
C	-0.090998	0.165406	-0.550152	0.5878
R-squared	0.990328	Mean dependent var	5.916041	
Adjusted R-squared	0.988130	S.D. dependent var	0.420966	
S.E. of regression	0.045863	Akaike info criterion	-3.138898	
Sum squared resid	0.046276	Schwarz criterion	-2.853425	
Log likelihood	49.94457	Hannan-Quinn criter.	-3.051626	
F-statistic	450.5443	Durbin-Watson stat	2.209306	
Prob(F-statistic)	0.000000			

*Note: p-values and any subsequent tests do not account for model selection.

Preliminary Diagnostic test

Normality test



Serial autocorrelation test

Breusch-Godfrey Serial Correlation LM Test:
 Null hypothesis: No serial correlation at up to 2 lags

F-statistic	1.958648	Prob. F(2,20)	0.1672
Obs*R-squared	4.585982	Prob. Chi-Square(2)	0.1010

Heteroskedasticity test

Heteroskedasticity Test: White
 Null hypothesis: Homoskedasticity

F-statistic	1.475671	Prob. F(20,7)	0.3110
Obs*R-squared	22.63211	Prob. Chi-Square(20)	0.3072
Scaled explained SS	10.38951	Prob. Chi-Square(20)	0.9605

Model specification test

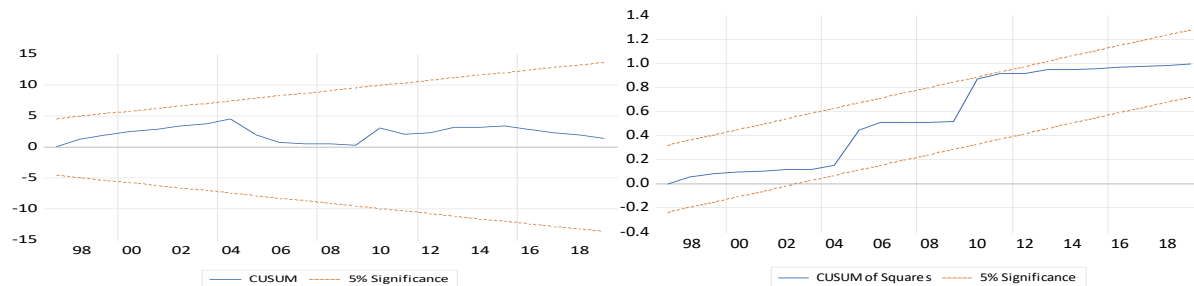
Ramsey RESET Test
Equation: EQ01

Omitted Variables: Squares of fitted values

Specification: TRP_GDP TRP_GDP(-1) TRP_GDP(-2) LNGDPPC
LNGDPPC(-1) C

	Value	df	Probability
t-statistic	1.197697	22	0.2438
F-statistic	1.434479	(1, 22)	0.2438
Likelihood ratio	1.768646	1	0.1835

Model stability test



The above tables show the result of the preliminary tests of normality, serial auto correlation, hetroskedasiticity and model misspecification. As proved by the p value of the respective tests their model is free from normality, serial autocorrelation, hetroskedasticity and mode misspecification problem. In addition, a stability test was conducted. As shown above the CUSUM and CUSUM of squares result confirmed that the model is also stable. Hence interpretation of the findings of the regression is therefore possible.

The bounds test as shown in table 3 above shows that there is no long run relationship between proportion of tax revenue to GDP and economic growth for the study period. This is in line with the neoclassical economic theory. Neoclassical theory postulates that economic growth is the result of exogenous factors and believes that the effect of taxation on economic growth is temporary or short run.

As shown in the above table 4 in the short run one period lag GDP per capita (LNGDPPC (-1)) has significant positive effect on the current period economic growth (LNGDPPC) of Ethiopian economy. The total tax revenue per GDP of one period lag (TRPGDP (-1)) exerts significant negative effect on the economic growth while the current period tax per GDP (TRPGDP) have a positive and significant effect on the economic growth of Ethiopia. However, two period lag GDP per capita (LNGDP (-2)), two period lag tax revenue per GDP (TRPGDP (-2)) doesn't have significant effect on the current period economic growth of Ethiopia.

Effect Of Direct, Indirect, And International Tax on Economic Growth

Tax revenue could be generated from different sources like direct, indirect, and international tax. As shown in the review of literature both theoretically and empirically the different classification of taxation exerts different effects on the economic growth of a given economy. Generally, the type of tax levied could have distortionary and non-distortionary effect on economic growth.

Table 5: Bounds test for the effect of tax classification on economic growth.

Levels Equation Case 3: Unrestricted Constant and No Trend				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
LNDT_GDP	6.112526	12.04530	0.507462	0.6180
LNIT_GDP	-12.00317	30.52385	-0.393239	0.6988
LNINTT_GDP	4.197345	14.25178	0.294514	0.7717
EC = LNGDPPC - (6.1125*LNDT_GDP -12.0032*LNIT_GDP + 4.1973 *LNINTT_GDP)				
F-Bounds Test				
Null Hypothesis: No levels relationship				
Test Statistic	Value	Signif.	I(0)	I(1)
F-statistic k	3.615176 3	10%	Asymptotic: n=1000 2.72	3.77
		5%	3.23	4.35
		2.5%	3.69	4.89
		1%	4.29	5.61
Actual Sample Size	25		Finite Sample: n=30	
		10%	3.008	4.15
		5%	3.71	5.018
		1%	5.333	7.063
t-Bounds Test				
Null Hypothesis: No levels relationship				
Test Statistic	Value	Signif.	I(0)	I(1)
t-statistic	0.511679	10%	-2.57	-3.46
		5%	-2.86	-3.78
		2.5%	-3.13	-4.05
		1%	-3.43	-4.37

Table 6: ARDL output: the effect of tax revenue mobilization on economic growth

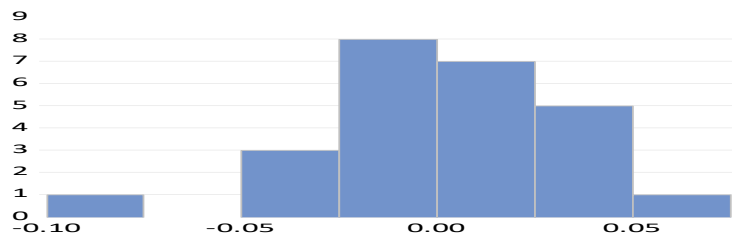
Dependent Variable: LNGDPPC
Method: ARDL
Date: 02/17/23 Time: 12:19
Sample (adjusted): 1995 2019
Included observations: 25 after adjustments
Maximum dependent lags: 2 (Automatic selection)
Model selection method: Akaike info criterion (AIC)
Dynamic regressors (2 lags, automatic): LNDT_GDP LNIT_GDP
LNINTT_GDP
Fixed regressors: C
Number of models evaluated: 54
Selected Model: ARDL(1, 2, 0, 0)

Variable	Coefficient	Std. Error	t-Statistic	Prob.*
LNGDPPC(-1)	1.026566	0.051919	19.77249	0.0000
LNDT_GDP	-0.009160	0.090086	-0.101680	0.9201
LNDT_GDP(-1)	-0.286536	0.119513	-2.397523	0.0276
LNDT_GDP(-2)	0.133312	0.076594	1.740497	0.0988
LNIT_GDP	0.318874	0.211961	1.504397	0.1498
LNINTT_GDP	-0.111506	0.169753	-0.656870	0.5196
C	-0.349116	0.204892	-1.703902	0.1056
R-squared	0.995209	Mean dependent var	5.972887	
Adjusted R-squared	0.993613	S.D. dependent var	0.409561	
S.E. of regression	0.032733	Akaike info criterion	-3.769388	
Sum squared resid	0.019286	Schwarz criterion	-3.428103	
Log likelihood	54.11736	Hannan-Quinn criter.	-3.674730	
F-statistic	623.2308	Durbin-Watson stat	1.908981	
Prob(F-statistic)	0.000000			

*Note: p-values and any subsequent tests do not account for model selection.

Preliminary tests

Normality test



Series: Residuals	
Sample 1995 2019	
Observations 25	
Mean	2.36e-18
Median	0.002097
Maximum	0.05168
Minimum	-0.083642
Std. Dev.	0.028347
Skewness	-0.639220
Kurtosis	4.439178
Jarque-Bera	3.860044
Probability	0.145145

Serial correlation test

Breusch-Godfrey Serial Correlation LM Test:

Null hypothesis: No serial correlation at up to 2 lags

F-statistic	2.444221	Prob. F(2,16)	0.1185
Obs*R-squared	5.850654	Prob. Chi-Square(2)	0.0536

Homoscedasticity test

Heteroskedasticity Test: Breusch-Pagan-Godfrey

Null hypothesis: Homoskedasticity

F-statistic	0.415110	Prob. F(6,18)	0.8594
Obs*R-squared	3.038775	Prob. Chi-Square(6)	0.8040
Scaled explained SS	2.708870	Prob. Chi-Square(6)	0.8444

Model specification test

Ramsey RESET Test

Equation: UNTITLED

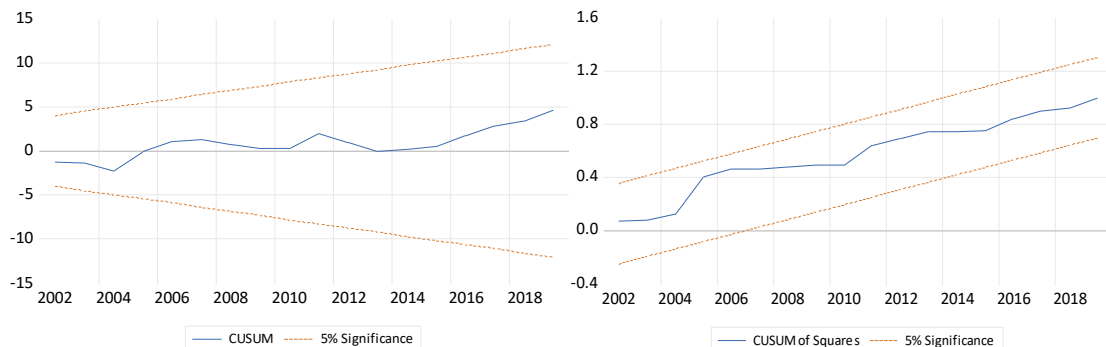
Omitted Variables: Squares of fitted values

Specification: LNGDPPC LNGDPPC(-1) LNNT_GDP LNNT_GDP(-1)

LNNT_GDP(-2) LNNT_GDP LNNT_GDP C

	Value	df	Probability
t-statistic	1.194643	17	0.2486
F-statistic	1.427171	(1, 17)	0.2486
Likelihood ratio	2.015323	1	0.1557

Model stability test



From the above tables Since the P values of the different tastes conducted are greater than 5%, there is no normality, serial autocorrelation, hetroskedasticity and model misspecification issues. In addition, the model is also stable and hence it is possible to interpret the findings of the study.

Table 6 shows the effect of domestic direct tax, domestic indirect tax, and taxation on international trade on the economic growth of Ethiopia for the specified study period. As bound test, as shown in table 5, shows that there is no long-run relationship between them. In the short run one period lag of GDP per capita (LNGDPPC (-1)) is positively and significantly contributes to the economic growth of the current period (LNGDPPC) of Ethiopia. One period lag of direct tax per GDP exerts negative and significant effect on the current economic growth while the current period direct tax per GDP doesn't have a significant effect on the economic growth of Ethiopia. Similarly, the two-period lag of direct tax per GDP, indirect tax and international tax doesn't have a significant effect on the current year economic growth of Ethiopian economy.

DISCUSSION OF FINDINGS

The descriptive analysis shows that majority of the tax revenue to GDP are raised from international tax followed by domestic direct tax. The domestic indirect tax contributes a negligible contribution to the overall tax per GDP of the country throughout the study period. This is not in line with the objectives of the reforms made in 2002 and 2016. The main objectives of the reforms were generally to enhance the domestic tax revenue and decrease the dependence of the economy on the trade tax. Since dependence on international tax may pose difficulties given moves to liberalize and increase trade in Africa by the implementation of African Continent Free Trade Area (AFCFTA) and other regional arrangements like COMESA by which Ethiopia is a part.

There are two main theories dealing with the causes of economic growth. Specifically, these theories dealt with the relationship between taxation and economic growth. These theories are neoclassical and endogenous theories of economic growth. The neoclassical theory speculates that economic growth is the result of exogenous factors and internal factors like taxation do have short run or temporary effect. The endogenous theory of economic growth on the other hand postulates that economic growth is the result of endogenous or internal factors. This implies that taxation and other policy variables do exert long-run effect on the economic growth of a state.

Furthermore, according to the endogenous economic growth theory taxation is classified into distortionary and non-distortionary taxes. This classification is based on the effect of taxation on the decision of the taxpayer and the overall effect of economic growth. Distortionary taxes include the direct taxes which are directly levied on the income of the taxpayers. Therefore, they can affect the decision of the taxpayer to work, save and invest and are expected to exert negative effect on the economic growth of a state (Ugwunta & Ugwuanyi, 2015).

The non-distortionary tax refers to the indirect tax and mostly to the consumption taxes. These taxes are expected not to alter the decision making of the taxpayer. In addition, if the income generated from such taxes is invested in productive areas could result in economic growth (Myles, 2009).

The findings of the study show that there is no long-run relationship between tax revenue as well as the different classification of taxation and economic growth of Ethiopia for the study period. In the short run the findings of the study show that the current period tax revenue per GDP has positive and significant effect on the economic growth of Ethiopia. While one period lag tax revenue per GDP exerts negative and significant effect on the economic growth of Ethiopia. This is basically in line with the neoclassical economic theory. In addition, this can also be resulted

from the fact that the proportion of taxation to GDP is minimal, even less than 12% and mostly development related expenditures are not financed by the revenue that is generated from taxation. This is also true in most developing countries and confirmed by different studies conducted in developing countries specifically in Africa (see for instance Gbato (2017); Ugwunta & Ugwuanyi, (2015)).

In the short run the one period lag of direct tax per GDP exerts negative and significant effect on the economic growth of Ethiopia. Since the direct tax has a distortionary nature, it is expected to exert a negative effect on the economic growth of the state. This in line to a plenty of studies conducted in different parts of the world (see for example, McNabb & LeMay (2014); Hakim & Bujang (2012) and Ormaechea & Yoo (2012)). While the current period direct tax, domestic indirect tax and international tax revenue per GDP doesn't have a significant effect on the economic growth of Ethiopia.

CONCLUSION AND RECOMMENDATION

Conclusion

Most of the tax revenue to GDP is raised from international tax followed by domestic direct tax. The domestic indirect tax contributes negligible contribution to the overall tax per GDP of the country throughout the study period.

There is no long-run relationship between tax revenue as well as the different classification of taxation and economic growth of Ethiopia for the study period. This finding is in line to the neoclassical economic theory. In addition, this can also be resulted from the fact that the proportion of taxation to GDP is minimal even less than 12% and mostly development related expenditures are not financed by the revenue that is generated from taxation.

In the short run the findings of the study show that the current period tax revenue mobilization has positive and significant effect on the economic growth of Ethiopia. This is because of the availability of funds for the government to undertake its activities and fulfill some of the short-term requirements of the public. While one period lag tax revenue per GDP exerts negative and significant effect on the economic growth of Ethiopia.

In the short run the one period lag of direct tax per GDP exerts negative and significant effect on the economic growth of Ethiopia. Since the direct tax has a distortionary nature, it is expected to exert a negative effect on the economic growth of the state. This is since direct tax does have a distortionary effect, which affects the decision of the taxpayer for the future decisions s/he makes.

Recommendation

In Ethiopian context and in the study, period covered in this study, tax revenue doesn't have a long run effect on the economic growth of Ethiopia. This could be resulted from different reasons, but one can postulate that it is due to the minimal level of tax revenue mobilization of the country. Therefore, it is recommended to enhance the contribution of tax revenue to the overall GDP of Ethiopia so that the revenues generated could be used to invest in huge expenditures resulting in economic growth of a country. This could be done by enhancing the taxation base and modernizing the tax administration system of the country. In addition, tax revenue mobilization could be enhanced by creating awareness among the taxpayers and tax officials.

the government of Ethiopia generally and the ministry of revenue specifically is recommended to review the tax system and devise a mechanism to divert the sources of tax revenue from international tax as well as domestic direct tax to domestic indirect tax. By introducing strong tax collection mechanisms and giving an emphasis on the collection of domestic indirect tax. This can be made by enhancing the awareness level of the taxpayers as well as training the tax officials to properly collect tax revenue. In addition, the tax office is recommended to enhance the controlling mechanism and make sure the tax system is free from corruption and malpractices.

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2.4. Financial Development in Ethiopia: Assessment of the Pre-Conditions for Capital Market Development the Political Economy View

Amsalu Bedemo

Assoc.Prof. School of Policy Studies, Ethiopian Civil service University

Email: amsalu72@gmail.com

ABSTRACT

The effect of financial development on the economic growth of countries is well-researched and documented both in empirical and theoretical literature. However, studies on what determines the financial development itself are scanty. Specifically, the role of political factors in affecting the speed of financial development and establishment of capital markets is a very important, yet unaddressed issue. Thus, the main objective of this research is to analyze the political economy of financial development in Ethiopia. Specifically, the research examines (i) the effect of political regime characteristics on financial development; (ii) the pre-conditions for capital market development in Ethiopia. For the first objective, the Autoregressive Distributive Lag Model to co-integration is applied to examine the long-run and short-run effects of political factors on financial development of Ethiopia. The time series data ranging from 1990 to 2020 is used for this purpose. For the second objective, methods of descriptive and trend analysis are used, supported by literature and qualitative information obtained from interviews of concerned financial institutions. The results show that the democracy characteristics of the political system and the regime stability factor were found to have a positive significant effect on financial development in the long run but are negative in the short run. The findings of the second objective reveal that, compared to developing countries in Africa, broadly speaking the existing pre-conditions for capital market development in Ethiopia are in place. However, issues related to enabling environment with regards to macroeconomic imbalances, political commitment, lack of awareness from the side of institutional investors (financial literacy) and the elites' group interest had led to the delay in the establishment of capital market in Ethiopia. Overall, findings support the interest group theory of financial development.

Keywords: financial sector, capital market, financial development, political economy, interest groups, political system

INTRODUCTION

A financial system is a sophisticated system of financial institutions and markets that play an interactive role in the allocation of resources between lenders and borrowers. The system consists of the intermediary role of financial institutions and markets. The financial system plays an important role in channeling and efficiently allocating financial resources in the economy for their better use (Samia et al., 2020). The term financial development thus represents an improvement in the funds available for intermediation and the efficiency of financial markets and institutions in allocating these funds to borrowers.

The effect of financial system development on the economic growth of countries is well-researched and documented in both empirical and theoretical literature. Evidence revealed that financial development has a positive long-run impact on the economic growth of countries (Bibi, 2022; Mammadov and Ahmadov, 2021; An et al., 2021; Samia et al., 2020; Kacho and Dahmardeh, 2017; Ang, 2008; Levine, 2005) and many others. According to these studies, a properly functioning financial system accelerates economic growth through its role in allocating and channelling finance to various productive investments. Therefore, given the importance of financial system development for economic growth, policies, and strategies for the successful development of the financial system should receive great attention and priority from governments and policymakers.

However, it is notable that a low level of financial development is the feature of many authoritarian regimes and unstable governments which characterizes the typical political systems of developing countries. The level of financial development of LDCs is generally low compared to that of advanced and emerging economies. Specifically, in African countries in general and in Ethiopia particular, it is very low, dominated by bank-based financial systems and is not operating efficiently. Moreover, the stock exchange markets which do exist in a few countries are young compared to the advanced economies. Yet generally such markets do not exist in many African countries including Ethiopia.

During the last three decades, the government of Ethiopia made significant efforts to expand the financial institutions following the regime change in 1991. The government liberalized the sector and made financial reforms that enabled the growth of private banks, insurance companies, and microfinance institutions in the country. For example, proclamation No.84/1994 which allowed private investors (with Ethiopian nationals only) to engage in the banking and insurance businesses can be considered the starting point for the new era of financial sector growth in Ethiopia. As a result of the reforms, bank branches (both public and private) increased to 6,511 in 2019 from 395 branches in 2008; and the total resource they mobilized increased by more than 25 %. The total deposit from the banking sector increased from 62,956.3 million in 2008 to 1 trillion Ethiopian Birr in 2019. Similarly, the outstanding loans also showed more than 40% growth as indicated by the National Bank of Ethiopia (NBE Report, 2020).

Regardless of the promising performances of bank-based financial sector indicators as described above, the overall financial development of Ethiopia, as proxied by financial development index, is low compared to many developing countries. For instance, based on IMF financial database, the average overall financial development index of Ethiopia is 0.115. This figure, though slightly higher than the average index of low-income developing countries, it is very low compared to the average of many African countries such as Egypt (0.276), Namibia (0.28), Kenya (0.140) and others (IMF, 2022).

Many researchers tried to provide different theoretical explanations for the underdevelopment of the financial sector in developing countries. The first and early studies blamed the doomed government interventions such as ceilings on the interest rate, high reserve requirements by banks and direct credit allocation and control measures were found to be the main sources for financial underdevelopment (McKinnon, 1973; Shaw, 1973). Therefore, removing such government distortion measures in the financial sector is considered as a very essential initial step for financial development.

The second theoretical foundation focuses on the role of institutions in financial development. Institutions are defined broadly as the rules of the game in a society, or they are humanly devised constraints that shape human interaction (North, 1990). There are lots of empirical studies that have tried to examine the effect of institutions and institutional quality on the financial development of countries. Most studies conclude that strong and quality institutions are generally positively related to a better financial position (Feng and Yu, 2021; Aluko & Ibrahim, 2021; Aluko & Ibrahim, 2020).

Finally, the relatively recent theoretical literature is the political economy argument. The political economy literature argues that the political systems in which decisions are made about economic policies are important factors in the process of the financial development of countries. For instance, Olson (1993) claimed that those elites in political power shape policies and institutions to stay in power and enrich themselves. Besides, Rajan and Zingales (2003) established the interest group theory of financial development. The theory argued that incumbent elites are more likely to block the process of financial development by obstructing reform programs in a more authoritarian political system regardless of the demand by the opposition parties for more equal access to resources. Therefore, according to these authors, the financial underdevelopment is the result of deliberate policy choice by incumbents.

Although there are many empirical studies on determinants of financial development in both developing and developed countries in general, such studies are very scant in Ethiopian context. The existing empirical studies in Ethiopia tried to examine the link between financial development and economic growth. For instance, a study by Asratie (2021) analyzed the determinants of financial development in Ethiopia by using the ARDL approach. He used broad money supply and credit to the private sector as indicators of the financial development of Ethiopia. Moreover, Isayas (2022) examined the determinants of the profitability of banks in Ethiopia.

The current study is different and robust in two ways. First, it estimates the aggregate financial development index by using the method of principal component analysis (PCA) based on nine banking sector indicators of financial development. Second, as to my knowledge, the analysis of factors affecting financial development from a political economy perspective is rare at the global level and not existing in Ethiopia. In Ethiopia, there are no such empirical studies that analyzed the effect of political regime characteristics on financial development. Third, regardless of the financial reforms and the resulting expansion of financial institutions in Ethiopia over the last three decades, the country is unable to establish a capital market. Even though, the need for financial markets as the next step in the ongoing financial liberalization is gaining consensus among various stakeholders in Ethiopia, the country didn't succeed to establish one.

The political economy view contends that the political system of a country influences its level and speed of financial development. In this regard, the study strongly argues that the main source of financial underdevelopment and the reason for the delay in the establishment of capital markets in Ethiopia is largely related to political factors such as lack of political commitment and the influence of elite political incumbents in the political system. For example, more democratic political systems restrict the influence of elite groups and lobbies by widening political participation, whereas the political systems dominated by the narrow elite groups will work towards self-interest thereby obstructing the development of the financial system. That is, in a

more democratic political system, the influence of lobbies and elite incumbents is reduced because of the existence of checks and balances in the systems; but that is not the case in an autocratic system.

PROBLEM STATEMENT AND RESEARCH QUESTIONS

The Proclamation No. 84/1994 that allowed the private investors (with Ethiopian nationals only) to engage in the banking and insurance businesses can be considered as the starting point for the new era of financial sector growth in Ethiopia. Liberalization policy and the resulting reforms including this proclamation enabled the growth of private banks, insurance companies, and microfinance institutions in the country since 1992. As a result, the country witnessed a wide expansion of private banks and insurance companies. By the end of 2019/20, the number of banks reached 18(16 private and 2 public), insurance companies 18 (one public and 17 private), and microfinance institutions 41 (with 11 public, 13 private, and 17 NGOs). The share of private banks in the total branch network reached 70.5% and the overall capital of the banking industry registered to be Birr 112.9 billion at the end of June 2020 (NBE, 2020). A similar expansion of branches and capital assets was observed in insurance companies and microfinance institutions.

Even though many efforts are done to expand the financial institutions and the services they provide as of the regime change in 1991, the financial development indicators of Ethiopia remained very low as compared to developing countries. It is even much lower than the average indicators for Sub-Sahara Africa countries. The number of private financial institutions, the branch expansion, the total capital asset of the banking industry, domestic credit to the private sector for bank-based intuitions, financial institution per population, and the number of ATM users stands at a low level compared to many developing countries.

Similarly, the financial market side of the financial sector development is not only weak but almost not existing in Ethiopia. Even though the existence of such markets is expected to engage governments, financial institutions, and companies and contribute to economic growth, there is no well-established capital market in Ethiopia. The establishment of such markets in Ethiopia can also enhance competition between financial institutions thereby reduce the dominance of State banks in the banking industry of the country. However, very recently there have been tremendous efforts by the government to establish the stock exchange market in the country.

Generally, in Ethiopia the expansion and development of the bank-based financial system in general and that of the financial market in particular has been an ongoing practice since the market-oriented approach of 1991. Except the government's treasury bill market, which is established for debt management, stock exchange markets were not created yet and the pension system of the country remained to be only governmental. Based on the existing conditions briefly outlined, Ethiopia fell behind many developing countries in developing its financial system. This research, guided by the interest group theory of financial development, will provide an answer to the following questions. Therefore, in line with problem stated and objectives, the research will address the following questions:

- 1. Do political economy factors affect the financial development of Ethiopia? Alternatively, how the political regime characteristics influence financial development of Ethiopia?*

2. *Why do capital markets not exist in the history of financial development of Ethiopia? Is it because the pre-conditions for capital market development not in place or is it due to the role of elite interest groups in delaying the process of capital market development?*

LITERATURE REVIEW

The theoretical aspect of the literature was briefly described in the introduction section. As stated, the theoretical reasons for the underdevelopment of financial development were linked to the legal theories, institutional theories, and political economic theories of financial development. Not to repeat the review points, this section emphasizes empirical review of the literature.

Empirical review of Literature

Determinants of financial development (the political economy view)

Since there is a large body of empirical literature in the determinants of financial development and that many researchers measure institutional factors in terms of political institutions, it is necessary to make reviews on institutional factors along with political parameters. Thus, empirical studies that focus on the effect of political systems and institutions on financial development as well as the issues of capital market development are addressed.

Asratie (2021) studied the determinants of financial development in Ethiopia using time series data from 1980 to 2019. He applied the ARDL method of estimation technique. But he used data on private sector credit and money supply to measure the level of financial development in the country. The study used different factors as explanatory variables in the regression analysis. The finding revealed that financial development, proxied by a broad money supply, is positively affected by the index of political freedom and economic growth in both the short and long run. The other proxy for financial development, credit to the private sector, is also positively related to the inflation rate, index of political freedom and economic growth.

We know that political interest groups may intervene in the banking system by applying a variety of policy instruments; one such intervention is to direct and control credit allocation in the economy. Most of such policy directions have important implications on the institutional set-up for banking regulation. For example, as stated by Jones (2020), in cases where the government follows an interventionist approach, the executive bank (usually the central bank) is likely to retain a high level of control over bank regulations and supervision, but the bank regulatory authorities may have a lower level of independence. Thus, the elite interest groups may exert influence over regulations to the best interests of banks with whom they are politically connected or even they may own banks. The problem is severed in countries where state-owned banks dominate the banking sector because incumbent politicians may be given a high level of discretionary control over credit allocation and other banking services in the economy.

Samia *et.al* (2020) examined the effects of institutions on the financial development of selected European nations using panel data ranging from 1989 to 2016. By applying the composite indices on access, depth, and efficiency of financial development and using the classification of institutions as suggested by Rodrick (2005) and Law et al. (2018), they found that institutional quality affected the financial development of countries positively and significantly. Similarly, the study by Çalışkan (2019) tested the relationship between political stability and financial

development in Turkey using a political economy view. The research examined the impact of political stability and decisions on financial development. The analysis is conducted by applying VAR model on the PolityIV dataset. The study discovered the existence of a long-run relationship between financial development and political stability. The study had also found the causality that runs from financial development to political stability.

In their studies, Ferrara and Sattler (2018), examined the relationship between politics and financial markets through the political economy argument. Their research focused on the effect of domestic and international political interest groups, institutions and policy decisions on returns and volatility of the capital market stock as well as bond and foreign exchange markets. The research has drawn implications around three major debates in the field of political science. These include the distributive effects of politics; globalization and state autonomy; and the political roots of economic credibility and its tensions with democratic accountability. The authors found that while the relationship between politics and financial markets is complicated by several challenges, the methodological innovations they applied in political economy research provide a window of opportunity for the development of the field.

Another empirical study by Fagbem and Ajibike (2018) in Nigeria assessed the long and short-run dynamic relationship between institutional quality and financial development from 1984 to 2015 by using Auto Regressive Distributed Lag. They used private credit and broad money supply as indicators of financial development. The results revealed that institutional factors do not have any statistically significant effect on financial development both in the long - run and the short run. Their findings highlighted that whereas, weak institutions limit the functioning of the financial system, good governance and strong institutions were found to be the main components of financial development in Nigeria.

Similarly, research by Sionfou *et.al* (2018) examined the relationship between property rights protection (used as a proxy for the quality of institutions) and financial development. They studied the cases where private property is forcefully taken away and questioned the independence of the judiciary, the prevalence of corruption within the judiciary, and the ability of businesspeople to enforce contracts thereby leading to the underdevelopment of the financial sector. Moreover, Law et al. (2015) empirically examined the causal linkages between institutions and financial development in East Asian economies from 1984 to 2008. Using the Westerlund panel co-integration test, they found a significant long-run relationship between institutional quality and financial development. It has also been found that in the short run, there exists a Granger causality effect running from globalization to institutions, and in turn institutions lead the development of the financial sector.

