The Political Economy of Environmental Governance in Ethiopia: Exploring Trends, Actors and Drivers

Alemayehu Assefa Assele

A Dissertation Submitted to
The Center for Environment and Development, College of Development Studies
Presented in partial fulfillment of the requirements for the Degree of Doctor of Philosophy in Development Studies (Environment and Development)

Addis Ababa University
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Declaration

I, the undersigned, declare that this is my original work, has never been presented in this or any other University, and that all the resources and materials used for the dissertation have been fully acknowledged.

Name: Alemayehu Assefa Assele

Signature: _____

Date: _____

Place: Addis Ababa

Date of submission _____

This dissertation has been submitted for examination with my approval as University supervisor:

Main advisor's name: Yohannes Aberra (PhD)

Signature: _____

Date: _____

Co-advisor's name: Dawit Diriba (PhD)

Signature: _____

Date: _____

Dissertation Approval

Addis Ababa University

School of Graduate Studies

This is to certify that the dissertation prepared by Alemayehu Assefa Assele entitled "**The Political Economy of Environmental Governance in Ethiopia: Exploring Trends, Actors and Drivers"** and submitted in fulfillment of the requirement for the Degree of Doctor of Philosophy (Environment and Development Studies) complies with the regulations of the University and meets the accepted standards with respect to originality and quality.

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External Examiner	Signature	Date
_____	_____	_____
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Advisor (Co) Signature	Date	

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Chairperson of the Department or Graduate Program Coordinator

The Political Economy of Environmental Governance in Ethiopia: Exploring Trends, Actors and Drivers

Abstract

In the face of mounting environmental crisis, instituting a viable environmental governance system has been one of the arduous challenges in the context of developing countries like Ethiopia. The objective of this PhD dissertation was to explore the political economy of environmental policy and governance in Ethiopia with a focus on historical trends, actors, and drivers. Being a macro level policy research, the study was based on data collected from weredas purposively selected from four regions namely Oromia, Southern Regional State, Amhara, and Addis Ababa city. A mixed research design was employed whereby most of the study objectives were based on bulk of in depth qualitative data generated from communities, experts, government officials, and the private sector, which was also complemented by a range of archival data and policy review. Household survey data was collected from 402 subjects. The findings have shown that environmental policy and governance in pre-1991 Ethiopia had been characterized by a narrow view that equated environment as synonymous with land based resources, which has had a detrimental effect on the institutionalization of environmental mandates, approach of governance and conservation of environmental resources until today. Since 1992, the country has attained a holistic view of environmentalism with formulation of comprehensive environmental policy, and instituted numerous environmental regulatory bodies consistent with the changing narrative in policy conceptualization. However, the policy implementation has been under the influence of historical legacies in many aspects. Thus, top-down approach of planning, state centric actor role and lack of defined modality to engage non state actors, and asymmetry in rural urban dichotomy manifested with inclination towards conservation of land based resources while neglecting urban environmental protection are some of the major drawbacks. Despite proliferation of environmental institutions, the influence of agriculture sector over these institutions has still been prevalent resulting in a meagre executive attention and support. While environmental security is seriously threatened by poorly planned and rarely regulated initiation of development projects, compliance to environmental laws is highly compromised not only by the private sector, but also by the public sector, too. The quantitative findings revealed that the current governance practice was found to be ineffective, falling below the average threshold value. On top of this, environmental governance is significantly determined by sex, marital status, occupation, role in community, agro-ecology, availability of benefit sharing schemes and access to forest resources. An investigation of local community role in park governance has also shown that adherence to the fortress model has been posing a threat to the overriding conservation objective. In general, Ethiopia's environmental governance, despite its success in achieving broad based policies, has been suffering from practical ineffectiveness, poor policy implementation exacerbated by dominance of agriculture sector and weak institutional existence at lower levels. It is suggested that there is a need to make a balance between growth and environmental care through freeing environmental regulatory institutions from the influence of agriculture sector and other executive branches; creating law based platform for engagement of non-state actors; and making a shift from top-down approach of governance to application of participatory modes which engage local communities.

Key words: Environment, political economy, environmental governance, environmental policy, effectiveness

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DEDICATION

This PhD thesis is dedicated to my late parents (*Rasha*) Assefa Assele and (*Genne)* Zetule Chisha.

Acronyms

ADLI	Agricultural Development Led Industrialization
BBC	British Broadcasting Corporation
BDI	Biodiversity Institute
CBD	Convention of Biodiversity
CBO	Community Based Organizations
CCNP	Chebera Churchura National Park
CRGE	Climate Resilient Green Economy
CSE	Conservation Strategy of Ethiopia
CSO	Civil Society Organizations
DOA	Department of Agriculture
EEG	Effective Environmental Governance
EFAP	Ethiopia's Forest Action Program
EFY	Ethiopian Fiscal Year
EG	Environmental Governance
EIA	Environmental Impact Assessment
EIs	Environmental Institutions
EP	Environmental Policy
EPRDF	Ethiopian Peoples' Revolutionary Democratic Front
ER	Environmental Resources
EVDSA	Ethiopian Valley Development Study Authority
EWCA	Ethiopian Wildlife Conservation Authority
EWCDA	Ethiopian Wildlife Conservation and Development Agency
FAO	Food and Agricultural Organization
FDRE	Federal Democratic Republic of Ethiopia
FFW	Food-For-Work
FGD	Focus Group Discussion
GDP	Gross Domestic Product
GEG	Global Environmental Governance
GHG	Green House Gas
GIZ	German Agency for International Cooperation
GTP I	Growth and Transformation Plan I
GTP II	Growth and Transformation Plan II
HACC	High Ambition Coalition Countries
IIED	International Institute for Environment and Development
IK	Indigenous Knowledge
IUCN	International Union for Nature Conservation
JICA	Japan International Cooperation Agency
KII	Key Informant Interview
LDCs	Least Developed Countries
LUP	Land Use Plan
M&E	Monitoring and Evaluation
MELCA	Movement for Ecological Learning and Action
MoA	Ministry of Agriculture
MoANR,	Ministry of Agriculture and Natural Resources
MoCT	Ministry of Culture and Tourism
MoE	Ministry of Environment

MoEFCC	Ministry of Environment, Forest and Climate Change
MoFED	Ministry of Finance and Economic Development
MoNREP	Ministry of Natural Resource and Environmental Protection
MoP	Ministry of Planning
NABU	Nature and Biodiversity Conservation Union
NEG	National Environmental Governance
NAPA	National Adaptation Plan of Action
NAP-ETH	National Adaptation Plan of Ethiopia
NFPA	National Forestry Plan of Action
NPs	National Parks
NR	Natural Resource
NRD-ADLI	Natural Resource Development based Agriculture Led Industrialization
NSA	Non State Actors
NSNP	Nech Sar National Park
ODA	Official Development Assistance
PA	Protected Areas
PASDEP	Plan of Accelerated Sustained Development to End Poverty
PFM	Participatory Forest Management
PPP	Public Private Partnership
QCM	Quasi Co-management Model
RCS	Regional Conservation Strategy
REST	Relief Society of Tigray
RIRA	Rift valley Initiative for Rural Advancement
SD	Standard Deviation
SDPRP	Sustainable Development and Poverty Reduction Program
SIDA	Swedish International Development Cooperation Agency
SLM	Sustainable Land Management
SMNP	Siemen Mountains National Park
SNNPRS	Southern Nations, Nationalities and Peoples' Regional State
SWC	Soil and Water Conservation
TGE	Transitional Government of Ethiopia
TPLF	Tigray Peoples' Liberation Front
UNCED	United Nations Conference on Environment and Development
UNCSD	United Nations Conference on Sustainable Development
UNDESA	United Nations Department of Economic and Social Affairs
UNDP	United Nations Development Program
UNEP	Unite Nations Environmental program
UNESCO	The United Nations Educational, Scientific and Cultural Organization
UNFCC	United Nations Framework Convention on Climate Change
UNSO	United Nations Sudano-Sahelian Office
USD	United States Dollar
WB	World Bank
WBISPP	Woody Biomass Inventory and Strategic Planning Project
WCED	World Commission for Environment and Development
WFP	World Food Program

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CHAPTER ONE: INTRODUCTION

1.1. Background of the study

Globally, one of the key and emergent policy areas that strongly called for the new governance agenda at theory and policy quarters, among others, is the issue of global and local environmental crisis (Gisselquist, 2012; Bevir, 2010). The growing challenges of environmental problems, as they are complex and far reaching, require collective and collaborative response since a range of externalities that require interventions beyond single source and actor characterize environmental effects. Thus, environmental governance is an institutional response to mitigate the challenges that the planetary environment is facing (Bierman, 2004). It has been viewed as inclusion of environmental affairs in to the new paradigm of governance which recognizes the important role of multiple actors manifested by a shift from the solitary regulatory role of the state towards mutually reinforcing interaction constructed among the state, the market and the civil society segments of the wider public (Salamon, 2000; Lemos & Agrawal, 2006).

In the face of mounting global, national and local environmental crisis (OECD, 2012), good management of the natural environment is deemed to be crucial not only for poverty reduction and sustainable development, but also for the harmonious existence of humanity with the nature (Panel, 2012). However, measures to safeguard the environment have so far been quite weak and the long-standing problems in the quality and quantity of natural environment have been persistently taking place (IPCC, 2012). The management practice and implementation of environmental policies and legislation, especially in the developing countries has also been worse (OECD, 2008).

The responses in this regard have so far been unable to keep pace with the increasing complexities and scale of social, economic, and ecological problems (Bosselmann, Engel & Taylor, 2008). Owing to this, there is a growing consensus among the global actors that good environmental governance has an enduring effect on environmental actions and outcomes. According to UN (2012), rule of law, citizens' rights of access to environmental information, meaningful participation of the wider public in environmental matters, and equitable access to resource use as well as justice is a basis for poverty reduction while achieving environmentally sustainable development. Most often, inefficient and weak governance is correlated with

negative environmental outcomes (Panel, 2012). Enactment and effective implementation of environmentally viable policies and legislations can be possible only when there is good governance, which is instrumental to steer individuals, institutions and societies towards sustainable use and management of the environment (Bevir, 2010). Improved governance, combined with pro-poor legal frameworks and processes, may be powerful instrument contributing to poverty reduction while maintaining harmony with the environment (Panel, 2012). Persistence of the global environmental crisis in many aspects and in major indicators has been one of the outstanding concerns of the 21st century generation, which has become the major threat to humanity and the planet's endowments (Evans, 2012). Therefore, the issue of curbing the current deterioration of environmental conditions has been the focus of policy makers, academics, and international and regional institutions since long (Evans, 2012).

Among many environmental movements and voices towards addressing the evils of industrialization, major policy undertakings have begun to take place in the western societies since the awakening call of Rachel Carson's publication of 'Silent Spring' (Barrow, 2005). Followed by policy responses in the west that ranges from banning DDT (Kolstad, 2010) to many protocols of protection of air and water resources (Wingqvist *et al*., 2012), the issue of environmental management has grown to the level that not only perpetuated fears of pollution and depletion, but also an early run out of natural resources, exacerbated by unchecked population growth (Meadows, 2004). Being fueled by the late 1960s views of the 'Population Bomb' by Paul Ehlrich (Reed, 2008), and the 'Tragedy of the Commons' by Gareth Hardin' (Speth & Haas, 2007), as well as other similar works, the Neo-Malthusian perspective took the center stage with pessimism over the growing number of population that could shortly exceed the earth's carrying capacity of providing life support services (Barrow, 2005).

Due to the growing recognition of environmental problems as a result of industrialization and population growth, the period of 1970s was seen as a decade of turning point in environmental movement both at academics and policy level with the publication of the prominent Club of Rome (Limits to Growth) and the conduct of the Stockholm conference in which the world's first major institution in charge of environmental governance was formed (Ravnborg, 2013). Besides the rising tone of neo Malthusian resource pessimism (Barrow, 2005), the major oil shock of 1973 (Zandvliet, 2011), on one hand and the increasing level of poverty across the global South,

on the other hand exacerbated the need to have an international coordination towards curbing environmental problems (Ravnborg, 2013). Accordingly, UNEP was formed as a UN institution to be in charge of global environmental governance (Eliot, 2006; Najam *et al*., 2006). Since then, environmental governance as an explicit agenda and discourse appeared to be the focus of the United Nations and its member states followed by the landmark report of the World Conference on Environment and Development which produced the new paradigm of environmental sustainability in 1987 (Eliot, 2006; Chambers & Green, 2005).

During the subsequent years, which were marked by the 1992 and 2002 earth summits, environmental governance has begun to be viewed as a global solution for protecting the commonly perceived threat of the planetary environment while achieving steady economic growth (Najam *et al*., 2006). However, the notion of environmental governance has not been free of conceptual flaws both in terms of geography and scale (Chambers & Green, 2005). The IUCN, which was formed to coordinate the conservation of protected areas narrowly views EG as a protection and conservation of biodiversity resources in the form of managing protected areas in which the early Yellowstone[1] model of exclusionary park management was a predominant practice (Cunningham & Cunningham, 2012).

Yet, the UNEP views EG as an act of global institutions in protecting global, national, and local environs. It emphasizes on the role of national governments under the globalized coordination of the UN agencies in which countries are expected to demonstrate their commitment through signing and being party to the Multilateral Environmental Agreements, with the assumption that decisions are cascaded from international, to national, and then local scales (Bulkeley & Betsill, 2003; Owens, 2004). Hence environmental governance was associated to global environmental governance, where the role of national and local actors and communities has been marginally understood with the entire concept representing EG as merely global undertaking and abiding by the signed and ratified articles of the MEAs. As Park *et al*. (2008) connote, it is characterized by a tendency to regulate everything at a global level to create coordinated conditions and political viability across nations under the name of global environmental treaties; and Saunier *et al*. (2006) also described it simply a process which is composed of a wide range of meetings,

[1] Yellowstone model is a park management model that excludes the local communities from resource use through different regulatory mechanisms. The name was taken from the first American national park, Yellowstone NP, which was established in 1872, USA (Cunningham & Cunningham, 2012).

conferences, negotiations and summits at international level. With this understanding, the UNEP's role in global environmental governance has ranged from facilitation of MEAs to the expert support for nation states to implement policies and legislations at local level having a strong influence in how environmental governance has been viewed. Hence, national and local environmental governance has got scant attention and inadequately researched and known (Najam, 2006).

Even if some of the major environmental problems are characterized by their cross boundary nature and the governance of the so-called global commons calls for global level response like the UN institutions and multilateral actors (Badenoch, 2002) which further necessitates the existence of viable GEG, many of today's environmental problems are national and local in their nature highly demanding national and local EG responses (Park *et al*., 2008). On account this, it can be argued that environmental governance is viewed as global environmental governance neglecting the local and national aspects of governance, and limited to the implementation of globally and/or regionally initiated multilateral accords, which have been suffering from weak and remotely located coordination systems. Therefore, this particular study aims to fill this gap based on the assumptions that the current environmental challenges are immense, not only global in their nature, most of which are national and local that strictly call for sound application of local people's knowledge and active engagement, and coordinated response of diverse actors as well as tailored policy measures. It focuses on the national and local aspects of environmental governance, and intended to bridge the knowledge gap between the global, national and local by making connections to the governance of environment at macro and micro levels.