Filippidis and Katrakilidis (2014) investigated the role of institutional factors and government policy in affecting the banking sector development, based on data obtained from low-, middle- and high-income countries during 1985 to 2007. To investigate the effect of economic and political institutions on bank based financial development, they employed a dynamic panel model that controls endogeneity problem. The results demonstrated that economic institutions proxied by the legal dimension are the main determinant of banking sector development. The finding further confirmed that social institutions have a greater impact on low- and middle-income countries, while political institutions have a greater impact on high income countries.

Powerful politicians may have either direct ownership status in banks or may exercise influence over the banking operations using their political power. Particularly, in countries where state owned banks dominate the financial sector, incumbent politicians are given a high level of discretionary control over credit allocation in the economy. For instance, Arriola (2013) in his study revealed that the incumbent politicians in many African countries use discretionary powers to decide on the credit allocation based on political allegiance and connection. Even though Arriola argues that such a situation is likely to occur in state owned banks in the financial systems, politicians may also take ownership roles in private banks to further enhance their political goals.

The study by Voghouei et al. (2011) examined the effect of economic institutions on financial development, where economic institutions themselves are endogenously determined by political power. Acemoglu et al. (2005), examined the effect of both the *de jure* and *de facto* political powers on financial development. They applied panel regression model on data obtained from different counties from 1980 to 2006. The result showed that political power, after significantly influencing economic institutions, affected the financial development, with *de jure* political power exerting large significant effect on financial development as compared to the *de facto* state. Following the theory of “economic institution” proposed by Girma & Shortland (2008) analyzed the political economy of financial development in advanced and developing economies. They applied the interest group theory of financial development, arguing that in countries where narrow elite groups control political decisions, financial development may be obstructed to deny access to finance for potential competitors. They used panel data on developed and developing countries from 1975 to 2000 and examined the effects of democracy characteristics in a political system captured by polity2 variable and political regime durability on the financial development of the countries. The results revealed that regime stability and the level of democracy in the political system positively influenced the financial development of the countries, with additional benefits from fully democratic regimes. Similarly,

Capital Market Development

There are lots of empirical studies in advanced countries on the roles, determinants, and different aspects of capital markets. But such research is very scant in Ethiopia. A few studies are briefly discussed below. A study by Tiruneh (2012) examined the foundation for the establishment of financial markets in Ethiopia, identified the potential challenges and opportunities of capital market development in Ethiopia by using quantitative and qualitative approaches. The findings provided empirical based information for policy makers towards establishing financial markets in the country. The research suggested the government take timely actions for the establishment capital market to reap the potential opportunities and prepare towards addressing the direct challenges.

The fiscal policies which help to handle budget imbalances help to create sovereign debt markets at different maturities, thereby providing a yield curve benchmarks against which to value corporate bonds (Dittmar and Yuan 2008). Similarly, Carvajal, et.al, (2020) pointed out that the government debt market will also play a catalytic role in giving rise to a minimum threshold of trading volume and liquidity to jump-start the private market. This will have two effects; first, the government bond issuance may crowd out private sector issuance and second, unmanageable fiscal

borrowing and external deficits may lead to a more macroeconomic instability and even crises thereby jeopardize market development.

The study by Demekas and Nerlich (2020) analyzed the process of domestic capital market development in developing countries from the perspectives of market participants. Their finding indicated that domestic capital markets that are deep, efficient, and well-regulated can create access to long-term, local-currency finance. Their interview results with market participants revealed existence of two distinct phases of capital market development; where in the initial phase, the government is predominant but when the phase matures, the capital market starts to serve the private sector. According to their findings, each phase has distinct preconditions and drivers that affect the success of capital market development. Moreover, capital market development requires continuous monitoring and policy interventions due to changing market stages and capital markets are the main sources of large volume, long-term local currency finance.

Ziorklui et.al, (2001) examined the capital market development and growth in Sub-Saharan Africa, the Case of Tanzania. The study found out that the introduction of high-yield government short-term treasury bills has increased the demand for treasury bills at the expense of credit to the private sector. Moreover, the foreign participation encouraged the domestic participation in the capital markets, and that regardless of policy changes in Tanzania and the resulting positive impact on capital market development, many challenges remained to be addressed for promoting proper functioning of the capital market.

In his institutional and legal review for capital market, Chewaka (2014) found out that Ethiopia lacks the institutional and legal frameworks that regulate the market for stock exchange. The study tries to analyze the existing legal framework on stock markets and tries to contrast relevant literature to give an image on the legal aspects of stock market development. He argued that creating legal infrastructure that accommodates stock market in Ethiopia is a timely issue to catch up with the global trend, given the current demand for capital market development.

Generally, existing literature revealed that most emerging and developing economies continue to exhibit a very limited level of capital markets development. Even though the basic forms of capital markets exist in any economy, a sustainable and well-functioning capital market has preconditions. The World Bank highlighted several preconditions for the development of capital markets, which are grouped into three broad categories; stable macroeconomic environment, a certain level of development of the financial sector and existence of conducive legal and institutional environment (World Bank, 2019; World Bank, 2020; Carvajal, *et.al*, 2020). However, there is no such a pre-determined threshold defining the extent to which each of these preconditions must be met for capital markets to develop. Rather the existence of basic requirements for capital markets to exist will be assessed based on experiences and practices of other African countries. Without these basic preconditions in place, it is unlikely that capital market development will happen.

METHODOLOGY

Data Sources and Description

As there is no single measure of financial development in literature, this study used principal component analysis (PCA) to develop an aggregate index of financial development based on nine indicators of bank based financial performances. The bank-based indicators used include *credit to*

the private sector by the financial system, the liquid liabilities, commercial bank assets to commercial bank assets plus central bank assets. Bank efficiency measures such as *bank overhead costs, the net interest margin* as well as bank profitability measures such as *bank return on asset and bank return on equity* are used to generate aggregate financial development indicator.

Moreover, since there is no established capital market in Ethiopia, the market side of the financial system is not considered in this study. The analysis is entirely bank-based financial performance used as proxy for the overall financial development. The data are obtained from the Financial Development and Structure Database of the World Bank (World Bank, 2020); the IMF database on financial structure (IMF,2020) and the National Bank of Ethiopia 2020 official report (NBE, 2021). Few missing data were replaced by interpolation methods so that 31 years of data are secured for this study.

The explanatory variables included in regression analysis represent the political regime characteristics, institutional/governance quality parameters and macroeconomic policy indicators. The regime durability variable measured as a '*durability*' is included because the existence of political upheaval or instability whether it is a move towards democracy or autocracy, will likely lead to damage to the financial system of such countries by wars, revolutions, and political disturbances. The democracy index proxied by combined polity score '*polity2*' measures the extent of incumbent power in the financial system, where the higher scores of '*polity2*' indicate a higher degree of democracy in the system. The polity variables are designed to measure the characteristics of the institutionalized authority of a regime. Both the composite '*polity2*' and the regime durability variables were obtained from the *Polity IV* database.

In addition, the democratic accountability variable (a measure of how responsive government is to its people) obtained from International Country Risk Guide (ICRD) database and indicators of the government stability are obtained from the Quality of Government (QoG) Institute of the University of Gothenburg. The macroeconomic policy indicators included are inflation, GDP per Capita (a proxy for economic growth) and trade openness were obtained from the World Bank database.

Finally, for the assessment of the pre-conditions for the capital market, we used time series data from official secondary sources and an interview conducted for consultants, experts, and managers of capital market related financial institutions such as banks, the National Bank of Ethiopia, and Ministry of Finance. Moreover, to supplement the trend analysis, related literature was reviewed and both theoretical and empirical information was obtained from official documents and published materials.

MODEL SPECIFICATION FOR THE DETERMINANTS OF FINANCIAL DEVELOPMENT

The Autoregressive Distributive Lag Model (ARDL) is a model for analyzing the long-run relationship among variables involved in regression. But in cases where there is disequilibrium in the short run, the speed of the adjustment can be estimated by the interaction of long-run and short-run specifications. For this purpose, the short-run relationship is also specified in the model as shown below.

$$\begin{aligned} \Delta FD_t = & \beta_0 + \beta_1 \sum_{i=1}^{p1} \Delta Inf_{t-i} + \beta_2 \sum_{i=1}^{p2} \Delta GDP_t + \beta_3 \sum_{i=1}^{p3} \Delta Open_t + \beta_4 \sum_{i=1}^{p4} \Delta Polity_t + \\ & \beta_5 \sum_{i=1}^{p5} \Delta Durable_t + \beta_6 \sum_{i=1}^{p6} \Delta DemAct_t + \beta_7 \sum_{i=1}^{p7} \Delta GovQlt_t + \beta_8 \sum_{i=1}^{p8} \Delta GovStab_t + \\ & \alpha_1 FD_{t-1} + \alpha_2 Inf_{t-i} + \alpha_3 GD_{t-i} + \alpha_4 Open_{t-i} + \alpha_5 Polity_{t-1} + \alpha_6 Durable_{t-i} + \\ & \alpha_7 DemAct_{t-i} + \alpha_8 GovQly_{t-i} + \alpha_9 GovStab_{t-i} + \varepsilon_t \end{aligned} \quad (Eq.2)$$

Where β_0 is an intercept, i denotes the lag length, Δ refers to the difference operator and ε_t stochastic error term at time t .

If variables have long-run relationships, they will move towards the same equilibrium point in the long -run. However, in case where there is disequilibrium in the short-run, their established long-run relationship will enable them to have a strong error adjustment mechanism to remove the disequilibrium. Therefore, ARDL can be modified to include error adjustment terms and estimate the speed of adjustment in the short run and thus termed as an approach to con integration. The specification of the final ARDL approach to con integration is given below.

$$\begin{aligned} \Delta FD_t = & \beta_0 + \beta_1 \sum_{i=1}^{p1} \Delta Inf_{t-i} + \beta_2 \sum_{i=1}^{p2} \Delta GDP_t + \beta_3 \sum_{i=1}^{p3} \Delta Open_t + \beta_4 \sum_{i=1}^{p4} \Delta Polity_t + \\ & \beta_5 \sum_{i=1}^{p5} \Delta Durable_t + \beta_6 \sum_{i=1}^{p6} \Delta DemAct_t + \beta_7 \sum_{i=1}^{p7} \Delta GovQlt_t + \beta_8 \sum_{i=1}^{p8} \Delta GovStab_t + \\ & \alpha_1 FD_{t-1} + \alpha_2 Inf_{t-i} + \alpha_3 GD_{t-i} + \alpha_4 Open_{t-i} + \alpha_5 Polity_{t-1} + \alpha_6 Durable_{t-i} + \\ & \alpha_7 DemAct_{t-i} + \alpha_8 GovQly_{t-i} + \alpha_9 GovStab_{t-i} + \delta ECT_{t-i} + \varepsilon_t \end{aligned} \quad (Eq.3)$$

Where δ is the coefficient of error adjustment term also known as the speed of error adjustment which represents the percentage of the last year's disequilibrium adjusted within the current year (one year).

Finally, an assessment of the preconditions for capital market development conducted by using methods of descriptive statistical methods and trend analysis. To a clear picture of the pre-conditions, we compared the performance of important fundamental requirements for capital market development prevailing in Ethiopia with that of developing countries in Africa. Besides, the quantitative analysis was supported by the empirical literature surveyed on the development of financial system in general and establishment of capital market in particular.

RESULT AND DISCUSSION

Descriptive and Trend Analysis

The trend for financial development index and major macroeconomic variables as shown in figure 1 reveal different mixed results. Ethiopia's GDP per capita (at constant price) even though stayed at a low and almost constant level for about 10 years (from 1990 to 2000), then after it has shown a significantly tremendous and continuous increase till it reaches the highest level of 852 Birr.

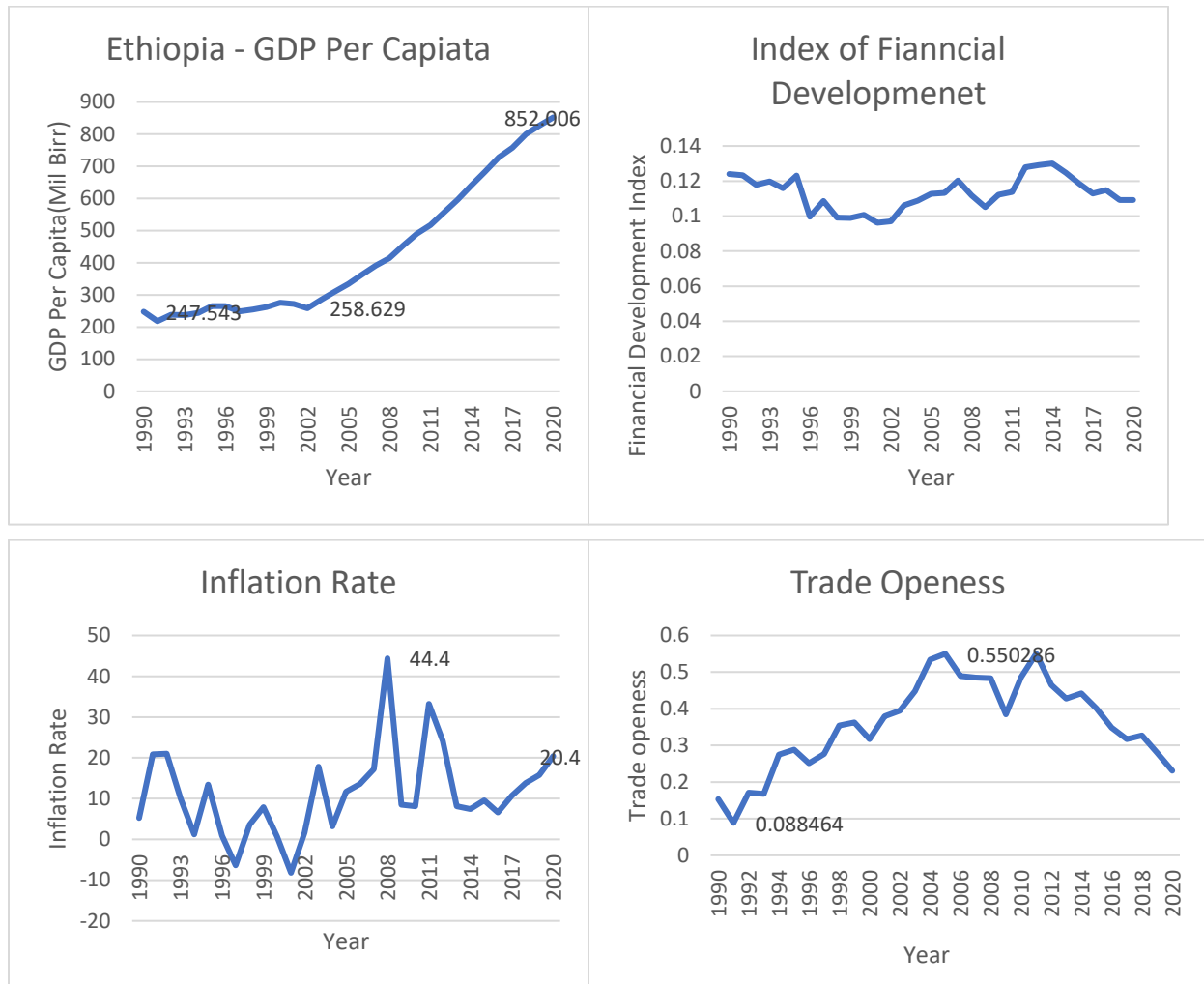


Figure 1. Trends in major macroeconomic indicators

The rate of inflation showed an enormous fluctuation where the highest rate of 44.4 per cent inflation registered in 2008 may be due to the global financial crises of that time. The financial development indicator as shown in the diagram is generally low and even not showing an improvement till 2008. But showed a slight increase for few years till 2008 but started to gradually decline since 2014. Finally, the trade openness (sum of export and import to GDP ratio) even if showed tremendous improvement for more than 10 years (from 0.08 % of GDP during early 1990 to 0.55% of GDP in 2004), it deteriorated continuously starting 2011.

Political Economy of Financial Development in Ethiopia

Econometric test results

As an initial step, the stationarity test was conducted, and the result is reported in table 4.1 below. The Augmented Dickey-Fuller test result shown in the table revealed that some variables are stationary at levels and the majority are stationary at first differencing. But if the variables are not

integrated of order 2, it is mandatory to conduct this test because unlike Johanson's co-integration analysis, ARDL approach doesn't require pre-assumptions on the stationarity.

Table 1 Stationarity test result

Variables	ADF at levels		ADF at 1 st difference	
	Z(t) Statistics	P-value	Z(t) Statistics	P-value
Inflation Rate	-3.837	0.0026	-7.014	0.0000
GDP Per Capita	4.376	1.0000	-3.723	0.0089
Trade Openness	-1.667	0.4483	-5.363	0.0000
Polity2	-3.733	0.0037	-8.813	0.0000
Durability	-3.772	0.0032	-7.632	0.0000
Democratic Accountability	-1.432	0.5666	-3.640	0.0050
Government Quality	-1.437	0.5642	-3.851	0.0024
Government Stability	-2.598	0.0933	-2.850	0.0515
Financial Development	-1.026	0.7436	-5.534	0.0000

Second, in the ARDL approach to co-integration, the existence of long run-relationship is confirmed by the bounds test run after estimating the model. The test is conducted for the null hypothesis of no long-run relationship against the existence of the same. The test result shown in table 4.2 confirms the existence of a long-run relationship among variables as witnessed by the large, computed F-value ($F=103.937$) against the critical values at each level of significance. The computed F-statistics are higher than the critical values at all levels of significance revealing an existence of the long-run relationship.

Pesaran/Shin/Smith (2001) ARDL Bounds Test

H₀: No levels relationship (No long run relationship)

H_A: There is levels relationship (There is a long-run relationship)

Table 2 ARDL bounds test.

Significance Level	Critical Values at Bounds	
	I (0)	I (1)
10%	1.95	3.06
5%	2.22	3.39
2.5%	2.48	3.70
1%	2.79	4.10

$F = 103.937$

Decision Criteria:

accept if $F < \text{critical value for } I(0) \text{ regressors.}$

reject if $F > \text{critical value for } I(1) \text{ regressors.}$

Long-run determinants and short-run dynamics of financial development

The estimated long-run coefficients of the ARDL model are provided in Table 4.3. As shown in the table, the coefficient of error adjustment term is -2.287 and is statistically significant implying that about 228.7% of the previous year's disequilibrium is adjusted within one year (current year). The proxy for the degree of democracy in the political system (polity2) has a positive significant effect on the financial development of the country. This is in line with the interest group theory of financial development. Therefore, according to this finding an increase in the degree of democracy in the political system improves financial development. In other words, if Ethiopia improves its democracy index by 1 scale-point, that will increase the country's level of financial development by about 0.34 scale point. This finding is in line with the empirical results of Girma & Shortland (2008); Voghouei *et.al.*, (2011); Arriola (2013).

However, as shown in table 4.4, in the short-run the polity2 variable has a negative and statistically significant effect on financial development. This looks logical and is in line with the theory because, in the short run, it is unlikely to improve the degree of democracy in the political system and this will obviously exert a deteriorating effect on financial development. The other indicator, democratic accountability, is negative but not statistically significant in the long run; however, in the short run, this variable revealed a positive and significant effect on financial development (see Table 4.4).

Table 3 Estimated long-run results.

Dependent Variable: Financial Development	Coef.	Std. Err.	t	P>t
Adj. Financial Development L1.	-2.286596**	.047509	-48.13	0.013
Estimated long-run results				
Inflation Rate	.1151148**	.0048218	23.87	0.027
GDP Per Capita	.0114013**	.0001853	61.53	0.010
Trade Openness	-5.001265*	.4007889	-12.48	0.051
Polity2	.3429943**	.0240341	14.27	0.045
Durability	.1381267**	.0042176	32.75	0.019
Democratic Accountability	-.1371615	.0344541	-3.98	0.157
Government Quality	12.65929*	1.307835	9.68	0.066
Government Stability	.1652488**	.0109892	15.04	0.042

Similarly, the regime durability and government stability factors included in the model showed a positive and statically significant effect on financial development in the long run, but they indicated a negative effect in the short run. For example, in the long run, the variable 'durability' which is a proxy for regime stability has a positive significant effect on financial development, implying that a point scale increase in durability is likely to increase the financial development of the country by about 0.138 scale-points. However, in the short run, this variable has a negative significant effect (at a 5% level of significance) as shown in table 4.4. This finding is like the findings of Girma & Shortland, (2008); Roe and Siegel, (2011); Çalışkan (2019). The implications of these findings are clear in that countries which didn't experience regime change/transition for a long period will tend to have better financial development as compared to countries with major political upheaval. Similarly, the negative and significant coefficient of the short-run result for 'durability' is an indication that recent violence and political upheavals will have an undesirable

effect on the financial development of the country in the short run. However, as time goes on (in the long period) this negative effect will disappear or turn positive.

The other stability indicator used in this study is the degree of government stability. In the long run, this variable (as shown in table 4.3), has a positive and statically significant effect on financial development at a 5% level of significance: but a negative and significant effect in the short run. An improvement in the degree of government stability by 1 scale-point will likely increase the financial development by 0.165 scale points in the long run, but the same improvement will reduce financial development by about 1.016 scale points in the short run. The implication is that more stable governments are likely to speed up their financial development as compared to unstable governments. Moreover, since it may be difficult to maintain political and government stability in the short time, this may undermine financial development in the short run, however, this negative effect will gradually vanish in the long run because of the establishment of a strong and stable governments.

Table 4 *Estimated sort run results.*

Dependent Variable: Financial Development	Coef.	Std. Err.	T	P>t
Δ Inflation Rate(D1)	-.1530373**	.0095492	-16.03	0.040
Δ Inflation Rate (LD)	-.0612677*	.0063565	-9.64	0.066
Δ Inflation Rate (L2D)	-.0121548	.0044688	-2.72	0.224
Δ GDP Per Capita (D1)	.0371878**	.0024541	15.15	0.042
Δ GDP Per Capita (LD)	.0454534*	.0048456	9.38	0.068
Δ Trade openness (D1)	7.606381**	.3237858	23.49	0.027
Δ Polity2 (D1)	-.2672522**	.017089	-15.64	0.041
Δ Durability (D1)	-.2621053**	.0073867	-35.48	0.018
Δ Democratic Accountability (D1)	6.473855**	.1721026	37.62	0.017
Δ Democratic Accountability (LD)	2.952616**	.0972538	30.36	0.021
Δ Government Quality (D1)	-33.84848*	3.282624	-10.31	0.062
Δ Government Quality (LD)	17.1155**	1.321607	12.95	0.049
Δ Government Quality (L2D)	-1.462263	1.176186	-1.24	0.431
Δ Government stability(D1)	-.7834725**	.0240304	-32.60	0.020
Δ Government stability (LD)	-1.015742**	.039464	-25.74	0.025
_Cons	-6.344026	1.301165	-4.88	0.129

The variable ‘*government quality*’ was included in the model as a proxy for the institutional quality aspects of the government such as rule of law, corruption, government effectiveness and transparency. The *government quality* helps to measure the efficiency and impartiality of the governance system and service provision activities of the government. This variable has a positive and statistically significant effect on financial development in the long run but is negative in the short run (see tables 4.3 and 4.4). That is, an increase in the government quality index will likely

increase financial development in the long run but will reduce it in the short run. The implication is that countries with a better degree of government quality will enjoy better financial development as compared to countries with poor quality of government. The findings are like the empirical results of Samia *et.al*, (2020); Filippidis and Katrakilidis (2014) and Fagbem and Ajibike (2018).

In the end, the macroeconomic policy parameters included in this model such as economic growth (proxied by GDP per capita), inflation rate and trade openness showed different and mixed effects in the long and short run. The rate of inflation affects financial development in the long run positively, but the effect is negative and significant in the short run. This finding is like the findings of Voghouei, *et.al.*, (2011), Badeeb & Lean, (2017) and Fagbemi & Ajibike, (2018); Asratie, (2021). The adverse effect of inflation on financial development is felt in the short run but in the long run an increase in inflation is associated with higher financial development.

The GDP per capita, which is a proxy for economic growth, has a positive significant effect on financial development. According to the finding one birr increase in the GDP per capita will increase the financial development of Ethiopia by about 0.011 and 0.037 scale-points in the long run and short run respectively. This finding is like the findings of Voghouei, *et.al.*, (2011); Badeeb & Lean, (2017); Fagbemi & Ajibike, (2018) and Asratie, (2021).

ASSESSMENT OF THE PRE-CONDITIONS FOR CAPITAL MARKET DEVELOPMENT

Overview of the Preconditions for Capital Market Development

Despite the importance of capital markets, most developing economies continue to exhibit a very limited level of capital markets development. While elementary forms of capital markets can develop in any economy, a sustainable and well-functioning capital market requires important preconditions. The World Bank highlighted several preconditions for the development of capital markets. The preconditions can be grouped into three broad categories: 1) stable macroeconomic environment, 2) a certain level of development of the financial sector; and 3) existence of conducive legal and institutional environment (WB, 2019). Since there is no pre-determined threshold which defines the extent to which each of these preconditions must be met for capital markets to develop; we have tried to conclude based on the existence of the basic requirements comparing with the experiences and practices of developing African countries in similar level of economic development.

Current Efforts in Capital Market Development in Ethiopia

Ethiopia is one of the large Sub-Saharan African countries lacking stock exchange markets but has an efficiently operating commodity exchange market. The history of the establishment of the stock exchange market in Ethiopia dates to the formation of Addis Ababa Share dealing company in 1964. But this company was abolished by the military government in 1974 following the economic policy of that time. Starting from that time till today there has been no capital market put in place in the country. Even though many efforts were made by different stakeholders to establish capital markets and consensus was reached about its importance for mobilizing long-term finance to investors, the country didn't succeed in establishing one.

However, from 2021, there are some efforts by the government to establish the capital market in the country. For instance, Proclamation No. 1248/2021 was enacted as the Federal Democratic Republic of Ethiopia Capital Market Proclamation (a proclamation for establishment of capital market in Ethiopia). The proclamation has highlighted the importance of capital market establishment to the Ethiopian economy. It further states that the security exchange that is going to be established will have a Share by government in partnership with the private sectors, including foreign investors. It is indicated that the government will not own more than 25% of the share and the remaining share will be for corporations, capital market intermediaries and operators of international securities exchanges.

Following the proclamation, different tasks continue to establish full-fledged Capital Markets. For instance, the National Bank of Ethiopia has formed Capital Market Project Implementation Team (CMPIT) to support the establishment of the Capital Market Authority and development of the regulatory framework. The team, comprised of local and international professionals has commenced work in November 2021 with major priority areas identified to work on it including establishment of the capital market authority, development of the regulatory framework, capacity development and investor education, roadmap for preparation of long-term capital market development and review of institutional investor regulation, macro-financial, and tax policies as enabling environment. Moreover, recently consultation workshops were organized for stakeholders to discuss and provide feedback on the proposed directives, legal and institutional framework and roadmap that leads to the establishment of full-fledged capital markets in Ethiopia.

ANALYSIS OF THE PRE-CONDITIONS IN ETHIOPIA

Stable Macroeconomic Environment

The first fundamental requirement is a stable macroeconomic environment. Stable macroeconomic environment is defined to include *sustained economic growth, low level of inflation, healthy fiscal policy measures* such as sound *fiscal balance and sustained public debt, stable political environment* with credible policymaking as well as the market-based interest and exchange rates. Sustained economic growth is a requirement because it has the potential to create confidence and certainty in the minds of investors to save and invest, which plays significant role in financial market development as it channels the supply of funds (flow of private savings) and the demand for funds (private investment) into both the primary and secondary capital markets. Table 4.5 below shows the trends in important macroeconomic indicators for the Ethiopian Economy.

We can see from the table that, even though the level of GDP per capita is generally very low in Ethiopia (compared to others), it has shown significant increase during the last 25 years. It increased from 254.24 Birr in 1990 to 943.96 Ethiopian birr in 2022, which is an increase in more than threefold. Similarly, both national saving and investment (as % of GDP) have sustainability increased for the last 30 years. For instance, national saving (as % GDP) increased from 4.95% in 1990 to 28.8% in 2021, while investment has increased from 11.5% observed in 1990 to 31.4% in the year 2021. These are significant improvements that show an enabling macroeconomic environment for capital market establishment. The rate of inflation is reasonable fair except for the increasing trends since 2020, which made the economy a bit crazy in recent times.

Table 5 Indicators of macroeconomic environment in Ethiopia

Indicators/Factors	Fiscal Year							
	1990	1995	2000	2005	2010	2015	2020	2021
GDP per capita	254.24	134.34	124.46	162.43	341.55	640.54	936.45	943.96
National Saving (% of GDP)	4.951	13.486	15.433	18.167	23.473	31.335	26.538	28.807
Investment (% of GDP)	11.516	12.352	20.217	22.384	25.524	39.417	30.752	31.354
Inflation (annual % change)	5.2	13.4	0.7	11.7	8.1	9.6	20.4	26.8
Fiscal balance (% of GDP)	-6.0	-3.928	-8.88	-4.122	-1.321	-1.947	-2.764	-2.977
Net Debt (% of GDP)	73.16	121.95	80.22	70.09	34.72	45.91	50.08	49.62
Official exchange rate	2.04	6.19	8.09	8.69	14.46	20.66	39.0163	43.691
Real rate of interest	2.642	2.109	1.304	-2.617	-7.28	-17.122	-13.55	
Political stability	-	-0.466	-0.946	-1.690	-1.635	-1.498	-1.758	-2.068
Rule of law	-	-0.966	-0.984	-0.939	-0.808	-0.511	-0.392	-0.606

Source: Own compilation using World Bank Data

However, the fiscal policy variables such as government's fiscal balance and the net debt are a bit discouraging. Fiscal balance as % of GDP is negative throughout implying that the government is spending more than its revenue collection. Similarly, the net debt (% GDP), even though much better compared to late 1990's and early 2000's, it has significantly accumulated and reached to almost half (49.6%) of GDP. This reveals a serious problem of fiscal policy imbalance that will have significant direct and indirect effects on private saving and investment. With regards to macro-prices, the official exchange rate is highly devalued from 2.04 Ethiopian Birr per US Dollar to 43.7 and of course more than 54 Birr per US Dollar at official exchange rates recently. Similarly, the trend and the actual value of the real rate of interest has been negative for the last 15 years. Both theory and empirical literature show that negative real interest rates discourage private saving and thereby investment, the ultimate effect of which may be reflected on economic growth.

Finally, the indicators of political stability and rule of law (taken from world governance indicators of the World Bank) are not in a good status. The political stability indicator has been decreasing continuously since 1995; it deteriorated from -0.466 in 1995 to -2.068 in 2021. Similarly, the rule of law even though shows a small sign of improvement, it is generally negative indicating very low law enforcement practices. The political instability along with poor law enforcement practice will discourage investors from investing in the country.

As noted above, looking at the trends in these macroeconomic indicators only for Ethiopia may not give clear picture of the information. Thus, to see how Ethiopia is performing in its macroeconomic factors relative to other African countries, it is paramount to look at the trends in

similar variables across comparable countries in Africa. The comparisons reveal that except for general relatively low level of some macroeconomic indicators, the countries considered here (Ethiopia, Egypt, Kenya, Morocco) have almost similar in most macroeconomic environmental factors. Except Ethiopia, rest of the countries have one or more stock exchange markets. Besides the trend analysis, the interview results from capital market consultants, division heads and experts of the National Bank of Ethiopia, different commercial banks (public and private) and Ministry of Finance. One interviewee from National Bank of Ethiopia disclosed this:

‘I feel that the macroeconomic conditions of the country such as saving, and investment are very essential issues as they determine the economic growth of the country and help promote the speed of financial development in general and establishment of capital markets. But the government should seriously handle the problems of macroeconomic imbalance related to fiscal policy problems such as excess public debt as they disturb the proper functioning of the economy. The political instability condition we are facing during the last 5 to 10 years are really challenging for the private sector investment, development of the financial sector in the country in general and the process of establishment capital market.’

With regards to the same macroeconomic issue, other respondent from Ministry of Finance responded this.

‘I have information that Ethiopia is on the way to establish capital market. The proclamation was enacted, and the preparation of different directives are underway. I believe that Ethiopia’s capital market establishment will be successful. My only fear is the situation of domestic (internal) conflicts which is getting worse year after year. In many macroeconomic parameters, the country is doing great.’

Yet, another respondent from National Bank replied this.

Ethiopia has lagged and is lagging many countries in the financial market development. As to me, I don’t think the issues is macroeconomic conditions because if you traceback the similar condition for African countries during the time of establishment of their own stock markets, their condition might be worse than the current situation. But they did it. After all, it is the political commitment of the government that matters the most.’

Generally, the trend analysis, the interview result, and literature surveys confirm that the macroeconomic environment related to fiscal imbalances and the political instability issues are a bit demanding issue. But these macroeconomic imbalances and instability issues are not unique to Ethiopia; they are also prevailing in many African countries which running such markets. This forces me to conclude that the macroeconomic fundamentals are almost in place except the need for some reforms to maintain political stability and reduce fiscal imbalances such as excessive public debt and fiscal imbalance.

Existence Of Relatively Developed Financial System.

The potential for capital market development also requires a relatively developed financial system, particularly the competitive banking sector. With regards to the pre-condition for the existence of

banking sector, the current data shows that Ethiopia's banking sector has shown significant improvements since regime change in 1991. Before the regime change in 1991, there are no private banks due to the government policy of centralized government system. The private banks started to flourish after reforms were brought about by the regime. Accordingly, the share and number of private banks and bank branches exploded. For instance, the total number of bank branches (private and public) increased from 681 in 2010 to 6511 in 2020 and the share of private bank branches rose from 47.6% in 2012 to 70.5% in 2020.

However, one significant issue ignored in enhancing the banking sector competitiveness in Ethiopia is the participation of foreign private banks in the country. Bank establishment Proclamation gave an opportunity only to Ethiopian nationals. This may have an impact on the degree competition and experiences sharing in managerial aspects.

All the countries shown as comparison here own stock exchange markets except Ethiopia. Botswana has shown steadily increasing trend with regards to all indicators (*liquid liability, bank asset to GDP and credit to private sector*). In the rest of the countries liquid liability shows fluctuating trend and declining in most cases. Similarly, for *bank asset to GDP and credit to private sector*, Ethiopia's case seems to increase gradually, but for example for Kenya showed better and increasing trend next to Botswana. Egypt's data show declining trend both for *bank asset to GDP ratio and credit to private sector*.

Interviews were also conducted to get qualitative information regarding this issue. The interview results supplement the trend analysis and existing literature, revealing the following response. One of the respondents who is the capital market advisor and senior expert in the area responded as follows.

'Starting from the regime change in 1991, we obviously see that the banking sector in Ethiopia has flourished significantly. Many private banks and bank branch expansions were carried out and other big private companies are coming to the front. I feel that there is no big problem with regards to banking sector expansion. But non-bank financial institutions are not as strong as financial institutions and even this is not a serious problem for me. My concern is about the lack of awareness (financial literacy) of institutions including private firms to participate in such markets.'

The second respondent has, however, worried about the awareness and the potential of the institutional investors other than banks. He stated this.

'Bank-based financial institutions are performing relatively well, but other companies which are expected to participate in stock markets may be very limited in number and that they don't have any clear idea or concept about capital market and how it works. Financial development also requires digital technology infrastructure for payments. This what our country is seriously lagging.'

Another respondent from the banking sector stated the following.

'I don't have to worry about the domestic banking institutions. But unless and otherwise the foreign banks and foreign institutional investors are not allowed to participate by law, the domestic institutional base will be very limited. Moreover, capital market development requires some experience and exposure to start and

even to run it. We can get such experiences from such foreign investors. Besides, the stock exchange markets generally require a certain degree of financial openness which Ethiopia must do.'

Generally, based on the interview result, trend analysis from historical data and existing literature we can say that even if the banking sector performing well and shows growth trend since 1991, the issues related to institutional investors, specially creating awareness about financial literacy as well as financial globalization will matter for establishment effective financial market. Besides, organizing, channeling, and creating financial literacy awareness for the existing domestic institutional investors is also paramount important.

Political Commitment, Legal Issues, and Institutional Framework

Even though there exists a general legal basis for potential tradability of shares and securities in Ethiopia, the existing commercial code and related proclamations fail to provide legal and institutional frameworks for such markets as they don't exist. There are no rules that sets the standard and requirements for listing and delisting of company's stock in the market and the overall working of the markets. In connection with this one of the respondents stated the following.

For me legal and institutional issues are not problems because if the government is committed to establishing the market, legal issues specific to such markets can be formulated and institutions can also be established. Two important cases are rather worrisome; the first is the low level of technology for transactions because I expect such markets to be highly digital and the second concern is the government's lack of commitment to undertake all these preparation works a head of time.'

Another respondent stressed the nature and characteristics of economic structure or the overall size of the market. He stated the following: *'There are large number of small and medium scale enterprises in Ethiopia that need finance for their business. How such situation may be captured in the context of Ethiopia may be a challenge that may require experience sharing.'*

Generally, legal, and institutional issues are very important for market development because they help protect the investors and create a sense of security in their investment. Thus, it seems that there is a need to establish responsible institutions and formulate capital market specific rules, regulations, and supervision mechanisms. Moreover, the technological infrastructure must also be enhanced, secured, and protected by law so that efficient and reliable transactions can be made through the marketing system. But above all as stated by respondents the political commitment of the government comes at the top of the preconditions because the government has the full capacity and responsibility of conducting the required reforms to handle the problems of macroeconomic imbalances, to organize and enact all the necessary legal and institutional frameworks for the establishment and efficient working of the market. Moreover, government takes leading role to raise and re-organize the institutional investor capacity by creating awareness among domestic institutional investors as well as gradually opening the market to the foreign institutional investors to help share experience and develop the overall investment and insurer capacity of the capital market. This implies that political commitment is essential to effect reforms and speed up capital market development.

SUMMARY, CONCLUSIONS AND POLICY IMPLICATIONS

Summary and Conclusions

The main purpose of this research was to examine the effect of the political regime characteristics on financial development and on the establishment of capital market in Ethiopia. Specifically, the empirical relevance of the interest group theory of financial development is tested by applying econometric methods to 31-year time series data and qualitative information from the key respondents. Thus, on top of the conventional determinants of financial development, the characteristics of the political regime such as the level of democracy in the political system and regime stability appeared as important factors shaping the speed and development of the financial system as well as delayed the process of establishment of stock exchange market in the country.

The results show that the degree of democracy in the political system and the regime stability factors both exert a positive significant effect on the financial development of Ethiopia in the long run, but negative in the short run. The implications are clear in that transitions to more democratic political systems and regime durability will encourage financial development while autocratic types of political structures and unstable political government systems lead to the underdevelopment of the financial system.

The findings about the preconditions for capital market development reveal that most factors of the macroeconomic environment entail that they are in place to establish the markets. However, some macroeconomic environmental issues such as political instability and macroeconomic imbalance were found to be the main challenges in the process of establishment of capital markets. Moreover, based on the literature survey and interview from the respondents, limited political commitment by the government, lack of awareness (financial literacy problem) of the investors as well as companies and insurers, low capacity of institutional investors and lack of their experience in the working of the capital market are some of the issues that need government intervention to make reforms.

Recommendations and Policy Implications

The findings of positive effects of political regime characteristics on financial development in Ethiopia provide empirical support for the interest group theory of financial development as regimes characterized by the autocratic nature of the political system represent the existence of politically powerful narrow elites who control political and policy decisions thereby obstructing financial development and delaying the establishment of financial markets. The recommendations and policy implications are provided below.

- ✓ *First, the government must strive to build a more democratic (or more representative) political system to encourage the financial development of the country and get benefits from it.*
- ✓ *Second, the government needs to work seriously towards maintaining a stable political system by removing violence and political upheavals to speed up financial development.*
- ✓ *Third, the government is required to shape and build strong institutions and efficient governance systems in the country.*
- ✓ *Fourth, it is recommended that the government must take measures to work towards identifying the sources of political instability to avoid violences and political upheavals.*

- ✓ *Fifth, the government is recommended to work towards building commitment at different levels of its structure, enhancing the financial literacy level of potential institutional investors and companies involved in the market.*
- ✓ *Sixth, there is a need to create a system for re-organizing and mobilizing the resources of domestic institutional investors as well as the small-and medium scale enterprise who need finance to create a big pool of participants of the capital market.*
- ✓ *Finally, the issues of macroeconomic imbalances need systematic and potential reform to make the pre-conditions more reliable and encouraging for private sector participation.*

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2.5. Analysis of the role of political institutions on agricultural growth in Eastern Africa

Biru Gelgo^{1*}, Adeba Gemechu², Amsalu Bedemo³

¹PhD Candidate in Agricultural Economics, Jimma University,

²Associate Professor of Agricultural Economics, Jimma University,

³Associate Professor of Economics, Ethiopian Civil Service University

*Corresponding author: Email: birugelgo@gmail.com

ABSTRACT

This study aims at investigating the effects of political institutions on agricultural growth in Eastern Africa. The study uses a panel dataset spanning from 2000 to 2020, derived from seven Eastern African countries, which include Burundi, Ethiopia, Kenya, Rwanda, Sudan, Tanzania, and Uganda. The World Bank and FAO were potential sources of the data. To analyze the data, the bias-corrected LSDV model that is initialized with Arellano and Bond's (1991) GMM-DIF estimator was employed. The findings show that democratic voice and accountability has a negative effect on regional agricultural value added, while government effectiveness appears to have a positive effect on regional agricultural value added. Besides, a larger area of arable land, a higher GDP, a smaller population size, and a lower exchange rate appeared to have incremental effects on agricultural value added. Based on the results, we deduce those political institutions play an important role in determining agricultural growth in Eastern Africa. Effective institutions are needed to accelerate regional agricultural growth. We thus urge governments and other development partners in Eastern Africa to consider the establishment of strong and more effective political institutions. This would be more effective if combined with slow population growth and a slowly depreciating domestic currency relative to that of the foreign

Key Words: Agriculture, Political institutions, Governance, LSDVC

INTRODUCTION

Globally, more than 627 million people live in extreme poverty, earning less than \$1.90 per day (IFAD, 2021). In 2020 alone, the number of people living below the extreme poverty line rose by over 70 million, with more than 80% residing in rural areas and directly engaged in agriculture (World Bank, 2022). Agriculture plays a strategic role in the process of economic development in Africa. It is highly prone to political manipulation. In this continent, political systems generate political incentives that influence the pace at which agricultural growth would translate into poverty reduction (Baliño *et al.*, 2019; Deolalikar *et al.*, 2002). As such, in Africa, without understanding the political economy forces that dictate agricultural growth, strategies targeting poverty reduction would be less efficacious (Bachewe *et al.*, 2017).

Theoretically, agricultural growth emanates from economic activities that create new knowledge. New knowledge is the ultimate determinant of long-run growth (Romer, 1986). However, in this process, consideration of the consequences of the political outcomes is important in growth analysis. In an economy where agents do not have easy and free access to capital, human capital investments are likely to be low (Acemoglu & Robinson, 2013). In this case, policy instruments

may not necessarily have a linear impact on output growth (Benabou, 1996). For instance, raising taxes on the rich is only beneficial if public spending is effectively directed to productive sectors. That is, government effectiveness matters. With a weakly effective political institution, the poorest portion of society is more likely to devote their entire time and energy to crime, resulting in the waste of public resources and the loss of productive resources (Grossman & Kim, 1997; Alesina & Perotti, 1996; Fay, 1993). Biased policies are the result of political incentives, and political institutions are key to explaining such incentives (Henning, 2008). As such, political systems have been argued to have a direct influence on agricultural growth (Baliño *et al.*, 2019; Deolalikar *et al.*, 2002).

In recent years, many studies have shown that growth can be influenced by institutions, particularly, political institutions (Ehighebolo & Braimah, 2020; Ostry *et al.*, 2014; Moges, 2007). Political institutions influence government policies, which in turn would affect economic growth. In SSA, several studies attempt to link political institution indicators to economic growth (Beyene, 2022; Garedow, 2022; Wandeda *et al.*, 2021; Ehighebolo & Braimah, 2020; Gjerde, 2019). According to Wandeda *et al.* (2021), political stability and the absence of violence, regulatory quality, voice and accountability, corruption control, government effectiveness, and the rule of law have positive effects on economic growth in SSA. On the other hand, Beyene (2022) presents contradictory results, noting that control of corruption, government effectiveness, and rule of law negatively influence economic growth in this region. Similarly, Garedow (2022) argues that political violence has a negative effect on economic growth. In the long run, both the democracy index and democratic accountability negatively influence per capita real GDP. Ehighebolo and Braimah (2020) argues that democracy is not sufficient to induce sustained economic growth unless complemented with strong rules that restrain the predominance of politicians' private interests.

Generally, some of the above studies stress the importance of strong and better performing institutions for economic growth, while some other argues against this. Nevertheless, all of them are biased towards general economic growth, with little attention paid to the agricultural sector. Specifically, the studies are either too broad to contextualize to Eastern Africa (Beyene, 2022; Allcott *et al.*, 2006) or agriculture (Beyene, 2022; Garedow, 2022; Amante, 2020; Bekele, 2017). Some studies are methodologically questionable (for instance, Ehighebolo & Braimah, 2020). As such, it is worth undertaking further study to understand the role of political institutions on agricultural growth in the context of Eastern Africa. The scarcity of literature is largely demonstrated in this regard. Inspired by this information fissure, this study raises the following research question: What is the role of political institutions in agricultural growth? Specifically, the study aims at examining the effects of political institutions on agricultural growth in Eastern Africa.

The remaining parts of the paper were arranged as follows: The next section presents the methodology, followed by results and discussion. The paper wraps-up with concluding remarks, highlighting policy options and areas that worth investigations in the future.

METHODOLOGY

Description of the study area, data type and sources

This study was done in East Africa. In this region, in 2035, the proportion of employment in agriculture is expected to top 47.8%, compelled by largest share in Kenya (60.9%), followed by Ethiopia (60.7%), and Uganda (52.1%) (World Bank, 2020). For this study, seven East African countries, including Burundi, Ethiopia, Kenya, Rwanda, Sudan, Tanzania, and Uganda were selected purposively based on the availability of data. These countries share many socio-economic and political set-ups that further support their selection for this study. The study purely depends on secondary data. The World Bank and FAO were potential sources of data. The dataset falls within the bracket of 2000 to 2020. Map of the study area is presented on **Error! Reference source not found..**

Table 1: Description of the variables, data sources and expected effects.

Variables	Description	Expected effect	Sources
Dependent variable			
Agricultural value added	Agricultural value added in constant USD	-ve	World Bank
Independent variables			
Voice and accountability (VA)			
Political violence (PV)			
Government effectiveness (GE)	Performance ranges from -2.5 (worst) to 2.5 (best)	+ve	World Bank
Regulatory quality (RQ)			
Rule of law (RL)			
Control of corruption (CC)			
Arable land	Area of arable land (% of land area)	+ve	FAO
Education expenditure	Education expenditure (% of gross national income)	+ve	World Bank
Total population	Total population aged 15-64 years	-ve	World Bank
GDP	Real GDP	+ve	FAO
Exchange rate	Annual average local currency per USD	-/+ve	World Bank

Model specification

To model the role of political institutions on agricultural growth, we rely on the following typical econometric panel model specification.

$$Y_{it} = \delta + \beta_1 Y_{i,t-1} + \beta_j X_{it} + v_i + \varepsilon_{it} \quad (1)$$

Where Y is dependent variable, X is a vector of explanatory variables, δ is an intercept, v_i is unobserved heterogeneity, β_l is coefficient of lagged dependent variable, β_j is coefficients of explanatory variables, it is time operator for country i , and ε is error term.

The time-series cross-sectional (*TSCS*) data models of the above type are likely to have complex and non-spherical error structures. In this case, applying OLS would result to inefficient coefficient estimates and biased standard errors (Reed & Webb, 2010). To control this, several models appear candidates, including the bias-corrected LSDV estimator (LSDVC), Arellano and Bond's (1991) GMM-DIF estimator, and Blundell and Bond's (1998) GMM-SYS estimator. However, in panel data with a small number of cross sectional units, GMM and GMM-SYS estimators can be severely biased (Bruno, 2005). In this case, the biascorrected LSDV estimator (LSDVC) is recommended. However, the LSDV would not provide consistent estimators for finite T (Bruno, 2005; Judson & Owen, 1999). Accounting for this, Bun and Kiviet (2003), through simplifying the approximations in Kiviet (1995) show that bias approximation in the LSDVC is capable to account for more than 90% of the actual bias in LSDV model. The model outperforms in terms of correcting for bias and root mean squared error (RMSE). The procedure, however, is not feasible in unbalanced panels. Bruno (2005) extends this to allow estimation with small N and unbalanced panel data through employing estimators from Anderson and Hsiao (1982) (*AH*), Arellano and Bond (1991) (*AB*), and Blundell and Bond (1998) (*BB*).

The *AH* suggests two simple *IV* estimators that eliminates the unobserved individual heterogeneity through first differences and use second lags of the dependent variable either differenced or in levels as an instrument for the differenced one-time lagged dependent variable (Anderson & Hsiao, 1982). *AB* use a GMM estimator for the first-differenced model, which relying on a greater number of internal instruments is more efficient than *AH* (Anderson & Hsiao, 1982). To correct for weak instruments arising due to small sample bias, *BB* employs a system GMM estimator with first-differenced instruments for the equation in levels and instrument in levels for the first-differenced equation (Blundell & Bond, 1998). This approach was found appropriate in this study considering the data's small sample property. We thus used this method to quantify the effects of political institutions on agricultural growth as presented in the following equation. Institutional indicators were measured using a method that is presented in Kaufmann *et al.* (2011) and their performance ranges from -2.5 (worst) to 2.5 (best)

$$AgGr_t = \beta_0 + \beta_1 AgGr_{i,t-1} + \beta_2 PI_{it} + \beta_3 Land_{it} + \beta_4 Educ_{it} + \beta_5 Pop_{it} + \beta_6 GDP_{it} \left. \vphantom{AgGr_t} \right\} + \beta_7 Exch_{it} + \varepsilon_{it} \quad (2)$$

Where, *PI* is political institution indicators, *AgGr* is value added in agriculture, *Land* is arable land, *Educ* is share of public expenditure in education, *Pop* is population size, *GDP* is real gross domestic product, *Exch* is exchange rate, β_0 is constant, β_1 - β_7 are coefficients of explanatory variables, it is time operator for country i and ε is error term.

RESULTS AND DISCUSSION

Results Of Descriptive Statistics

The descriptive statistics results show that regionally, average *VA*, *PV*, and *GE* were about -0.92, -1.19, and -0.75, respectively. On average, regionally, *RQ*, *RL*, and *CC* were -0.69, -0.73, and -0.78, respectively. The regional average value added in agriculture was about \$11,200 million. Sudan appeared to have the largest average value added in agriculture, while Burundi has the lowest value added in agriculture. The regional average share of education expenditure and real GDP was about 3.58% and \$35923.18 respectively. Regionally, the average proportion of arable land, population size, and exchange rate was about 23.61%, 20.6 million, and 899.62, respectively. The results are presented in Table 2.

Table 2: Results of descriptive statistics (mean and standard deviations)

	Burundi	Ethiopia	Kenya	Rwanda	Sudan	Tanzania	Uganda	Overall
Agri-value added (mill.)	973 (50.408)	18590 (6461)	12260 (1747)	1730 (462)	26730 (1203)	10990 (2605)	7176 (960.7)	11200 (8970)
VA	-1.114 (0.363)	-1.251 (0.109)	-0.264 (0.125)	-1.233 (0.109)	-1.71 (0.103)	-0.601 (0.115)	-0.295 (0.167)	-0.924 (0.537)
PV	-1.695 (0.406)	-1.534 (0.185)	-1.223 (0.11)	-0.402 (0.504)	-2.14 (0.333)	-0.976 (0.275)	-0.358 (0.263)	-1.190 (0.691)
GE	-1.26 (0.144)	-0.653 (0.196)	-0.541 (0.138)	-0.246 (0.434)	-1.38 (0.17)	-0.572 (0.065)	-0.608 (0.115)	-0.751 (0.435)
RQ	-1.05 (0.18)	-1.022 (0.098)	-0.289 (0.081)	-0.304 (0.399)	-1.417 (0.132)	-0.252 (0.082)	-0.506 (0.103)	-0.691 (0.470)
RL	-1.239 (0.187)	-0.662 (0.183)	-0.741 (0.239)	-0.332 (0.413)	-1.309 (0.158)	-0.405 (0.125)	-0.438 (0.088)	-0.732 (0.429)
CC	-1.206 (0.217)	-0.594 (0.134)	-0.959 (0.082)	0.206 (0.493)	-1.35 (0.154)	-0.968 (0.109)	-0.551 (0.175)	-0.775 (0.536)
Arable land	41.689 (4.618)	12.867 (1.376)	9.781 (0.491)	45.903 (1.036)	9.346 (1.582)	12.968 (1.793)	32.711 (2.199)	23.609 (15.001)
Education expenditure	4.716 (1.053)	3.152 (0.384)	5.429 (0.64)	3.632 (0.418)	2.018 (0.29)	3.621 (0.237)	2.498 (0.772)	3.581 (1.255)
Population size (Mill.)	4.710 (0.091)	48.337 (0.951)	24.151 (0.430)	5.829 (0.093)	19.483 (0.295)	24.530 (0.418)	17.015 (0.361)	20.600 (1.430)
Real GDP	2494.9 (507.472)	47193.178 (24057.955)	58538.064 (15915.918)	6755.756 (2558.247)	72871.586 (14755.52)	40255.779 (14081.25)	23353.002 (8067.086)	35923.18 (27877.3)
Exchange rate	1381.974 (309.829)	16.755 (8.063)	86.043 (12.625)	659.541 (139.733)	9.52 (15.138)	1592.413 (472.083)	2551.101 (774.393)	899.621 (976.186)

Note: Standard deviations are presented in brackets

Graphically, the trends of the political institution indicators were demonstrated on Figure 2. For each indicator, the trends show that there exist variations of political institutions across countries over time.

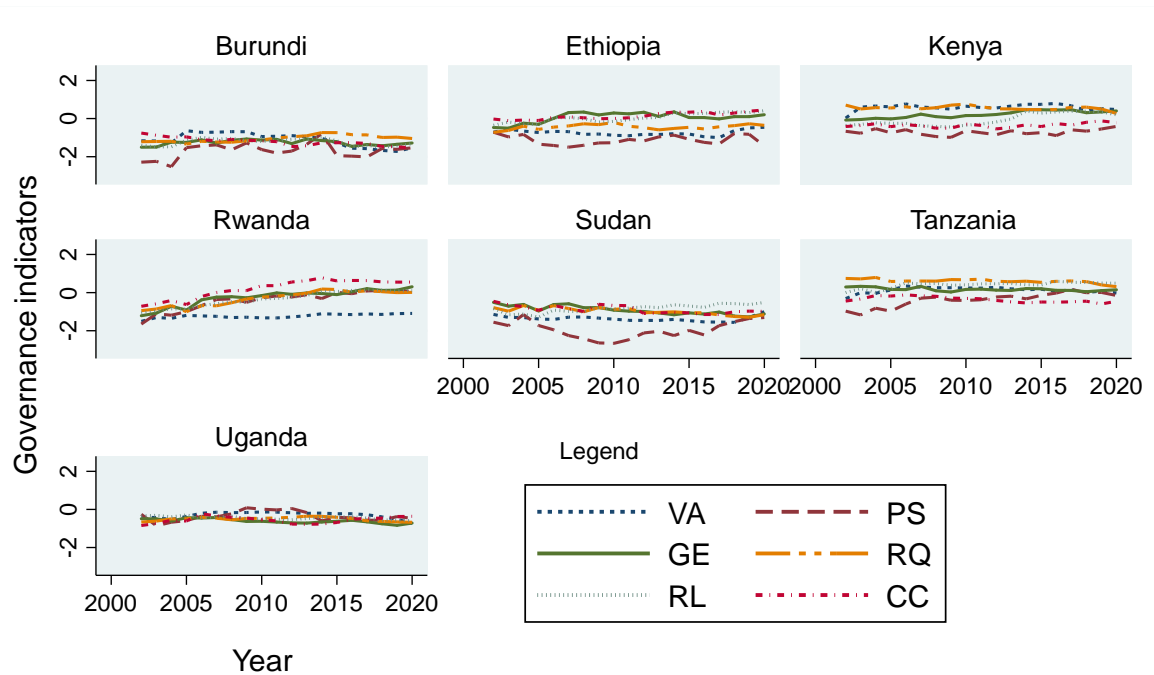


Figure 2: Trends of political insitituton indicators

Similarly, change in agricultural value added was presented on Figure 3. Rising trends of agricultural value added were observed in most of the countries. In Burundi and Sudan, a relatively constant trends, with little fluctuations of agricultural value added trends were demonstrated. Smoothly rising trends were witnessed in Ethiopia, Rwanda, Uganda, and Tanzania. Similar trend was exhibited in Kenya with modest fluctuations.

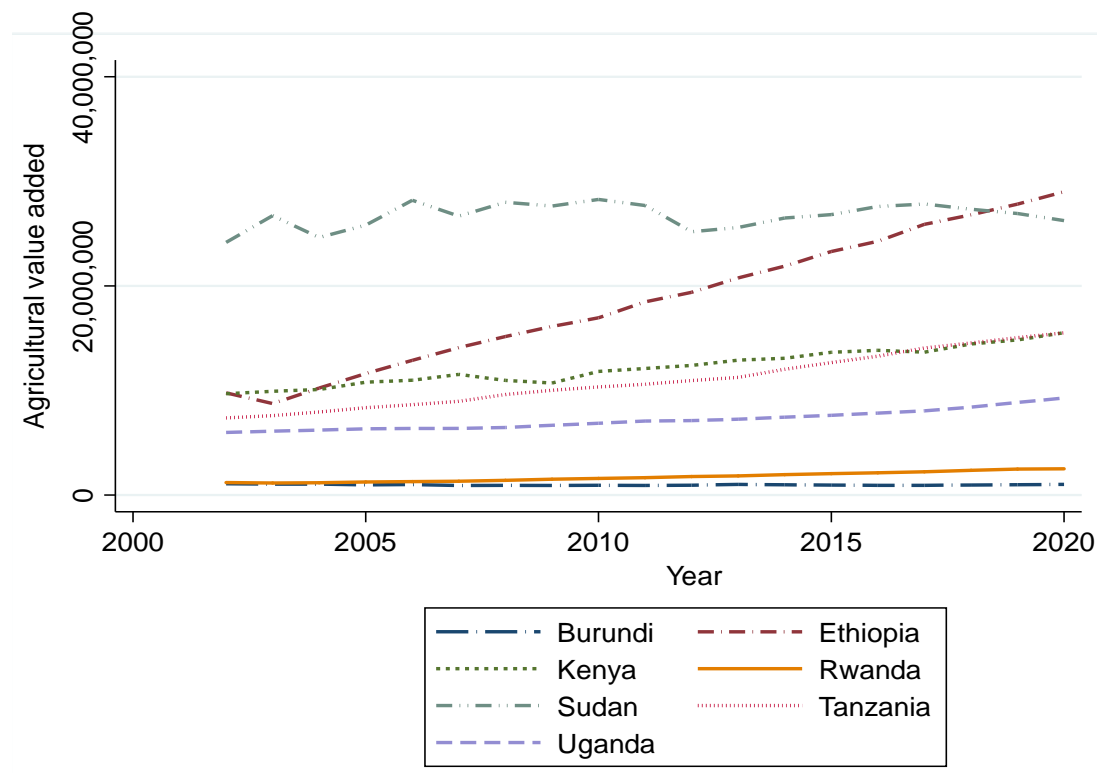


Figure 3: Trends of Agricultural value added

Results Of the Principal Component Analysis

The results of the PCA analysis were presented in Table 3. The Eigenvalue parameters revealed that comp1 is the most important component in demonstrating the variations of the composite institutional indexes with respect to each indicator. This component explains about 72% of the composite institutional index variations. Government effectiveness appears to be the most important dimension of the political institution indicators. Nonetheless, no significant association was demonstrated between the composite institutional index and value added in agriculture.

Table 3: Results of the principal components/correlation

Variable	Comp1	Comp2	Comp3	Comp4	Comp5	Comp6
VA	0.619	0.749	0.081	0.089	0.202	0.026
PV	0.901	-0.004	0.387	-0.140	-0.108	-0.083
GE	0.937	-0.143	-0.237	0.080	0.063	-0.185
RQ	0.891	0.232	-0.256	-0.260	-0.111	0.079
RL	0.929	-0.097	0.008	0.293	-0.183	0.092
CC	0.776	-0.571	0.057	-0.057	0.236	0.098
Eigenvalue	4.333	0.971	0.281	0.191	0.158	0.066
Proportion	0.722	0.162	0.047	0.032	0.026	0.011

ECONOMETRIC RESULTS

Statistical Diagnosis and Selection of The Estimation Method

The presence of some statistical issues including panel data unit roots was examined for all variables and presented in Table 4. In this exercise, we used Fisher type unit root test based on Philips-Perron technique as it can tolerate both unbalanced panel and panel data with missing values. The results indicate that some variables are stationary at levels, while some others are stationary at first differences. Institutional indicators including *VA*, *PV*, and *GE* along the arable land, education expenditure, and total population were stationary at levels. The remaining variables including *RQ*, *RL*, *CC*, agricultural value added, real GDP, and exchange rate turns stationary once differenced.