1.2. Statement of the problem

With over 90 million population, Ethiopia stands the second most populous country in Africa. With an estimated annual growth rate of 2.1%, the population figure is expected to reach 120 million in 2030 (FDRE, 2012). Similar to other African countries, youth population dominates the country's population structure, which can be seen both as demographic window of opportunity if the country manages to tap the youth bulge for economic generation and, on the contrary, it would be a formidable liability if things go wrong in the policy front (Terefe, 2016). Ethiopia's economy is heavily reliant on agriculture, which accounts for 80% of employment and 40% of the GDP, while 14% and 46% of the GDP is shared by service and industry respectively

(MoFED, 2014). The recent population stabilization report of 2014 indicated that only 18.7% of the population lives in urban centers[2]. Despite the various policy initiatives to address poverty and food security situations since the early 1990s, close to a quarter of the total population lives below the poverty line (UNDP, 2015) and close to 10.2 million population is assumed to be food insecure (FAO, 2016; WFP, 2016). On this account, the country ranks 138th out of 187 countries on HDI (UNDP, 2014). Moreover, various reports indicated that the country is highly vulnerable to climate change impacts such as flooding and drought (Simane, 2011; Eshetu *et al*., 2014; Savage *et al*., 2015).

Having a resource dependent and agrarian economy (Endeg, 2015), Ethiopia's environmental performance is one of the lowest in the world. According to the Yale Environmental Performance Index (2014)[3], Ethiopia was ranked 134th out of 178 countries (Hsu *et al*., 2014). Even though there have been persistent policy efforts in responding to environmental concerns since early 1990s (FDRE, 2012), evidences suggest that the status of environmental degradation still shows the upward trend (World Bank, 2013). Reports also suggest that the major environmental problems in Ethiopia include, climate change, land degradation, overgrazing and deforestation, spread of invasive alien species, loss of biodiversity and ecosystem services, air and water pollution, and toxic household wastes (World Bank, 2013). It is also noted that the major driving factors for these environmental problems include high population growth, high urbanization rate, and an economic growth that is largely driven by agricultural production, infrastructure expansion and increasing energy demand which exacerbated dependence on forest resources (ADB, 2011).

Due to the fact that the country's economy is heavily dependent on rain fed agriculture, which is practiced in a fragile ecosystem and fragmented land holding, climate change has been posing high variability and extreme weather events (droughts and floods) which will further drive degradation of the country's ecosystems (Bisahw *et al*., 2013; Eshetu, *et al*., 2014). Evidences also indicate that the frequency and intensity of drought is likely to increase over the coming decades posing a serious threat to the country's biodiversity stock, ecosystem functioning, water,

[2]Population Stabilization Report (March 2014). Available at <populationcommunication.com> [Accessed on March 15,2016].

[3] The index takes into account major indicators such as fresh water quality, toxic chemical exposures, municipal solid waste management, nuclear safety, wetlands loss, agricultural soil quality and degradation, recycling rates, desertification; and adaptation, vulnerability and resiliency to climate change.

agricultural and human health with serious impacts of increased food insecurity; outbreaks of malignant diseases such as malaria, dengue fever and other epidemics such as cholera and dysentery due to floods, and respiratory diseases associated with droughts with heavy rainfalls which tend to accelerate land degradation and damage to infrastructures (Simane, 2011; World Bank, 2013; Kruger *et al*., 2013). Due mainly to population pressure, overgrazing, and unsustainable land use; land degradation remains one of the serious problems in Ethiopia, which severely affects agricultural productivity (MoFED, 2007). It also leads to continued loss of vegetation cover, biodiversity and ecosystem services.

The country's forest cover is about 12.3% of the total land area which has long been deteriorating as deforestation was widespread with an average annual rate of 1% which is high compared to other Sub-Saharan African countries, i.e. 0.6% (World Bank, 2012). This is mainly intensified by the increasing scarcity of fuel wood and agricultural production by the expanding population with the need for new farmlands increases from time to time. Evidences have also indicated that the alarming level of deforestation, unless strong measures are undertaken to curb the situation, an area of 9 million hectares might be deforested between the period of 2010 and 2030. Over the same period, annual fuel wood consumption will also be estimated to rise by 65% resulting in an ominous effect on the forest resource of the country (FDRE, 2012).

Even though Ethiopia is endowed with rich biodiversity resources, due to continued clearance of forests and conversion of land for agriculture, the country's biodiversity stock mainly in the protected areas is increasingly degraded (Young, 2012). It is also suggested that the endeavors of protection are weak due to poor practice of law enforcement (EPA, 2012).

There are evidences that the key economic sectors, agriculture and industry, suffer from poor practice of environmental security[4] in which the need for rapid economic growth undermines the environmental quality (Shimeles, 2012). Agriculture and industrial investments have become sources of growing concern due to forest clearance, unregulated discharge of effluents, toxic and hazardous waste, water and air pollution (Assefa & Ayalew, 2014). Hence, the rate of indoor and outdoor pollution is escalating with the poorest and vulnerable sections of the society being hit hard by its effects (World Bank, 2012).

[4] Environmental security is the viability and sustenance of life support services of the natural environment. When these services are threatened, humans face environmental insecurity.

While water pollution due to rising level of organic and inorganic pollutants is of much concern, poor access to safe water and lack of sanitation facilities is also awful which is causing water borne diseases(CSA,2011). Furthermore, the prevalence rate of open defecation is also high in Ethiopia as compared to the rest of the Sub Saharan Countries, which increases the risk of public health (Fiseha, 2012; UNDP, 2015, Bizatu & Negga, 2010). Due to poor management of waste and absence of proper land fill system, major cities are facing serious health risk (Cheru, 2011; Nigatu *et al*., 2011; Tiwari & Tiwari, 2012). Related to this, unchecked disposal of plastic bags and other non-biodegradables, water bottles in particular, is also another area of concern with negative effect on soil fertility (EPA, 2006; Bizatu & Negga, 2010; Legesse & Diriba, 2011). Due to the leaching of inorganic fertilizers from agriculture; and unregulated release of industrial effluents to the water bodies, persistent problems have been observed in algal bloom, eutrophication and loss of aquatic biodiversity (Assefa *et al*., 2013). Industrial plants such as tanneries, breweries, textiles, food processing, soap and detergent manufactures lack adequate waste management system and generate effluents and solid waste while there is inadequate environmental impact monitoring system in practice (EPA, 2006). Though the country has formulated a comprehensive EIA law to curb the problems (Mulugeta, 2013), the law is poorly implemented and provides only a 'shelf service' (Ruffeis *et al*., 2010).

Studies also suggest that there has been a reactive approach of policy formulation trend, which tries to respond to emergent problems instead of being strategic and proactive. With poor synergy among environment related sectors, contradiction among individual sector policies and execution plans is evident whereby effective coordination and governance of the environment and implementation of the broader environmental policy is problematic (Ruffies *et al*., 2010).

Even though the policy formulation and enactment of environmental laws over the last two decades has been evolving with the fast evolution and dynamism in institutional architecture(Endeg, 2015; EPA,2012), the governance of environmental issues has been facing an arduous challenge due to institutional frailties and hence the aforementioned degradation problems are poorly contained or curbed (Melese & Solomon, 2012). As evidences suggest, environmental law is poorly enforced, experiencing weak inter-sectoral coordination and stakeholder participation, and low synergy among actors in initiating development programs (EPA, 2012). With low level of environmental awareness, private companies lack adequate

policy and management plan in order to discharge their corporate responsibility and safeguard the natural environment (Cesar & Ekbom, 2013). Enforcement of environmental regulations is often constrained by a number of institutional and resource user-constituency factors, thereby ensuing numerous social and economic harms to the wider society and the economy at large (Kruger *et al*., 2013). There are considerable discrepancies between those environmental commitments made by the country and the actual implementation (Cesar & Ekbom, 2013).

Even though the country is championing the global 'sustainable development' paradigm and promoting a green and sustainable path of rapid economic development, misconception of the term 'sustainability' is well evident at both policy and execution level, with sustainable development simply meant to be 'unstoppable development' (Kruger *et al*., 2013) and the economic component of sustainable development is given more emphasis than its environmental component (Melese & Solomon, 2012). Moreover, failure to meaningfully involve stakeholders at all levels of the society, particularly at the local level, raises key issues of equity, representation and recognition (Jones & Carabine, 2013).

It is also evident that environmental governance is viewed as more of the central government's affair than being a practice of the sub national and local tiers of administration whereby little is known about environmental governance across the lower levels (Jones & Carabine, 2013). Environmental management issues are included in numerous rural development polices, yet, superficially (EC, 2007). As the country is striving towards market economy, it has been privatizing natural resources such as minerals, spring waters, fossil fuels, tourism development, etc., while little attention is given to environmental impacts of these projects in which the concept and application of sustainable development as well as the holistic understanding of the environment in its broader sense is widely questioned (EC, 2007). The fact that the country's aggregate environmental performance is facing challenges has also been supported by the recent data from the Yale environmental performance index in which it has shown a deteriorating trend from 134th out of 178 countries in 2014 (Hsu *et al*., 2014) to 163rd out of 180 countries in 2016 (Hsu, *et al*., 2016).

Despite the recognition of all environmental problems presented above, adherence to the EP prescriptions and creating effective environmental governance system has been facing serious

challenges. To this end, studies indicate that environmental institutions are not well positioned to undertake compliance measures since they suffer from weak regulatory capacities across the country (Mellese & Mesfin, 2008; Ruffies *et al*., 2010; Adugna, 2016). The governance practice is mainly state centric and involvement of different stakeholders is not far from nominal. Environmental resource governance, especially in protected areas is carried out in a top down approach that has long been excluding the local people and their relevant institutions. This has been source of constant conflict between the communities and the governing authorities leading to extended pressure over designated resources (Asebe, 2012). Due to application of such poor governance approaches, the rights and livelihoods of many people have been jeopardized in different places (Asebe, 2012; Vreugdenhil *et al*, 2012). There are also misalignments between legal provisions and actual practices between and among different government institutions over environmental mandates which are caused by arbitrary mandate allocation among institutions (Ruffies *et al*., 2010; Janka, 2014; Cesar & Anders, 2013). There are clear inconsistencies among sectoral plans in relation to environmental impacts of their respective actions, and hence, the governance system suffers from weak synergy, inter-sectoral coordination and integration. Though there are policy prescriptions in the CRGE strategy and similar documents such as the GTPs (1 & 2), the actual practice is far from reality in terms of considering environmental targets as cross cutting issues (Ruffies *et al*., 2010).

Besides these, the unwise inclination towards land based resources[5] has largely affected both institutional responses in particular and the healthy conceptualization of environment in its wider sense in general, which in turn has been affecting the governance system of the country. Environmental governance, being synonymously equated with EIA regulation, has been misunderstood, poorly instituted and implemented. As the entire focus of the government is towards achieving good governance in public sector, which has been the catch phrase of every one over the last decade (Getachew & Common, 2007; Taye, 2011), little is known about good environmental governance, without which the anticipated sustainable development is impossible.

Thus, there is a growing concern over how those environmental problems have been addressed through institutionalized means of governance. Thus, this study has attempted to identify the

[5] 'Land based resources' is operationally defined as those resources related to agricultural production which include soil, water and vegetation.

governance bottlenecks that have so far been contributing to the intensifying environmental degradation on the one hand and to the deteriorating level of environmental performance of the country, on the other hand.

1.3 Rationale of the study

As it is evident from the problem statement section, the negative changes and degradations in Ethiopian environment sector are immense and require effective governance responses, which in turn call for research informed policy reforms. Therefore, this PhD research is based on the following key rationales.

First, the study is based on the recognition that environmental problems are not well responded to. The policy, institutional, and legal responses to contain the growing environmental problems are not adequate and require deep scrutiny. Improvement in such areas, therefore, requires comprehensive study that informs policy makers and executors.

Second, despite the on-going environmental problems and weak governance responses, there is a wide research gap in this particular area of interest. To this end, most of the studies conducted so far have got the following major problems. Some of the studies approached the issue of EG from specific resource governance perspective failing to address the wider areas of policy making, institutional setup and actor roles as well as the broader aspects of the nexus between environment and development (Hoben, 1995; Tibebwa & Negusu, 2009; Cheever, 2011; Legesse & Diriba, 2011; Alemayehu, Arts &; Dagnew *et al*., 2012; Ferezer, 2012; Wiersum, 2012;). These studies focused on either forestry, waste management, soil and water conservation or wildlife governance while environmental governance brings together all aspects of environmental protection to curb both degradation (depletion) and pollution. Other studies narrowly equated EIA implementation with EG while little emphasis was placed on the diverse regulatory and institutional issues (Mellesie & Mesfin, 2008; Ruffeis *et al*., 2010; Tesfaye, 2012; Dejene, 2013; Mulugeta, 2013; Adugna, 2016; Kidane, 2016). On top of these, most of the studies have approached governance issues by leaning on qualitative and document review evidences failing to capture governance indicators quantitatively. Moreover, the major indicators of environmental governance and socio economic determinants that affect the overall policy implementation have not been studied which are crucial to improve the performance of

environment sector in particular and the interaction between environmental protection and economic growth in general.

Therefore, this PhD research is based on the above two major rationales and meant to generate robust evidences in identifying the governance bottlenecks while filling empirical and methodological gaps observed from previous studies in this broad area of interest. In so doing, the study has attempted to generate evidence on environmental policy and governance trends over the last fifty years, focusing on the wider issue of institutional setup, actor constellation and the driving factors behind the political- economic decisions that have been shaping the policy and governance system of the country. It also bridges an important gap by providing quantified parameters to measure the EG performance which has never been attempted by previous studies so far.

1.4 Objectives of the study

1.4.1. General objective

The general objective of this study is to explore the political economy of environmental governance in Ethiopia with a focus on historical trends, drivers, actors, institutions and determinants.

1.4.2. Specific objectives

1. To explore the historical development of environmental policy and governance in pre 1991 Ethiopia in relation to drivers, actors, and institutional setup;
2. To explore the current trends of environmental policy and governance, its driving causes, actors and institutional setup (from 1992 - to date);
3. To investigate key indicators and determinants of effective environmental governance in Ethiopia;
4. To examine the role of local communities in environmental resource management and the extent of harmony between local, meso and macro level environmental governance.

1.5. Research questions

This study attempted to answer the following key questions;

1. What were the historical developments and current trends of environmental policy and governance in Ethiopia; and what were the effects of the past trends in the current performances?

2. What institutions and actors have been involved in environmental policy-making and governance and what were the driving forces behind the institutional dynamisms as well as actor roles over the past two regimes as well as currently?
3. What factors contribute towards the effective environmental governance in Ethiopia?
4. What was the extent of harmony between macro and micro levels in the governance of environmental resources and its implications to the wider policy?

1.6. Significance of the study

This study will have significance in uncovering the policy and governance related problems in Ethiopia, the driving causes and their effects from social, economic and ecological perspectives thereby informing policy personnel to make improved decisions. It will contribute to the depth and breadth of environmental discourse in Ethiopian context and play an important role in filling the knowledge gap that is pervasive in the current academic circle in the field of environment and development. It will also add to the rarely studied body of knowledge in the field of environmental governance. Hence, it will have significance in terms of theory, knowledge and methodology to the academics, policy makers, and practitioners. It can be taken as a springboard to further studies in similar area, providing young scholars and research institutions an opportunity to build upon the findings as well as refining the methods, tools, and theories applied to the country's context.

1.7. Scope of the study

Even though environment and development as a field of specialization involves a number of themes of research, the scope of this study was limited to exploring the political economy of environmental governance in Ethiopia with a major focus on the historical trends, actors, institutions and drivers vis-à-vis environmental governance. The study was carried out both at federal and regional levels. At federal level, institutions and ministries with a stake in environmental governance were included in the study while three regional states (Amhara, Oromia and SNNPR) as well as Addis Ababa city administration were selected to represent diverse issues and perspectives on environmental governance based on the typology of environmental governance from different social and ecological perspectives. The case study included Fentale *wereda* of Kereyou pastoralist communities around Awash National Park in Oromia region, Esera and Tocha *weredas* of Dawro Zone in SNNPR around Chebera Churchura National Park, Asagirt *wereda* of North Shewa Zone in Amhara region, and two sub-cities of Akaki Kaliti and Kolfe Qeranio in Addis Ababa city administration. The study explored

historical trends of environmental policy and governance over the three political regimes of the Imperial era (mainly after Italian Invasion), the military Marxist (Dergue) era and the current (EPRDF) era.

1.8 Limitations of the study

Since the scope of this particular study is wide in terms of its geographic coverage and multiplicity of data sources, there has been a challenge to get adequate information on trends of environmental policy and governance of previous regimes, especially during the imperial era with limited secondary data and documented sources. There were also limited sources of information, both primary and secondary, in relation to institutions and actors, due to which the study heavily depended on qualitative interviews from policy personnel, experts and local community discussions. Most institutions either lack the documents and relevant secondary data due to poor institutional memory or apathetic to take time to search it since there is understandably high human turn over in the public sector over the years. Thus, getting current information was easier than seeking data on trends that require well-documented archival service and stable institutional environment, which could have allowed easy reference back to many years. Besides these, due to resource constraints, the quantitative data for developing the EG index was collected from two of the study sites and complemented by qualitative information from the rest of the study sites. Had the survey been conducted in all sites and complemented with the respective qualitative data, it could have generated more complete and better evidence. Therefore, these were some of the major limitations of the study which could be filled by similar studies in the future.

1.9 Structure of the dissertation

This dissertation monograph has eight chapters. Chapter one deals with introduction while chapter two is devoted for review of theories and relevant literatures as well as empirical studies conducted so far in the area of EG. Chapter three spells out in brief the study methodology. Chapter four presents the findings of the first objective, historical trends of environmental policy and governance before 1991 whereas chapter five discusses the trends of policy and governance during the current EPRDF era. Chapter six deals with the indicators and determinants of effective environmental governance in Ethiopia while chapter seven is devoted to the discussion of the role of local communities in environmental resource governance. Finally, chapter eight presents in brief the synthesis of major findings of all chapters and their policy implications.

CHAPTER TWO: REVIEW OF RELEVANT LITERATURE

The chapter is devoted to the review of relevant literature in the areas of environmental policy and governance. It begins with definition of some key terms and concepts being followed by broad review and discussion of issues related to environmental governance, its characteristics, modes, challenges, drivers, institutions and actors and the issues that necessitated environmental governance both at local and global scales. It also presents the theoretical and empirical reviews in relation to EG while portraying the conceptual framework of the study in final part. In general, the section attempted to provide theoretical and empirical basis for the study objectives.

2.1. Political economy

The concept of political economy, a term which brings together two broad field of disciplines, has got its origin from the works of Adam Smith, David Ricardo and Karl Marx (Harvey, 1976). In the early writings of the first two classical economists, the term was simply equated with what is known today as economics i.e., the condition of production organization in nation states (Robbins, 2007) whereas Karl Mark attached it to the study of the exploitative nature of capitalist system that would result in high profit but on the expense of high cost to the natural environment (Harvey, 1976).

However, the currently espoused concept of the term is broad and associated politics with economics. To this end, it is defined as a field that analyses the relationships that exist between politics and economics, which draws on theories from diverse fields including economics, law, as well as political and social science (Harvey, 1976). As Harvey (1976) also noted, the basic starting point for political economy lies in the definition of economics. Economic theory focuses on market mechanisms, where voluntary exchange leads to Pareto efficiency. However, political economy focuses on those decisions that market fails to produce the desired outcomes (Harvey, 1976; Brieger, 2006). It focuses on those areas of the economy where market limitations are evident and require state or political interventions. Its focus is on those rules and regulatory mechanisms that require agreement to govern voluntary exchanges such as property rights.

Political economy approaches the political and economic interaction from power basis. Moreover, it is defined as a study of formal and informal institutional rules underlying political powers, bureaucracies, or social and private organizations in influencing economic decisions and individual behaviors to satisfy their needs without inflicting harm to others and the wider

environment (Robbins, 2004; Brieger, 2006). Political economy in the field of environment emphasizes that environmental resources are allocated not on the basis of relative efficiency or merit but according to power whereby visible and invisible actors exercise their power and class position in the wider social system (Brieger, 2006). It is simply the study of nexus involving governance and economic activity in which the relationship between political decision-making and economic activity is emphasized (Robbins, 2007). Its application in the field of environmental studies is significant. Environmentalists view it as the confluence of governance decision-making and production of environmental goods and services and hence they engage in political economy discourse to study environmental problems (Castree, 2005).

Therefore, the above discussions made it clear that political economy, in the context of environmental policy and governance, can be conceived as the nexus between the institutional-legal arrangements and decision making power of the government and the production of environmental outputs (which include production of goods/services and bads/pollution or degradation), whereby the direction of actions and decisions of actors is influenced. Therefore, this study bases on the notion that environmental policy and governance actions are largely influenced and shaped by political and economic decisions across political regimes, which make it imperative to study the historical trends and current practices of environmental governance from the perspective of political economy. In other words, any environmental outcome, be it conservation or degradation, is a result of the political-economic decisions since environment is the source and sink of economic actions that are basically shaped by politically tuned policies.

2.2 Community and community participation

2.2.1 Community

Even though the concept of community is broad which ranges from discrete local residents or some interest groups assembled to achieve a common purpose to the world wide virtual community who neither share common space nor have physical proximity (Driskel & Lyon, 2002), for the scope and purpose of this study which deals with environmental issues most of which are related to human actions on natural environment, the following operational definition of community is adopted. According to Lawrence and Shawn (2001), community is defined as those who occupy certain geographic area being affected by the pursuit of certain development projects or initiatives. Similarly, Brieger (2006) defines it as a population which is

"geographically focused" but which also occurs as a discrete social entity", with a locally shared identity and communal drive. According to Manderson et al. (1992) it is seen as a social unit who share a common place such as a village, town or neighborhood (Manderson *et al,* 1992). More precisely, community is defined as a group of residents affiliated by geographic proximities, have special interest or similar situations to address issues affecting the well-being of their people (CDC, 1999). From the foregoing definitions, it can be concluded that community is a group of people who live in defined geographic area with collective identity and shared purpose towards addressing issues that affect their well-being. Thus, communities in the context of this research can be identified as both rural and urban dwellers who live in geographic or physical proximity, and have discrete identity being organized at kebele, wereda or sub city level or beyond. In this particular context, their collective identity is further manifested by their dependence on natural resources such as water, forest, national park, or land in the rural community setting. In the context of urban areas, they share the adversaries that result from development activities such as industrial pollution, municipal and household waste pollution, etc. Which necessitate their collective action towards mitigating those negative effects. Therefore, community in this study is operationally defined as urban neighborhoods, and rural kebele residents who affect the environment and be affected by the actions of different entities on the environment, including their own actions.

2.2.2 Community participation

Participation, being loosely defined as involvement of communities in development projects to solve their own problems or make decisions on matters that affect their own lives (Cornwall, 2006; Roodt, 2001), has got the attention of development researchers, international organizations, and NGOs, and crossed significant historical paths with the concurrent debate over the true meaning and practical significance of the so-called 'development' project since colonial period (Cornwall, 2006). Apart from those wide ranging and contested theoretical debates that surround the concept of participation, the development literature provides brief categorization of participation. Hence, to many writers, the definition of participation is better understood with the level of community involvement in development activities which ranges from nominal inclusion to actual decision making (Cornwall, 2008; Pretty, 1995). As to Mikkelsen (1999), it is categorized in to two as active and passive or interactive engagement of people in development decision making. Mikkelsen (1999), hence, further described the

manifestation of different forms within these two broad categories ranging from passive or interactive to active or real one. Similarly, other writers further provide lucid explanation as to how participation can grow from simple to advanced level or manifested in different ways. To this end, Pretty(1995) provided a typology of participation that depicts different facets ranging from lower to higher levels of decision making. The nominal level of participation is demonstrated by involving few community representatives having no legitimacy or power whereby people are nominally and passively counted on. On the other hand, in its true sense, real participation involves self-mobilization of the communities themselves whereby people take initiatives independently of external push to let them undertake development activities or decisions. Between the two extremes, the process can be manifested in different stages with the growing level of participation from nominal to real one such as manipulative, passive, consultative, incentivized, functional, interactive and self-mobilized types of participation (Pretty, 1995).

Alternatively, White (2001) provided four stages or forms of participation such as nominal, instrumental, representative, and transformative. Both Cornwall's typology of six stages and White's four stages, despite the differences in terminology and number of categories involved, do share common views in bringing forth the levels of popular engagement that lies on the continuum ranging from passive to real participation. Hence, public participation, besides its significance as much an end by itself as a means to an end, can either be passive one which neglects the real power and significance of communities in policy making and implementation, or active- which is manifested by real empowerment of people who use their power to change situations that affect their lives. Specific to environmental policy and governance that has been geared towards sustainable development, community participation has got emphasis both at theory and policy levels since the Rio Summit (UNCED, 1992). Since then, community participation has always been the centerpiece of environmental policies and major multilateral agreements being viewed as a critical element to curb the current environmental problems. Hence, community participation in this study adopts the above definitions that emphasize the different forms of participation that occur in development policy implementations.

The study emphasizes real participation which engages communities in their respective geographic areas (rural or urban) at different structural settings (local kebele or township level) whereby the people affected by environmental policy decisions, implementation of laws and policies, have a real stake and take active part from planning (policies, laws, plans) to the implementation of plans or enforcement of environmental laws. Therefore, real community participation in EG is the one that engages local communities since the policy formulation or environmental problem identification and the voluntary actions and decisions of the people are manifested across all levels from planning to implementation, which ultimately result in the sustainable use of environmental goods or curbing the occurrence of environmental bads.

2.3 Governance

Though there are numerous definitions of governance by different scholars and multilateral institutions, the concept can be best understood by contrasting it with 'government' (Bovaird & Loffler, 2003). The term was originated with the growing dissatisfaction with 'government' in management of social, political and economic interests of citizens and hence governance came to the scenes with the emergence of new public management in the liberal world (Chibba, 2009). It indicates the shift from sheer role of government characterized by Weberian bureaucratic management to inclusion of other key actors in the economy of any given state (Bovaird & Loffler, 2003; Pollit & Bouckaert, 2004). It is simply an amalgamation of state plus non-state actors in to the management of the nations' affairs in which the market, civil society and the wider public play their distinctive roles while the state assumes key role in setting the rule of the game (UNDP, 1997; Salamon, 2000; Fukuyama, 2013). Hence, the lexical meaning of the term 'governance' signifies the actions or conduct of an administration, its management practices and systems of regulation. In this regard, the Commission on Global Governance established a standard definition stating that governance is the sum of many ways individuals and institutions, public and private, manage their common affairs. It is a continuing process through which conflicting interests may be accommodated and co-operative actions are taken through a shift from regulatory form of government towards multi actor relations in which both content and organization of policy making are changed (Hajer & Wagenaar, 2003; Kooiman, 2003).

Moreover, it includes formal institutions and regimes empowered to enforce compliance, as well as informal arrangements that people and institutions either have agreed to or perceive to be in their interest (Chibba, 2009). It signifies a change in the meaning of government, referring to a

new process of governing that involves a change in rule, a new method by which society is governed. Hence, the concept of governance is related to the creation of structural order which cannot be imposed but the result of interaction of multiplicity of actors influencing each other towards common interest (Stoker, 1998). UNDP (1997) defined it as the complex mechanisms, processes and institutions through which citizens and groups articulate their interests, exercise their legal rights and obligations, and mediate their differences. It includes the state but transcends by taking in the private sector, and civil society.

According to ADB (1995), it is the manner in which power is exercised in the management of a country's social and economic resources for development whereas the World Bank (1991) defined it as the traditions and institutions by which authority in a country is exercised for the common good that includes the process by which those in authority are selected, monitored and replaced; the capacity of the government to effectively manage its resources and implement sound policies; and the respect of citizens and the state for the institutions that govern economic and social interactions among them. Even though there are various definitions, this particular study will adopt the above UNDP's definition as it is broad, consists of elements that comprise of processes, rule of the game and institutions through which different sections of the society including the state, market, and the civil society segments can exercise their authority, discharge responsibility and work towards their common interest.

2.4. Environmental governance

2.4.1 The concept of environmental governance

Since environmental governance is a newly emerging and rapidly growing field of study, the concept has been defined and used differently from different perspectives. However, regardless of those definitional differences, there are many aspects of similarities in which emphasis is placed on rule based involvement of multiple actors, institutionalized mechanism of responses, importance and application of formal and informal rules, participatory engagement of the public and decision making that ranges from global to local levels (de Loe *et al*., 2009). With emphasis on institutional response, it is briefly defined as a policy based action in creation of vibrant and viable institutional arrangements and incentives in order to draw collective action towards mitigating environmental problems (Lemos & Agrawal, 2006; Ostrom, 2007; Ali-Khan & Mulvihill, 2008; Armitage, *et al*., 2009).

Other writers, while looking in to the broader aspect attempted to define it as a platform in which the role of non-state actors becomes indispensable in order to fill the governance void that is prevalent because of the government's inherent capacity limitations, and to adequately respond to the growing demand from citizens to be engaged in environmental decision making as well as to capture the benefit of tapping the expertise, knowledge and informational resources of the wider segments of society for improved environmental outcomes (Pahl-Wostl, 2004; de Loë & Kreutzwiser, 2006; Armitage, 2008; Himley, 2008; Armitage, *et al*. 2009). It is also stated as a bundle of regulatory procedures, and institutions by which political bodies can influence environmental decision-making and outcomes (Lemos & Agrawal, 2006).

Likewise, environmental governance is seen as a broad process of governing the environment by providing institutional solutions to handle the conflicts that arise among different groups of the society over environmental goods and services (Paavola, 2007). Other writers viewed it from the perspective of responses towards the challenges that are threatening the interconnection with in the earth's natural and social systems. Hence, it is understood as an operational response in the face of the current environmental challenges that are threatening the nature's complex adaptive systems and the social-ecological systems (Dietz, *et al*., 2003; Folke *et al*., 2005; Lemos & Agrawal, 2006; Ostrom, 2007; Pahl-Wostl & Jeffrey, 2008; Biermann & Pattberg, 2008).

Some writers gave emphasis to the power based influence of actors. In this regard, Kulczak, (2013) defined it as the set of regulatory processes and organizations through which political actors influence environmental actions and outcomes. Hence, political-economic relationships embodied in the institutions, and which shape their identities, actions, and outcomes are key tools for environmental governance. Moreover, International agreements, national policies and legislations, local decision-making structures, transnational institutions, and environmental NGOs are all examples of the forms through which environmental governance is exercised (Lemos & Agrawal, 2006). By the same token, Commission on Global Governance (1995)[6] puts it as the intersection of governance with environmental affairs, which includes but is not limited to governance of the global commons. Thus, it requires the active role of government but goes beyond it including other actors who have a stake in environmental decisions thereby clarifying the observable delineation between government and governance. It is conceived as measures

[6] Commission on Global Environmental Governance (1995). Our Global Neighborhood: Report 1995.

focusing at changes in environment-related incentives, knowledge, policies, institutions, decision-making and behavior including regulatory processes, compliance mechanisms and organizations through which different stakeholders comprising both government, businesses, and civil societies influence environmental actions and outcomes (Singh, 2012). Owing to these governance relations among actors, Evans (2012) briefly states that environmental governance is a *"third way between the two poles of market and state",* meaning that it is a confluence for bringing together the commanding attributes of government and the market based solutions of private sector in order to attain a common societal goal for sustainability (p.4).