Table 4: Fisher type unit root test results based on Philips-Perron

Variables	At level		At 1 st difference		Decision
	Inverse chi2	p > chi2	Inverse chi2	p > chi2	
VA	6.1051***	0.0000	-	-	I (0)
PV	2.9979***	0.0014	-	-	I (0)
GE	1.6479 **	0.0497	-	-	I (0)
RQ	-0.0802	0.5319	26.4081***	0.0000	I (1)
RL	-0.0809	0.5322	25.1858***	0.0000	I (1)
CC	0.3952	0.3463	19.5527***	0.0000	I (1)
Ln (Agricultural value added)	0.2504	0.4011	26.9425***	0.0000	I (1)
Arable land	4.3484***	0.0000	-	-	I (0)
Education expenditure	4.1990***	0.0000	-	-	I (0)
Ln (Total population)	7.7354***	0.0000	-	-	I (0)
Ln (RGDP)	-1.6425	0.9508	22.4379***	0.0000	I (1)
Exchange	-2.5898	0.9952	5.7047***	0.0000	I (1)

Note: *** & ** shows significance level at 1% & 5%

In the model selection process, political institution indicators were modeled exclusively with six different models. The *VA*, *PV*, and *GE* were considered as independent variables in *Model 1*, *Model 2*, and *Model 3* respectively, while *RQ*, *RL*, and *CC* were considered as independent variables in *Model 4*, *Model 5*, and *Model 6* respectively. Other theoretically sounding control variables were included in all the models along the institutional indicators. We then examined for the presence of fixed effects, random effects, and common effects across the models where we finally inspected for the presence of heteroskedasticity, cross sectional correlation, and serial correlation⁶⁶. The presence of fixed effects was confirmed in all the models. According to Trabelsi (2016), when selection of individuals in the panel is not random, inclusion of fixed effect is appropriate. Similarly, the Breusch and Pagan Lagrangian Multiplier test showed that there were no significant random effects in the models. However, the FE model could perform poorly in case the idiosyncratic errors are not normally distributed. Thus, the structure of the error terms should be well examined. Using appropriate tools, the error structure was proved to be of panel heteroskedastic, auto correlated and serially interdependent. In the presence of these issues, the estimates of the parameter coefficients in the fixed effects can be consistent, while the statistical significance would be incorrect because of biased standard errors (De Hoyos & Sarafidis, 2006). This leads to wrong inferences in panel data estimations. Thus, the employed models must address these issues. In this case, the LSDVC model appears superior for this study.

Using LSDVC, we then checked for the LSDVC model's performance employing different bias approximation procedures. The performances were evaluated based on the underlying theoretical hypotheses. As presented in Table 5, the models were estimated under three broad categories, initialized with *AB*, *AH* and *BB*. In each category, nine models were estimated making it a total of 27 models. Then, the models that were initialized with *AB*, bias 1, and iteration 200 were found to have superior performances in predicting the dependent variable.

Table 5: Summary of the specified model's performance

Number	Initialized with	Bias corr.	Number of models and frequency of iteration
1	AH	B ₁	Three models (iterated 50, 100, and 200 times)
		B ₂	Three models (iterated 50, 100, and 200 times)
		B ₃	Three models (iterated 50, 100, and 200 times)
2	AB*	B ₁ *	Three models (iterated 50, 100, and 200* times)
		B ₂	Three models (iterated 50, 100, and 200 times)
		B ₃	Three models (iterated 50, 100, and 200 times)
3	BB	B ₁	Three models (iterated 50, 100, and 200 times)
		B ₂	Three models (iterated 50, 100, and 200 times)
		B ₃	Three models (iterated 50, 100, and 200 times)

Note: * shows best performing models

Results of the effects of political institutions on agricultural growth

⁶⁶The results were not presented in this manuscript, mainly to save space and can be provided if requested.

The econometric results of the effects of political institutions on agricultural growth were presented in Table 6. Democratic voice and accountability and government effectiveness has significant effects on agricultural value added. Democratic voice and accountability influenced agricultural value added negatively, while government effectiveness has positive effects. The results indicate that for every unit increase in democratic voice and accountability index, the value added in agriculture decreases by about 4.7%, *ceteris paribus*. The result was statistically significant at 5% significance level. This result is quite unexpected, and it indicates that in Eastern Africa, democracy and accountability are less important for the growth of value added in agriculture. The results suggest that in economies at their initial stages of development, democracies could be less important. According to Kariş (2020), in such economies, democracy may lead to undisciplined and disorganized behavior that hinders growth and as such, a better growth can be achieved by waiving democracy. That is, discipline is more important than democracy, particularly in an economy that is in its initial development stage. The result is consistent with the findings of Garedow (2022), who presents that political aggression causes economic growth in Ethiopia. Better performing democratic governance decelerated economic growth in this country. In contrast, according to Abera *et al.* (2019), weak political institutions are the causes of slow economic growth in Eastern Africa.

Regarding government effectiveness, every unit increase in government effectiveness index led to about 3.6% increase of value added in agriculture in Eastern Africa, *ceteris paribus*. This result was statistically significant at a 10% significance level, underlying the importance of effective governance for agricultural growth in East Africa. Effective governance allows for effective implementation of growth policies and effective use of resources in the agricultural sector which induces agricultural growth. The result is consistent with the findings of Abera *et al.* (2019), who reported a positive effect of government effectiveness on economic growth in Eastern Africa.

Furthermore, other control variables including arable land, population size, real GDP, and exchange rate significantly influenced value added in agriculture. Real GDP influenced value added in agriculture positively, while exchange rate has negative effects in all the models. Population size influenced value added in agriculture significantly in *Model 1, 2, and 5*.

Table 6: The effects of political institutions on agricultural growth

Ln (AgVd)	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
VA	-0.046 ^{e**} (0.021)	-	-	-	-	-
PV	-	-0.003 (0.012)	-	-	-	-
GE	-	-	0.035 ^{e*} (0.020)	-	-	-
RQ	-	-	-	0.007 (0.020)	-	-
RL	-	-	-	-	0.001 (0.019)	-
CC	-	-	-	-	-	0.018 (0.018)
(LnAgvd)L	0.753*** (0.065)	0.782*** (0.066)	0.776*** (0.067)	0.789*** (0.067)	0.787*** (0.067)	0.780*** (0.066)
Arable land	-0.004 (0.003)	-0.002 (0.002)	-0.001 (0.002)	-0.002 (0.002)	-0.001 (0.003)	-0.001 (0.002)
Education	0.006 (0.005)	0.006 (0.006)	0.004 (0.006)	0.006 (0.006)	0.006 (0.006)	0.007 (0.006)
Ln (Pop)	-0.216** (0.094)	-0.159* (0.091)	-0.149 (0.092)	-0.149 (0.092)	-0.156* (0.091)	-0.140 (0.093)
Ln (RGDP)	0.280*** (0.073)	0.234*** (0.072)	0.215*** (0.073)	0.222*** (0.072)	0.227*** (0.072)	0.217*** (0.073)
Ln (Exchange)	-0.020** (0.010)	-0.024** (0.010)	-0.017* (0.010)	-0.022** (0.010)	-0.023** (0.010)	-0.021** (0.010)
Bias correction initialized by			Arellano and Bond estimator			
Maximum Bias correction order			O(1/NT)			
Standard error			Bootstrapped using 200 iterations			

Note: Standard errors are presented in parenthesis. ***, **, & * shows significance at 1%, 5% & 10% respectively. *e* indicates coefficients interpreted after adjusting for a log transformation of dependent variable.

CONCLUSIONS AND POLICY IMPLICATIONS

This study aims at analyzing the effects of political institutions on agricultural growth using secondary data derived of seven Eastern African countries. The data set spans between 2000 and 2020. A dynamic panel data model analytical approach that corrects for small sample panel estimators bias was used. As such, the LSDVC model was employed. The results indicate that political institutions play an important role in dictating agricultural growth in Eastern Africa. More accountable institutions were able to accelerate regional agricultural growth. Effective governance enhanced agricultural growth in this region. To further accelerate regional agricultural growth, we urge governments and other development partners in Eastern Africa to consider the creation of better performing, strong, and effective institutions. This needs to be well complemented with lower population growth, and slightly lower domestic currency per unit of USD. Providing country specific evidence on the effects of political institutions on agricultural growth should be an area that is worthy of future investigations. Besides, examining the role of political institutions on agricultural resource allocation would be among the areas that need further investigation in the related studies.

Further, the study makes use of a relatively short time and tries to address the biases that may arise through model selection, which could be considered a limitation. The study would be extended in the future through the utilization of a dataset for an extended period.

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2.6. Status and Determinants of Urban Food Security at Household Level: The Case of Bahir Dar and Gondar Cities of the Amhara Region, Ethiopia

Dersolegn Mekonen

Department of Geography and Environmental Studies, Bahir Dar University

Email: dersole2007@gmail.com

ABSTRACT

Despite its growing relevance and far-reaching implications, urban food insecurity has received little attention in Ethiopia. However, price fluctuations, the global pandemic and unstable political conditions worsen food insecurity in many metropolitan cities of Ethiopia. The general objective of this study was to identify the status and determinants of household food security in the study areas. The study relied on survey data from 365 sample urban household heads. KIIs and FGDs were employed to supplement the structured questionnaire. The Foster-Greeck-Thorbec model was used for determining the status and the Binary Logistic Regression model was used to identify determinants of household food security. Based on FGT-model; the incidence, depth, and severity of food insecurity were 54%, 15%, and 5.6%, respectively. The implication behind the results showed that if the government mobilizes to cover 15% of the caloric needs of food-insecure households, it can bring them up to the recommended daily caloric requirement so that food insecurity can be eradicated. The BLR- model indicated that sex, house ownership, income, marital status, remittances, and credit services were significant determinants of urban food security at $P < 0.05$. The study recommended that private, government, and NGOs be actively involved and provide an urgent priority to increase the income-generating capability, stabilize skyrocketing prices, build communal housing, and provide training and loans with affordable interest rates.

Keywords: Binary Logistic Regression, Foster-Greek-Thorbecke Index, House Ownership, Marital Status, Urban Food Insecurity.

INTRODUCTION

The 2030 Agenda for Sustainable Development puts forward a transformational vision, recognizing that our world is changing, bringing with it new challenges that must be overcome if we are to live in a world without hunger, food insecurity, and malnutrition in any of its forms (FAO, 2019). More than 820 million people worldwide are still hungry today, underscoring the immense challenge of achieving the Zero Hunger target by 2030.

Despite overwhelming evidence of rising urbanization in the Global South, the hidden catastrophe of urban food insecurity remains marginal at all regional and local levels (Crush & Riley, 2019). Rising food prices exacerbate food instability (FAO, 2019) and the bulk of inhabitants in cities rely on the market (exchange economies) to get food (Crush & Frayne, 2010). As a result, these city dwellers are impoverished; the majority are socially disadvantaged and underserved regarding infrastructure and institutional assistance. Food insecurity in Ethiopia has exacerbated the country's already precarious economy, mainly rural-urban migration, by increasing indolent people in many towns. Urban population growth (annual %) in Ethiopia was reported at 4.6 % in 2021, according to the World Bank collection of development indicators compiled from officially recognized sources (U.N., 2018). With this growth rate, Ethiopia's urban population will exceed 50 million by 2025.

Developing nations have lately seen faster urbanization than industrialized countries, with an average annual rate of change in an urban population of 2.34 and 0.50 percent for 2018. (U.N.,

2018). According to the same U.N. assessment, by 2050, around 67% of the developing world and 87% of the developed world will be urbanized. Ethiopia, Africa's second-most populated country after Nigeria, had a total population of 96.5 million in 2018, with 20.8 percent living in metropolitan areas (CSA, 2017). Urbanization is a relatively new phenomenon in Ethiopia. While it is lower than the norm for African countries (21% vs. 37%) (WFP-Ethiopia, 2009). Its yearly pace of expansion (4.6%) is quicker than the continent's (4%) existing metropolitan centers are growing while new ones are sprouting up. The Amhara region, formerly known as region 3, has a population of over 21 million, with roughly 12.3% living in cities (2021 est). More than 44.4% of the overall population of the region is impoverished (earning less than a dollar daily), making the region's food security situation more hazardous than the national average (37%) (UNDP- Ethiopia, 2018).

Even though Ethiopia has enormous natural resources, most of its socio-economic metrics are severely poor. As a result, chronic and transitory food insecurity is prevalent and severe in the country's rural and urban areas (FAO, 2014). Like many developing countries, Ethiopia's food security and vulnerability evaluations have traditionally focused on rural areas. However, several pieces of research in the sector have focused on the country's rural areas (Yehuala et al., 2018; Aragie & Genanu, 2017; Hussein & Janekarnkij, 2013), to name a few. However, such incomplete assessments do not verify realities at the ground level and mask the country's genuine urban food insecurity problem. Furthermore, such studies do not investigate the fundamental causes of household food insecurity in specific regional urban settings.

A closing discussion describes high-level trends and under-researched areas of food security in Ethiopia, according to a systematic review based on 267 articles linked to food security in Ethiopia (Cochrane, 2019). Such a fast shift of civilization to urban settings has resulted in food insecurity affecting significant cities in the Amhara region and Ethiopia. Food insecurity has distinct consequences in cities. That is why the study is interested in investigating the status and determinants of food security that will add to the knowledge in emerging large cities of the Amhara Region.

Ethiopia originally developed a food security policy in 1996 and launched a food security program in 1998 (FDRE, 2002). However, food insecurity and undernutrition have been critical societal issues since then. As a result, knowledge about the subject in the studied region is scarce. Several studies in Ethiopia have primarily focused on food availability and access Wolderufael, 2015; Beyene, 2016; Motbainor et al., 2016), while others used a 24-hour or seven-day recall approach to capture the food dimension (Fekadu and Mequanent, 2010). However, this study uses the FGT Index to assess the status, depth, and severity of food insecurity and what variables influence households' food insecurity in the research region in rising big cities of Amhara region focusing on Bahir Dar and Gondar.

RESEARCH OBJECTIVES/ QUESTIONS/HYPOTHESES

General Objective

The general objective of this research is to analyses the status and determinants of urban household food insecurity in the largest cities of Amhara region, the case of Bahir Dar and Gondar, Ethiopia.

Specific Objective

- i. Analyse the incidence, depth and sevierity of urban food insecurity in Bahir Dar and Gondar
- ii. Determine the major and significant determinants of urban household food insecurity in the staudy areas.

METHODOLOGY

Description of the Study Area

Description of Bahir Dar City

Bahir Dar town ("sea shore" in Amharic) is the capital city of the Amhara National Regional State and the seventh largest city in Ethiopia (Kindu et al., 2020). The town is 565 km northwest of the capital, Addis Ababa, and has an average altitude of 1830 m a s l. The absolute location of Bahir Dar City is about $11^{\circ}37'$ north and $37^{\circ}25'$ east. According to CSA (2017), the total population of Bahir Dar city is about 332,865. Of which 165,864 are male, and 166,992 are female. The town is situated on the banks of Abay (the Blue Nile—the longest river in the world), right after the river flows out of Lake Tana, which is the source of its beauty. Bahir Dar has six urban sub-cities, (Belay-zeleke, Atse- Tewodrose, Dagmawi-minilike, Tana-Fasilo, Sefeneselam and Shume-abo). The urban sub-city size is only about 1.5% compared to the size of Lake Tana's surface area (3111 km²). In 2002, Bahir Dar was awarded the UNESCO Cities for Peace Prize for successfully addressing the challenges of rapid urbanization (Achenef, 2020).

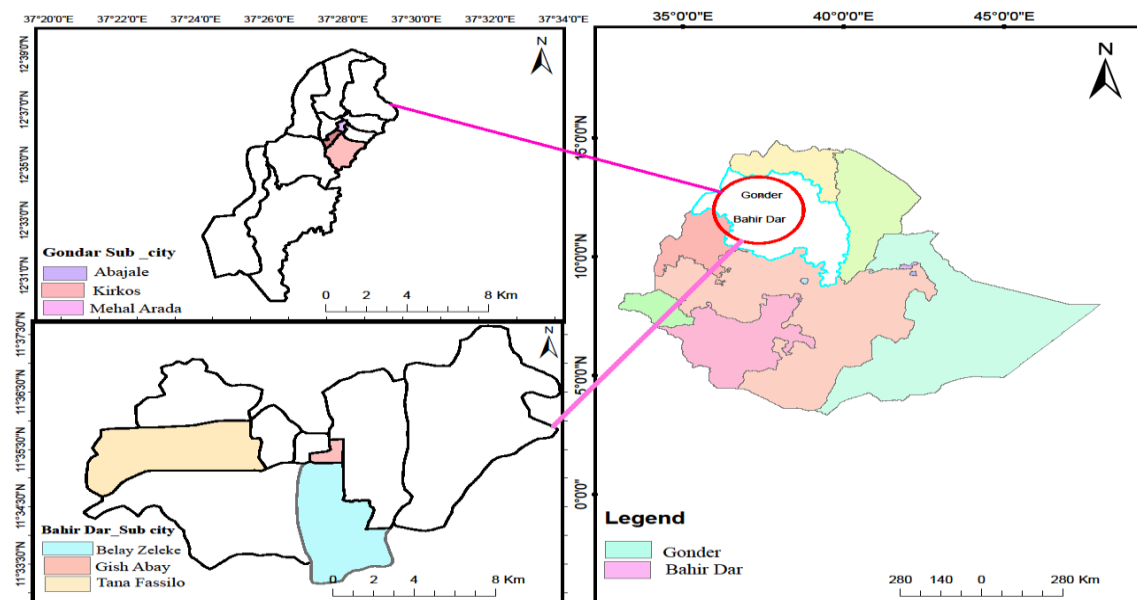


Figure. 1. Map of Bahir Dar & Gondar city, Ethio-GIS

Description of Gondar City

Gondar is situated in the Northwest of Ethiopia, Amhara National Regional State. The absolute location of Gondar is $12^{\circ}03'$ north and $37^{\circ}28'$ east. Gondar is 727 km from Addis Ababa, the capital city of the federal government of Ethiopia, and 180 km from Bahir Dar, the capital city of Amhara National Regional State. Gondar has a total of 192.3 km² with undulating mountainous topography (Tegegne et al., 2016). The city is grouped into six administrative sub-cities (Jantekel, Arada, Zobel, Fasil, Maraki, and Azezo-Tsuda) with their own legislative, executive, and judiciary organs. According to the Central Statistics Authority, hereafter (CSA, 2021), the total population of Gondar city was 443,156 of which 217,107 were male and 226,054 were female. Gondar is a significant destination for urban-rural migrants and a major tourist and business hub in North West Ethiopia, contributing to population growth in the city (Tegegne et al., 2016).

Research Design

The study employed a concurrent mixed methods research design composed of quantitative and qualitative research methods. A quantitative and qualitative research approach was employed since food security studies are complex and multidimensional and need both methods at a time.

Data Collection Techniques

Both quantitative and qualitative data collection methods were employed to obtain primary and secondary data. This study's primary data collection methods include a household survey questionnaire, focus group discussions, and key informant interviews. Secondary data were obtained from documents/reports of regional or city sector offices, particularly from the city office of Finance and Economic Development.

Sampling Techniques

Gondar and Bahir Dar, the two major cities of the Amhara Region, were selected purposively based on the understanding that it reflects the realities of typical large towns and cities of the region. The study employed multi-stage sampling techniques. First, six sample urban kebele administrations were selected from the two big cities using simple random sampling. Accordingly, Belay-zeleke, Gish-Abay, and Tana-Fasil, from Bahir Dar and Jantekel, Arada, and Fasil from Gondar city were selected. Second, to determine sample size, the (Kothari, 2004) formula was employed as and 365 sample households were selected as shown below:

$$n = \frac{z^2 p \cdot q \cdot N}{e^2 (N-1) + z^2 p \cdot q}$$

Where n= sample size, z = value of standard variation at 95% confidence interval (1.96), p = sample proportion = 35% (0.35) and q= 1- p (Kebede, 2013), N = the total number of the urban household population, e = the estimate should be within 5% of the actual value.

Table 1. Summary Table of Sample kebeles and Households

City	Selected Sub-city	Selected kebeles	Sampling Frame/ Total Households			Sample Households		Total sample
			Male	Female	Total	Male	Female	
Bahir Dar	Tana-Fasil	K.01	14,012	15,879	29,891	33	37	70
	Gish Abay	K.12	11,029	8,756	19,784	26	20	46
	Belay-Zeleke	K.7	26,458	24,756	51,214	62	58	120
Gondar	Fasil/Piasa	K.12	8,351	8,767	17,118	20	21	41
	Abajalie	K.4	8,401	10,012	18,412	20	23	43
	Cherkos	K.6	9,043	10,423	19,476	21	24	45
Total Sample Size			77,294	78,601	155,887	182	183	365

Source: Bahir Dar and Gondar city administrative offices, 2021/22

In the qualitative sampling, five key informants and a total of two focus group discussions (8 people each) in each city based on their chief experiences and exposure to the problems under investigation were employed for the study.

Data Analysis Techniques

The qualitative data collected from KI, FGD, and direct observation were analyzed thematically and textually to corroborate the structured questionnaire. On the other hand, the quantitative data was coded, edited, and entered the statistical package (SPSS version 22) for analysis. Descriptive statistics such as frequencies, tables, and percentages were used for data presentation, whereas inferential statistics such as Chi-square and T-test were used to show relationships or differences. The *Binary Logistic Regression model* and the *Foster-Greer-Thorbecke model* were used for the study.

The Binary Logistic Regression Model

A binary logistic regression model was employed to identify determinant variables affecting households' food /security. Such a model is suitable when the dependent variable is a dummy, in this case, household food security. In this regard, households whose per capita available kilocalorie was more significant than the minimum demand (> 2100kcal) were categorized as food secure (coded as 0), while families experiencing kilocalorie deficiency (< 2100 kcal) were considered food insecure (coded as 1). Assumptions of the model, such as multicollinearity, non-linearity, and large sample size, were considered. Besides, the model's fitness was checked using the Pearson chi-square test, Hosmer-Lemonshow test, classification table, and pseudo-R square.

The Foster-Greer-Thorbeck Model

Among the various measures of food insecurity, the Foster- Greer-Thorbecke (FGT) food security index is the most commonly applied in food security analysis (Abebaw et al., 2021). This model was used for the present study to measure the household head count index (*incidence of food insecurity*), food insecurity gap (*depth of food insecurity*), and the square of food insecurity gap (*severity of food insecurity*) among the food insecure households. The mathematical formula of the FGT model is specified as follows:

$$F(\alpha) = \frac{1}{ni} \sum_{i=1}^q \left[\frac{m-yi}{m} \right]^\alpha$$

$$= \frac{1}{n} \left[\frac{(m-y1)^\alpha}{m} + \frac{(m-y2)^\alpha}{m} + \dots \frac{(m-yn)^\alpha}{m} \right]$$

Where: n = the number of sample households, q = is the number of food-insecure households, m = is the cut-off between food security and food insecurity (expressed here in terms of caloric requirement), yi = is the food calorie intake per adult of the i^{th} household, and α = is the weight attached to the severity of food insecurity

In this model, *if* $m < yi$, the household is food secure, and *if* $m > yi$, the household is food insecure (Abebaw et al., 2011a). Suppose the weight attached to the severity of food insecurity is zero ($\alpha = 0$), in that case, the ratio measures the *incidence of food insecurity*, whereas $\alpha = 1$ measures the food security gap (depth of food insecurity), and $\alpha = 2$ measures the severity of household food insecurity. In other words, if the food security gap is squared, the result could be the severity of food insecurity. Thus, the index of severity, $(\alpha) = 2$, gives greater attention to the most food-insecure households by weighting them according to the square of their shortfall below the subsistence level (Abebaw et al., 2011b; Tsegay, 2009).

RESULTS AND DISCUSSIONS

Demographic Variables and Food Security Status

Sex of household: As seen in Table 2, about 44% of male-headed households were food insecure, and the rest were secure. On the other hand, 70% of female-headed households were

food insecure, and 30% were food secure. This implies that female-headed households are more food insecure compared to male-headed households. These results were statistically significant at $P < 0.001$. Concerning this, one female-headed household in Gishabay Kebele suggested the magnitude of the problem (being a female-headed household head) her opinion in the following ways:

She started by saying: many female-headed households in my kebele, including mine, are double burdens working in and outside the house. I have four children, and currently, all of them are students. Hence, buying food, learning equipment, and paying house rent made life more complex. I tried to be a member of the safety net beneficiaries, but I could not participate in the program due to corruption. However, I can qualify for the criteria to be a recipient. I do not know what I will do in the future to feed and teach my children (Female-headed household, March 2022).

Marital Status: As shown in Table 2, 194 respondents were married, and 171 were single. While looking at married household heads, 61 (31%) are food insecure, and 133 (69%) are food secure. On the other hand, in single-headed households, 136 (80%) are food insecure, and 35 (20%) are food secure. The positive relationship between married couples and food security is related to the economic scale of consumption items purchased and the pooling of available resources in one way or another. Married households may reduce expenditures that would have been spent separately.

Household size: It was hypothesized to have a negative association with food security since an increase in household size implies more people being fed from limited resources. When looking at (Table 3) shows households with the smallest size (1-3), 44 (53%) are food insecure, and 39 (47%) are found to be food secure. In comparison, households with family sizes of 4-6 are 244. Of these, 140 (57%) are food insecure, and 104 (43%) are food secure. Finally, the third category of household size is (>7), which is 38. Among these, 24 (63%) are food insecure, and 14 (38%) are food secure. From this, we can conclude that as household size increases, the chance of food security decreases. A study in Mozambique, for instance, shows that large household size is negatively associated with food insecurity (James & Marie, 1999).

Table 2. Demographic Characteristics and kilocalorie intake of households per adult equivalent per day

Demographic variables		Households' kilocalorie consumption/adult equivalent/day							χ^2
		% Food Insecure			% Food Secure				
		600-1100	1101-1600	1601 - 2099	2100 - 2600	2601 - 3000	3001-3500	Total %	
H.H. sex	Male	13	12	6	18	10	3	62	118.5**
	Female	9	10	4	10	4	2	38	
	Total	22	22	10	28	14	4	100	
Marital status	Single	3	19	15	9	1	0	47	114.6*
	Married	4	6	6	26	9	2	53	
	Total	7	25	21	35	10	2	100	
HH size	1 - 3	3	4	5	5	3	3	23	98.1*
	4 - 6	9	12	17	18	10	1	67	
	≥7	3	2	2	2	1	0	10	
	Total	15	18	24	25	14	4	100	

HH age	20 - 40	7	4	3	4	3	0	21	27.5**
	41 - 60	15	15	10	29	7	1	76	
	61 - 80	0	0	0.5	2	0.5	0	3	
	Total	22	19	13.5	35	10.5	1	100	
HH Educ.	Illiterates	5	7	6	10	4	0	33	26.6**
	Read & write	3	5	5	8	2	0	23	
	2 ^{ry} Educ.	4	6	6	10	3	0	29	
	Diploma & above	1	3	3	6	1	1	15	
	Total	13	21	20	34	10	1	100	

** = $P < 0.001$, * = $P < 0.05$

Socio-economic & Institutional Variables and Food security

Food expenditure: As shown in (Table 3), food security status and expenditure have a positive and significant relationship at $P < 0.01$. This means that as household food expenditure increases, the chance of food security also increases. This is because more expenditure means more sources of income and lowers household food insecurity. However, at present, higher prices of food and related materials decrease the purchasing capacity of urban households. Much of the income is devoted to food, which indicates poverty.

Household Income: Income plays a crucial role in a household's accessibility to food. The survey result showed a positive relation between monthly income and food security. As can be seen in Table 4, food security, holding other variables constant, increases as monthly income increases. So, households with higher daily income per adult are less likely to become food insecure than low-income households.

Housing ownership: It was a two-category variable differentiating private house renters and having their own houses (including kebele and government houses). According to Table 3, from the total sample of households, food insecurity was most prevalent among private house renters (61%). Among them, the majority (83%) are food insecure, and only a few (17%) are found to be food secure. On the other hand, those who own houses, including kebele, and very few government houses comprise 39% of all the sample households. From this, the majority (72%) are food secure, and just a few (28%) are found food insecure, which indicates how much housing ownership in urban cities plays a vital role in household food security.

Access to credit: Credit is a means to boost production and expand income-generating activities (Diagne, 1996; Aliou & Manfred, 2001). Based on the results, 63% of households that do not have access to credit services 63% (Table 3). Out of this, 72% were food insecure, and the remaining were food secure. Contrary to this, those households with access to credit have 136 (37%). Among these, 50 (37%) are food insecure, and the majority, 86 (73%), are food secure. Thus, a household with access to credit does initiate investment in various activities and achieves food security. Therefore, it is hypothesized that a family with access to credit is more likely to be food secure.

In a focus group discussion held in Fasilo sub-city, Bahir Dar, a female-headed household owner, Alemnesh Zerfu, 52 years old, stated that: after I took credit from Amhara credit and saving institution, my two children and I were working hard and changing our life. I can even send my daughter to a private college (Alemnesh Zerfu, Fasilo sub-city Bahir Dar).