The broad definition given by Biermann relates environmental governance to a set of rules to govern the environment. Hence, it is the constellation of integrated systems of formal and informal rules, rule setting mechanisms, and actor networks at different geographic setting and sections of the wider society, from higher to lower levels of administration, which are deemed to mobilize the entire segments of the society towards curbing the environmental problems that the world is facing being under the normative setting of the sustainable development paradigm (Biermann, *et al*., 2009). From the foregoing definitions, this study will adopt the broader definition provided by Bierman *et al*. (2009), which emphasizes both geographic scale of environmental problems, institutional and regulatory aspects, as well as the need to draw a collective action through active involvement of the state and non-state actors in which the wider segment of the society plays a decisive role in restraining environmental problems whereby decisions are made at different tiers and levels.

2.4.2 Drivers of environmental governance

There were many drivers behind the current setup of environmental policy and governance both at global, regional and national levels. On top of the on-going environmental crisis from local to global scale, the need for institutionalized environmental responses has been pushed forward due to the following major drivers. Among many others, the major ones include Population and affluence, International trade, and market and government failure.

The challenge that arises from the growing global population, mainly in the poorest sections of the world, has been one of the driving causes for intensifying policy responses in global environmental governance (Ravnborg, 2013). The poorest segments in the global south, with growing population are dependent on the natural environment and the pressure on arable land,

water, wildlife and vegetation has been rising from time to time (Ray & Ray, 2011). On the other hand, the increasing level of affluence in the economically developed regions has resulted in rapid growth of energy production and consumption, which further causes increased greenhouse gas emissions (Ray & Ray, 2011). The environmental effects like surface and ground water contamination; air pollution and global warming are of growing concern owing to increasing consumption levels. As economies continue to grow, the resulting affluence coupled with profligate lifestyle is posing a series threat to global environment, and it has been a driving force behind the global environmental governance responses (Hepburn, 2010). With the growing level of economic standards, luxury lifestyle in the developed nations is characterized by excessive use of resources and discharge of more waste to the environment. For instance, the boom in fashion industry is a result of affluence which in turn is leading to the ultimate extermination of endangered wild animals for production of expensive ornaments (Velk & Linda, 2006). Hence, the threat posed by population growth and resulting poverty as well as the profligate lifestyle of the affluent societies have been some of the major drivers for the current environmental policy and governance responses around the world (Velk & Linda, 2006).

International trade is also well attributed to the proliferation of different environmental governance regimes. With the growth in volume of goods and services traded among countries, there grew a concurrent side effect that contributed enormously to the environmental crisis. The effect of trade on environment was recognized a long ago with the first multilateral environmental protection agreement undertaken in 1946, which was about restriction of commercial whaling (Brack & Kevin, 2003). Since then, international trade and its negative effects on the global environment have been well spotted and became one of the major drivers behind the growing proliferation of MEAs as global environmental governance. Consequently, the Rio declaration underlined the need to make restrictive measures on uncontrolled and environmentally debilitating aspects of international trade (Brack & Kevin, 2003). Hence, a number of MEAs with strong trade related implications have been ratified over the last five decades. Documented evidences indicate that there were over 31 trade related MEAs that lay down requirements of banning of trade (specific or general), trading licenses (import and export), reporting requirements, packaging and labelling requirements (Brack & Kevin, 2003).

Moreover, market and/or government failure is one of the major drivers behind EG. Environmental goods and services, unlike other economic activities, are difficult to be adequately provided by markets since the private sector has no incentives to internalize the externalities in the absence of government interference. On the other hand, governments have too many policy priorities that come on top of their lists due to political reasons and which are also easier to carry out while environmental decisions are filled with full of uncertainties in terms of scientific data with regard to current and future projections (Hepburn, 2010).

Likewise, most of environmental issues are transboundary and difficult to limit to the jurisdiction of certain sovereign boundaries. Thus, it is the environment sector that often suffers from both market and government failures. The resulting void due to this failure, hence, can only be filled through governance tools at different scales. Therefore, wide prevalence of market and governance failure has been one of the major drivers for the proliferation of institutions, regimes and multilateral agreements which are often referred to us international environmental governance mechanisms (Hepburn, 2010). It is also emphasized that different political, social and economic conditions drove the need for environmental governance to bring on board different sets of non-state actors to fill the governance vacuum due to its inherent capacity limitations, and the need to pave ways for participation of wider segments of the society in environmental decision making (Pahl-Wostl, 2004; de Loë & Kreutzwiser, 2006; Armitage, 2008; Himley, 2008; Armitage, *et al*., 2009). In general, environmental governance was mainly driven by the complexity and transboundary nature of environmental problems, on the one hand and inherent inability of both market and governments to contain them, on the other hand.

2.4.3 Trends and evolution of environmental governance

In the existing body of environmental literature, it is not uncommon to encounter every discussion of environmental governance beginning with global environmental governance. In other words, vast literature is about environmental governance at global or multilateral level devoting limited space to the discussions related to national or unilateral efforts of environmental governance which is indicative of the emergence of EG from global level and spread out across national and local levels (Harashima, 2000).

However, there is a substantive reason for this. The reason for the prevalence of GEG over NEG is partly related to the historical development and emergence of responses to the environmental

problems mainly since the awakening call by the Rachel Carson's publication in the early 1960s which had ignited fire of environmental concern around US and western Europe leading to the land mark Stockholm conference of 1972, the UN human development conference which resulted in the establishment of United Nations Environmental program (Barrow, 2005) and partly due to the nature of the problem per se, i.e., most of the current environmental problems are not territory-bound and their repercussions are characterized by transcending the source of disruption and hence require cooperation and coordination beyond national boundaries (Najam *et al*., 2006).

In the twenty-first century, policy makers are confronted with one of the difficult socio-political problems humankind has to deal with, i.e., saving the planet's entire system and building strong institutions that put in place a system capable of creating co-existence of natural and social systems (Biermann, 2007; Biermann *et al*., 2010). Evidences suggest that the effects of environmental degradation had begun to be felt at academic and policy circles since industrialization (Evans, 2012). Even though there were significant wilderness movements in the western world since early 19th century with marked influence in paving grounds for today's environmental awareness and institutional arrangements (Enger,Smith and Bockarie, 2000), environmental problems were not of that much concern until 1945, with the term "environment" had not even got a mention in the UN Charter (Biermann, 2011). It was only in 1972 that UNEP was erected as a mere program, having no full-fledged institutional capacity to enforce environmental laws and conventions in contrast to other UN agencies with significant resource capacity and legal power (Biermann, 2011). Following Rachel Carson's bestseller *Silent Spring* in 1962, which popularized the idea that nature has a delicate balance and humans were disrupting it to their own eventual misery, the wave of environmental legislation in the USA and Europe responded to the growing public concern with the impact of industrial society on the quality of life (Reed, 2008).

The pace and intensity of environmental movements in the west was strengthened by the transformation of the society after WWII with increased real income and high standard of living, accompanied by the spread of incentivized retreats, to a wide range of professions, which meant many more people had both the financial capacity and the leisure time to enjoy recreation away from home and work places (Enger *et al*., 2000). Hence, access to natural environments became

an essential aspect of the quality of life to millions of growing middle class (Barrow, 2005). Advancing levels of education also helped produce a shift in social values favoring protection of natural areas (Eliot, 2006). With the widespread ownership of cars and the development of expressways, the number of visits to the expanding National Park system alarmingly grew and hence protection of nature has become part of the public concern (Lee & Julie, 2003). The growing awareness of the values of natural environment by the public accompanied by proliferation of organized environmental movements (Eliot, 2006), which in turn forced the policy and legislation focus, has had a significant push behind the erection of various regimes and institutions of today's global environmental governance in the western developed world (Lemos & Agarwal, 2006).

Global environmental governance has also been viewed as a necessity that appeared to cope with emergent severe challenges humanity is facing. Followed by the alarming tone of Paul Ehlrich's publication of the Population Bomb, the period of 1970s was influenced by the Neo-Malthusian views that took the center stage with resource scarcity versus population explosion pessimism (Reed, 2008). The publication of the notorious 'Limits to Growth' thesis which had its lasting marks on the shift of policy minds towards sustainability, emphasized the threats of exponential growth in several factors such as population, food production, consumption of natural resources and pollution would inevitably result in a dramatic system breakdown around the second half of the century (Meadows *et al*., 2006). Thus, being fueled by the commending call of the report and an unfortunate coincidence of the world's major oil shock of 1973 (Peake & Smith, 2009; Zandvliet, 2011), environmental movement grew rapidly having an effect on institutional establishment to enforce environmental laws and multilateral accords (Kirton, 2017). During this period, pollution became the growing concern and market based tools were sought to curb the problem. Thus, 'the polluter pay principle', which emphasized the need to regulate industry and internalize some of the costs of reducing pollution, was practiced as a governance mechanism (Kirton, 2017). Concurrent to this, as mentioned earlier, the decade saw a marked event of the UN human Development Conference with erection of UNEP where the national governments agreed to have a supra national body in charge of coordinating global environmental governance (Biermann, 2011).

The next decade, 1980s, was also a momentous decade. In the 1980s, with pollution prevention (recycle and reuse) being the dominant market based principle, there was also development of emissions trading systems in the industrial world. The 1990s and beyond had marked with the proliferation of globalization and end of cold war where market mechanisms of the liberal philosophy have got a sheer reign (Kirton, 2017). To this end, Park *et al*. (2008) argue that the era from 1972 conference has revolutionized global environmentalism and resulted in strong institutional architecture with further adoption of the sustainable development paradigm which has got momentum in the Rio summit of 1992. Hence, the new trajectory of global environmental governance has got an initial footing and significantly eased the strong skepticism of developing country states that was eclipsed by the fear that embracing environmental protection agenda would hamper their economic development, and paved ways for the acceptance of environmental governance at national levels (Park *et al*., 2008; Ravnborg *et al*., 2013).

As to Barrow (2005), the trajectory of environmental policy and governance has been classified in to three eras. The first one was from 1960s to 70s in which, as he noted, the focus was mainly on pollution and population explosion, and reckless use of technology which culminated in the formation of the UNEP. The second era stretches until 1992, whereby many national governments established environmental ministries, agencies, and departments. The private sector interest grew markedly to take part in environmental management and the media begun to promote environmental safety with the emergence and stimulation of green NGOs. From WCED report to the Rio summit, world leaders have committed themselves to give a policy focus and finance environmental protection measures as a result of which sustainable development became a catchword since then. The third era of evolution in the trajectory of environmental governance is from 1992 to the present, predominantly occupied by the issues of global warming, climate change, climate financing, biodiversity conservation, etc. This era has involved numerous sections of the global community (business, NGOs, academia, civil society movements) under the umbrella of the UN institutions of Environmental Governance. The last two eras have also seen various environmental agreements signed and ratified and put in to action, though the outcomes of different accords by different nations are left for scrutiny (Barrow, 2005).

Following the focus on the need for cooperation at global level and commitment to enforce environmental laws and policies at national levels, the second era of EG has witnessed the enactment of environmental legislations, erection of environmental ministries and articulation of EG at national and local levels (Barrow, 2005). Thus the gradual progress and spreading out of environmental governance agenda from the auspices of the UN bodies to national governments was significant. As illustrated by Ravnborg *et al*. (2013), since the WCED report until the Rio summit, only ten developing countries prepared and approved their environmental legislation, while significant stride was seen during the successive UN summits with additional 30 were reported to have approved their legislations and most of the developing countries have done so over the next decade since the Rio summit (Ravnborg *et al*., 2013). Thus, environmental governance, which had got its institutional stature and political significance at the international level since the Stockholm conference, had crossed a challenging evolutionary path, got momentum with the emergence of the sustainable development paradigm, and pervaded the policies and politics of developing countries who have been in cross roads towards adopting the notion both from economic, political and social perspectives and the resultant skepticisms.

2.4.4 Challenges of environmental governance

As it is highly demanding to have sound and effective environmental governance system to contain the perils of environmental degradation of our epoch, there are lots of factors that defy effective implementation of environmental governance. Even though these factors vary depending on geographies and socio-political contexts, environmental governance has got major challenges in developing country context (Ravnborg *et al*., 2013). The challenge to effective environmental governance begins from its being a new field of policy and research which lacks adequate technical and managerial skills. Thus, anchoring a new policy field in to the existing policy and regulatory foundations at national, sub national and local levels poses a difficulty of finding adequate trained experts and knowledgeable policy personnel in this newly emerging field (Funder & Marani, 2013).

The other challenge to this new policy agenda is the overly reliance of countries on international aid and technical support to pursue their national environmental goals. Studies conducted in two of the third world countries (Vietnam and Niger) have shown that development aid has been disproportionately relied on as a panacea to every environmental problem and local

environmental policy implementation. Hence, local capacities are undermined being overly dependent on external expert opinions, recipes, and technical as well as financial support (Vu, 2012). It in turn has affected the local potential for enacting context specific and pragmatic policies. This challenge is manifested in a dress rehearsal fashion as countries attempt to adopt the so-called integrated development approach whereby the national policies are extremely stretched towards incorporating multilateral agreements which, in many cases, are difficult to contextualize (Vu, 2012; Larsen & Mamosso, 2013; Larsen, 2013).

Other studies have also suggested that the challenges that environmental governance faces are enormous. One of the outstanding challenges is related to finance. Developing countries have often faced financial constraint in enacting implementable environmental policies and face problems in enforcing environmental laws and hence commit inadequate financial and physical resources to this newly emerging sector (Wingqvist, *et al*., 2012). Therefore, the effectiveness of their environmental policies is dependent on international financial support, which, in most cases, challenges the content of those policies (Funder & Marani, 2013). Institutional factors have also been detrimental to effective environmental governance. The number of environmental institutions at the regional and national levels has been increasing while lacking adequate coordination and coherence. Furthermore, national environment Ministries are very weak in terms of institutional capacity compared to other ministries and are found to have weak capability to enforce environmental decrees (Wingqvist, *et al*., 2012; Ravnborg *et al*., 2013).

Another formidable challenge is related to lack of adequate and clear information with regard to the environment. As de Loë *et al*., (2007) noted, environmental governance is information intensive, which calls for acquisition of knowledge of complex and evolving socio-ecological systems. However, government officials (including the judicial system) and other actors in the arena of environmental governance lack adequate and timely information for decision-making. To this end, Waititu (2003) contends that they make use of either 'inaccurate or obsolete information' for environmental decision making which further constrains the outcomes of those decisions. There are little or no environmental monitoring systems in place that would allow decision makers to undertake effective measures. There is lack of quality and adequate flow of scientific knowledge and information to policy makers as well as implementing bodies, which will be critical to put in place effective environmental governance system. Besides this, the wider

public also lacks knowledge and information that could help the public decisions and actions in curbing environmental problems (Waititu, 2003).

Weak enforcement and compliance to environmental regulations is another challenge for environmental governance. Studies conducted in Kenya, Uganda and Tanzania have shown that a number of fancy environmental laws and regulations are already in place. However, their enforcement is highly constrained by weak capacity across the tiers of administration and hence the harm that the environment faces is not barred by the mere existence of these legislative instruments (Danida, 2010; UNCSD, 2012).

The other challenge is the influence of the globalized nature of environmental governance as well as the diversity of non-state actors in the pursuit of environmental policy enactment and implementation. As the very emergence of environmental governance can be attached to the UN institutions and the multitude of multilateral agreements have so far been coordinated by these institutions since mid-1970s, there have been numerous chaotic evolutions, ups and downs in the global environmental policy front which has been affecting the national and local responses to their individual environmental problems (Roch & Perez, 2005).

It is also evident that developing country governments have faced a challenge of coping with numerous issues that require policy responses. The proliferations of environmental treaties at global level resulted in treaty congestion; and pose a fresh challenge to the national governments forcing them to setup new departments, institutions and expertise in order to be on track while their local capacity is already limited to handle them and hence, chaotic dynamisms in departmentalization have been observed. Thus, they struggle to meet institutional demands; resulting in duplication of mandates and conflicting agendas that arise from global environmental governance (Najam, *et al*., 2006). Moreover, duplication and conflicting agendas occur at national level due to new treaties that emerge at global level which often tend to be negotiated from scratch and have different stakeholders than the previously negotiated treaties. This poses a problem of building upon previous treaties in the similar area of interest or making sure that the new convention can smoothly fit into the current system which is not necessarily a priority for negotiators (Najam, 2003).

Furthermore, the growing diversity of actors in EG is another challenge that requires attention. The debate on environmental governance has been intense on how to reform a state-centered system of organizations in the way that accommodates the interest and role of actors outside the umbrella of government. As evidences indicate, the role of private sector and NGOs has been significantly growing mainly at global level and the major conventions and treaties were highly influenced by these groups, which in turn necessitates vibrant participation and engagement of these actors at national levels (UNCSD, 2012). Their importance is also growing at national levels in financing, advocacy work, and capacity building (Najam, 2003). Hence, there is a challenge for environmental governance as state centric approach is deemed to fade away while there is still a tension between the state domain and the active involvement of non-state interest groups (Najam *et al*., 2006). In a nutshell, environmental governance is subject to numerous challenges, which need to be addressed through application of environmental governance per se, that should rather be effective.

2.4.5 Modes of environmental governance

Different modes and approaches to environmental governance in different policy and geographic settings have been proposed and implemented. The main reason for the emergence of various modes and approaches has been due to the complexity of environmental problems, the multiplicity of actors and stakeholders at different capacities of influence in decision-making, and the intricacy of the current environmental problems that cannot be addressed through the application of a single mode of governance (Plummer, 2013). To this end, in his comprehensive work on environmental governance, Glasbergen (1998) identifies some discrete models, which provide a gamut of different prospects (see Figure 2.1), which include regulatory control, market regulation, civil society, and cooperative management. Regulatory mode of governance: In regulatory control model, the government takes a central role of governing the environment and becomes a regulator of social change where legal rules are set with the purpose of stating prescriptions of standardized conduct of dos and don’ts applicable to business, organizations and individual citizens. Regulation, hence, suggests the acts of governmental authority over environment, being synonymous with the commonly applied command and control approach of governance (Glasbergen, 1998, p. 5).

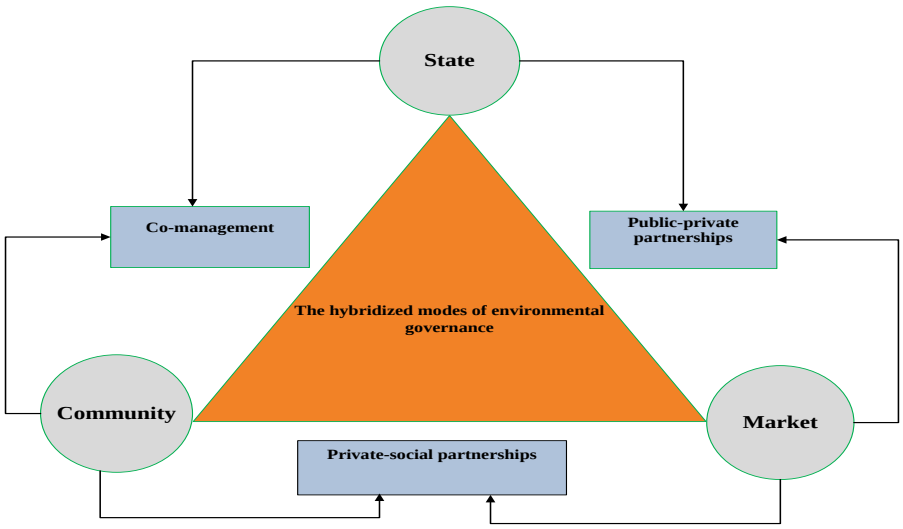
Market Regulation mode of governance: Glasbergen's second mode of governance is market regulation model, in which the invisible hands of the price mechanism would play a vital role in achieving change. In this model, government is limited to only a facilitative role of setting the rules of the game to the healthier market processes. When the market properly functions, it is believed that environmental externalities, such as pollution or degradation, would easily be internalized. "*Once the financial incentive structure is changed, and environmental goods are rightly priced on the market . . . public and private interests can be reconciled" (*Glasbergen, 1998, pp 5-8). However, there are strong arguments that environmental goods and services are problematic to set market values and internalization of environmental costs as well as measuring the effects of these incentives is also difficult (Kolstad, 2000).

Civil society governance: According to Glasbergen, the social ties and trust that has been prevalent among the civil societies can be an opportunity to win societal cooperation and voluntary response in curbing environmental problems. Hence, civil society governance can steer the wider society not only to manage the environmental goods and services, but also to influence public policies towards environmental protection and judicious resource use. Thus, civil societies can have a power base to stage open debates, opposition and social critique and their influence can result in improved management of the environment (Glasbergen, 1998, pp. 5-8).

Cooperative management: In cooperative governance, Glasbergen identifies different actors to working in collaboration. It is similar to the new governance model that embraces the state, civil society segment and the market (Stoker, 1998), in which the state plays a symbiotic role, besides the major regulatory exercise while others have equally important and distinct role towards a common goal of environmental governance. The roles are defined by mutual consent and actions are taken with responsibility by equal participation. Strategies such as cooperation, partnerships, community development and collaboration are interchangeably applied in this model of governance (Glasbergen, 1998, pp 5-8). Even though Glasbergen provided these distinct models; he noted that there are conditions in which each model could be effective. For instance, he stressed that regulatory model is supposed to be effective among law-abiding citizens who respect authority, while in the market model, reliance is placed on economic rationality followed by efficiency; and the civil society model is attached to communicative rationality (Glasbergen, 1998, pp. 14-15).

Adaptive co-management: Besides Glasbergen's discrete models, this one is another addition of models of environmental governance that pervades across the environmental literature. This model is widely applied in natural resource governance under conditions of fast environmental change, which is characterized by uncertainty and complexity. It is viewed as an evolving process that best suits to respond to feedbacks from socio-ecological systems, and it prevails in the context where there are shared responsibilities among actors over a particular environmental resource. It is perceived to be adaptable, dynamic and gives space to social learning (Ruitenbeek & Cartier, 2001; Folke *et al*., 2002; Berkes, 2004; Olsson *et al*., 2004).

In contrary to the above propositions, Meadowcroft (1998) argues that those proposed by Glasbergen are more of ideal than what could happen in the practicing grounds by noting that these models are not mutually exclusive (Meadowcraft, 1998). Hence, in real terms, they operate in combination in one or the other way. Lemos and Agrawal (2006) have also stressed the hybrid forms of governance rather than the ideal and distinct forms. They further contend that the major actors; state, market, civil society and the community can create certain forms of assemblage to respond to their specific contexts and suggested governance modes such as co-management, public-private partnerships, and private social partnerships. The degree of potential hybridization and lack of simple models of environmental governance suggests the possibility of a wide range of governance forms (Lemos & Agrawal, 2006). Thus, it can be concluded that there can be numerous permutations of models, which can range from a single actor to multiple actors and roles. This is because environmental governance is dynamic and constantly reconfigured and thus choice and application of any single model is contingent on the nature of the actors, the context and complexity of environmental problems (de Loë *et al*., 2009; Plummer, 2013).



Source: Modified from Lemos & Agrawal (2006)

Figure 2. 1 Hybridized modes of environmental governance

2.4.6. Institutions and actors of environmental governance

2.4.6.1. Institutions and their role in environmental governance

In generic terms, institutions are seen as the rules of the game that guide the action and behavior of actors. Institutions are seen as an outcome of a game in which multiple but known strategic equilibrium is possible (Jackson, 2009). Institutions are meant to regulate the behavior of actors through both formal and informal rules prescribed by third parties (North, 1990). Environmental governance being recently emanated development discourse owing to the prevalence of environmental problems and the failure of the conventional governance structure has necessitated the emergence of global environmental governance with resultant proliferation of institutions (Evans, 2012). However, there have been diversified international institutions working in relation to environmental issues at different geographies of scale with varying ideas and focuses. For example, intergovernmental organizations such as United Nations Environment Programme (UNEP), the United Nations Development Programme (UNDP), and other specialized UN agencies and commissions have been responsible for coordinating policy on the environment at the international level; several of other international organizations, including the World Bank (WB), World Trade Organization (WTO), International Monetary Fund (IMF) were also designated to play vital roles in global environmental decision-making; while regional organizations such as, European Union, Asian Development Bank, Inter-American Development Bank, and African Development Bank among others contribute towards international governance

both through their own programs or legislation and through participation in global accords(World Resource, 2004; Asian Development Bank Institute, 2012; Cunningham & Cunningham, 2012).

In spite of differences of institutions discussed above in relation to EG, the three major roles they paly include, 1) responsible for coordinating policy on the environment at the international level; 2) develop legally binding international agreements among countries in order to take common actions on different environmental problems, with varying responsibility to each nation within its own territory; 3) mobilizing financial resources to enhance nations capacity to implement the agreements, support national efforts toward sustainable development in poorer countries, and to help the UN agencies and treaty secretariats, which coordinate and implement environmental efforts.

In this regard, many developing countries do not have the capacity to address environmental issues effectively. Therefore, development agencies such as UNDP and the World Bank have played important roles by providing capacity building and technical skills, legal instruments, and staff to manage pollution or natural resources more effectively. UNDP, for instance, plays a direct role in environmental governance using its country offices. In this case, 90 percent of these activities have helped the developing country governments in establishing institutions and implementing policies to promote both poverty reduction and environmental goals (UNDP, 2001, p. 2). On contrary, UNEP has been given the principal environmental mandate but comparatively modest resources with the major focus at a global level. Although institutions vary in type and nature to plan, coordinate, monitor and evaluate the environmental performance in different contexts, geographies of scale, they are broadly classified as governmental, non-governmental and intergovernmental organizations. Particularly, institutions such as IUCN, UNEP, UNDP, World Bank, EU, African Development Bank, and Asian Development Bank among others are at forefront of environmental governance issues at different levels.

Following the proliferation of governmental, intergovernmental, and non-governmental organizations working on environmental issues at national level, most countries have instituted ministries or agencies accountable for environmental matters. One of the UN review offers a more detailed account of the many institutions and mandates that comprise the international

environmental governance system (UNEP, 2001). However, depending on the policy environment, ownership of environmental problems and the quest for alternatives to address such problems, countries can have diversified institutions to plan, coordinate, monitor and evaluate environmental agendas in the respective country. For example, although a number of institutions, line ministries, and sector offices were established in Ethiopia at three different regimes, the most significant step in setting up institutional framework for environmental governance has been the establishment of the Environmental Protection Authority (EPA) by proclamation No. 9/19957. Recently, multiple line ministries, sector offices, and departments at different levels of administration are taking part in the planning, coordinating, monitoring, and evaluation of environmental issues in the country. Nevertheless, Ministry of Forest, Environment and Climate Change is the main institution which is designated to carry out all environmental agendas at national level while line ministries, sector offices, and departments are set to work towards environmental sustainability and coordinate activities both horizontally and vertically within the broader framework of Environmental Policy and the Climate Resilient Green Economy Strategy of Ethiopia.

2.4.6.2. Actors and their role in environmental governance

Governance of Environment is an interplay of different actors and institutions (Glasbergen, 1998). The importance of engaging different stakeholders and actors in the governance of environment was first recognized by the Stockholm conference where the role of national governments, NGOs and the civil actors was duly recognized (Eliot, 2006). Since then, environmental governance has been seen as an act of multiple forces including intergovernmental forces, NGOs, NPOs, civil societies and private companies or the market forces (de Loe *et al.*, 2009). With the increasing interest in the market mechanisms to solve environmental problems, the need to bring on bard the private sector was emphasized since 1990 at UN level (World Resource, 2004).

According to Fumikazu (2012), actors are usually considered as the representatives of institutions or organizations with environmental mandate or concern. Thus, actors in EG are

[7] According to this proclamation the Environmental Protection Authority (EPA) has amongst its 'powers and duties: 1) to prepare environmental protection policy and laws; and, upon approval, follow up their implementation; and to prepare directives and systems necessary for evaluating the impact of social and economic development projects on the environment; follow up and supervise their implementation (see for more details EPA 1995).

defined as "*the proponents and opponents of environment related actions that are being proposed to deal with whatever is perceived as the problem, along with their support groups and unaligned third parties*" (Fumikazu, 2012). On the account of this view, environmental governance has been characterized by actors mainly from three categories. The three broad categories provided by Fumikazu (2012) are: the government sector/agencies, the private sector, and the civil society sector. The government sector includes those government agencies that are in charge of enacting environment related laws and enforcing compliances. The private sector is the one, which has a role of production and distribution of goods and services. The civil society sector is a broad combination of NGOs, NPOs, COs, urban neighborhoods, social affiliates, interest groups, environmental activists, researchers, and individual citizens (Fumikazu, 2012).The role of these three broad categories of actors has been growing since 1990s where it was highly pronounced during the Rio summit with the participation of hundreds of these actors in setting agenda and influencing the decisions as well as playing distinctive roles in implementation of the summit over the next decades (World Resource, 2004).

As Najam *et al*. (2006) noted, the distinctive roles assigned to and played by the three actors have been instrumental in implementation of multilateral environmental agreements in general and national/regional/international environmental policies and enforcing laws at similar tiers, in particular. Hence, the government agencies have a key role of enacting laws and policies, setting standards, and enforcing environmental laws. This can be seen from those intergovernmental interactions taken place under the auspices of the UN to regional, national, subnational and local levels (Najam *et al*, 2006). The NGOs within the broader civil society category have a significant role, which has been growing in importance and influence over the last two decades. As Najam, *et al*. (2006) have noted, they have been sources of environmental solutions, ideas and scientific knowledge for major environmental policies. They have been playing vital role in international environmental policy making through setting agendas, drafting treaties and supporting as well as monitoring the implementation of those policies in implementing grounds being stretched from international to local levels. Local and international NGOs also engage in national level policy implementation and provide capacity building support to local implementers. In addition to the achievements made by environmental activists, Community organizations, non-profit organizations and organized social movements have also been playing significant role in influencing policies that matter most in terms of environmental security (Najam *et al*., 2006).

There are also evidences that great advances have been made in engaging the private sector as partners in development and environmental protection rather than as malefactors of environmental dilapidation (Najam *et al*, 2006). Hence, since 1990s, with the turn in United Nations towards engaging the private sector, there was a paradigm shift in perception from looking them as opponents to proponents of environmental policies (Fumikazu, 2012). Hence, they became allied forces of environmental improvement being seen as parts of the solution rather than mere sources of environmental degradation. With the new insight that sustainable production mechanism and use of clean energy and technologies can enhance industrial competitiveness with in the globalized view of sustainable development, the role of private companies in environmental governance has become a necessity (Fumikazu, 2012).

Accordingly, as the business sector has been facing continued pressure from social movements and interest groups; there has been a growing tendency to embrace the motto of sustainable business and to support the national and global initiatives towards securing safer environment for the future generation while making profit out of the business (Fumikazu, 2012; Lemos & Agrawal, 2006). Therefore, in the context of the new governance paradigm which dictates active engagement of multiple actors that goes beyond the traditional state-centric rule, and due to the very nature of environmental problems that poses difficulty to locate single source and destination of environmental impacts, identification and involvement of different state and non-state actors is crucial towards creating an effective environmental governance system.