Table 3. Socio-economic & institutional variables and Kilocalorie Consumption/A.E./day

Socio-economic and Institutional Variables		Households K.cal. Consumption/A.E./Day							
		% Food Insecure			% Food Secure			Total (%)	
Food expenditure	Eth. birr/month	600 – 1100	1101– 1600	1601 – 2099	2100 – 2600	2601– 3100	3101– 3500		X ² 390.7**
	1000-2000	4	2	0	0	0	0	6	
	2001-3000	3	19	11	2	0	0	35	
	3001-4000	0	5	10	22	1	0	38	
	4001-5000	0	0	1	11	2	0	14	
	>5001	0	0	0	5	1	0	6	
	Total	7	26	22	38	4	0	100	
Household Income	<2000	5	13	6	0	0	0	24	316.1**
	2001-4000	3	12	15	10	1	0	41	
	4001-6000	0	0	0	24	4	0	28	
	6001-8000	0	0	0	6	1	0	7	
	>8001	0	0	0	0	0	0	0	
	Total	8	25	21	40	6	0	100	
Remittance Received	No	6	22	21	12	5	1	67	237.7**
	Yes	1	1	4	22	3	2	33	
	Total	7	23	25	34	8	3	100	
Occupational Status	Paid work	3	15	13	18	4	1	54	105.7**
	Daily labor	1	3	3	3	0	0	10	
	merchant	1	2	2	10	2	1	18	
	Small scale	1	2	2	5	2	0	12	
	Pension	1	2	1	2	0	0	6	
	Total	7	24	21	38	8	2	100	
Housing ownership	Rental house	6	23	22	8	2	1	62	191.7**
	Own house	4	4	3	19	7	1	38	
	Total	10	27	25	27	9	2	100	
Access to credit service	No	7	18	20	12	4	1	62	24 1.85**
	Yes	7	4	4	20	2	1	38	
	Total	14	22	24	32	6	2	100	

** = P< 0.001, * = P< 0.05

Households' Incidence, Depth, and Severity of Food Insecurity (FGT model)

The results of the summary of the household incidence, depth, and severity of food insecurity are presented in Table 4. One hundred ninety-seven (197) sample households (54%) could not meet their minimum subsistence requirements, and 168 households (46%) could meet their minimum subsistence requirements. The result showed that in 2020/21, in Bahir Dar and Gondar cities, the headcount ratio, shortfall, and severity of food insecurity were 54%, 15%, and 5.6%, respectively.

Thus, the headcount ratio from the food insecurity index indicated that the incidence of food insecurity was 54%, which implies that 54% of the sample households cannot get the minimum recommended calories for subsistence, 2,100 kcal per day per adult equivalent. The finding is much higher than the research result (Wolderufael, 2015), who studied the status of urban

Amhara, and the author found that the headcount, depth, and severity were 34%, 6%, and 2%, respectively.

The food insecurity gap, a measure of the depth of food insecurity, pointed out that each food-insecure household needed 15% of the daily caloric requirement to meet the recommended daily caloric requirement level. The finding implies that families should be supplied with 15% of the minimum daily calorie requirement to eliminate food insecurity. The average extent of the calorie deficiency gap for the sampled households was, therefore, 315Kcal/A.E./day, which means, on average, 315Kcal/A.E./day of additional food energy would be needed to lift the households out of food insecurity. Then, at least in theory, food insecurity could be eliminated. Moreover, the squared food insecurity gap result from the food insecurity index determined the severity of food insecurity in the study area was 5.6%.

Table 4. FGT: Food Insecurity Index Result

FGT measures	Sum	FGT	% FGT
(P ₀) Headcount ratio (Incidence of food insecurity) ^a	197	0.538247	54
(P ₁) Food insecurity gap (Depth of food insecurity) ^b	56.08571	0.153659	15
(P ₂) Squared food insecurity gap (Severity of food insecurity) ^b	20.4959	0.05615	5.6

Source: Computed result (2022), where (a) indicates estimation from the total sample and (b) indicates estimation from Food insecure (197) households.

Applying FGT indices, the headcount ratio, shortfall, and severity of food insecurity of the whole Amhara region were 34.1%, 6.1%, and 2.5%, respectively (Wolderufael, 2015). In line with this, the result is more than DireDawa, (Feleke & Bogale, 2010a), which stated that the headcount ratio revealed that 43% of sampled households were food insecure. The gap and severity of food insecurity were estimated to be 13 and 5.9%, respectively. In addition to this, the status of food insecurity in Bahir Dar and Gondar is much higher than Oromiya region, where the three FGT indices results, headcount index, food insecurity gap, and severity of food insecurity, were found to be 37.5%, 10% and 4.2% respectively (Hana & Dereje, 2016).

A disaggregated analysis of the extent of food insecurity by location presents a complete picture of the food consumption pattern of the region. Food insecurity is relatively higher in Bahir Dar with a food insecurity headcount index of 129 (55%), shortfall index 5.3% and severity of 1.3 % respectively, than Gondar counterpart of 68 (52%), 4% and 1.2%.

Table 5. Comparison of FGT between Sample Cities

	Headcount (p ₀)	Food security gap (p ₁)	Severity (p ₂)	Headcount (p ₀)	Food security gap (p ₁)	Severity (p ₂)
Sum	129	12.56142	3.22231	68	5.4890476	1.55342
FGT	0.5512821	0.053681	0.01377	0.519084	0.0419011	0.01185
% FGT	55%	5.3%	1.3%	52%	4%	1.2%

Source: Own competition, 2021/22

A qualitative description confirms such a finding: As a young single mother of 40 years old, having two kids who came from Gonder, she said, "I was living a happy life with my two kids and husband. Unfortunately, when my husband left due to the civil war, we began suffering and were forced to move to Bahir Dar in search of a cheap rental house and seeking job opportunities. However, nothing is good, and life is getting worse here too. It is the story of many of my friends who lost their partners and were displaced due to a civil war like mine".

Determinants of Household Food Security (BLR model)

The binary logistic regression model was used to identify determinants of household food security in the study area. Eleven predictor variables were selected to explain the criterion variable (household food security). Out of the total predictor variables, eight variables were significant at 1% and 5% probability levels (Table 7). The omnibus test of model coefficients has a Chi-square value of 2.42 on 1% degrees of freedom, which is enormously significant at $p < 0.01$, indicating that the predictor variables selected have a high joint effect in predicting the status of a household's food security status. Hosmer and Lemeshow's test of 0.092 showed that the model is fitted. The predictive efficiency of the model showed that out of the 365 sample households included in the model, 92% were correctly predicted. The multicollinearity among independent variables was checked, and no significant violations were observed. The model's fitness was assessed using pseudo- R^2 , and the combined independent variables explained about 92 % of the variances in the model.

Table 6. Binary Logistic Regression Results

Predictor Variables		B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I. for EXP(B)	
								Lower	Upper
Step 1 ^a	Sex	2.609	.765	11.649	1	.001	13.590	3.037	60.813
	Mar. status	2.984	.836	12.744	1	.000	19.770	3.841	101.756
	Remittance	4.501	.973	21.385	1	.000	90.135	13.377	607.354
	Credit service	2.613	.749	12.183	1	.000	13.645	3.145	59.200
	Own. house	3.988	.836	22.727	1	.000	53.920	10.466	277.793
	Constant	-6.573	1.037	40.147	1	.000	.001		
Step 2 ^b	Foods expend.	4.736	1.143	17.175	1	.000	113.977	12.136	1070.427
	Income	7.103	1.516	21.964	1	.000	215.225	62.320	3696.773
	HH Age	1.758	.639	7.568	1	.006	5.798	1.658	20.282
	HH Size	-.579	.956	.366	1	.545	.561	.086	3.652
	Education.	-.368	.323	1.292	1	.256	.692	.367	1.305
	Occupation	.206	.181	1.292	1	.256	1.229	.861	1.753
	Constant	-18.181	3.611	25.351	1	.000	.000		

** = $P < 0.001$, * = $P < 0.05$

Variable(s) entered on step 1: H.H. sex, Mar. status, remittance, credit service, ownership of a house.

Variable(s) entered in step 2: food expenditure, income, age, and size. Education and occupation,

Gender: is a positive and significant ($b=2.609$, $s.e. = .765$, $p = 0.001$) predictor of the probability of being food secure, with the OR indicating that for every one unit increase in the male-headed household, the odds of becoming food secure has changed by a factor of 13.590 (meaning the odds are increasing), with 95%, CI of 3.307 to 60.813. The finding is consistent

with the results (Aragie & Genanu, 2017). The number of Food insecure female households is higher in proportion than males.

Contrary to this, assuming other variables are kept constant at their mean values, a household headed by a male is more likely to be food insecure than a female-headed household. A possible reason may be that female household heads are more responsible and pay attention to their family. Therefore, having a woman as head of household implies higher caloric availability due to differences in spending priorities between males and females (Feleke & Bogale, 2010b).

Marital status: is a positive and significant ($b=2.984$, $s.e = .836$, $p = 0.000$) predictor of the probability of being food secure, with the OR indicating that for every one unit increase in the married household, the odds of becoming food secure have changed by a factor of 19.770 (meaning the odds are increasing), with 95%, CI of 3.841 to 101.756. The result is consistent with the findings of Feleke and Bogale, (2010), which revealed a negative relationship between food security due to the economic scale of consumption items purchased by couples and the pooling of available resources.

Credit service: is a positive and significant ($b= 4.501$, $s.e = .973$, $p = 0.000$) predictor of the probability of being food secure, with the OR indicating that for every one unit increase on a credit service received by households, the odds of becoming food secure has changed by a factor of 13.645 (meaning the odds are increasing), with 95%, CI of 3.145 to 59.200. The result for the urban sample shows that other things being constant, the odds ratio in favor of household vulnerability to food insecurity decreased by a factor of 13.645 as the credit service of the family increased by one unit. This implies the importance of receiving credit services in improving a household's food security status. It is because credit services equip individuals with an additional and extra chance to pursue other alternative means to make a living. The finding is consistent with the results of (Feleke & Bogale, 2010b), which revealed that the variable under consideration is negatively related to food insecurity.

Ownership of house is a positive and significant ($b= 3.988$, $s.e = .836$, $p = 0.000$) predictor of the probability of being food secure, with the OR indicating that for every one unit increase in ownership of house of households, the odds of becoming food secure has changed by a factor of 53.920 (meaning the odds are increasing), with 95%, CI of 10.466 to 277.793. The sign of the coefficients of housing ownership of the household head showed a positive and significant relationship with food security at a 5% probability level. It is because an increase in housing ownership will have an effect. Thus, housing ownership increases the stable income so that the capacity of the households to consume more will grow.

According to a Female household head Mrs, Zewdie, 42yrs old, from Arada kebele, Gondar, expressed as follows: One of the most severe causes for food insecurity is the highest monthly rental expense she paid for two small rooms with her four children from her minimal and insignificant income earned from selling local drinks (Araki and Tella).

Income: is a positive and significant ($b= 7.103$, $s.e = 1.516$, $p = 0.000$) predictor of the probability of being food secure, with the OR indicating that for every one unit increase in household income, the odds of becoming food secure has changed by a factor of 1215.225 (meaning the odds are highly increasing), with 95%, CI of 62.320 to 23,696.773. The finding is consistent with the results of (Ejigayhu, 2012). Food insecurity, holding other variables constant, decreases by a factor of 6.1% as monthly income increases by one level.

Age: The results for the urban sample families reveal that household head age has a positive and substantial influence on food security status. H.H. Age is a positive and significant ($b= 1.758$, $s. e=.639$, $p = 0.006$) predictor of the probability of being food secure, with the OR

indicating that for every one-unit increase in household age, the odds of becoming food secure have changed by a factor of 5.798 (meaning the odds are increasing), with a 95% confidence interval of 1.658 to 20.282. Other factors being equal, the odds ratio in favor of household susceptibility to food insecurity fell by a factor of 5.798 as household age increased by one unit. The outcome is consistent with theoretical evidence that as H.H.'s age grows, the experience may boost awareness of the potential benefits of diverse livelihood options and improve H.H.'s quality of life. According to the findings of (Ejigayehu, 2012), the age of the household head was discovered to be contradictory to what we expected. Keeping other parameters constant, the marginal effect on the side of food insecurity increases by a factor of 0.6% when the age of the household head increases by one year.

Among the elements included in the model, sex, marital status, remittance, credit obtained, and house ownership were shown to be important in affecting family susceptibility to food insecurity, as were income, food spending, and age. Education, employment, and family size, on the other hand, were shown to be insignificant in affecting household food security.

CONCLUSION AND RECOMMENDATIONS

Conclusion

Urbanization and urban migration resulted in alarming population pressure implying increased food demand. In addition, poverty, irregular household incomes, unemployment, and dynamic and complex livelihoods are the root cause of urban household food insecurity. But food security status and determinants in all emerging cities of the Amhara region were not inclusively studied. Therefore, this study was conducted only in Bahir Dar and Gondar cities as a benchmark to provide valuable information for stakeholders.

Understanding the causes and current state of food security would assist policymakers in developing and implementing more effective policies and programs for the poor, ultimately aiding in improving food security in the growing urban settings. This study aimed to objectively quantify the degree and drivers of food insecurity in such major cities. Descriptive statistics, the Foster-Greer-Thorbecke (FGT) model, and Binary Logistic Regression were used to examine the data. The qualitative sections were also presented thematically and using qualitative descriptions.

The study's findings revealed that food insecurity was widespread and severe among the urban poor. Among the factors studied, housing ownership contributes the most to households' food insecurity. As a result, households with low income, single parents, female household heads living in rental dwellings, and who do not get remittances and access to credit were the most food insecure and poor in the research location. On the other hand, the research found that investments in income generation and diversification, communal housing, access to training, credit services, and price stabilization had an important influence on reducing urban food insecurity.

The binary logistic regression model revealed that eight of the eleven dependent variables (household age, gender, marital status, income, food expenditure, housing ownership, access to credit services, and remittance received) are found to be statistically significant determinants of household food security in the study cities.

As a result, the concerned bodies must devise new income-generating activities, price stabilization, communal housing, and commercialization policies centered on small-scale businesses that can alleviate growing urban poverty and improve food security in the target cities and many other similar towns and cities in general. Based on the findings, a clear majority of households in the sample experience a regular inability to access "sufficient, safe, and

nutritious food to maintain a healthy and active life to access food to achieve,” per FAO’s definition of food security (FAO, 2008).

Recommendations

Many local governments in Ethiopia lack the institutional capacity to rapidly implement effective policies to meet the needs of the growing numbers of urban poor. Yet local governments do have options to shore up household food security.

- ✓ *Our results suggest that ensuring access to credit and saving institutions, training and financial assistance quality training, and education opportunities for poor urban dwellers may strengthen food security in the long term. But overarching urban policies in the medium term – such as transportation and water and sanitation infrastructure improvements – can reduce poverty levels and disease risk and may reduce vulnerability to food insecurity among low- and middle-income households.*
- ✓ *Finally, our findings remind us of the critical role of governance in food systems within urban areas. Both informal and formal governance arrangements for food retailing influence household food purchases and food security.*
- ✓ *Through infrastructure and improved urban services, local governments can strengthen household food security directly by reducing the economic burden of procuring food, the rising cost of basic needs, and higher rental house prices.*
- ✓ *Even though the planet is now more urban than rural, urban poverty and economic inequality are at record highs. Sustainable cities will depend on ensuring that the growing numbers of urban poor are food secure. If the future of African countries lies primarily within cities, then to feed the future, policy and research agendas that focus on ensuring urban food security must be pursued.*

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2.7. Effect of International Remittance Inflows on Investment and Economic Growth in Ethiopia

Kidanemariam Gidey

Lecturer, Department of Development Economics, Ethiopian Civil Service University

Email: kidugidey@gmail.com

ABSTRACT

According to the World Bank migration and development report, Ethiopia is among the top remittance-receiving countries in Sub Saharan Africa. But little attention was given to evaluating the effect of remittance inflows on the Ethiopian economy. Therefore, this paper investigated the relationship between international remittance inflows, private investment, and economic growth in Ethiopia over the year 1991-2020. This study has applied ARDL methods of co-integration to explore the relationship between these economic variables. The result from the econometric analysis indicated that international remittance has a significant positive effect on both private investment and economic growth in the long run. But its effect was found to be statistically insignificant in the short run, though the coefficients are positive. The descriptive analysis also clearly shows that remittance inflow to Ethiopia continuously declined after 2014, though the total number of migrants leaving the country is increasing. This could be mainly because of political instability and the current COVID-19 pandemic effect.

Keywords: Remittance inflows, investment, economic growth, Co-integration, ARDL, Ethiopia

INTRODUCTION

Remittance inflows to developing countries are large and continuously increasing from time to time (Gebissa and Feyissa, 2019, Tenaye, 2019 and Issuf, 2018). According to the 2019 International Organization for Migration (IOM), global remittances have grown from an estimated USD 126 billion in 2000 to USD 689 billion in 2018, despite the actual size of global remittances are likely to be bigger than this estimate. The 2019 World Bank migration and remittance brief no.31 report indicated that annual remittance flows to low- and middle-income countries (LMICs) is increasing from time to time. For instance, in 2018, remittance flows to LMICs reached \$529 billion, showing an increase of 9.6 percent over 2017. This figure has reached USD 550 billion in 2019. This would make remittance flows larger than foreign direct investment and official development assistance flows to LMICs. Remittances are also more stable than foreign direct investment and are thus a critical and stable source of external finance for Africa (UNCTAD, 2019).

The flow of remittances into developing countries is attracting increasing attention because of their rising volume and their impact on the macroeconomic performance of receiving countries in different ways. According to UNDP (2017) report, remittances serve as a strategic buffer stock that helps to increase foreign exchange reserves, support macroeconomic stability, and allow for investments and growth in many African countries. In addition, remittances have been identified as a potential source of funding for economic development (UNDP, 2011).

In Ethiopia, people migrate to the rest of the world for many reasons, including unemployment, poverty, drought, and human rights abuses. The paths and destinations of Ethiopian migrants are as diverse as that of the causes (Adugna, 2019). In general, the total number of migrants from the country to the rest of the world continuously increases. For instance, the total number

of migrants has increased from 445.9 thousand in 2000 to 946.1 thousand in 2020 (UN DESA, 2019). Similarly, international remittance flows to the country have increased rapidly over the past decade (Alem & Andersson, 2019). According to the World Bank migration and development brief no.31 report (2019), Ethiopia is among the top remittance-receiving countries in Sub Saharan African (SSA). The amount of remittance inflow in 1991 was USD 5.2 million. After ten years, this figure has increased by more than ten-fold and reached USD 53.2 million in 2001 (WB, 2020). Similarly, this value increased thirty-fold in the next fourteen years and was recorded at USD 1.7 Billion in 2014. In the next three years, remittance sharply declined, mainly due to the anti-government protest and violence that occurred in the country.

Even though migration and remittance inflows are rising in developing countries, including Ethiopia, the empirical literature on the role of remittances on the economy of receiving country is still a matter of intense debate among policymakers and scholars in economics and other disciplines. Some empirical studies indicated that remittance inflows positively affect investment and economic growth (Chimi et al., 2008; Senbeta 2013; UNCTAD, 2019). Conversely, other researchers contend that migration remittance might not positively affect investment as remittances in developing countries are mainly driven by altruism and are usually used to smooth consumption and improve welfare. It can also have an adverse effect due to the moral hazard problem that remittances create. That means the income from remittances may result in a decrease in work effort and productivity, which then translates into a reduction in the labour supply for the developing country (Shera & Meyer, 2013). This argument is confirmed by different research results in different countries. For instance, the research finding conducted by Shimul (2013) showed that remittance does not have a significant contribution to economic growth both in the short and long run in Bangladesh. Another research done by Jawaid and Raza (2012) showed that remittance has a significant negative effect in the long run and the short economic growth in China.

In Ethiopia, the role of foreign remittance on macroeconomic variables has been studied by some scholars. For instance, research done by UNCTAD (2019) confirmed that, in Ethiopia, remittances received from international migrants are more likely to be used for business investments and development, which have a favorable effect on economic growth. Similarly, Yaekoba (2014) and Solomon (2020) argued that remittance inflow has a significant impact on economic growth by increasing real private investment and fixed capital accumulation which reduces current account deficit, external debt burden and improves human capital. Similarly, Nuredin (2018) also confirmed that remittance inflows affect both economic growth and investment positively in the long run, which shows the potential of remittance to serve as an alternative source of capital for investment and entrepreneurial purposes.

However, other research findings challenge the positive effect of remittance on economic growth in Ethiopia. For instance, an empirical result obtained by Tolcha & Rao (2016) revealed that remittance has a significant negative effect on economic growth in Ethiopia in the long run. However, it has positive impacts in the short run. Another research conducted in Ethiopia, Kenya, and Uganda by Zerihun (2020) confirmed that remittance inflow has no significant impact on economic growth. However, there is a long-run relationship between the variables. Other researchers such as Nuredin (2018) and Kifle (2014) also reveal that in the short-run, remittance affects both economic growth and investment negatively due to remittance's consumption smoothening role in the short run.

These mixed findings show the absence of a consistent exploration of the effect of remittances on investment and economic growth. Likewise, little attention was given to evaluating the impact of remittances on investment and economic growth. Even the simultaneous effect of remittance inflow on investment and economic growth in Ethiopia has not been adequately

studied in our country; rather, it has been mostly studied from its effect of economic growth point of view. Therefore, this research has contributed to the existing body of literature in developing countries in general, in Ethiopia in particular, by examining the effect of international remittance inflows on both private investment and economic growth in Ethiopia.

OBJECTIVE OF THE STUDY

The general objective of this study is to evaluate the effect of remittance inflow on private investment and economic growth in Ethiopia for the years 1991 to 2020. More specifically, the study aims at achieving the following objectives.

- i. *To analyze the trend and performance of remittance inflows between the years 1991 to 2020.*
- ii. *To evaluate the effect of remittance inflow on investment in Ethiopia.*
- iii. *To evaluate the effect of remittance inflow on economic growth in Ethiopia.*

Literature Review

THEORETICAL LITERATURE

The Impact of Remittance on Recipient Countries (Economies)

The impact of international remittances inflow on the economy of recipient countries has been the subject of continuous debate over the last five decades. These debates can be broadly categorized as “optimist’s view”, “pessimist’s view” and Pluralistic view (Haas, 2007 and Ångman & Larsson, 2014).

According to the “optimistic view”, flows of remittances as well as experience, skills, and knowledge that migrants acquire abroad will enhance development in the recipient countries (Anaynwu & Erhijakpor, 2010). This group of scholars believes that remittance has a direct positive impact on the development process of recipient societies through savings and investment and, indirect positive effects through consumption and access to credit (Francois et.al, 2022). It can also impact growth positively by transferring knowledge (brain gain), reducing income inequality & promoting human capital formation which can stimulate development and modernization. Specifically, in developing countries where labor supply is abundant but opportunities for employment are scarce, remittances can help initiate self-employment through creating access to credit (Meyer & Shera, 2017).

On the other hands, “pessimists” believe that remittance tends to negatively affect the socio-economic condition of a recipient country via dependency syndrome, brain drain, the development of conspicuous consumption patter, aggravating income inequality and appreciation of exchange rate. Most of the pessimistic view on remittance draws on structuralist social theory, which encompasses neo-Marxist, dependency world systems, and, at least to a certain extent, cumulative causation theory (Haas, 2007). These groups of scholars argues that remittances have mostly been used for excessive consumption, housing, and land purchase rather than for activities that increase investment and productive capacity that contributes to long-run growth (Mallick,2020 & Chaudhary, 2020). Furthermore, remittances can lead to moral hazard or dependency syndrome that could negatively affect economic growth as recipients may reduce their participation in productive activities (Mallick, 2020). That means, if the number of remittances exceeds the recipient’s expected earnings from work, it can discourage labor force participation, induce voluntary unemployment, and foster a culture of dependency in the recipient countries (Francois et.al, 2022).

There is also another view known as “pluralistic view”. According to the proponents of this theory, the above theories are too static (Adenutsi, 2010). This view argues that there are not strictly negative nor positive outcomes of remittances in the remittance receiving countries, the

issue is more complex. According to this theory, the effects of remittances are thus *context dependent* (De Haas, 2007; Taylor, 1999). The effect of remittance on the economy depends on the macroeconomic behavior and institutional quality of the recipient economy. These effects depend on how remittances are utilized in the recipient economy. For instance, if the capital from remittance is used for consumption, this has an adverse effect on macroeconomic outcomes. If spent on capital goods, there will be a spillover effect on investments and savings and the remittances can stimulate local production and exports (Kadozi, 2019).

Empirical Literature

There are a lot of empirical studies that examine the effect of remittances on investment and growth in recipient countries, yet the results of those studies remain inconclusive.

Several studies found that there is a positive relationship between remittances, investment, and economic growth. For instance, Khan et.al (2019) undertaken research to examines the association between remittances inflow and investment in five major remittance receiving Asian countries over the period 1990 to 2016.: India, Sri Lanka, Pakistan, Nepal, and Bangladesh. This research revealed that private investment is positively affected by remittances inflow though the impact of remittance flow with low business freedom opposes the positive association in the case of these sampled countries. Further research conducted by (Mim and Ali, 2012) in 15 Middle East and North Africa countries over the period 1980 to 2009 found a positive and significant influence of remittances on investment, and economic growth. Another research conducted in a sample 34 SSA economies during the year 1980–2004 by Baldé (2011) also confirmed that international remittance transfers can have an indirect effect on economic growth through savings and investment. Research conducted in Pakistan over the period 1994-2009 by (Yasmeen, Anjum, Yasmeen, and Twakal, 2011) showed that workers' remittances can have a positive role on private investment and total consumption.

However, remittances can also have an adverse impact on economic growth and development in recipient countries by reducing incentives to work, and therefore reducing labor supply or labor force participation. Remittances increase the recipients' income and can weaken their incentives to work, which, in turn, slows economic growth. (Perez-Saiz et.al, 2019). It might also adversely affect long-run growth through appreciation of the real exchange rate in recipient economies and generate a resource reallocation from the tradable to the non-tradable sector (Adolfo et.al ,2010 and Khan et.al ,2019).

With respect to Ethiopia, research done by UNCTAD (2019) proved that remittances received from international migrants are more likely to be used for business investments and development, which have a favorable effect on economic growth. Similarly, Yaekoba (2014) and Solomon (2020) argued that remittances inflow has a significant impact on Economic growth by increasing real private investment and fixed capital accumulation which reduce current account deficit, external debt burden and improving human capital. Similarly, Nuredin (2018) also confirmed that remittance inflows affect both economic growth and investment positively in the long run which shows the potential of remittance to serve as an alternative source of capital for investment and entrepreneurial purposes. However, other research findings challenge the positives effect of remittance on economic growth in Ethiopia. For instance, an empirical result obtained by Tolcha & Rao (2016) revealed that remittance has a significant negative effect on economic growth in Ethiopia in the long run, though it positively impacts in the short run. Another research conducted in Ethiopia, Kenya, and Uganda by Zerihun (2020) confirmed that remittance inflow has no significant impact on economic growth, though there is a long-run relationship between the variables. Other researchers such as Nuredin (2018) and

Kifle (2014) also reveal that in the short-run remittance affects both economic growth and investment negatively due to remittance's consumption smoothening role in the short run.

METHODOLOGY

Research Design

To analyze the effect of remittance inflow in investment and economic growth, quantitative research design (explanatory research design) was applied.

Model Specification

Though there are many co-integration approaches, this study has used Autoregressive Distributed Lag (ARDL) Model to analyzing the long run and short run effects of remittance on private investment and economic growths in Ethiopia. This popular approach was developed by Pesaran et al. (2001). It is also known as the ARDL bounds testing. This approach has several advantages over other co-integration techniques (Pesaran et al., 2001). First, it is applicable irrespective of whether the underlying regressors are purely I (0), purely I (1) or fractionally integrated. Second, the model uses enough lags to capture the data-generating process in general to the specific modeling framework. Third, the error correction model is derivable from the ARDL through a simple linear combination, which integrates both short-run adjustments with long-run information without losing the latter's information. Fourth, the small samples properties of the ARDL procedure are far superior to those of the multivariate co-integration techniques. Fifth, endogeneity and serial correlation problems are corrected through appropriate lag selection. (Umoh and Effiong, 2013).

In this research, two co-integration models were estimated. In the 1st model, private investment was taken as dependent variable and remittance inflow was taken as explanatory variables. In the 2nd model, economic growth was taken as dependent variable & remittance was taken as independent variable. In both models, other main control variables were included in addition to remittance. The detailed specification of co-integration mode-1 and Model-2 is shown as follows.

Cointegration Model-1: The Role of Remittance on Private Investment

$$\begin{aligned} \Delta LINV_t = & \alpha_0 + \lambda_1 LREM_{t-1} + \lambda_2 LGDP_{t-1} \\ & + \lambda_3 LLIR_{t-1} + \lambda_4 LFDI_{t-1} + \lambda_5 LGOV_{t-1} + \lambda_6 LINF_{t-1} + \beta_1 \sum_{i=1}^n \Delta LINV_{t-i} \\ & + \beta_2 \sum_{i=0}^n \Delta LREM_{t-i} + \beta_3 \sum_{i=0}^n \Delta LGDP_{t-i} + \beta_4 \sum_{i=0}^n \Delta LLIR_{t-i} + \beta_5 \sum_{i=0}^n \Delta LGOV_{t-i} \\ & + \beta_6 \sum_{i=0}^n \Delta LINF_{t-i} + \beta_7 D_1 + \beta_8 T + u_t \end{aligned}$$

Where: $LINV_t$ = Logarithm of private investment as a % of GDP at time t .

$LREM_t$ = Logarithm of remittance inflow as a % of GDP at time t .

$LGDP_t$ = Logarithm of real GDP at time t .

$LFDI_t$ = Logarithm of foreign direct investment as a % of GDP at time t .

$LGOV_t$ = Logarithm of government expenditure as a % of GDP at time t .

$\beta_1, \beta_2, \beta_3, \beta_4, \beta_5, \beta_6$, and β_7 , are elasticity coefficients.

In this model, $LGDP_t$ is real gross domestic product, taken as a dependent variable. $LREM_t$ is international remittance received is may variable of interest and measured in terms of remittances received to GDP. Here remittances and gross domestic product are expected to have a positive relationship. The remaining five explanatory variables are control variables which are added in the model to control the effect of other most important factors that determine economic growth. LHC_t is human capital augmented labor force which is expected to have a positive impact on economic growth. $LFDI_t$ is the ratio of foreign direct investment to GDP ratio is expected to have a positive effect on economic growth through diffusion of technology and managerial skill. $LGOV_t$ is total government spending to GDP ratio and would have positive impact through creating conducive environment to the private investment. $LINF_t$ is rate of inflation which is taken as a proxy for macroeconomic environment. The effect of inflation on investment cannot be predicted (it could have positive or negative effect). D_1 and D_2 are dummy variables for regime change and recurrent drought.

All variables are transformed into logarithmic forms, which help to have relatively stationary series and a higher robustness to autocorrelation. While estimating both above models, I have used HAC (Newey-West disturbance covariance matrix) estimator which leads to higher heteroskedasticity and autocorrelation consistency.

Sources of Data

This researcher has used secondary sources of data. Thirty years annual time series data from 1991-2020 was used from different sources. Specifically, the data was obtained from National bank of Ethiopia (NBE), Ethiopian Economic Association, World Development Indicators (WDI), UNICTAD and Pen World databases.