2.4. 7 Effectiveness of environmental governance and its indicators

As discussed in section 2.4.4, environmental governance is challenged by a number of social, political, and economic factors that emanate from different geographic and spatial scales. The achievement of improved governance in the face of these numerous challenges is a necessity if the global environment is to be managed sustainably. Therefore, effectiveness in environmental governance should be achieved through curbing these challenges. Yet, ensuring effective environmental governance requires a proper understanding of what it is, how it can be measured and devised in policy planning. Thus, it is imperative to first define what is meant by effective EG and then discuss some of its key indicators.

The broader governance literature is characterized by attaching a fancy and normative term "good" to show the optimality of governance measures that satisfy different sets of criteria

(Gisselquist, 2012). Accordingly, good governance has been hailed since 1980s and served as a policy prescription of multilateral donor agencies as well as nation states (Gisselquist, 2012). However, good governance in environment sector is often denoted by 'effectiveness' on the grounds that the environmental governance measures should meritoriously achieve the objective of protecting the natural and social environment from anthropogenic perils. Owing to this, the environmental literature emphasizes the term effectiveness to represent an optimal and sound practice of governance system in curbing environmental problems (Evans, 2012). Based on the parameters that were meant to measure the practice of 'good governance' provided by different donor agencies, similar trend of coining indicators that measure effective environmental governance has been evident across the environmental policy literature.

To this end, environmental governance was viewed to adhere to such major parameters as transparency, accountability, public participation, law enforcement, ensuring citizen awareness, and freedom of association (Feris, 2010). Sheilds *et al*. (2016) also developed indicators for effective protected area governance which include stakeholder engagement, institutional arrangement, actor roles, transparency, accountability, and regulatory capacity. Similarly, Nathan and Terre (2018) provided a list of indicators by referring to attributes or qualities of good environmental governance which include direction, coordination, information, accountability, fairness, participation, and justice. Berg (2012) provided a long list of indicators for water sector governance such as efficiency, regulation, institutional capacity, actor arenas and policies, fairness, regulatory frameworks, clarity of roles and responsibilities, etc. By the same token, a study conducted in Ghana in mining sector has come up with key composite indicators that would help to measure environmental governance performance. Thus, Darimani *et al*.(2013) provided basic indicators including accountability, transparency, awareness, knowledge, law enforcement, institutions, actors, fairness, and dispute resolution. According to this study, any EG regime could be measured by the outcomes of these indicators in which each one of these is further broken down in to sub-components (Darimani, *et al*., 2013). Therefore, this study is based on the review of the sources listed above and mainly on the findings of the study conducted in Ghana by Darimani and others in 2013. In view of this, effective environmental governance can be measured by such indicators as accountability, transparency, participation, knowledge, awareness raising, regulatory capacity or law enforcement and implementation, fairness, actors, institutions, dispute resolution, and adaptive capacity, among others.

2.4.8 Determinants of effective environmental governance

As highlighted in section 2.4.7, the literature provides a list of indicators to measure the effectiveness of environmental governance. However, effectiveness should be viewed as a dependent variable that is a function of different factors. Thus, for environmental governance regime to be effective, focus is placed on the possible interplay of different socio demographic, economic and political factors that can play either positive or negative role. To this end, different empirical studies suggest that effectiveness of environmental resource governance regimes is determined by a number of explanatory variables.

To this end, some studies indicate that sex is one of the factors that have an effect on environmental care (Buttel 1987; Dunlap *et al.* 2000; Talento *et al*., 2017). Even though there are mixed results from different studies indicating that it depends on socio-cultural variation, there are studies that emphasize that women have more pro-environmental behavior leading towards better environmental care (Stern *et al.* 1993; Hunter *et al.* 2004; Luchs & Mooradian, 2012; Scannell & Gifford, 2013; Kalantari *et al*., 2007). Age is also one of the socio-demographic factors that have an effect on individual's response to the environmental changes. Different studies have affirmed that this variable has a direct effect on environmental care. To this end, a study conducted in Nigeria among local communities surrounding protected areas has found out that younger people are more responsive and interested to take care of environmental resources than older persons since they consider environmental resources as lasting source of solution to their growing demands. The study finding also indicated that the younger generation have shown a tendency to act against the dominant social order and opted environmentalism as an outlet (Ogunjinmi *et al*., 2012). Another socio demographic factor is marital status. Studies suggest that marital status of people can have an effect on environmental governance (Karmi, 2013). It is also evident that education of resource users can be of paramount effect on the viability of environmental responses. Thus, educated people are better suited to protect their environment and can more likely to perform better environmental conservation activities than uneducated because they are exposed to knowledge and information regarding environmental degradation and its negative outcomes (Ogunjinmi *et al*., 2012; Howe, 2009). Moreover, educated people are more likely to support conservation efforts than uneducated people. A study conducted in Malaysia through application of Contingent Valuation Method (CVM) to measure the respondents' willingness to pay for conservation of resources in national park revealed that

the higher the education level of visitors, the higher the amount of conservation fee they were willing to pay (Kamri, 2003)

Income is also another variable of interest. There are evidences that people with good income demonstrate better willingness to pay for effectiveness of resources conservation efforts. To this end, a study conducted by Kamri(2013) in Malaysian national park has found out that visitors with higher income have a strong willingness and promised higher amount to pay as extra conservation fee than visitors with lower income(Kamri,203). Hence, income has a direct effect on effectiveness of environmental resource governance. Communities who are benefited from the resources favor improved conservation of those resources while those who were deprived of any benefit from the resources tend to be hostile to conservation objectives. To this end, benefit sharing was found to be a factor that led to improved stakeholder attitude towards better conservation of forest resources (McFarlane, 2000) and became a policy instrument in an attempt to improve the governance of natural resources so that communities could develop sense of ownership (Nkhata *et al*., 2012).

With regard to religion, there are contrasting evidences whether different religious beliefs have a positive effect on peoples' environmental actions and behavior. Some studies suggest that religious people have negative attitude towards environmental conservation while others contend that they have positive contribution in shaping both individual and community behavior towards environmental stewardship (Yang and Huang, 2018**).** However, a study conducted in the UK among members of different religious groups have shown that religious respondents have shown reluctance to the current environmental changes because of their beliefs that there is life after this world. They were not worried about the reported trend of changes in the earth's system because they believed that there is life after death. However, secular participants were reported to show concern over the threat that the planet is experiencing due to unchecked human greed (Hope and Jones, 2014).

Peoples' occupation has an effect on the effectiveness of environmental governance. Since occupation is related to their livelihood, their role in resource conservation can be affected by their occupation (Ezebilo *et al*., 2010). A study conducted in selected urban centers of China has also confirmed that employed respondents had higher odds of pro-environmental behavior than unemployed respondents, asserting that occupation has an effect on env**i**ronmental actions and

attitudes of people (Xiaodong *et al*., 2011). Moreover, social marginalization has a direct effect on the effective governance of environmental resources. A study conducted by Economic & Social Affairs of UN found out that social and economic inequality has found out that social marginalization has a negative effect on environmental sustainability, posing adverse effects on the natural environment (Islam, 2015). Marginalization and inequality lead to resource degradation by limiting the livelihood options of the groups. There are also similar findings that indicate social and economic inequality has a negative impact on achievement of environmental sustainability since the Poor and vulnerable groups heavily rely on unsustainable use of resources (UN, 2013). From the foregoing review of empirical studies, effectiveness of environmental governance being a dependent variable, can be affected either positively or negatively by such socio demographic factors as sex, age, marital status, religion, education, income, benefit sharing, occupation, and social marginalization. However, besides these, this particular study made use of additional variables that have context specific relevance to the study and the diverse socio demographic characteristics of the surveyed households.

2. 5 Theoretical foundations of environmental governance

As an emergent field of study and research, environmental policy and governance has received scholarly attentions in the fields of sociology, environmental economics as well as ecological studies. Some of the relevant theories that can provide a mirror image of the policy and governance aspects of environmental issues are highlighted below on which this particular study is based. Besides making use of the theories to guide it, the study has also finally examined the appropriateness or relevance of the theories to the current discussions of the political economy of environmental governance in the context of Ethiopia.

2.5. 1. Political ecology

1) The concept of political ecology

With the perspective of "political ecology", implying the social and political situations discussing the causes, experiences, and management of environmental problems, there have been various views shared, discussed and debated among different scholars with varying backgrounds in different contexts (Blaikie & Brookfield, 1987; Bryant, 1992; Greenberg & Park, 1994; Zimmerer, 2000). In spite of such works, the concept of political ecology has not been clearly defined and it has no uniform definition. In this regard, Blaikie and Brookfield (1987) conceptualized "political ecology" by combining the concerns of ecology and a broadly defined political economy. Thus, "it consists of the constantly shifting dialectic between society and

land-based resources, and also within classes and groups within society itself." (Blaikie & Brookfield, 1987, p. 17). Viewed from the "politics of ecology", which was emanated from the political activism supporting Deep Green environmentalism and its criticism in relation to modernity and capitalism, Atkinson (1991) defined Political Ecology as "a set of theoretical propositions and ideas on the one hand and a social movement on the other hand, which is referred to as the ecology movement or, later, the Green movement." (Atkinson, 1991, p. 18).

In more general terms, "political ecology" is used to indicate the politics of environmental problems without specific discussion of "ecology." Bryant (1992) for instance describes political ecology as an inquiry into "the political forces, conditions and ramifications of environmental change," and may include studies of environmental impacts from different sources; location-specific aspects of ecological change; and the effects of environmental change on socio-economic and political relationships (p.13). By the same token, Bryant and Bailey (1997) suggest that "political ecology" as a debate focuses on interactions between the state, non-state actors, and the physical environment, whereas "environmental politics" as a debate concerns generally the role of the state (p.190). Given the wider perspective of political ecology definition by Bryant (1992), thus, this study will use it as a working or operational definition of the study.

2) The origin of political ecology

The term political ecology was first used in academic publications in the late 1960s and 1970s (Wolf, 1972; Left, 2012). It came out as specific discipline and a new field of inquiry in the 1960s and 1970s triggered by the eruption of the environmental crisis[8], with the pioneering scholars such as Murray Bookchin, Eric Wolf, Hans Magnus Enzensberger and André Gorz (Left, 2012). Therefore, political ecology as a new field of theoretical inquiry, scientific research and political action begun largely from a neo-Marxist approach to issues that were to configure an ecological knowledge associated with the upsurge of the environmental crisis (Left, 2012). In this case, 1960s was a time when the first discussions of ecology as a science with political content emerged with a growing concern about human impacts on the biophysical environment. Owing to this, "Ecology" was seen as both the study of those impacts and a new philosophical approach to explore people-environment interfaces. Escobar (1999) also noted that political

[8] Environmental crisis is operationally defined as an irreversible negative impact on the natural environment which requires human intervention to mitigate the effects.

ecology began in the 1970s as a method of fusing cultural ecology-anthropologists' empirical studies of local environmental practice with a cross-scale analysis of the political economy.

With this perceptive, the previous political ecologists underlined the philosophical and methodological challenges of "ecology" to the predominant forms of science. René Dubos –the co-author of 'Only One Earth' (Companion book to the 1972 World Conference on the Human Environment), rejected existing scientific approaches for being reductionist (Ward & Dubos, 1972). More specifically, the idea of political ecology that places politics should be `put first' in order to understand how human environment interface can be associated with spread of environmental degradation. Political ecology as a field of study advanced as alternative explanations for those, which have failed to account for the `political sources, conditions and ramifications of environmental change' (Bryant, 1992, p. 13). Thus, its emergence as a field of inquiry was attributed to the first wave of environmentalism of the 1960s with the growing voices on environmental concerns in industrial world and fumed by the publication of Rachel Carson, being a confluence of scientific inquiry between the broader political economy and ecology.

3) Tenets of political ecology and its application to environmental governance

As it has diversified roots of origin, political ecologists are interested to integrate place and non-place-based analysis turned largely to neo-Marxism in the late 1970s and early 1980s (Bryant, 1998). It is argued that at the heart of political ecology lies in the view that politics should be 'put first' to understand how human-environment interactions may be linked (Bryant, 1998). In similar fashion, the third world political ecology being advanced as one field of research aims to relate political-economic and ecological processes, although through a plurality of approaches (Bryant & Bailey, 1997). In this regard, an underlying assumption is that politics and environment are everywhere thoroughly interconnected. As Harvey (1993, p. 25) witnesses,

> …all ecological projects (and arguments) are simultaneously political-economic projects (and arguments) and vice versa. Ecological arguments are never socially neutral any more than socio-political arguments are ecologically neutral. Looking more closely at the way ecology and politics interrelate then becomes imperative if we are to get a better handle on how to approach environmental/ecological questions.

In view of this, Michel Foucault (1980) looks at a fundamental precursor of political ecology by

providing the insight to separate the power relations entrenched in knowledge and in the institutional frameworks that have constrained, repressed and subjugated knowledge for substitutive ways of conservation and construction of sustainable livelihoods. Political ecologists are therefore keen to understand the dynamics and properties of a `politicized environment' (Bryant, 1998). One of the ways in which such an issue can be represented is through what Blaikie (1995) calls `a chain of explanation' surrounding specific environmental problems (Blaikie & Brookfield, 1987). The central notion of political ecologists was from the beginning; they were interested in how national or global economic or legislative processes affected the local environmental practice and equally challenging Malthusian ideas of overpopulation (Bryant, 2001).

The approach was praised as it provided scholars a way to make sense of the 'non-place based' forces (i.e., the practices of transnational corporations) over 'place-based' activities, for example agricultural production (Bryant, 2001). Political ecology places people, places and practices vis-à-vis the broader processes of social and economic changes at different geographic scales (Jarosz, 1996). In this regard, social origins of degradation, the plurality of perceptions and definitions of ecological problems are important considerations (Peet & Watts, 1996). Political ecology develops ecological concepts to answer the inclusion of cultural and political activity within an examination of ecosystems that are significantly but not always entirely socially constructed (Greenberg & Park, 1994).

Although political ecology has been applied in different contexts, it is primarily meant to respond to different ecological problems: population growth, human health, resource scarcity, deforestation, loss of biodiversity, pollution, and climate change. It also argues with different theories, discourses and policies and socio-environmental conflicts (Leff, 2012). Therefore, political ecology is largely supposed to inform environmental policies, however, it emphases on social conflict vis-à-vis the distribution of environmental potentials and ecological costs, rather than in policy-making for ecological planning. Thus, the politicization of ecology is the expression of power struggles and strategies for the re-appropriation of nature (Leff, 2012).

Even though political ecology has been applied in different geographical settings to discuss various socio-economic and environmental problems, this study adopts it as the building block

and/or the major theoretical foundation to guide the study objectives being supported by other theories. In this regard, the central tenets of the theory will help to understand the complex realities surrounding environmental governance in Ethiopia linking micro-meso-macro level issues, on one hand and the diversified interest groups and/or actors in dealing with environmental problems, on the other hand. Therefore, the study has also attempted to examine whether political ecological discussions in the context of Ethiopian environmental policy and governance are relevant or not.

2.5.2. The theory of structuration

Anthony Giddens' theory of structuration has been very prominent in the social sciences for his analysis of the relationship between structure and agency (Giddens, 1984). In this theory, he discussed concepts such as power, identities, contexts, and social systems. The theory came into being in response to the two poles of social theories in 1970s and 80s: the structuralists and the functionalists, on the one hand, and the hermeneutic and interpretive, on the other (Turner, 1986). Structuration theory can be considered as an endeavor to address a central division within the social sciences between those who reflect social phenomena as determined by the influence of 'objective', exogenous social structures and others who see them as products of the action of human 'agents' in the light of their subjective interpretation of the world (Jones & Karsten, 2003, p.5). In his theory, Giddens explains structuration in terms of how human interactions, in and through illustrating on numerous modalities, produce and reproduce social structures (Turner, 1986; Giddens, 1991).

For Giddens, the structuralist and functionalist perspective of "societal totality" disregards the significance of human actions in the constitution of society. On contrary, hermeneutic and interpretive sociologies see actions and connotations only from human conduct and experience and hence ignore "external" factors including contexts and constraints. In Gidden's theory, the concept of society and the study of the social sciences, however, is "neither the experience of the individual actor, nor the existence of any form of societal totality, but social practices ordered across space and time" (Giddens, 1984, p. 2). In the central notion of the theory is the concept of "structure." (Turner, 1986). For Giddens, structure is a fundamental order, which, the structure does not have a physical existence. It is rather demonstrated in and through routinized activities containing the applications of rules and the manipulations of resources (Turner, 1986, p. 972).

The same sources highlight that structure consists of the use of resources, which are the “material equipment” and “organizational capacity” of actors to get things carried out.

According to Giddens (1984, 1991), both rules and resources are “transformational”, in which they can be created, changed and recombined in various forms; and they are “mediating” what actors use to tie social relations. In this case, it is discussed that resources function in interface positions by offering “allocative” (material) and “authoritative” (organizational) “facilitates” for mobilizing “power” (Turner, 1986, p. 972). Therefore, rules and resources are transformed into power, sanctions, and communication among agents in interaction, and in the process, they mediate social relations. By the same token, the theory also postulates the “duality of structure” whereby structuration is a process depending on structural properties that are “both medium and outcome of the practices they recursively organize” (Giddens, 1984, p. 25). In this theory, Giddens, introduced spatial and geographical concepts to elucidate how interactions are regionalized. In this case, he further noted that how agents use their stock of knowledge to define “locales”, which show the wise use of physical space and relevant steps to do so (Giddens, 1984; Turner, 1986).

Furthermore, the concept of structure highlights the role of social interactions in the constitution of society, in relation to the structuralist and functionalist view of “societal totality.” The duality of structure is imperative to Giddens’ claim that “all social research has an inevitably cultural, ethnographic or ‘anthropological’ aspect to it” (Giddens, 1984, p. 284). For Giddens the duality of structure refers to the "essential recursiveness of social life, as constituted in social practices: structure is both medium and outcome of the reproduction of practices" (Giddens, 1984, p. 284). This is mainly due to their mutual interdependency between social phenomena and others such as human agency, social interactions and other “structural properties” and their nexus to “context” and social systems (Giddens, 1984, 1991; Turner, 1986).

In this case, the focus was structuration as an ongoing process rather than structure as a static property of social systems. In order to coin this, Giddens adopts quite specific and nonstandard meanings for certain key terms. These include, 1) structure(s): Rules and resources, organized as properties of social systems. Structure only exists as 'structural properties'; 2) system(s): Reproduced relations between actors or collectivities, organized as regular social practices; and

3) structuration: Conditions governing the continuity or transformation of structures, and therefore the reproduction of social systems (Jones & Karsten, 2003, p 10). In general, in spite of the various critics, this study made use of some of the central ideas of the theory and the basic concepts discussed above in order to explore the wider structural issues that influence environmental governance in Ethiopia. Using the theoretical foundation of the structuration theory, hence, the study has attempted to examine the relevance of the theory in the context of discussions of the political economy of environmental governance in Ethiopia, both from retrospect and prospects.

2.5.3. Actor oriented approach

Unarguably, the structuralist paradigm has dominated geographical investigation during the 1970s. According to Ley (1996), the Marxian analysis in geographical studies continued as a model device where the actors themselves have to say: they become nominal who dutifully act out the roles prepared for them by theorists. This was due mainly to the structural approach that has disregarded human values, concepts, perception and culture. However, it was realized that how relevant human agency is in explaining a social phenomenon. Thus, this has changed the conventional perspective in development discussion and necessitated for an actor-oriented approach, which was reflected in the development thinking (Fazeeha, 1999). In view of this, Nyamu-Musembi (2002) conceptualizes actor-oriented approach as "an understanding of human rights, needs and priorities that is informed by the concrete experiences of the particular actors involved in and who stand to gain directly from, the struggles in question." (Nyamu-Musembi, 2002, p. 1). One of the scholars, Joseph Singer vividly noted the importance of actor oriented perspective in development studies and put as follows:

> When we ask ourselves whether a social or legal practice works, we must ask ourselves, 'works for whom?' Who benefits and who loses from existing political, economic, and legal structures? (Singer, 1989, p.1841).

On this account, an actor-oriented approach focuses on the interplay and mutual determination of "internal" and "external" factors and relationships (Long, 2003; Nyamu-Musembi, 2002). The perspective offers valuable insights into those processes of social constructions. It is an indispensable instrument to understand the "social life" of development projects from idea to realization and reactions and lived experiences of differently located social actors. Apart from this, it helps to theorize how locales interlock with wider frameworks, resource fields and

networks of relations (Long, 1992, 2003). Moreover, an actor-oriented approach requires comprehensive analysis of the various ways through which diverse social actors manage and interpret new elements in their life-worlds; an understanding of the organizing, strategic and interpretative elements involved, and a deconstruction of conventional notions of planned interventions (Long & Long, 1992).

The central ideal of this is that, social life is diverse and it is essential to study how such differences are produced and social processes involved. Therefore, dealing with such issues require a theory of agency and social action. Social action consists of networks of relations and unique to a given context. In this regard, an actor-oriented approach highlights on the importance of "human agency" It also focuses on human dimensions; the role of actors, examination of information links and social power associations between them and self-organizing processes, and the mutual determination of so-called "internal" and "external" factors and relationships (Long, 1992, 2003). How intervention can be planned, and how and why information is used or not used for different purpose is addressed (Long, 1992, 2003).

From this perspective, it can be argued that how important human actions are to understand a change. Nevertheless, in understanding a particular social phenomenon, it is indispensable to view both the role of structures and actors (in terms of agency). In this case, structuration theory stands as a middle ground theory that focuses on the role of both structure and actors (Fazeeha, 1999). By the same token, Long (1992) highlights that it is vital to explore that 'agency' must not simply be equated with decision-making capacities. Effective agency requires organizing capacities; it is not only the result of possessing certain persuasive powers or forms of charisma. Therefore, the ability to influence others or to pass on a command rests fundamentally on 'the actions of a chain of agents each of whom "translates" it in accordance with his and her own projects…and power is composed here and now by enrolling many actors in a given political and social scheme (Long, 1992, p. 23). On this account, effective agency thus needs the strategic generation of a network of social relations and the channeling of specific items through certain 'nodal points' of interaction (Long, 1992, pp. 23-24).

In terms of who the actors are, the conventional wisdom provides detailed information about the state, market and the wider public interactions in studying social, economic and environmental

issues in various settings. However, several scholars such as (Saleth & Dinar, 2000; Pigram, 2001; Mossberger & Wolman, 2003; Allan, 2003) contend that actors in environmental governance are not simply limited to the so called state, market and the civil society segments, they rather argue that there is a fluidity among the three segments in dealing with environmental problems and challenges whereby the complex interaction necessities and defines the nature and type of actors. Accordingly, they classify actors of environmental governance as the conventional (state, market and the civil society) as a major pillars of actors; whereas, the hydride of state-community interaction, community-market interaction, and state market interactions produce a blend of multiple actors with distinct characteristics that shape their governance interaction based on their specific context and interest (Saleth & Dinar, 2000; Pigram, 2001; Mossberger & Wolman, 2003; Allan, 2003).

In view of this, the study of environmental governance, like the one at hand with a synergetic perspective (i.e., linking the local level realities with regional and national levels), is thus imperative to explore the various actors involved in governing the environment and the complex interactions that contribute both positively and negatively towards effectiveness of environmental governance. On the account of this, the actor-oriented perspective is a very relevant approach to studies that involve analysis of the interplay of different stakeholders; the inherent power relations among them, and the available options as well as constraints. This study, therefore, adopts the actor oriented approach as a supplementary perspective to comprehensively look into the study objectives and help to arrive at valid conclusions. Moreover, the study also tried to discuss the direct relevance of actor oriented approach to the discussions of the political economy of EG in Ethiopia from different dimensions.

In this study, therefore, three of the theories discussed above were reviewed, used as theoretical frameworks to guide the study objectives to thoroughly explore the multidimensionality of environmental governance, and examined the relevance of each theory/approach to such policy laden study of the political economy of environmental governance, particularly, the historical trends, actors and institutions, drivers as well as determinants in Ethiopian context.

2.6 Review of empirical studies of environmental governance in Ethiopia

Environmental governance is an emergent field of study, which has recently been attracting the attention of academics, policy makers, NGOs, business organizations and multilateral

institutions. Thus, the fact that Ethiopia is a signatory of many multilateral agreements and the level of fast environmental degradation witnessed in the country has also been triggering researches with varying degree of focus. As indicated in (Section 1.2), problems related to environmental quality are immense in Ethiopia. Hence, there have been a number of empirical studies that attempted to explore the causes and effects of those problems from different perspectives. Review of some of these empirical studies has indicated that the contribution of the studies in terms of their findings to the country's policy and implementation problems is significant. Moreover, their contribution with regard to methodological approaches, tools and theoretical perspectives is also vital to both policy actions and further studies in this inadequately researched area. Even though there are scant studies related to environmental governance, some of the recently conducted researches in the context of Ethiopia's environmental governance are reviewed to make theoretical and methodological connections to this PhD research. As this particular study tries to approach environmental policy and governance from its historical trend and evolution over the last three regimes, institutional set up and actor constellation as well as drivers and determinants of policy making and governance, review of relevant studies was conducted so as to identify the gaps in terms of methodology, theory, scope, and content.

The bulk of studies in Ethiopia are characterized by their tendency to focus on individual and sensitive environmental problems with an inclination towards hard science, such as waste treatment, water pollution and its management problems, soil and biodiversity degradation, etc. To mention some of these; 'Physico-chemical pollution pattern in Akaki River basin, Addis Ababa, Ethiopia (Ferezer, 2012), 'Waste management in Ethiopia' (Cheever, 2011), 'Liquid waste management in Bahir Dar city (Fisseha, 2012), Survey on the usage of plastic bags, their disposal and adverse impacts on environment in Jimma City (Legesse & Diriba, 2011), Households' WTP for Improved Urban Waste Management in Mekelle City (Dagnew *et al*., 2012), are a few among others. Hence, these are some of the studies that have gone deep in to specific problems of environmental degradation with little or no attempt to see the policy and governance aspect. However, there are studies that have attempted to approach the policy trends and governance aspect in one or the other way.

With regard to historical trends of environmental policy making and governance in Ethiopia, Ruffeis *et al*. (2010) have conducted a broad study by applying a chronological qualitative

review of Ethiopia's environmental policies and laws. This study has attempted to see the historical evolution of significant milestones of environmental policies and laws and tried to show the institutional dynamisms and their effect as well as the role of actors in influencing the policy process. Mulugeta, (2012) and Hoben, (1995) have attempted to see the policy making trends over different time scales with a specific focus on land based resources. In more broad terms, Hoben (1995) and Scoones and Keely (2003) have attempted to portray the process and paradigm of environmental policy making.

However, Bekele (2008) attempted to provide a broader picture of different policies and strategies that have been enacted by successive governments and outcomes as well as challenges of these polices in curbing environmental problems, with major focus still lies on land based resources. Studies conducted by Dessalegn (2001) and Dessalegn *et al*. (2007) have also provided better evidence on trends of policy making and governance in Ethiopia across different political regimes. These studies illustrated policy trends making connections to population and development. However, most studies that attempted to indicate policy trends have focused either on forestry or wildlife other than broad environmental policy issues (Abraha, 1991; Alemayehu, 2014; Alemayehu, Arts & Wiersum, 2012; Amonge, 2013; Bane *et al*., 2008; Berhanu, 2009; Challa, 2015). Hence, despite some attempts to explore historical trends of policy making, the studies were limited to policies in relation to specific issues while their methodological focus was mainly based on review of documented sources.

In terms of exploring the governance of environment, most studies focused on implementation of EIA law. To these studies, effectiveness of environmental governance was seen from the angle of EIA law enforcement because it was considered as one of the major regulatory areas with strong effect on achieving compliance and curbing the multiple social, economic and environmental harms triggered by initiation of development projects (Tesfaye, 2012; Mellesie & Mesfin, 2008; Ruffeis *et al*., 2010; Dejene, 2013; Mulugeta, 2013; Adugna, 2016; Kidane, 2016) and hence these studies have tended to conclude the effective implementation of EIA as synonymous with effective environmental governance. However, a study conducted by Kidane (2016), though focused on EIA as a case study, is the comprehensive one that attempted to portray the broader issues and gaps in environmental policy implementation through the lens of implementation challenges of EIA laws. On the other hand, the issue of governance is dealt with respect to the

effective management of specific resources such as forest and wildlife as well as soil and water conservation.

Since Ethiopia is an agrarian country and the broader view of environmental policy and governance is only a recent phenomenon, studies related to the governance of land based resources hugely surpass those outside of it. To this end, there were numerous studies focusing on the governance and conservation of forestry (Teklu, 2006; Stellmacher, 2007; Tibebwa & Negusu, 2009; Steelmaker & Nolten, 2010) soil and water conservation (Tato, 1990; Zemenfes,1995; Bekele & Holden, 1998; Tesfaye, 2003; Tizale, 2007), and wildlife or park governance (Hurni *et al*., (unknown), Abiyot, 2009; Asebe, 2011; Asebe, 2012; Demeke & Afework, 2013; Nishizaki, 2014; Alemayehu & Mathewos, 2015; Alemneh, 2015). Therefore, all of the studies which have focused on the effectiveness of governance were either limited to implementation of a single EIA law or opted to have a narrow scope in dealing with governance of environmental resources such as forest, wildlife, soil and water.

There are a few studies in relation to the role of actors and institutional setup. A study conducted in the northern highlands emphasized institutional problems as an underlying cause for environmental degradation, weak devolution of power, lack of awareness and policy knowledge (Adugnaw, 2014). In a similar fashion, Jones and Carabine (2013) in their study on the process of the CRGE strategy of the country have emphasized on institutions and actors related to the problems associated to policy formulation and implementation. They further attempted to view the execution capacity limitations as well as the gaps observed during the policy formulation in which the local levels and relevant actors were marginalized. Studies conducted by Melese (2008), and Melese and Solomon (2012) were country wide in scope and captured issues of institutional arrangements, roles of actors, mandate distribution, institutional limitations and weak implementation of laws including reasons for regulatory failures. On the other hand, Sisay *et al*. (2016) conducted an ecology based study with a focus on forest governance but covered wide area that ranged over five regions and the federal government institutions whereas Fante (2015) focused on institutional arrangements with specific attention on REDD+. Though most studies have limitations in placing focus on specific areas (e.g., Fante, 2015; Sisay *et al*., 2016; Hurni, unknown), there are few studies relatively broad and provide more or less complete picture of environmental institutions in Ethiopia (Melese, 2008; Melese & Solomon, 2012).

There are nearly no studies attempted to capture the drivers of environmental responses in Ethiopia. Even though drivers of environmental policy and legal responses have not attracted a full-fledged study, different studies with different motives have considered the issue of major driving causes in Ethiopia's environmental policy landscape. For instance, Dessalegn, Yeraswork and Yared (2007) in their endeavor to study the integrated implication of Population, Health and Environment in Ethiopia, have given emphasis to the driving causes behind environmental responses during different political regimes. Likewise, Amonge (2014) and Alemayehu (2014) have also highlighted the policy paradigms and major drivers behind environmental policy responses, particularly land based resources, across different political periods. De Waal (1991), Kebede (1992), and Jones & Carabine (2013) have also attempted to emphasize the driving causes of government policies towards environmental protection emphasizing on donor interests, the need for rapid economic development, and the drought and resulting famines.