Estimation procedure

Before estimating the model, stationarity (the degree of integration) of all variables were tested by using Augmented, Dickey-Fuller unit root test and Phillips-Perron unit root test. Then the ARDL bound test developed by (Pesaran et al., 2001) was applied to test the long run relationship between the variables. Lastly, the long-run and short run and error correction terms are estimated from the conditional ARDL model.

After estimating the long run and short run models, misspecification test, normality test, serial correlation test, heteroscedasticity test and Ramsey Reset test of model specification tests were undertaken to check the robustness of the model. To estimate the models and to perform the pre-estimation and post-estimation diagnostic tests, Eviews9 statistical package was used.

DISCUSSION AND ANALYSIS

Descriptive Analysis

Trend Of Remittance Inflows to Ethiopia (1990-2020)

The trend of international remittances inflow to Ethiopia is reported in Figure 1 and Figure 2. The trend of these flows is reported in current US\$ and as a percentage of GDP over the period 1990-2020. The reported data shows that officially a recorded remittance flow to Ethiopia was about US\$ 5.2 million in 1990. After ten years, this figure has increased by more than ten-fold, and reached US\$ 53.2 million in 2000 (WB, 2020). In the same manner this value has generally increased by more than eight-fold and recorded US\$ 436 million in 2010. However, there was a sharp decline in remittance flows to Ethiopia in 2009. This could be because of the unfavorable effect of financial crisis experienced by many advanced countries. A critical look into the data reveals that remittances in Ethiopia have remarkably increased in the next four years and reached to US\$ 1.8 billion in 2014. But it starts to sharply decline between 2014 and

2017, mainly due to the anti-government protest and violence occurred in the country. In the next two years it started to recover. The line graph clearly indicates the negative effect of COVID-19 pandemic on remittance inflows to Ethiopia. The COVID-19 pandemic has badly affected the remittance providers. As a result, Ethiopian migrants, especially those in western high-income countries, have lost jobs or seen their incomes drop, reducing their ability to send money home. The remittance to GDP ratio of Ethiopia reported in Figure 2 also shows almost similar trend with the total volume of remittance reported.

Top Ten Remittances Receiving Sub-Saharan Africa Countries.

Remittances to Sub-Saharan Africa registered in 2019 were about UD\$ 48 billion. Due to the COVID-19 crisis, remittance flows to the region has declined to US\$ 42.5 billion in 2020, while a recovery of 4 percent is expected in 2021. The anticipated decline can be attributed to a combination of factors driven by the COVID-19 outbreak in key destinations where African migrants reside including in the EU area, the United States, the Middle East, and China (WB, 2020). The COVID-19 pandemic has knocked out remittance providers in a variety of ways: Sub-Saharan migrant workers, especially those in high-income countries, have lost jobs or seen their incomes fall, reducing their ability to send money home. In addition, weak oil prices have affected outward remittances to Africa from the Gulf Cooperation Council countries (Brookings, 2020).

Table 1 depicts the top ten SSA countries that received the highest remittances in 2020. Accordingly, Nigeria, Ghana, Kenya, Senegal, and Somalia are the top five remittance recipients. Specifically, Nigeria received US\$ 17.21 billion which is the highest among SSA countries. This would represent 40.4 % of total flows to Sub-Saharan Africa countries in 2020 and would make Nigeria the second-largest African recipient in that year after Egypt (US\$ 29.6 billion). Ghana and Kenya are ranked 2nd and 3rd among the top remittances-receiving countries in SSA, with flows of US\$ 4.29 billion and US\$ 3.1 billion, respectively, in 2020. The share of Ghana and Kenya from SSA is 10.1% and 7.3% respectively. Senegal and Somalia are the fourth and fifth largest remittance receiving countries in SSA, with US\$ 2.56 and 1.74 billion. Other countries with close to US\$ 1 billion of remittances inflows in 2020 (US\$ 1.1 billion on average) include Zimbabwe, South-Sudan, D.R Congo (Dem. Rep), Uganda, and Mali. Ethiopia is the eighteenth country in SSA receiving US\$ 404.1 million. Ethiopia was one of the top ten remittance receiving country in SSA in 2014 receiving about US\$ 1.8 billion. The income of Nigeria from remittance is more than forty times higher than Ethiopia income coming from remittance. The share of Ethiopia is less than 1% which is too small as compared to Nigeria.

Table 3: Top 10 Sub-Saharan countries receiving the highest remittances (2020)

S. N	Countries	Amount in USD	Share (%) from SSA
1	Nigeria	17,207,547,306.00	40.4
2	Ghana	4,291,956,800.56	10.1
3	Kenya	3,100,000,000.00	7.3
4	Senegal	2,561,899,541.77	6.0
5	Somalia	1,735,000,000.00	4.1
6	Zimbabwe	1,209,718,044.52	2.8
7	South Sudan	1,200,000,000.00	2.8
8	Congo, Dem. Rep.	1,109,067,595.07	2.6
9	Uganda	1,051,170,000.00	2.5
10	Mali	987,299,900.53	2.3

18 th	Ethiopia	404,100,000	
	SSA total	42,542,304,848.00	81

Source: Own competition using World Development Indicators-WDI (2021) database

ECONOMETRIC ANALYSIS

Unit Root Test

One of the pre-estimation requirements of ARDL model is to check the stationarity of all the variables of interest, as unit root problem is usually expected for most time series data. Unless the non-stationary of the series is not corrected, we will be obliged to falsely concluding that there is a relationship between two unrelated non-stationary series (Gujarati, 2004 and Mekonnen 2017). To achieve this goal, the commonly used ADF and Phillips-Perron unit root test was applied to know the order of integration of each variable and to design methodology accordingly. The interpretation of both tests is done through comparing test statistics and critical values, whenever the absolute value of test statistics is greater than absolute values of critical values we reject null hypothesis and accept alternative hypothesis meaning the variable is stationary; conversely, if the absolute values of test statistics is less than absolute values of critical values we accept null hypothesis and reject alternative hypothesis meaning that the data is suffering from unit root problem (Mekonnen 2017 and Tenaye,2019). The unit root testes result reported in Table 4 confirmed that lending interest rate (LLIR) and rate of inflation (LINF) are stationary at level at 1% and 5% level of significance, respectively while the remaining variables have unit root problem at level and become stationary at their first difference. This verifies that the variables in the model are mixed in order of integration and hence permit the possibility of employing an autoregressive distributive lag model (ARDL) to find the long-run coefficients and using an error correction mechanism (ECM) to get the short-run coefficients of both models (Model one and Model two).

Table 4: ADF and PP Unit Root Test results

Variables	ADF Unit Root Test			PP Unit Root Test		
	T-statistic	Prob.Values	Decision	T-statistic	Prob.Values	Decision
LINV	-0.281017	0.9872	Not Stationary	-1.458228	0.8208	Not Stationary
LREM	-1.972694	0.5912	Not Stationary	-1.918434	0.6193	Not Stationary
LGDP	-1.369547	0.8478	Not Stationary	-2.583688	0.2896	Not Stationary
LGOV	-2.695305	0.2460	Not Stationary	-2.949137	0.1629	Not Stationary
LLIR	-4.560413	0.0056	Stationary	-4.431065	0.0075	Stationary
LFDI	-2.881114	0.1827	Not Stationary	-3.054896	0.1355	Not Stationary
LINF	-3.947368	0.0226	Stationary	-3.851554	0.0279	Stationary
LHC	-2.875630	0.1843	Not Stationary	-3.026022	0.1426	Not Stationary
ΔLINV	-9.306443	0.0000	Stationary	-9.245601	0.0000	Stationary
ΔLREM	-5.583236	0.0005	Stationary	-9.330242	0.0000	Stationary
ΔLGDP	-5.926483	0.0002	Stationary	-5.806272	0.0003	Stationary
ΔLGOV	-5.860031	0.0003	Stationary	-11.20430	0.0000	Stationary
ΔLLIR	-3.749578	0.0353	Stationary	-3.729845	0.0367	Stationary
ΔLFDI	-5.493758	0.0006	Stationary	-5.513874	0.0006	Stationary
ΔLINF	-7.709388	0.0000	Stationary	-8.997772	0.0000	Stationary

ΔLHC	-5.473380	0.0007	Stationary	-5.491539	0.0006	Stationary
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Source: Own computation based on CSA data

Note: Significance at 1%,5% and 10% is shown by *, **and***

The Long Run Effect of Remittance on Private Investment & Economic Growth

To test the existence of long-run relationship between the variables, ARDL-bound test developed by Pesaran (2001) was employed. Accordingly, the results shown in Annex Table-A & Annex Table-B indicate that the calculated F-statistic values for both models (4.1 and 12.28) are greater than the Pasaran upper bound critical values at 5% and 1% level of significance, respectively. This implies that the null hypothesis of no-cointegration has been rejected and the existence of long run relationship between the variables included in the models has been guaranteed.

Once the existence of long-run relationship among the variables is confirmed, the long-run models were estimated, followed by short run results. These results are reported in Table 5 & Table 6.

Accordingly, remittances inflows have a positive and significant effect on private investment and economic growth. Specifically, a one percent increase in remittances inflows causes a 0.28 percent increase in private investment and 0.04 percent rise in economic growth. This finding is in line with the “optimistic theory of migration”, which advocates that flows of remittances will enhance capital formation (investment), economic growth and development in the recipient countries. The positive influence of remittances on investment and economic growth is in line with Khan, et.al (2019), Zerihun (2020), Awode, et.al (2021), and Yaekoba, (2014).

Table 5: Long Run Estimates for private investment model

Selected Model: ARDL (1, 0,1, 2, 1, 2, 1)					
Dependent Variable: LINV					
Variable	Coefficient	Std. Error	t-Statistic	Prob.	
LREM	0.281141	0.071703	3.920900	0.0020	
LGDP	0.664159	0.171319	3.876732	0.0022	
LGOV	1.529505	0.454793	3.363076	0.0056	
LLIR			-		
	-0.666195	0.675717	0.985908	0.3436	
LFDI	0.000617	0.105692	0.005835	0.9954	
LINF	1.590860	0.879857	1.808090	0.0957	
REGM	0.067449	0.144291	0.467449	0.6486	
C			-		
	-10.761818	4.081006	2.637051	0.0217	

Table 6: Long Run Estimates for economic growth model

Selected Model: ARDL (1, 2, 2, 2, 2)				
Dependent Variable: LGDP				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
LREM	0.040854	0.014945	2.733734	0.0194
LHC	0.230783	0.034936	6.605976	0.0000
LGOV			-	
	-0.060407	0.032441	1.862073	0.0895
LFDI	0.052801	0.007649	6.903326	0.0000
REGM	0.047942	0.027623	1.735551	0.1105
DROUT			-	
	-0.040325	0.016259	2.480116	0.0306
C			60.20287	
	4.820130	0.080065	3	0.0000
T			53.44514	
	0.076530	0.001432	0	0.0000

Note: Significance at 1%,5% and 10% is shown by *, **and***

The Short Run Effect of Remittance on Private Investment & Economic Growth

Once the long-run coefficients of the models are estimated, the short-run models are estimated. Accordingly, the short run model results are presented in Table 7 and Table 8. The results obviously show that the ECT coefficient is correctly signed (negative as expected).

According to the model results presented in Table 7 and Table 8, the coefficients of one period lagged value of the Error Correction Terms (ECT (-1)) are negative and significant confirming the existence of long run relationship among variables in both models (Banerjee, et al., 2003).The ECT (-1) coefficient value of the first model (investment model) is about 0.788 implying close to 47% of adjustment will be made in the first year and it takes 1.27 years to fully converge towards its long-run equilibrium. Similarly, the error correction coefficient of the second model (economic growth model) is about -0.776 implying that about 77.6% of the disequilibrium could be corrected in one year. In other words, approximately 77.6 % of the disequilibrium from the previous year's shock converges back to the long-run equilibrium in the current year.

Unlike the long run impact, international remittances do not have a significant impact on private investment and economic growth in the short run, though its coefficients are positive. This finding is consistent with Khan, et.al (2019). The short run insignificant impact of remittance on private investment may emanate from the reason that in the initial stages of migration, migrants usually try to smooth their level of consumption by spending more on necessities, such as shelter, food, and clothing, before they settle down and proceed towards saving and investment. After that they may start to save and invest in the long run, which is supported in the findings of this research.

Table 7: Short Run Estimates for private investment model

Selected Model: ARDL (1, 0, 1, 2, 1, 2, 1)				
Dependent Variable: $\Delta(\text{INV})$				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
ΔLREM	0.047400	0.053242	0.890277	0.3908
ΔLGDP	0.523582	0.250899	2.086829	0.0519
ΔLGOV	0.771398	0.351801	2.192710	0.0488
$\Delta\text{LGOV}(-1)$	0.810185	0.363561	2.228471	0.0457
ΔLLIR	-0.907701	0.642269	-1.413271	0.1830
ΔLFDI	-0.011157	0.077987	-0.143057	0.8886
$\Delta\text{LFDI}(-1)$	0.103643	0.038787	2.672088	0.0203
ΔLINF	-0.112614	0.570724	-0.197318	0.8469
REGM	0.053172	0.112875	0.471075	0.6460
ECT (-1)	-0.788339	0.299964	-2.628111	0.0221

Table 4.8: Short Run Estimates for economic growth model

Selected Model: ARDL (1, 1, 2, 0, 0)				
Dependent Variable: $\Delta(\text{GDP})$				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
ΔLREM	-0.026556	0.014769	-1.798163	0.0996
$\Delta\text{LREM}(-1)$	-0.028284	0.017583	-1.608620	0.1360
ΔLHCP	0.151014	0.032687	4.620035	0.0007
$\Delta\text{LHCP}(-1)$	0.195009	0.034448	5.660928	0.0001
ΔLGOV	-0.013744	0.040504	-0.339312	0.7408
$\Delta\text{LGOV}(-1)$	0.063693	0.035360	1.801297	0.0991
ΔLFDI	-0.018945	0.004458	-4.249323	0.0014
$\Delta\text{LFDI}(-1)$	0.006428	0.006721	0.956363	0.3594
REGM	0.037183	0.018793	1.978525	0.0735
DROUT	-0.031276	0.010761	-2.906374	0.0143
T	0.059356	0.016225	3.658335	0.0038
ECT (-1)	-0.775586	0.212130	-3.656183	0.0038

Note: Significance at 1%, 5% and 10% is shown by *, ** and ***

Diagnostic Tests

The Breusch-Godfrey Serial Correlation LM Test results presented in Annex-Table B show that there are no problems of serial autocorrelation. In addition, the diagnostic test for heteroscedasticity confirmed the absence of such problem (Annex-Table C). This indicates that the model was good enough for the study of cointegration among the variables. In addition, the Ramsey's RESET test; Jarque-Bera Normality tests indicate that the model is correctly specified (have correct functional forms), the disturbance terms are normally distributed. Besides, the CUSUM and CUSUM of Squares plot confirmed that the parameters of the models are relatively stable over time.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

This research analyzed the role of remittances on private investment and economic growth in Ethiopia over the year 1991-2020. I applied Auto Regressive Distributed Lag model (ARDL) to achieve the aim of the study. After finding cointegration among the variables, the estimated results indicated that international remittance inflows have a significant positive effect on both private investment and economic growth in the long run. But its effect was found to be statistically insignificant in the short run, though the coefficients are positive. The long run finding of this research is consistent with “the optimistic view on remittance” which considers remittance as a positive contributor to investment and economic growth. On the other hand, the short run result of this paper supports the “the pessimistic view on remittance”. Further, the long-run result of this paper is consistent with the findings of Nuredin (2018) and Yaekoba (2014).

The descriptive analysis also clearly shows that remittances inflow to Ethiopia is continuously declining after 2014, though the total number of migrants leaving the country is increasing. This could be mainly because of political instability and the current COVID-19 pandemic effect.

Recommendations

International remittance flows are significantly affecting investment and economic growth in Ethiopia, in the long run. Therefore, the government needs to design a policy scheme that aims to enhance more remittances inflows and leverage remittances for productive purposes. In general, policy makers should design a system that creates a faster and cheaper means of remittance transfer system in the formal financial institutions that overcomes the informal remittance transfer channels. In line with this, the government authorities should focus on creating prominent policy incentives to leverage remittances for productive purposes. Specifically:

First, the government should create conducive environment for diversification of the banking services and financial inclusion such as the use of mobile banking, internet banking, and rural banking that will assimilate more remittance-recipient households from the informal financial sectors into the formal financial system.

Second, lowering the cost of sending remittances can maximize the effect of remittance on growth and development. The transaction costs of sending remittances in Ethiopia (6.9%) are much higher than the target specified by Sustainable Development Goal and the 2015 Addis Ababa Action Agenda (3 percent). This makes the remitters depend on the informal sector operators. Therefore, policy makers should design a mechanism that helps to lower the costs and any barriers of official remittance channels to enhance the number of remittances flows through the informal sector. Encouraging Micro Finance Institutions (MFIs) and rural credit and saving institutions to penetrate the remittances market could help to push down the cost of remitting (through increasing competition in the financial market) and increasing the share of the formal financial sector. Again, policymakers must work to guarantee that remittance service providers do not face complications in partnering with correspondent banks.

Third, the government of Ethiopia and financial institutions should continue the current trend of encouraging the Diaspora community to support the country through using legal and formal financial institutions whenever sending their money. In addition, there should be an alternative means that encourage individuals who strive to bring foreign currency through the formal

system. In addition, policy makers must recognize the constructive role of migrants for inclusive growth and sustainable development in countries of origin and destination countries.

Fourth, the difference between the black-market exchange rate and the official exchange rate in Ethiopia is high, mainly due to widespread black-market, political instability and money smuggling out of the country. This will force the remitters to depend on the informal remittance channel. That means, the remitters may find it profitable to divert foreign exchange from the official to the illegal market. Therefore, the Ethiopian government should effectively struggle to control the black-market exchange market and smuggling money out of the country.

Fifth, policy makers need to permit remitters or remittance recipients to hold saving accounts in foreign currency that give a migrant a premium interest rate on their deposit. The interest payment made on these deposits should be fully or partially exempted from taxation. In this regard, the concerned authorities are trying to introduce such kinds of monetary policy measures.

Sixth, a favorable investment climate that can spur remittance-driven investments should be designed by the authorities (such as investment commission, NBE and ministry of foreign affairs). Because efforts to improve the productive use of remittances can be achieved more effectively through improvements in the overall investment climate, rather than a specific focus on measures for remittances inflows. These measures may include creating well-established incentive-based programs, including savings and investment facilities, tax discounts, provision of land freely or at a less lease rate. Such kinds of policy measures may enable overseas Ethiopians to enjoy incentives that include the right to own private lands for commercial and other productive investments activities.

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2.8. Heterogeneous Effects of migration and Remittances on Migrant-Sending Agricultural Communities: The Case of Southern Ethiopia

Misgina Asmelash (Ph.D.)

Department of Migration and Development, *Ethiopian Civil Service University*

Email: Misgie2008@Yahoo.Com

ABSTRACT

Using household survey data, the paper empirically evaluates the heterogeneous effects of migration and remittances on migrant-sending communities in southern Ethiopia. A multi-stage stratified sampling procedure was used to select sample villages from each survey area and households from each sample unit. To account for several econometric issues and consistently estimate the impacts of migration and remittances, the study adopted a three-stage least-squares method complemented with endogeneity and multicollinearity test. The findings of the paper reveal that the migration of labor out of agriculture has a significant negative effect on a household's adoption of different agricultural technologies, as well as crop yield. By contrast, the remittances sent by migrants partially compensate for the lost-labor deficit, leading to increased use of modern agricultural inputs and crop yield. Besides, it's observed that the adoption of different agricultural technology is invariant to the migrants' gender. Overall, the return of migration suggests that the adoption of modern agricultural technologies and crop yield in migrant-sending communities are found to be higher after migration participation, though the impacts vary for households with different production conditions.

Keywords: Migration, remittances, agricultural technology, crop yield, gender, Ethiopia

INTRODUCTION

In contrast to the early 1990s, when the severe civil war pushed numerous Ethiopians outward, recently migration out of agriculture has increased as agrarians in the rural areas of Ethiopia struggle to reconcile livelihood degradation and high unemployment rates. Internal conflicts are also increasing, and income inequality and rural poverty are high. In addition, extreme climate variability and recurrent droughts are becoming more severe and frequent, which adversely affect the lives and livelihoods of the poor farmers who mainly depend on subsistence rain-fed agriculture ([Hunnes, 2012](#); [Kuschminder, Andersson, & Siegel, 2013](#); [McLeman & Smit, 2006](#)). Rural households are pursuing off-farming employment and thus, migration has been an important strategy to respond to the negative environmental extremes.

With incomplete labor markets, however, the migration of the working labor force has reduced labor input in local agricultural production ([De Brauw, Huang, Rozelle, Zhang, & Zhang, 2002](#); [Mendola, 2008](#)). Traditional Ethiopian agriculture would be more responsive to a reduction in available farm labor as it was featured as a labor-intensive production. Further, the impact of migration on agricultural production varies depending on the migrants' gender as rural male and female laborers often engaged in different agricultural activities. If male and female laborers are not perfect substitutes for these activities, migration may have different opportunity costs for both male and female migrants ([Pfeiffer & Taylor, 2008](#)).

Conversely, the remittances sent by migrants play an essential role in Ethiopian agricultural production. Since capital markets and other economic institutions are underdeveloped in rural Ethiopia, migrant remittances can set the motion in development dynamics by lessening production and investment constraints faced by households and creating income linkages ([E. J. Taylor, 1999](#); [J. E. Taylor, 2001](#); [Xu, 2008](#)). Migrant remittances are beneficial to foster agriculture production, rises income, and improving general rural conditions ([Cederström,](#)

1990). Moreover, remittances support technological improvement in rural areas, enabling households to invest in modern agricultural inputs (Durand, Kandel, Parrado, & Massey, 1996; Massey, Alarcon, & Durand, 1987; Stark, 1991).

By applying insights from the new economics of labor migration (NELM) theory to Ethiopia's migration, this paper aims to answer the following research questions. (1) When migrants leave the household, does the reduction in available family labor lead to reduced agricultural production and technology adoption? (2) What impacts do remittances, if any, have on agricultural production and the adoption of agricultural technologies? (3) Does the migrants' gender affect the impact of migration on the adoption of different agricultural technologies, as well as crop yield?

The motivation to understand the nexus between migration and the agricultural community is interesting for the following reasons. Mixed farming remains a primary source of household income for rural communities in southern Ethiopia. The return from agricultural activities is the main source of liquidity (de Brauw, 2014). If the household in general faces constraints against investing in crop production and high-yield technologies, the migration of some family members is more likely to occur with the expectation that remittances will enable the household to overcome capital constraints and offer a positive gain in income in the case of crop failure (Quinn, 2009). However, as Ethiopian agricultural production is characterized by labor-intensive and subsistence nature, increases in labor migration may have a detrimental effect on the rural economy. It's argued that crop productivity and agricultural technology adoption is not likely to be equal for households with and with no migration.

As expected, the findings of the study reveal that the migration of the working labor force reduced the adoption of modern agricultural technologies and crop yield. In particular, the adoption of improved seed varieties, fertilizer, and chemical use, the area applied to row planting, and *Teff* yield sharply falls when migrants leave the household. By contrast, remittances generated from migration partially offset the negative effects induced by out-migration and led to increased agricultural technology adoption and crop yield. The findings of the study also suggest that the migrants' gender does not affect the impact of migration on agricultural technology adoption, implying that there are no heterogeneous effects between male and female migrants. Alternatively, female migrants would be beneficial in terms of remittances, as the adoption of modern agricultural technologies and crop yield in source households, were found to be higher after the migration decision.

The rest of the paper is organized as follows: section 2 describes the linkage between migration, remittances, and agricultural production in Ethiopia. Section 3 specifies the econometric methods used in the empirical study. In this section, the paper also addresses the data and econometric methods used to estimate the parameters. Section 4 reports empirical findings with a discussion of policy implications. Section 5 concludes the paper.

MIGRATION, REMITTANCES, AND AGRICULTURAL PRODUCTION IN ETHIOPIA

International migration from Ethiopia is a recently emerged phenomenon. It is thought to be the 1970s revolution that has driven the largest refugee outflows in the history of the country, though a few urban royal families had been migrating for advanced education to the western countries during the imperial periods. Nowadays, Ethiopia is witnessed with a large-scale migration of working labor forces in search of better opportunities outside the country. Since 2015, it is estimated that about two million Ethiopians (2% of the population) resided outside their country (Carter & Rohwerder, 2016). Between the years 2008 and 2013, about 460,000

Ethiopians migrated to the United States, Israel, Canada, Europe, the Middle East, and other African countries ([Kuschminder et al., 2013](#)).

The increase in migration has led to growth in international remittances consequently becoming the largest source of foreign exchange for Ethiopia. It has been witnessed that the flow of remittances has increased from 0.436 billion US\$ in 2010 to 1.796 billion US\$ in 2014 noting that a substantial number of remittances are channeled through informal transfer systems. The percentage share of remittances to GDP also increased from 1.46% in 2010 to 3.23% in 2014. According to the World Bank development indicator, the flow of remittances to Ethiopia was the second largest, behind foreign direct investment, source of external financial inflows. However, due to the combined effects of the current economic downturn, fierce civil war, and severe ethnic tensions, the flow of remittances to Ethiopia is estimated to fall by about 77.5% in 2020 Fig 1.

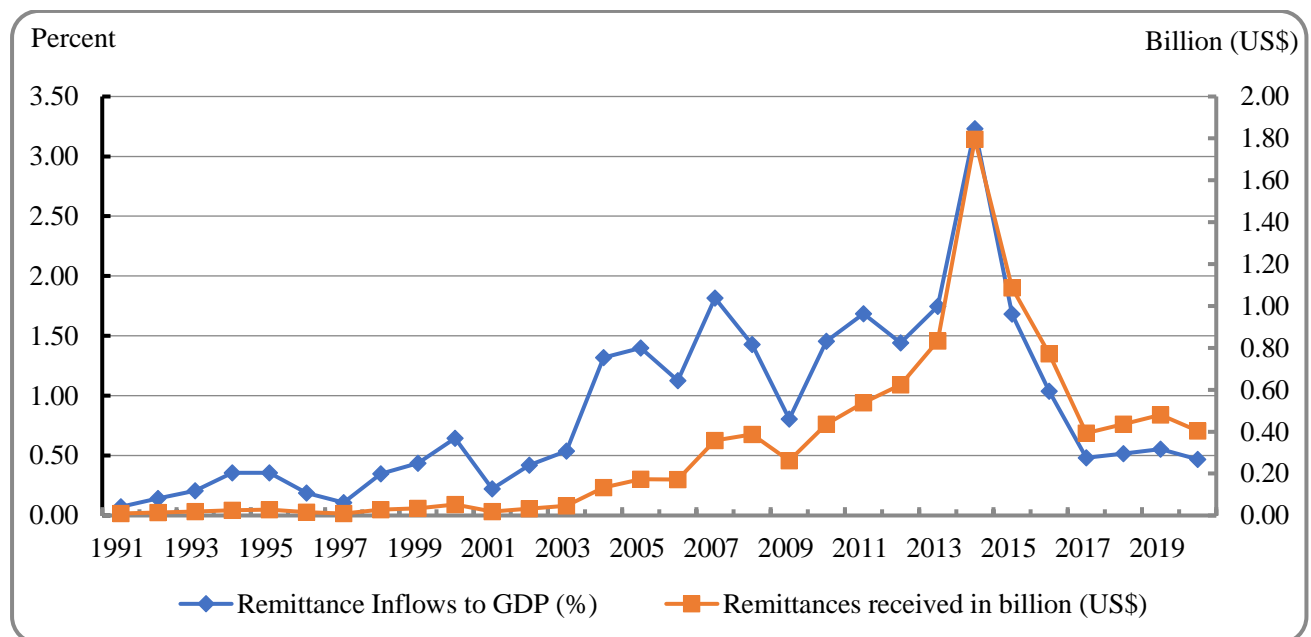


Fig 4 Received remittances and percentage share to GDP for Ethiopia, 1991-2020. Source: World Bank Categories > International Data > Countries > Ethiopia

In an agriculture-based rural economy, migrants' remittance can play a vital role in improving household income with a wide range of other productive activities. Agriculture remains an essential sector of the economy, accounting for half of the GDP, 84% of exports and foreign exchange earnings, and employs over 83% of the labor force of the country ([Berhanu & Poulton, 2014](#)). However, the potential of the agricultural sector to bring economic transformation has been debated for many years. As the second largest country in Africa, Ethiopia is experiencing rapid population growth and increasing small plots, a key challenge for the future development of agriculture and the sustainability of their living ([Diao, Taffesse, Yu, & Pratt, 2010](#)).

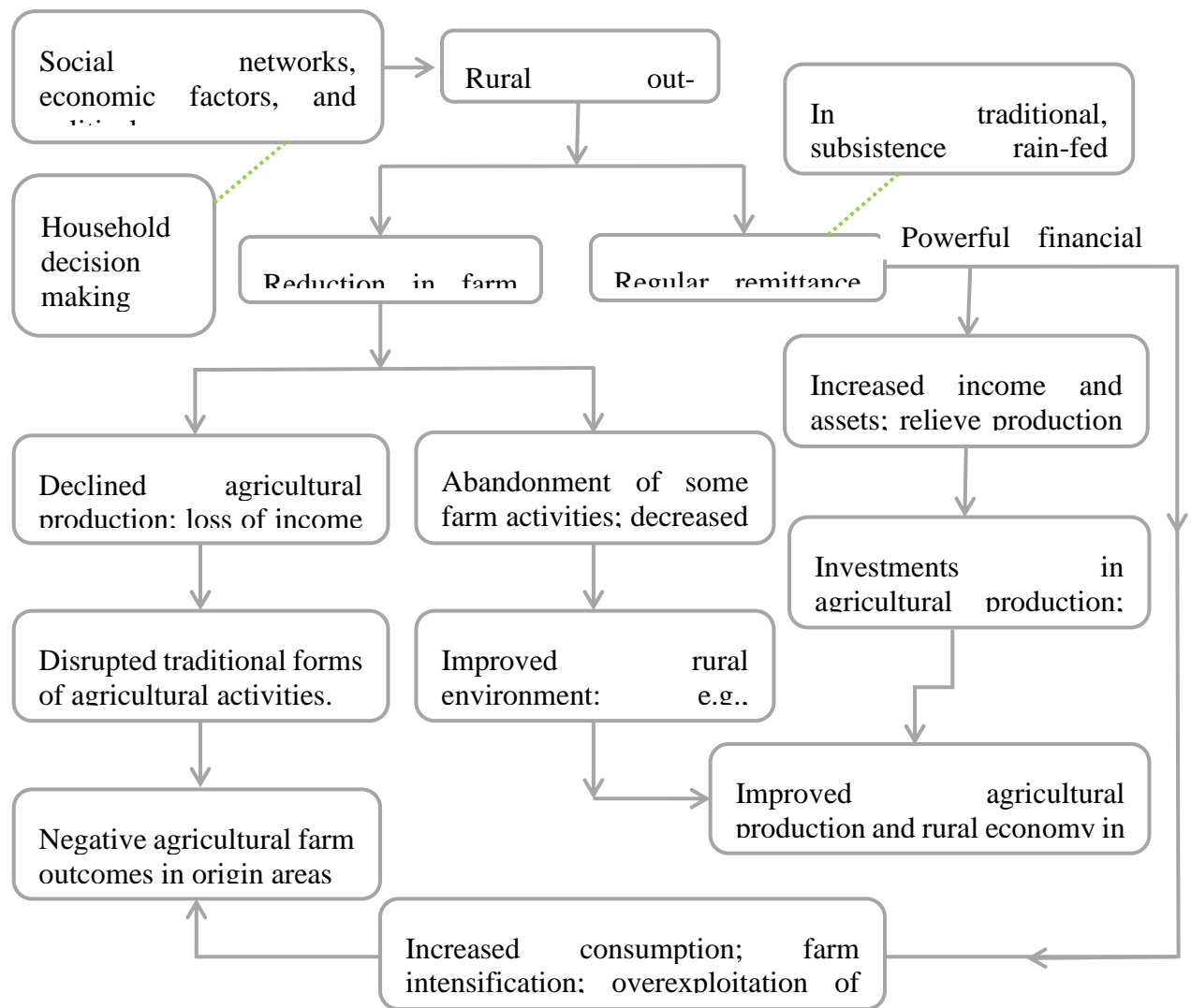


Fig 2: Rural out-migration, agricultural production, and the rural environment in migrant source households of Ethiopia; adapted from (Qin and Flint, 2012).

A wide range of literature has revealed that the adoption of modern agricultural technologies is an important strategy to increase the productivity of smallholder agriculture in Africa (Doss, Mwangi, Verkuijl, & De Groote, 2003). However, the availability and access to credit in rural areas remain one of the major challenges (Dupas & Robinson, 2009). In Ethiopia, recent studies revealed that 60-80% of rural farmers are credit-constrained (Zewdie, 2015). Given this, poor rural households do not have or have limited access to modern inputs, and extending arable land is more feasible than using fertilizer or improved seed varieties (Losch, Fréguin-Gresh, & White, 2011). Moreover, many farmers do not have or have limited access to insurance markets (Tshikala & Fonsah, 2014). This has contributed significantly to low yields experienced over the years. Based on the 2010 national survey, 40% of cereal production was linked to the use of fertilizer while 10% attributed to other inputs including irrigation (Diao et al., 2010).

However, despite the efforts made by policymakers to improve rural finance and economic institutions, rural communities in Ethiopia have experienced widespread migration and remittances. Previous studies have shown that earnings from international migrants have a positive impact on agricultural production and serve as a source of capital accumulation against risks and uncertainties (Lucas, 1987; Rozelle, Taylor, & DeBrauw, 1999). In recent years, the

migration of labor out of agriculture is the fastest-growing component of off-farm employment in rural Ethiopia. Findings reveal that of the total farm households, 52.37% of them had at least one migrant and 39.42% have sent multiple migrants. Among the migrant-sending households, 87.46% had received average remittances of 167,183.5 ETB. In terms of gender, female laborers are relatively less likely to migrate than their male counterparts do Table 1.

Table 1. Migration prevalence, by sample regional villages (n = 548)

Variable mean	Total
Households with no migrants (%)	47.63
Households with migrants (%)	52.37
Households with single migrant (%)	12.95
Households with multiple migrants (%)	39.42
Share of female migrants (%)	26.74
Households receiving remittances (%)	87.46

Source: Authors' survey. Note: Means in this table are estimated at total sample households.

It's believed that migration trends in the villages of Southern Nations, Nationalities, and Peoples' Region in Ethiopia, where the household data for this study were collected, reflect the national trends. Due to their proximity to border countries, these villages have been migration hubs, providing more channels for human trafficking and smuggling. According to Ethiopia's 2021 Labor and Migration Survey, on average 25.6% of the labor force across rural areas of the Region had migrated to work elsewhere. Although the literature has a rich tradition on the socio-economic impacts of migration on source households, however, little is known about the heterogeneous effects of migration and remittances on migrant-sending agricultural communities, mainly from Ethiopia's agricultural production perspectives.

Moreover, the recent increases in labor migration from rural areas have raised social and economic concerns among policymakers. In a traditional agrarian economy deprived of complete labor markets, out-migration may induce local labor shortages, which in turn disrupted the traditional forms of local agricultural production. The adverse impacts may be robust for labor-intensive crop production. By contrast, it's observed that remittances sent by migrants contribute to households' investment in agricultural technology adoption. Especially, the crop area planted with improved seed varieties, crop area applied to row planting arrangements, and crop yield were found to be higher in households with migration participation. Remittance-recipient households also spend more money on modern input use compared to households with no migration Table 2.

Table 2. Household-level adoptions of modern agriculture inputs and crop yield, by migration status

Variable description	Total samples (n = 548)	No migration (n = 261)	Migrants (n = 287)
Improved seed user households (%)	70.07	48.66	89.55
Area planted with improved seed varieties (ha)	0.998	0.881	1.105
Households that are fertilizer users (%)	72.26	53.26	88.26
Average fertilizer expenditure (ETB/ha)	2147.445	1908.812	2364.46
Households that are chemical users (%)	71.53	58.24	83.62
Average chemical expenditure (ETB/ha)	256.553	216.735	292.763
Households applied row planting of seeds (%)	44.16	40.07	48.66
Area applied to row planting arrangement (ha)	0.863	0.656	0.981

Average crop/ <i>Teff</i> yield per unit area of land (kg)	1071.449	696.494	1412.436
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Note: Means in this table are estimated at the individual level and the values are in Ethiopian Birr (ETB).

The competing results between households with migrants and non-migrants indicate several assumptions. First, migration reduced farm labor supply and negatively affects the adoption of modern inputs and crop yield in source households. This implies that the reduction in available farm labor, in turn, may lead to a reduction in agricultural technology adoption, as well as crop yield. By contrast, remittances sent by migrants are expected to offset the negative lost-labor effects. Despite the differences between migrant and non-migrant households for some variables, other variables may confound descriptive analyses. The study applied empirical methods explained in the next sections to examine the nexus between migration, remittances, modern agricultural inputs, and crop yield while controlling the potential effect of confounding variables.

ECONOMETRIC METHODS AND DATA

Econometric Specification

If the adoption of high-yield technology is constrained and migration M and remittances R affect production constraints, then the constrained vector of technology adoption T_A and crop yield Y_C depends on M and R . In addition, vectors of individual, household, and community characteristics denoted as X_A and X_y in equations (1) and (2), respectively influence households' decision to adopt modern inputs and farm practices. Migration and remittances may have heterogeneous effects on outcome variables. The adoption of modern agricultural technology T_A is defined as the proportion of crop area planted to improved seed varieties T_s ; fertilizer use T_f ; other chemical use (both herbicides and pesticides) T_c ; and crop area applied to row planting T_p . So, the main equation explaining the adoption of agricultural technologies is expressed as:

$$T_A = \beta_{0A} + \beta_{1A}M + \beta_{2A}R + \beta_{3A}X_A + \varepsilon_A; A = s, f, c, p \quad (1)$$

The study also considers the productivity of *Teff* Y_C as a main outcome variable and modeled as:

$$Y_C = \gamma_0 + \gamma_1M + \gamma_2R + \gamma_3X_y + \varepsilon_y \quad (2)$$

It's assumed that the potential effect of migration is not always positive. The decision to send out migrants can lead to the loss of human and financial capital in the original areas which can potentially decline local agricultural production. The null hypotheses associated with NELM are, thus, keeping all explanatory variables constant, neither migration nor remittances affect the adoption of modern agricultural technologies ($H_0: \beta_1 = 0, \beta_2 = 0, \forall A$ against $H_1: H_0$ is not true). The same holds for crop yield, equation (2). It is unlikely that all households sending out migrants receive remittances or not, all received remittances are invested in high-productivity technologies or related activities. Remittances R is produced by allocating family members to migration M ; given migration, individual, household, and community factors W_R influence migrants to remit some amount of their income share to their origin families:

$$R = \delta_0 + \delta_1M + \delta_2W_R + \varepsilon_R \quad (3)$$

Migration M a function of an individual, household, and village characteristics Z_M can also be represented in a count regression functional form as:

$$M = \exp(\alpha_0 + \alpha_1Z_M + \varepsilon_M) \quad (4)$$

Further, using the empirical model shown in equation (5), the study explored if the adoption of modern agricultural inputs and crop productivity varies with the migrant's gender. The key independent variable of interest is the migrants' gender; an interaction between the share of female migrants and the total number of migrants in a migrant-sending household ($gen * M$).

$$T_A = \beta_0 + \beta_1 M + \beta_2 (gen * M) + \beta_3 X_A + \varepsilon_A; A = s, f, c, p \quad (5)$$

Where T_A is the current outcome variable consisting of T_s , T_f , T_c , and T_p represents the proportion of the household's crop area planted with improved seed varieties, fertilizer use, chemical use, and row planting arrangements, respectively. The same holds for crop yield (productivity of T_{eff}).

Estimation Methods and Issues

The statistical analyses of the household survey data are generally structured in four phases. First using descriptive analysis, the paper described survey sample characteristics and aggregate patterns of household migration, adoption of modern inputs, and crop yield. Second, to estimate equation systems (1) through (5) consistently, the paper applied OLS with robust standard errors for remittances, equation (3), and a count functional form (Poisson regression) for migration, equation (4) and address several econometric issues. The functional form in equation (4) reflects that the number of migrants from a household will always be a non-negative integer. In the migration equation, factors besides non-negativity should also be considered. Many households do not send migrants, in the sample, 47.63% do not participate in migration. Meanwhile, 12.95% of migrant households send out more than one migrant. The study applies a count regression functional form to account for households that do not participate in migration and households with multiple migrants. Third, the paper empirically tests the migration and remittance hypotheses regarding the adoption of modern agricultural technology, as well as crop yield. To account for the statistical problems and unobserved characteristics of the household, the implications of the hypotheses are analyzed using three-stage least-squares (3SLS) methods. Fourth, the paper estimates if the impact of migration varies with the migrants' gender using two-stage least-squares (2SLS) methods.

The methodological challenge in estimating the impact of migration and remittances using observational studies is to construct a counterfactual situation against which the impact can be measured because of self-selection problems related to migration decisions and remittance recipients (Adams Jr, de Haas, & UO, 2012). The migration decision is observed for all households, while remittance receivers are only observed for households sending out migrants. Further complicating the estimation is migration and remittances are expected to be both endogenous concerning the adoption of modern agricultural inputs. Finally, migration, remittances, and adoption of modern inputs and technologies may be subject to a reverse causality which could cause simultaneous correlation issues across equations.

Due to limitations in the econometric dataset, the study relies on instrumental variables to identify the equation system and control many of the issues that arise from endogeneity and selectivity bias across equations (1) to (5). There are two vectors of instruments, W_R for the remittance's equation (3), and Z_M for the migration equation (4). The paper uses variables that explain the dependent variables they are instrumenting (migration and remittances in this case) but uncorrelated with the outcome variables such as modern input use and crop yield see e.g., (Atamanov & Van den Berg, 2012; Quinn, 2009; J. E. Taylor, Rozelle, & De Brauw, 2003).

It's assumed that in addition to the migrant's human capital and household characteristics, migration, M , is a function of social migration networks and the percentage of the unemployment rate at a community level. The presence of a national community at the

destination could drive migration by reducing the monetary and non-monetary cost of migration as well as enabling migrants to share information about jobs in other areas with their relatives and neighbors (Hagen-Zanker & Siegel, 2007). Poor economic conditions in the original communities (for instance, a high unemployment rate) may also drive migration. It is more likely that migration increases with the rate of unemployment in source communities (Sprenger, 2013). The study constructs a variable that assumes the value of one if a household in the village sends out a migrant in 1991 and zero otherwise, as proxy measures for migration networks. The economic condition of the sample villages was measured by the proportion of unemployment rate among households at the community level. It's hypothesized that migration networks and an unemployment rate at the village level affect the stock of migrants at the household level, but do not have a direct impact on household decisions regarding modern input use, as well as other farm activities.

Remittances are produced by allocating some family members to labor migration. Household characteristics and community-level variables also affect the amount and trend of remittance inflows. The study uses village-level variables, such as migrants' return (if households in the village experienced migrants' return for Ethiopian New Year) and married migrants (if households in the village had married migrants whose spouses and siblings are left behind) as an instrumental variable to predict remittances, R , received by the household. If migrants return home or intend to visit their families in the village during public holidays, they may bring some share of their income to invest in land, housing, livestock, etc., and they may also bring some gifts in kind to build their reputation in source communities. A considerable number of remittances are also sent back to the original communities for exchange motives when married migrants from the village left their spouses and siblings behind in their home country. The transfers of money in the wider sense are paid to the household at home for services provided for childcare (Hagen-Zanker & Siegel, 2007). This study assumes these village-level factors affect each household's remittance level but have no independent effect on household decisions regarding modern input use.

Finally, the correlation across equations is more likely to occur, as many of the decisions on migration, remittances, and adoption of modern agricultural technologies and inputs are made at the same time as other household decisions. Neither variable can be included as an exogenous variable in the main equations, (1) and (2). To determine the potential instantaneous covariance issues across equations the study applied the iterated three-stage least-squares (3SLS) method. Under the same consideration, the gender equation specified as a reduced form in equation (5) is also estimated using both OLS and 2SLS methods.

Data And Variables

To establish the impacts of migration and remittances on agricultural technology adoption and crop yield, a multi-stage stratified sampling procedure was used to select 740 farm households from eight villages in southern Ethiopia. Data were collected between January and March 2022 and focused on agriculture, migration trends, topographic, and economic features of the study area. Eighth major *Teff*-growing villages distributed in three districts of the *Hadiya* zone located in the Southern Nations, Nationalities, and Peoples' Region of Ethiopia were graphed. Surveyed sample households are typically restricted to 548 due to incomplete data. Nearly all these households in the survey area engage in farming activities and grow *Teff* crops, while 70.07% of households adopt improved *Teff* varieties, 72.26% applied chemical fertilizer, 71.53% applied other agro-chemicals, and 44.16% plant improved *Teff* seeds in rows, see Table 2.

Table 3. Description of the outcome, explanatory, and instrumental variables (n = 548)

Variables	Definition of variables (unit)	Mean	Std. Dev.
Outcome Variables			
Improved seed varieties	The proportion of crop area planted to improved <i>Teff</i> varieties (ha)	0.998	1.019
Area of row planting	<i>Teff</i> area applied to row planting arrangement (ha)	0.551	0.599
Chemical usage	Herbicide/pesticide expenditure in the previous season (ETB/ha)	256.553	262.052
Fertilizer usage	Average fertilizer cost in the last agricultural season (ETB/ha)	2147.445	1807.726
Crop yield	The productivity of <i>Teff</i> crop per unit area of land (kg/ha)	1071.449	1027.762
Key independent variables			
# of migrants	# of labor migrants who left the household at least for three months	1.282	1.481
Gender of the migrant	The proportion/ratio of female migrants	0.267	0.390
Log value, remittances	Log value of remittances received by migrant households in ETB	12.023	0.438
Explanatory Variables in X			
Family size	The number of current family members in the household	6.262	2.332
Level of education	The education level of the household head in schooling years	6.104	3.382
Landholding size	Farmland operated by the household (ha)	1.599	1.028
Land quality	If the weighted average of land quality is high (yes = 1)	0.525	0.499
Livestock ownership	Livestock ownership in tropical livestock unit	6.430	2.369
Risk attitude	Farmer's willingness to accept risk (yes = 1)	0.680	0.466
Pests and diseases	Pests and diseases are key problems (yes = 1)	0.565	0.496
Instrumental variables for migration			
Migration networks	If a household in the village sends out a migrant in 1991 (yes = 1)	0.745	0.436
Unemployment	Average percentage share of unemployment rate at village level	7.478	4.697
Instrumental variables for remittances			
Migrants return	If households in the village had experienced a migrant return for Ethiopian New Year (yes = 1)	0.515	0.501
Married migrant	If households in the village had married migrants who left their spouse and siblings behind (yes = 1)	0.536	0.499

Source: Authors' survey.

Migrants were identified from the household survey as family members who have left the household to work elsewhere for at least three months during the year before the survey time. Findings reveal that of the total sample, 52.37% of farm households had at least one migrant, and 26.74% of them were found to be female migrants. Among the migrant-sending communities, 87.46% of households had received remittances, see Table 1. It's believed that these variables capture many of the intrinsic economic and demographic differences between rural households, including the propensity for farmers to migrate and remit.

There are far more dimensions to agricultural technologies and crop yield to be dealt with here, but the study only focuses on four components of technologies and one crop yield identified as the main outcome variables for this study. The current outcome variables are identified as the adoption of improved seed varieties, fertilizer use, other chemical use, and crop area applied to row planting arrangements Table 3. The components of agricultural technologies were identified through the household survey and the empirical application of crop is *Teff*.

[...Teff is a fine grain—about the size of a poppy seed—that comes in a variety of colors, from white and red to dark brown. It is an ancient grain from Ethiopia and comprises the staple grain of its cuisines].

The sample households report whether they have experienced the adoption of improved seed varieties and other complementary packages through *Teff* production. In defining the criteria

for adoption, it is also important to consider how closely the farmers follow the sequential agronomic practices for the adoption of new technologies, and the rate and timing of fertilizer and chemical application have to fall within certain limits (CIMMYT, Maize, & Center, 1993; Doss et al., 2003; Jain, Arora, & Raju, 2009). In this case, *Teff* production accounts for about 88.7% of the total cereal crop production in the sample area. The average crop planted with improved *Teff* varieties is estimated to be 0.998 hectares and the average *Teff* yield is 1071.45 kg/ha, like that of the national average productivity, which is near 1 t/ha. The survey also incorporated a wide range of other controlled explanatory variables that influence the adoption and choices of agricultural technology and crop productivity at household levels Table 3.

RESULTS AND DISCUSSION

Estimating The Migration and Remittance Equations

The paper estimates equations (3) and (4) using OLS with robust standard errors and Poisson functional form, respectively Table 4. The predictions from the OLS and Poisson equations that enter the adoption of modern agricultural technology and crop productivity equations can be interpreted as the predicted number of migrants and remittances from a migrant household. Both specifications yield parameter estimates that are largely consistent with the expected effects of most of the instrumental and exogenous household variables on migration and remittances. All instruments are found to be valid and significantly affect migration and remittances.

The study results found that remittances are a positive function of migration. Each additional migrant is associated with a 3560.802 ETB increase in remittance income. Besides, households that faced crop shocks received more remittances from their migrant family members. The coefficients on migrants' return and married migrants were also found to be significant and positively associated with increased remittance inflows to source communities.

Another interesting finding is that the exogenous household characteristics affect migration and remittances in ways that are consistent with findings by other scholars (Atamanov & Van den Berg, 2012; J. E. Taylor et al., 2003). For instance, households with larger family sizes, as well as households with a larger share of male adults are more likely to send migrants. However, wealthier households (measured as larger owners of farmland and livestock units) are less likely to send out migrants, indicating retaining the family labor would be more important. Village characteristics, such as migration networks and unemployment rate have positive and significant effects on migration decisions. Households in villages with strong migration networks and high unemployment rates are more likely to participate in migration.

Table 4. Estimated effects of household and village characteristics on migration and remittances

Explanatory variables	Remittances OLS	Migration Poisson
Number of migrants sent out by the household	3560.802** (2437.475)	
Current family size of the household	0.529 (0.435)	0.064*** (0.042)
The share of male adults in the household	-0.133 (0.512)	0.018** (0.031)
Most educated in the household	0.243 (0.222)	-0.003 (0.008)
Landholding size	-1.026 (0.068)	-0.031** (0.023)
Livestock ownership (TLU)	0.094 (0.205)	-0.005* (0.016)
Local wage labor in ETB	0.086 (0.060)	0.042 (0.061)
Risk attitude	2.574* (1.044)	0.062 (0.053)
Number of summer crop shocks	0.842** (0.416)	0.073 (0.082)
Social migration networks, village level		1.671** (0.045)
The unemployment rate, village level		0.065** (0.013)
Migrants return for Ethiopian New Year, village level	42.826** (6.426)	
Married migrants, village level	32.083** (5.523)	
N	548	548
R ²	0.782	0.864
F	162.654	82.261

Note: Coefficients are presented with standard errors in parentheses. Whereas ***, **, and * denote the significance level at 1%, 5%, and 10%, respectively.

Three-Stage Least-Squares (3SLS)

Many of the decisions about migration, remittances, and investment in new agricultural activities are usually made simultaneously at the household level as part of the livelihood strategy to maximize household income. Unobserved household characteristics that cause migration or remittances may also shape households' adoption of agricultural technologies. To identify the suspected endogenous variables, the study applied a direct test of endogeneity assumption for the suspected variables. The study also conducted an IV second stage least squares (2SLS) regression for all systems of structural equations against all the exogenous variables, including all the instrument variables. Then the endogeneity results (Durbin-Wu-Hausman test) were estimated for both suspected endogenous variables. As expected, migration

and remittances are found to be endogenous to all specifications of the outcome variables S1 Table.

To account for these endogeneity issues, the findings shown in Table 5 are estimated using a 3SLS method. The estimator performs reasonably well and the R^2 statistics for all the outcome variables are significantly different from zero. The instruments also pass the Hausman-Wu test for endogeneity, using the migration and remittances equations (3) and (4). In general, the results find some evidence to support both the migration and remittances hypotheses, though the coefficients on migration and remittances yield mixed results. The exogenous variables defined in the previous section also affect agricultural technology adoption and crop yield in ways that are consistent with findings by other similar studies.

Migration, Remittances, And Technology Adoption

The heterogeneous impacts of migration and remittances on agricultural technology adoption, as well as crop yield, are estimated using iterated 3SLS method Table 5. Overall, the results found statistically significant effects of migration and remittances on agricultural technology adoption and *Teff* yield, providing evidence in support of the key hypotheses of NELM. Specifically, the migration of labor out of agriculture has a negative and significant effect on the adoption of improved seed varieties. Holding other factors constant, the area applied to improved seed varieties sharply fell by 1.085 hectares Table 5. The possible explanation for the negative impact is associated with the high labor demand for *Teff* production. Extensive land preparation, row planting, hand weeding, and the sequential agronomic practices of improved *Teff* production require a substantial amount of labor input. Households that have migrated face high pressure to satisfy the labor demand and, therefore, may decide not to use the new varieties at a specific time than the household can provide.

Table 5. Estimated effects of migration and remittances on agricultural technology adoption and *Teff* yield, using three-stage least-squares (3SLS)

Explanatory variables	Improved seed varieties	Fertilizer Usage	Chemical usage	Area applied row planting	Crop yield (kg/ha)
	(1)	(2)	(3)	(4)	(5)
# of migrants, predicted	-1.085** (0.329)	-985.005** (265.002)	-335.608** (48.034)	-0.093** (0.005)	-230.082** (55.260)
Remittances, predicted	0.018*** (0.033)	0.876*** (0.308)	0.203** (0.059)	0.003** (0.002)	4.349* (1.097)
Log value, remittances	0.092*** (0.025)	0.842** (0.283)	0.302** (0.052)	0.102** (0.021)	4.308** (1.302)
Family size	0.006 (0.023)	6.806 (4.083)	3.926 (1.484)	0.003 (0.005)	-12.420 (9.282)
Young dependents	-0.088* (0.036)	-60.561* (35.203)	-18.480* (8.096)	-0.010 (0.001)	32.892 (25.058)
Level of education	0.002 (0.001)	8.602 (4.664)	1.008 (0.086)	0.005** (0.001)	8.007 (6.731)
Landholding size	0.278* (0.023)	61.502* (10.830)	36.270* (7.903)	0.262* (0.060)	58.003* (8.470)
Land quality	0.003 (0.040)	0.088 (0.070)	22.660 (15.040)	0.006 (0.020)	28.804 (6.010)
Livestock ownership	0.014 (0.002)	2.622 (3.028)	0.059 (0.027)	0.001 (0.003)	0.049 (2.098)
Access to irrigation	0.002 (0.040)	12.148 (7.405)	1.360 (0.908)	0.006 (0.020)	9.678 (2.027)
Labor cost	-0.020 (0.008)	-31.960 (23.032)	-8.072 (3.012)	-0.001 (0.010)	-8.085 (2.098)
Risk attitude	0.083**	78.005**	32.027**	0.230**	39.203**

	(0.040)	(28.078)	(18.063)	(0.050)	(20.503)
Pests and diseases	-0.009	-27.006	-17.060	-0.005	-28.040
	(0.006)	(65.002)	(3.023)	(0.010)	(16.024)
N	548	548	548	548	548

Note: Coefficients are presented with standard errors in parentheses. Whereas ***, **, and * denote the significance level at 1%, 5%, and 10%, respectively.

The migration of labor out of the farm was found to be negatively related to the adoption of other complementary inputs and row-planting practices Table 5. The use of fertilizer and other chemical inputs falls significantly when migrants leave the household. Improved *Teff* seeds are planted in rows or straight lines, either singly or in multiple rows, mainly to enhance maximum yields and improve convenience for activities such as weeding, fertilizer application, chemical use, and harvesting. These farming practices consume more labor inputs and are negatively related to households sending out migrants. The fall of technology adoption caused by a large amount of labor withdrawal may influence the household to abandon labor-intensive new varieties and switch to conventional crop production or to spend cash on labor-saving technologies.

Besides, the paper estimates the effects that migration and remittances have on the productivity of *Teff* Table 5. The direct impact of migration on *Teff* yield is found to be significant and negative. The productivity of *Teff* falls by 230.082 kg as members of the household leave the farm area to work elsewhere. These findings prove one of the predictions of the NELM model that, in the short run, migration causes statistically significant lost-labor effects that decline agricultural productivity, particularly labor-intensive crops that are more responsive to the causal effects of labor migration.

On the other hand, the empirical results revealed that the negative impact induced by a reduction in family labor availability is partially compensated by the sums of remittances received by the migrant household. The remittances generated by migrants yield a positive and significant impact on the adoption of improved seed varieties Table 5. Each ETB remitted by the migrants is associated with 0.018 hectares of additional *Teff* area planted with improved seed varieties. The coefficients on remittances were also found to be statistically significant and positively related to the use of inputs and row planting arrangements. An additional one ETB remitted by migrants is associated with 0.876 ETB increases in fertilizer expenditure, 0.203 ETB increases in other chemical expenditure and 0.003 hectares increase in crop area applied to row planting arrangements. Remittances also have a positive impact on productivity of *Teff*. Each ETB remitted by migrants is associated with a 4.349 kg increase in crop yield.

Table 5 also reports estimates of the average response of agricultural technology adoption and yield to the elasticity change in remittances. The paper sees that the estimated coefficients of log value of remittances on agricultural technology adoption and crop yield are positive and statistically significant, suggesting that remittances can support technological improvement in rural areas and foster agricultural productivity. Quantitatively, a percentage increase in remittances is associated with 0.092 hectares increase in crop area applied to improved seed varieties, 0.842 ETB rises in fertilizer expenditure, 0.302 ETB increase in other chemical expenditure, 0.102 hectares increase in row planted area, and 4.308 kg increases in *Teff* yield.

Overall, the results found that losing farm laborers to migration reduces the adoption of modern agricultural technologies and tightens the labor shortage for *Teff* production. While remittances sent by migrants relieved households' credit and risk constraints and enables them to engage in high-yield production activities.

Outcome Difference Due to The Migrants' Gender

Several academic studies have attempted to estimate the impact of migration on source communities (Gubhaju & De Jong, 2009; Mergo, 2016; Pfeiffer & Taylor, 2008). However, few studies have tried on whether the migrants' gender affects the impact of migration on agricultural technology adoption and crop yield. The differences in outcome due to the migrants' gender are likely to be non-probabilistic and, of course, few studies have successfully addressed the issues of gender associated with the adoption of labor-intensive technologies and crop yield, particularly in a country where female laborers are forced to work largely on non-productive household activities.

Over the past two decades, the face of migration in and from Ethiopia has been changing from a small number of political refugee flows to a gradual mass form of labor migrants. As rural females are deprived of productive resources and opportunities in Ethiopia, migration is the last-resort option for them to deal with these challenges. In addition, traditionally, female laborers are considered relatively less productive in on-farm activities and least favorite labor participants in farm areas than male laborers. In most of the rural areas of the country, they stay at home and spend their time on non-productive activities. In many respects, migration choice improves the independence and power of the poor rural female. If they take outside employment opportunities, they may have access to financial resources. So, the expected impact of male and female migrants in source families do not always coincide and the migrant's gender may affect the outcome variables differently.

Given that, the paper estimates the effects of the migrants' gender on the adoption of modern inputs and crop yield using the two-stage least-square method Table 7. The gender of the migrants is defined as the share of female migrants in the total number of migrants and created an interaction term between female migrants and the total number of migrants. The coefficient on the ratio of female migrants is, however, found to be statistically insignificant, but only for agricultural technology adoption.

Table 6. Estimated impacts of gender-specific migration on agricultural technology adoption and crop yield, using two-stage least-squares (2SLS)

Explanatory variables	Improved seed varieties	Fertilizer Usage	Chemical usage	Area of row planting	Crop yield (kg/ha)
	(1)	(2)	(3)	(4)	(5)
# of migrants, predicted	-1.058* (0.684)	-782.325*** (148.092)	-124.476** (35.806)	-1.804** (0.602)	-642.562*** (231.098)
Gender of the migrant	-0.016 (0.003)	-312.458 (26.864)	-28.804 (5.026)	-0.010 (0.006)	-142.081* (28.678)
Family size	0.002 (0.080)	8.082 (4.050)	3.098 (1.042)	0.008 (0.002)	-5.065 (1.204)
Young dependents	-0.042** (0.003)	-78.209* (16.014)	-32.068* (8.320)	-0.083 (0.027)	41.081* (12.571)
Level of education	0.009 (0.004)	5.085 (4.607)	0.089 (0.005)	0.005** (0.002)	2.988 (1.040)
Landholding size	0.284** (0.126)	42.087*** (28.065)	35.078*** (6.605)	0.436* (0.083)	78.258*** (16.240)
Land quality	0.003 (0.004)	2.852 (3.362)	5.840 (1.054)	0.006 (0.002)	82.656 (18.027)
Livestock ownership	0.003	2.809	0.011	0.028	0.108

	(0.001)	(3.032)	(0.049)	(0.016)	(0.091)
Access to irrigation	0.017	43.203	3.632	0.001	12.396
	(0.042)	(6.453)	(1.286)	(0.019)	(4.398)
Labor cost	-0.061	-23.580**	-7.033*	-0.002	-5.088
	(0.082)	(8.072)	(3.092)	(0.010)	(1.078)
Risk attitude	0.582***	8.003*	3.181**	0.338***	1.548**
	(0.061)	(3.901)	(1.075)	(0.136)	(1.297)
Pests and diseases	-0.028	-8.016	-5.869	-0.005	-1.879*
	(0.064)	(5.805)	(3.035)	(0.030)	(1.092)
N	548	548	548	548	548
R ²	0.635	0.529	0.536	0.456	0.483
adj. R ²	0.580	0.472	0.340	0.397	0.462

Note: Coefficients are presented with standard errors in parentheses. Whereas ***, **, and * denote the significance level at 1%, 5%, and 10%, respectively.

Outcome variables, such as crop area applied to improved seed varieties and row planting practices and use of fertilizer and chemical inputs are invariant to the migrants' gender. By contrast, the coefficients on female migrants are found to be significant and negatively associated with crop yield. The insignificant relationship between female migrants and the use of modern inputs indicates that the migration of female labor out of a farm has less effect on the adoption of modern inputs and yield. This could be attributed to less involvement in productive activities. Much empirical work indicates that female household members are less likely to be involved in farm activities in Ethiopia. The absence of female laborers can lead to a labor gap and may force male laborers to work longer and harder in farm fields and might be obliged to take on household tasks that informally were assigned to female members of the household. Even though the impact of female migration remains insignificant on outcome variables, sending female laborers for a high-wage-earning job is cost-effective and beneficial for households in rural Ethiopia in terms of the overall impact of remittances sent by migrants.

CONCLUSIONS

This paper evaluates the heterogeneous impacts of migration and remittances on the adoption of modern agricultural technology and crop yield of the agricultural community in southern Ethiopia. Using household survey data, the paper empirically assesses the impacts of migration and remittances on agricultural technology adoption and crop yield via a 3SLS method. The findings of the study indicate that the direct impact of labor out-migration at the household level finds to be negative and significant. Specifically, the migration of labor out of agriculture leads to a significant negative effect on crop area applied to improved seed varieties and row planting arrangements, the use of fertilizer and other chemical inputs, and consequently crop yields.

The results also show that remittances can partially compensate for the negative impact induced by the reduction of family labor availability. Remittances sent by migrants yield a significant positive effect on the adoption of improved seed varieties, fertilizer use, chemical use, and the application of row planting arrangements, as well as crop yields. The overall impact of migration would suggest that the adoption of modern agricultural technology and the productivity of crops for a source household are higher after migration. The evidence argues that the impacts of migration and remittances on agricultural technology adoption might vary depending on crop production conditions and households' consideration of agriculture profitability. The results of this study are consistent with previous studies carried out in Mexico (Quinn, 2009), Bangladesh (Mendola, 2008), and China (Li, Wang, Segarra, & Nan, 2013).

Furthermore, the findings of this paper have important implications for agricultural development in Ethiopia and other low-income countries. To improve the adoption of modern technologies for staple food crops, special reforms are needed to address the shallow labor, credit, and insurance markets in rural areas. If the Ethiopian government needs to improve the stagnant agricultural productivity, it may call for policy interventions that can enhance the adoption of improved seed varieties and improve credit markets by reforming the formal and informal rural micro-finance institutions. Besides, the findings suggest some broader implications for development strategies available to Ethiopia. Effective government policies are needed to retain the migration of multiple laborers out of agriculture and ensure that youth remain socially and economically engaged and productive in the local agricultural economy.

Finally, this study is subject to some limitations. First, migration and its return may have complex impacts on migrant sending-households in Ethiopia. But the paper only focuses on the heterogeneous impacts of migration and remittances on the adoption of agricultural technologies and crop yield in the case of *Teff* production. Future studies may assess a wider range of impacts of migration on Ethiopian agricultural production. Moreover, due to the limitation of the data set, the study relied on instrumental variables to identify the impact of migration on agricultural production. An identification method that can better control unobserved heterogeneities may be required to further test the NELM hypotheses in respect of agricultural technology and crop yields.

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2.9. Measuring Status and Intensity of Smallholder Agricultural Commercialization in Northwest Ethiopia

Taye Melese Mekie^{1*}, Abebe Birara Dessie¹, Tadie Mirie Abate¹, Tigabu Dagne Koye¹,
Tegegne Debas Malede²

¹Department of Agricultural Economics, College of Agriculture and Environmental Science,
University of Gondar, P.O. BOX 196, Gondar, Ethiopia

²Gondar Agricultural Research Center, Gondar, Ethiopia

Email: tayemelese20@gmail.com

ABSTRACT

In Ethiopia, shifting the subsistence farming system to a commercialized farming system is one of the key development policy instruments to enhance income and reduce the poverty status of households. However, the intensity and interaction of crop and livestock commercialization were not well understood in the study area. Therefore, this study tried to examine the intensity of agricultural commercialization in northwest Ethiopia. Primary data was collected on 370 households using semi-structured interviews. The study employed a combination of descriptive statistics and econometrics estimation techniques including a seemingly unrelated regression model for analyzing the raw data. The result endorsed that both crop and livestock commercialization was left-skewed, implying most households were produced agricultural enterprises for non-commercial purpose. The seemingly unrelated regression model result also indicated that there is a strong interdependence between crop and livestock commercialization. Moreover, the intensity of crop and livestock commercialization was influenced by common underlying factors. *Therefore, there should be virtuous and sustainable integration among stakeholders in developing, designing, and implementing effective policies and strategies on agricultural commercialization in Ethiopia.*

Keywords: Commercialization, seemingly unrelated regression, Household, Ethiopia

INTRODUCTION

Agriculture is an engine for the Ethiopian economy by generating employment opportunities for 72.7% of the total population, earning 70% from total exports, serving as a source of GDP (36.7%), and providing 70% of the country's raw material requirements for industrial sectors (ADEA, 2014, ATA, 2017, FAO, 2015). Despite its contribution to the economy, the sector has faced several challenges (UNDP, 2014). The performance of the agricultural sector also remains weak; highly depends on rain-fed and subsistence farming systems, lack of optimum rate of fertilizer application, lack of extensive use of improved seed varieties and land degradation and deforestation results in poor agricultural production, productivities, and marketing.

Ethiopia is known by mixed farming systems. Mixed farming is a process by which farmers produce crops and livestock simultaneously to ensure sustainable income growth (Iiyama et al., 2007). However, agriculture is still dominated by traditional and subsistence systems. Therefore, agricultural commercialization through pertinent market integration is a prime strategy for the sustainable growth and development of the Ethiopian economy (Gebremedhin and Jaleta, 2010, Goshu et al., 2012b, Hagos and Geta, 2016, Melese et al., 2018). In contrast to subsistence, producers in commercial farming can produce a huge amount of quality products for the market to maximize their income and stabilize household economic status.

However, the commercialization of agricultural enterprises until now has been low in Ethiopia (Leta, 2018).

Although the Ethiopian government has a policy decision to transform traditional agriculture to commercialize agriculture, there is a huge information gap on the process and integration among stakeholders (Bekele and Alemu, 2015). Similarly, (Hagos and Geta, 2016) endorsed that transforming traditional to a commercialized system has been influenced by various socioeconomic, institutional, demographic, technological, and policy parameters. Likewise, commercializing the farming system has been influenced by various internal and external driving factors(Goshu et al., 2012b, Pender et al., 2006, Pingali and Rosegrant, 1995).

In Ethiopia, most smallholder farmers depend on producing crops and livestock for both consumption and commercial purposes. Even though the Ethiopian government has been encouraging commercialization among households, various constraints are still facing to transform subsistence farming systems into the commercialized farming system in Northwest Ethiopia.

Although agricultural commercialization is an important policy option for most Ethiopian smallholder farmers, little research has been done thus far on what factors determine households' decisions and the extent to which agricultural enterprises are commercialized in northwestern Ethiopia. Hence, based on the above statement, the study was intended to empirically answer the following key questions: what factors affect the intensity, status, and interdependency of crop and livestock commercialization by households? Hence, the findings of this study can reduce the information gap on agricultural commercialization and backing to work better on the production and marketing of various agricultural enterprises to improve the economy of households in the country.

METHODOLOGY

Description of the study area

The study was conducted in the North Gondar zone, Amhara region of Ethiopia. The zone is in northwestern Ethiopia and 738 km from the capital city of the country. The capital city of the zone is Gondar city, which is located at 12° 35' 60.00" N latitude and 37° 28' 0.01" E longitudes with a mean altitude of 2133 meters above sea level. In the zone, a mixed farming system is the principal source of livelihood for households. The lowland of the zone is dominated by semiarid natural forests. In the zone, 51% and 49% of the population are men and women, respectively (Abate et al., 2019, Dessie et al., 2019a). The survey was done in three large districts of the zone, Debark, Wogera, and Belessa (Figure 1).

Methods Of Data Collection and Sampling Techniques

The study used primary data and secondary data collected from various sources. Moreover, a multistage sampling technique was used to select the sampled households. In the first stage, districts were stratified according to their agroecology, such as highland and mid attitude. In the second stage, two districts were purposively selected from each agroecology. From midland agroecology, East Belesa and West Belesa districts were selected. Similarly, from highland Debark and Dabat were selected. In the third stage, sixteen kebeles/villages were selected randomly. Finally, 385 sampled households were selected through a systematic random sampling technique following (Cochran, 1977)

$$n = \frac{Z^2 pq}{e^2} = \frac{1.96^2(0.5*0.5)}{0.05^2} = 385 \quad (1)$$

where n = sample size; Z = confidence level ($\alpha = 0.05$, hence, $Z = 1.96$); p = proportion of the population containing the major interest, $q = 1-p$ and e = allowable error.

However, in this study, only 370 households were considered for analysis. The remaining 15 sampled households were rejected and not included in data analysis due to missed and inappropriate data filled in by enumerators.

Methods Of Data Analysis and Empirical Model Specification

The study employed a combination of descriptive statistics and econometric estimation techniques, including a seemingly unrelated regression model and bivariate probit model, to analyze the data. Commercialization is the process of transforming production from subsistence to commercial (Sokoni, 2008). Agricultural commercialization is also defined as the degree of participation in the output markets to earn better incomes (Hazell et al., 2007). The intensity of commercialization was measured by the commercialization index (CI). The commercialization index was obtained as the ratio of the gross value of all enterprise sales over the gross value of all enterprise production multiplied by a hundred (Strasberg et al., 1999). Moreover, the zero value of the commercialization index indicates subsistence and moving toward one shows an increase in the intensity of commercialization. Following (Von Braun and Kennedy, 1994), the household crop-output market participation (COMP) index is computed as follows:

$$COMP_i = \frac{\sum_{k=1}^k P_k \bar{S}_{ik}}{\sum_{k=1}^k P_k Q_{ik}} \quad (1)$$

where S_{ik} is the quantity of output k sold by household i evaluated at an average community-level price (P_k) and Q_{ik} is the total quantity of output k produced by household i .

Livestock commercialization (LSC) is proxied by the sales rate, and the sales rate is further measured as follows. The sales rate will be measured as the net commercial off-take rate to represent the level of commercialization of livestock (Dagne, 2016, Merkel, 2019, Negassa and Jabbar, 2008).

$$LSC = \frac{\text{sales} - \text{purchases}}{0.5(\text{openingstock} + \text{endingstock})} \quad (2)$$

Based on the distribution of the commercialization scale, the commercial status of smallholder farmers is mainly classified into either binary value or three ordinal scales: noncommercial (an index less than or equal to 30%), semicommercial (an index found between 30 and 60%) and commercial (an index greater than or equal to 60%), following (Bedaso et al., 2012, Goshu et al., 2012b, Pingali, 1997). In this study, the commercialization index of the smallholder farmer was left-skewed, implying that the majority (59.19%, and 68.92%) of households had a commercialization index less than or equal to 30%. Therefore, the commercialization status of households was assumed to be a binary value (noncommercial and semicommercial).

The extent of household commercialization in crop and livestock enterprises was estimated simultaneously using a two-equation seemingly unrelated regression model.

Therefore, the general form of a seemingly unrelated regression model can be specified as follows (Greene, 2012b, Zellner, 1962):

$$\begin{aligned} Crop_i &= x_1\beta_1 + \varepsilon_{i1} \\ Livsi &= x_2\beta_2 + \varepsilon_{i2} \end{aligned} \quad (3)$$

where $Crop_i$ and $Livsi$ are the value of crop and livestock commercialization index of i th households, respectively; β_1 and β_2 are respective vector of coefficient; x are vectors of covariates determining the intensity of crop and livestock commercialization scale; and ε_{i1} and ε_{i2} are their random term.

Moreover, the interdependency of crop and livestock commercialization status was estimated by a bivariate probit model. Therefore, the general form of a bivariate probit model can be specified as follows (Cameron and Trivedi, 2009, De Luca, 2008, Goshu et al., 2012a, Greene, 2012a):

$$\begin{aligned} comstatuc_i^* &= x'_1\beta_1 + v_{1i} \\ comstatul_i^* &= x'_2\beta_2 + v_{2i} \end{aligned} \quad (4)$$

where $comstatuc_i^*$ and $comstatul_i^*$ are the value of crop and livestock commercialization status of i th households, respectively; β_1 and β_2 are respective vector of coefficient; x are vectors of covariates determining the status of crop and livestock commercialization; and v_{1i} and v_{2i} are their respective error terms in the model.

Therefore, in this study, the observed and unobserved variables were specified as follows:

$$\begin{aligned} comstatuc_i &= \begin{cases} comstatuc_i^* & \text{if } comstatuc_i^* > 0 \\ 0 & \text{if } comstatuc_i^* \leq 0 \end{cases} \\ comstatul_i &= \begin{cases} comstatul_i^* & \text{if } comstatul_i^* > 0 \\ 0 & \text{if } comstatul_i^* \leq 0 \end{cases} \end{aligned} \quad (5)$$

Results and Discussion

Socioeconomic And Commercialization Status of Households

The commercialization scale of crop and livestock enterprises was left-skewed (Figures 1&2). The mean commercialization index of the sample household was 24% for crops and 20% for livestock outputs, signifying that there was no significant difference between enterprises in the scale of commercialization. The results also endorsed less than one-third of households to produce crops and livestock only for marketed purposes. Similarly, most households, 59.19%, and 68.92%, were produced livestock and crop enterprises for noncommercial purposes, respectively (Table 1). This study is in line with Goshu et al. (2012b), who endorsed that the commercialization scale of agricultural enterprises was left-skewed.

Out of 370 sample households, 85.68% and 14.32% were male- and female-headed households, respectively. The average age, quantity of chemical fertilizer used, livestock number, market distance, and farming experience of the households were 47.47, 0.93, 4.56, 39.43, and 26.85, respectively (Table 1). Likewise, 43.24% and 56.76% of households were illiterate and literate, respectively. Moreover, most sampled households (57.84%), 75.41%, and 74.32% did not receive credit services, were nonadopters of high-yielding crop varieties, and had improved livestock breeds, respectively (Table 1).

Table 1: Mean and proportion of household characteristics (N=370)

Continuous Variables		Mean	Standard Deviation
Crop Commercialization Index		0.24	0.01
Livestock Commercialization Index		0.20	0.01
Age in years		47.47	0.52
Tropical livestock unit (TLU)		4.56	0.17
Farming experience in years		26.85	0.57
Quantity of chemical fertilizer in Qt		0.93	0.03
Distance to nearest market in Minutes		39.43	1.12
Dummy Variable	Response	Frequency	Percentage
Credit access	Yes	156	42.16
	No	214	57.84
Sex	Male	317	85.68
	Female	53	14.32
Education status	Illiterate	160	43.24
	Literate	210	56.76
High yielding crop variety	Adopter	91	24.59
	Nonadopter	279	75.41
Improve livestock breeds	Adopter	95	25.68
	Nonadopter	275	74.32
Livestock commercialization status	Semi commercial	115	31.08
	Noncommercial	255	68.92
	Semi commercial	151	40.81
Crop commercialization status	Noncommercial	219	59.19

Determinants Of the Intensity of Crop and Livestock Commercialization

The seemingly unrelated regression (SUR) model estimation result of agricultural commercialization is reported in Table 2. The Breusch–Pagan test result endorsed that the null hypothesis of independence between crop and livestock commercialization was rejected at the 1% level of significance. Therefore, the SUR model was used to estimate the simultaneous equations of crop and livestock commercialization. The results of the SUR model show that the extent of crop commercialization was enhanced by male-headed households, experienced/aged households/households, plot size to cash crops (ha), adoption of a high-yielding crop variety, optimum amount of fertilizer (Qt), extension contact, credit access and distance to the nearest market. On the other hand, crop and livestock commercialization declined by adopting improved livestock breeds and male-headed households, respectively.

Household sex positively and negatively influenced crop and livestock commercialization at the 1% and 5% levels of significance, respectively. The model results in Table 2 show that a male-headed household increased crop commercialization by 15.1% and declined livestock commercialization by 8.9%. This implies that in Ethiopia, there is a task division between male- and female-headed households in agricultural production. Males mainly control the main factors of production, such as land, labor, and capital, more than females. Therefore, male-headed households mainly accomplished the task of crop commercialization, and female-headed households accomplished the task of livestock production and commercialization. This study is in line with the finding of [Justus et al. \(2015\)](#), who depicted that agricultural

commercialization is mainly dominated by males due to high ownership of production resources compared to female-headed households.

The age of the household positively influenced crop commercialization at the 10% level of significance. A unit change in a year of household age increased crop commercialization by 0.21%. This implies that aged households have good knowledge and skills in cash *crop* production and marketing at the right time with affordable prices for the right customers. This study is in line with the findings of Dessie et al. (2019b) and Abay (2010), who depicted that experienced households produced a huge amount of cash crops for marketed purposes.

Land allocated to cash crops positively influenced crop commercialization at the 1% level of significance. A unit change in a hectare of land allocated to cash crops increased the extent of crop commercialization by 3.1%. This implies that a producer that allocates a plot of land for the marketed crop can enhance crop commercialization and profit as well. This study confirmed the finding of Goshu et al. (2012b), who stated that crop commercialization and cash crop-producing households have a direct relationship.

The quantity of fertilizer positively influenced crop commercialization at the 1% level of significance. This implies a unit change in quintals of fertilizer used increased crop commercialization by 6.8%. A possible explanation is that an efficient application of fertilizer on a given plot size can increase crop production and commercialization. This study is in line with the finding of Goshu et al. (2012b), who depicted that the quantity of fertilizer used was enhanced crop commercialization.

High-yielding crop variety positively influenced crop commercialization at the 5% level of significance. A household that adopts a high-yielding crop variety increased crop commercialization by 5.7%. This implies that adopting a high-yield crop variety is a key input to enhance the crop production, productivity, and income of households in most parts of Ethiopia.

Soil and water conservation practices were one of the key factors that positively influenced livestock commercialization at the 5% level of significance. A household that adopts soil and water conservation practices increased livestock commercialization by 7.6%. This implies that agricultural conservation practices are an important instrument to enhance and keep the soil healthy for efficient crop and hay production, in turn improving livestock production and commercialization.

Access to extension services negatively influenced crop commercialization at the 10% level of significance. A household that received extension services decreased crop commercialization by 0.04%, implying that households may not apply all extension agents' advice and techniques at the right time and in appropriate ways. In most parts of the country, the skills of development agents are poor and may not provide appropriate advice and techniques for households. This study is confirmed by the findings of Melese et al. (2018) and Abraham (2013), who depicted that access to extension services significantly and negatively influenced onion and potato commercialization.

Distance to the nearest market positively influenced crop commercialization at the 5% level of significance. A unit change in market distance in minutes increased crop commercialization by 0.12%. This implies that households close to markets mainly participated in nonfarm employment opportunities, which in turn decreased crop production and commercialization. This study, in line with the findings of Melese et al. (2018) and Goshu et al. (2012b), confirmed that distance to the nearest market positively affected crop commercialization. Improved livestock breed significantly and negatively influenced the extent of crop commercialization at

the 1% significance level. Adopting improved livestock breeds decreased the extent of crop commercialization by 5.93%, implying that crop enterprises are highly vulnerable to natural hazards compared to the livestock sector.

Credit access positively influenced both crop and livestock commercialization at the 5 and 1% levels of significance, respectively. This implies that households that receive credit services increase the extent of crop and livestock commercialization by 5.5% and 7.5%, respectively. This implies that in most developing countries, such as Ethiopia, the main constraint to start new business-like crop and livestock commercialization is a lack of credit service/capital. Therefore, credit is a key instrument to enhance both crop and livestock commercialization in northwest Ethiopia. This study is in line with the finding of Gebremedhin et al. (2007), who revealed that credit is an important input for enhancing agricultural enterprise production and commercialization.

Table 2: SUR model estimation results of the intensity of agricultural commercialization

Variables	Coefficients (Std. Err)	
	Crop	Livestock
Sex of households (1=male,0 otherwise)	15.078 (3.856) ***	-8.942 (4.320) **
Age of household (year)	0.207 (0.117) *	0.091 (0.131)
Literacy status (1=literate, 0 otherwise)	2.997 (2.452)	-0.294 (2.747)
Land allocated to cash crops(ha)	3.141 (1.173) ***	1.085 (1.314)
Quantity of fertilizer used (Qt)	6.758 (1.688) ***	0.690 (1.891)
Soil and Water conservation (1 if adopter, 0 otherwise)	-3.490 (2.726)	7.611 (3.054) **
High yielding crop variety (1 if adopter, 0 otherwise)	5.666 (2.894) **	-2.732 (3.242)
Improved livestock breeds (1 if adopter, 0 otherwise)	-5.938 (3.039) *	-4.394 (3.404)
Extension contact	-0.039 (0.022) *	0.042 (0.025)
Credit access (binary)	5.523 (2.440) **	7.476 (2.734) ***
Distance to nearest market	0.124 (0.059) **	0.042 (0.066)
Constant	-1.102 (6.935)	6.942 (7.769)
R ²	0.139	0.071
F	59.97***	28.57***
N	370	
Breusch–Pagan test of independence: $\chi^2(2) = 16.598$ ***		

Dependent variable = Intensity of crop and livestock commercialization; ***, ** and * show the values statistically significant at the 1%, 5% and 10% levels, respectively.

Interdependency of crop and livestock commercialization status

The interdependence of households' participation decisions in their crop and livestock commercialization was estimated by a bivariate probit model, as indicated in Table 2. The null hypothesis of independence of crop and livestock commercialization status of households was rejected at the 1% level. This signified that the crop and livestock commercialization status of households were interdependent with each other. Moreover, the households were considered both enterprises to their commercialization decisions. Consequently, the commercialization status of households was determined by various common underlying factors.

The predicted probabilities of participation in livestock and crop output markets were 29% and 38%, respectively. The likelihood of households participating in both enterprises was 13%, implying that households were less likely to simultaneously participate in both enterprises.

The bivariate probit model results endorsed that crop commercialization status significantly determined various factors, such as the sex of households, land allotted to cash crops, improved livestock breeds, and the number of oxens held. On the other hand, the probability of households participating in livestock commercialization was significantly influenced by access to credit, access to extension, and the number of oxen held.

The joint marginal effects endorsed that the common determinants of crop and livestock commercialization decisions of households in northwest Ethiopia were farming experience (0.2%), land allotted for cash crops (4.5%), quantity of fertilizer used (4%), adoption of improved livestock breeds (9.6%), access to credit (5.8%), access to extension (5.4%), and number of oxens held (6.6%).

The predicted probabilities of households participating in crop and livestock commercialization were 40.3% and 50%, respectively. The likelihood of households participating in the commercialization of both enterprises was 14.1%, implying that households were less likely to simultaneously participate in both crop and livestock commercialization in northwest Ethiopia.

Household sex significantly and positively influenced the decision to participate in crop commercialization at the 1% significance level. Compared to female-headed households, a male-headed household increased the likelihood of participating in crop commercialization by 24.2%. This implies that crop production and commercialization are mainly dominated by males due to the high ownership of production resources.

Land allotted for cash crops significantly and positively influenced crop commercialization status at the 5% significance level. A unit change in land size allotted for cash crops in hectares increased the likelihood of participating in crop commercialization by 13.3%. A possible explanation is that households allotted more land to produce cash crops for marketed purposes in most parts of Ethiopia. This study is in line with the finding of [Goshu et al. \(2012a\)](#), who revealed that cash crop production and the crop commercialization status of households have direct relationships.

The quantity of fertilizer significantly and positively influenced the decision to participate in crop commercialization at the 5% significance level. A unit increase in the quantity of fertilizer used in quintal soil increased the likelihood of participating in crop commercialization by 10.9%. This implies that an efficient application of fertilizer on a given plot size can increase crop production and productivity in turn enhance its income source.

Improved livestock breed significantly and negatively influenced the decision to participate in crop commercialization at the 1% significance level. Adopting improved livestock breeds decreased the likelihood of participating in crop commercialization by 24.4%, implying that crop enterprises are highly vulnerable to risk compared to livestock production and commercialization.

Credit access positively and significantly influenced the likelihood of participating in livestock commercialization business at the 5% level of significance. As a household received credit services, the likelihood of participating in livestock commercialization business also increased by 12%. This implies that livestock production and marketing are highly capital-intensive businesses. Similarly, in Ethiopia, the main constraint to start a new business-like livestock production and marketing is inadequacy of credit service/capital. Therefore, credit is a key

instrument to enhance livestock production and commercialization in Ethiopia. This study is in line with the findings of [Goshu et al., \(2012\)](#) and [Jaleta et al., 2009](#)), who revealed that credit is an important input for enhancing agricultural production and commercialization.

The number of oxens positively and significantly influenced the likelihood of participating in both crop and livestock commercialization businesses at the 5% level of significance. As the number of oxen held increased, the likelihood of participating in crop and livestock commercialization business also increased by 9.5% and 8.6%, respectively. This implies that oxen are one of the key assets for farmers and is used for both crop and livestock production and marketing purposes. Moreover, crops and livestock are complementary enterprises.

Table 2: Bivariate probit estimation results of crop and livestock commercialization status

Variables	Coefficients		Marginal Effects		
	Crop	Livestock	Crop	Livestock	Joint Effect
Sex of households (1=male,0 otherwise)	0.617***	-0.202	0.242***	-0.067	0.030
Farming experience (year)	0.008	0.007	0.003	0.002	0.002*
Literacy status (1=literate, 0 otherwise)	0.127	-0.235	0.049	-0.082	-0.019
Land allocated to cash crops(ha)	0.345**	0.026	0.133**	0.009	0.045**
Quantity of fertilizer used (Qt)	0.282**	0.043	0.109**	0.015	0.040*
High yielding crop variety (1 if adopter, 0 otherwise)	0.171	-0.075	0.066	-0.026	0.008
Improved livestock breeds (1 if adopter, 0 otherwise)	-	-0.178	-	-0.060	-
Extension access	0.676***		0.244***		0.096***
Credit access (binary)	-0.225	0.530***	-0.088	0.167***	0.054*
Number of Oxen held	0.052	0.343**	0.020	0.120**	0.058**
constant	0.245**	0.248**	0.095**	0.086**	0.066***
	-	-			
	1.105***	1.394***			
Ath rho	0.154*				
Rho	0.153				
N	370				
Log pseudolikelihood = -434.964					
Wald c 2 (20) =79.63***					
Wald test of r = 0, Pr > c 2 (1) = 2.745*					
Predicted probability			0.38	0.29	0.141
Probability of success			0.13		
Probability of failure			0.46		

Dependent variable = interdependency of crop and livestock commercialization status; ***, ** and * show the values statistically significant at the 1%, 5% and 10% levels, respectively.

Extension access positively and significantly influenced the likelihood of participating in livestock commercialization business at the 10% level of significance. As a household received extension services, the likelihood of participating in livestock commercialization business also increased by 16.7%. This implies that agricultural extension services are the main driver in the agricultural production system if they are implemented at the right time and in the appropriate ways. Moreover, it is also important to produce and supply quality products to the market at affordable prices.

CONCLUSION AND RECOMMENDATION

In Northwestern Ethiopia, most households practice mixed farming systems for both consumption and commercial purposes. Although empirical evidence is lacking, agricultural commercialization was influenced by various internal and external factors, such as socioeconomic, demographic, agronomic, environmental, and institutional factors, in northwestern Ethiopia. Thus, to improve households' economy and livelihood, an analysis of agricultural commercialization is necessary. The study results endorsed that both the crop and livestock commercialization indices were left-skewed and that the mean index was less than 25%, implying no significant difference in the scale of commercialization. The seemingly unrelated regression model result revealed that the intensity of agricultural commercialization was significantly influenced by the sex of household, age of household, land allocated to cash crops, quantity of fertilizer used, extension contact, credit access, distance to the nearest market, adoption of high-yielding crop variety, and improved livestock breeds.

The bivariate probit model also endorsed that various factor significantly influenced the crop and livestock commercialization decisions of households. The study indicated that crop production and commercialization were mainly dominated by males due to the high ownership of production resources. In most parts of the country, a household allotted more land for the production and marketing of cash crops. The application of the recommended rate of fertilizer enhanced crop productivity and commercialization. Crop enterprises are highly vulnerable to risk compared to livestock production and marketing. Similarly, crops and livestock are also found to be complementary enterprises. Moreover, agricultural extension and credit service are the main driving factors in both crop and livestock production and marketing systems if implemented at the right time and in the appropriate ways.

In general, both crop and livestock commercialization were left-skewed, implying that most households were mostly produced agricultural enterprises for consumption and noncommercial purposes.

Given the potential of the study area in crop and livestock production and its substantial role for households in consumption and commercial purposes, the following implications have been given to the development of agricultural production and commercialization.

In northwest Ethiopia, smallholders had small and fragmented land sizes. Therefore, to mechanize and commercialize the farming system, a new land utilization policy should be designed. Similarly, to reduce the dependency on rainfed systems, small-scale irrigation projects should be constructed and developed at the district and kebele levels. Moreover, to enhance agricultural commercialization, there should be strong and nonbureaucratic financial and marketing institutions.

In general, various stakeholders, such as research and development organizations, traders, producers, policymakers, extension service providers, financial institutions, governmental organizations, and nongovernmental organizations, should have great ties and integration in developing, designing, and implementing effective policies and strategies to transform the subsistence to commercial farming systems.

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