From the above brief reviews, it can be noted that the studies have attempted to examine environmental policy and governance either from the angle of specific environmental resource governance or through examining the effectiveness of EIA practice as a major regulatory tool. Even if there were a few studies that have better approached the issue of policy trends and governance, all of the studies have major limitations in common.

In terms of scope, most of the studies have been limited to specific and narrow study areas which lack a national and policy wide perspective. Those studies with wider geographic coverage have limitations in terms of being specific in content, focusing either on institutional set up, or governance of land based resources, and did not capture the broader environmental policy and governance issues as well as long term trends that have implications on the current trends of policy making and governance. In terms of methodology, most of the studies have followed qualitative approach and document reviews, with little or no attempt to capture the issues through quantitative techniques, which could fill the evidence gap due to lack of adequately recorded evidences in this relatively new policy area. In the context of the complexity and intricacy of environmental governance issues, it is not adequate to apply a single methodological approach, which cannot yield sufficient and measurable outcomes.

Therefore, this PhD dissertation attempted to fill these limitations by approaching the policy and governance trends from historical perspective encompassing the broader aspect of environment, being not limited to land resources. By focusing on the effectiveness of environmental governance through looking in to the wider context of the political economy of policy making, it attempted to fill the gaps by bringing evidences on trends, drivers, actors and institutions of environmental governance while measuring the current governance performance of the country, where Ethiopia has attained the holistic environmental perspective that pinpoints on the integration of the environmental, social and economic policies at large.

Methodologically, the study attempted to fill the existing gap by combining qualitative and quantitative techniques. Besides addressing most of the study objectives through qualitative data and document review, the study identified multiple indicators of effective environmental governance to determine whether the country's environmental governance has been effective or not; and produced a composite index to measure the country's governance performance. On top of this, determinants of EEG were identified by employing a binary logit model in order to guide future policy interventions. In order to guide the study, three theoretical frameworks were reviewed namely, political ecology, theory of structuration and actor oriented approach, considering the broad and complex nature of the issue at hand. In general, even though the empirical studies have provided important evidences, this particular study in turn will have a significance in filling the gaps observed mainly in terms of scope, content, and methodology, as discussed above.

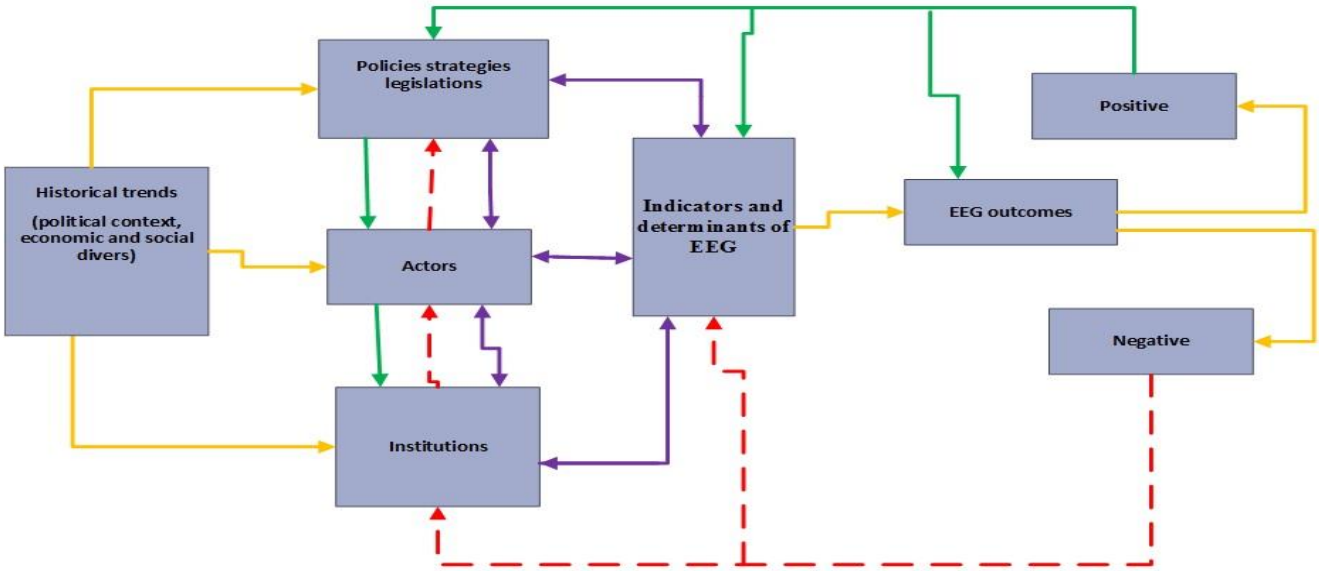
2.7. Conceptual framework of the study

The following conceptual framework was primarily designed to guide the research work, which shows the complex and multiple webs of interactions between and among the major components and/or objectives. In this regard, the first part of the framework, 'historical and political development of environmental policy and governance', is a vital component that describes the overall historical trends and evolution of environmental discourse, policy narratives, tendencies and conceptualization of environment as a whole, and resultant policy formulation at different political regimes and ideological orientations over the past five decades in Ethiopia. In terms of time, the historical trend analysis focused on the Imperial era (before and after Italian invasion) and the Military Dergue era. The current trend has represented the policy making and governance performance since the transition period (1992) until today. Thus, as shown in the

figure, historical trends of policy making has direct influence on the policies, strategies and legislations by shaping the policy narrative and the political economy of policy making and governance. It also affects the institutional setup and actor roles as well as actor constellation throughout the three periods since the narrow and land based conceptualization of environment has limited the institutionalization process to be confined to MoA and affected actor participation to be state centric. Again, the three components (policy and legislation; actors; and institutional components) being influenced by historical trends (component 1) influence one another and further affected the determinants as well as indicator components of environmental governance of the current period, which again affected the current EG outcome.

As shown in the figure, the governance outcome, being under the resultant influence of the other components, became either positive or negative whose effect in turn will go back to influence all other components except historical trends, either positively or negatively. When the outcome is positive (i.e., effective), its influence goes back to the three components, (Policy, strategy and legislation; actors; and institutions) triggering reinforcement on these components. In contrast, when the governance outcome turns to be negative (i.e., ineffective), its influence goes back to these components forcing interventions directed towards amelioration or correction of these policy components.

Therefore, from the framework, it is clear that the historical context of EP and EG, has had a strong effect and played a foundational role in shaping the subsequent phases of governance components until the current period. In other words, the political trends, being driven by the ideological orientations and socio-economic realities of the respective regimes, have had a lasting mark on shaping the type, nature, and role of institutions, actors, policies and legal frameworks, and indicators as well as determinants of environmental governance being shown in solid line. The back and forth effect relationship is shown by solid and broken lines and arrows, which is to mean that the solid line indicates the direct and strong forward and backward relationship while the broken lines and arrows indicate the impact of negative EG outcomes leading to improvement in those components. The double arrows indicate mutual exchange of influence between two components. In general, the political and historical trends and drivers, once laid strong foundations, have been influencing the other factors in shaping the political economy of environmental governance across regimes from emperor era to EPRDF era.



Source: Own Construction (2019)
Figure 2. 2 Conceptual framework of the study

Note: The arrows in the conceptual framework are meant to show the following relationships between and among the major components. The orange arrow shows a unidirectional relationship between two components where one influences the other. Similarly, the brown and double speared arrow portrays a bi-directional and/or cause-effect relationship between two components in which one influences the other and vice versa. The green arrow indicates the influence coming from the governance outcome that is positive, which is a feedback arrow that shows the need to further reinforce those major components since the outcome is effective or positive EG. Likewise, the broken red arrow comes back from the outcome component to the major components except component one, indicating the need for further strong intervention that could improve or ameliorate the current negative outcome situation. Thus, it is also a feedback indicator showing the need to change the corresponding components.

CHAPTER THREE: METHODOLOGY OF THE STUDY

3.1 Description of the study areas

Since the study deals with the political economy of environmental governance in Ethiopia, it included cases from local levels of selected regions in order to link the federal level realities with the local ones. Therefore, the selected regions and sites include, Oromia regional state (focusing on Kereyu pastoralist communities from East Shewa zone), SNNPR (Esera and Tocha *weredas* around Chebera Churchura national park from Dawro Zone), Amhara region (focusing on integrated natural resource management practice in Asagirt *wereda* of North Shewa zone), and Addis Ababa city administration which includes the federal level institutions (Figure 3.1). The profile of the specific study areas is, hence, briefly presented in the following sections.

Fentale *wereda,* being the home of Kereyu pastoralist communities, is one among thirteen *weredas* of East Shewa zone of Oromia regional state (CSA, 2013). It is located in the eastern part of the zone bordering Arsi zone in the southeast, Adama Boset in the southwest, Amhara region in the northwest, and Afar region in the northeast (Shimelis & Dafa, 2009). It is located 102 Kms away from Adama city (FRDO, 2017). The total population of the *wereda* was estimated to be 101,567 out of which male population accounts 53,459 while 48,108 are female (CSA, 2013). The *wereda* is characterized by dry climatic conditions and the altitude ranges from 900 to 1000 meters above sea level where as mount Fentale is the highest point with an altitude of 2007 meters above sea level (Jacobs and Schloeder, 1993). It is located in the great African Rift Valley characterized by active geological movements where there are several hot springs and Lake Basaka (Jacobs and Schloeder, 1993).

The drainage of the area includes Awash and Germama rivers while Lake Basaqa is an important water body (Shimelis and Dafa, 2009). The *wereda* is distinguished for its location around one of the oldest national parks of Ethiopia, Awash NP in the North, where some of the kebeles are directly sharing border with it (FRDO, 2017). As evidences indicate, the land area of the *wereda* being hot and semi-arid has some 8.2% arable land, 7.6% for pasture, 28.8% forested land, and the rest of 55.4% is unused and degraded land (FRDO, 2017). The economic activity and lifestyle of the people is mainly pastoral herding being practiced in 11 of the 18 kebeles of the *wereda* (FRDO, 2017). The pastoral livelihood of the Kereyu community is characterized by rearing of animals such as camels, goats, and cattle. The herding practice is characterized by

seasonal migration to the nearby areas of Boset and this extends as farther as to Arsi Negele during the lengthy dry seasons (FRDO, 2017). Besides livestock, the herders rely on the sales of forest products for firewood and charcoal production from the forest mainly covered by acacia trees (Shimelis & Dafa, 2009). Thus, the pressure on the local forests and the Awash National Park is evident since their demand for both pasture and firewood is dependent on the resources in and around the park.

The other study site is located around Chebera Churchura National park, Dawro zone, which included Esera and Tocha *wereda* communities. Esera and Tocha *wereda s* are two among the five *wereda s* in Dawro Zone, SNNPR, which is one among the 13 zonal administrations in the SNNPR (CSA, 2013) located west of Omo River at the distance of 438 KMs southwest of Addis Ababa (Terefe & Mberengwa, 2012). The two *wereda s* are characterized by traditionally known three agro ecological zones of lowland, midland and highland with 500-1500, 1500- 2500, and above 2500 meters above sea level respectively (Terefe & Mberengwa, 2012). The *wereda s* are endowed with rich flora and faunal resources characterized by a mosaic of Afromontane and riverine forests, grassland, woodlands and shrubs which are habitats of several wild animals such as African elephant, African buffalo, hippopotamus, lion, spotted hyena, wild dog, and vervet monkey among others (Aberham, 2016). The population of Esera and Tocha *wereda* was estimated to be 75,922 (38,232 males and 37,690 females) and 120,364 (61,236 males and 59,128 females), respectively (CSA, 2013) and the economic activity is mainly agriculture predominantly known for production of wheat, barley, teff, beans, peas, sourgham, whereas Enset is the main staple food widely cultivated and used for multipurpose feeding (Alemayehu, 2017).

The area is considered as one of the sparsely populated corridors with vast size of arable land, most of which is covered by savanna grassland and forests (Terefe & Mberengwa, 2012). According to Terefe and Mberengwa (2012), the wild spice and honey harvesting is the common way of supplementing agriculture based livelihood. Besides agriculture, most of the residents have depended on natural resources mainly on forest products such as coal production, timber, honey harvesting, wild spices, wild coffee, and illegal hunting for bush meat and ornamental hides. It is the one of the most food secured areas where the intra-regional resettlement program was conducted in 2004 (Terefe & Mberengwa, 2012). After a long trend of reckless deforestation

which had resulted in devastation of vast size of forests, Participatory forest management and reforestation activities have recently been underway in order to restore the forest cover. As some of the kebeles from these two adjacent *wereda s* share an intricate and wide stretch of border with the CCNP, resource conflict is common in the area that threatens the viability of the conservation efforts of the park (Aberham, 2016). The CCNP was designated in 2007 within a total area of 1215 km2 (Aberham, *et al*., 2018) that borders three *wereda s* of Esera, Tocha, and Konta special *wereda* (Alemneh, 2015). It is specially known for being a habitat of about 37 larger mammals and 237 species of birds. It is well known for the population of five famous mammals such as African elephant, African buffalo, Lion and Hippopotamus (Alemneh, 2015). The wide area of savannah grassland combined with dense forests has a rich natural resource base endowed with rich spices, wild coffee, wild honey, and many other useful floral and faunal lives (Aberham *et al*., 2017).

Asagirt *wereda* is one among twenty-three *wereda s* of the North Shewa zone, Amhara Regional State (CSA, 2013). It is located at the distance of 56 KMs from Debre Berhan, the zonal capital (Eyob, 2015). The *wereda* shares borders with Hageremariam Kesem on the southwest, Angolala Tera on the northeast, Basona Werana on the north, Ankober on the northeast, Berehet *wereda* on the southeast and Afar region on the east (Barne, 2010). The recent projection indicates the total population of the *wereda* is 54,538 of which 24,674 are men and 26,864 are women (CSA, 2013). It has three agro ecological zones namely *highland*, *midland* and *lowland* (Eyob, 2015). The main economic activity is agriculture where crops such as teff and lentil are widely cultivated. Due to continued and long term land degradation, the *wereda* has been categorized as one of the food insecure areas (Barne, 2010) where watershed management is widely undertaken by communities and *wereda* government and people are engaged in planned soil and water conservation measures both at communal and private plots. The *wereda,* representing the upland agrarian typology of the study, has been one of the crop producing areas in the region with severe soil erosion and loss of vegetation cover before the initiation of the concerted SWC measures.

Addis Ababa city administration, being the economic and political hub of the Federal democratic Republic of Ethiopia (Leulseged, *et al*., 2012) was purposively selected as one of the study sites representing institutional concentration of the federal government on the one hand, and urban

industrial typology, on the other hand. The city is located in the central Shewa plateau at an altitude of 2,408 meters covering a total area of 527 km^2. It is the center for numerous regional and international organizations including the African Union (UN-HABITAT, 2003). Its administrative structure is divided in to three layers namely, the City administration, sub-city administration and *wereda* administration (Leuleseged, *et al*., 2012). With an estimated total population of 3,194,999 out of which male are 1,515,001 and female are 1, 679, 99; it is divided in to ten sub city administrative structures (CSA, 2013). The city being the center for country - wide political and economic activities, it accommodates about 65 % of the industries of the country (Gebre & Rooijen, 2009), and accounts for one fifth of the total national GDP (Alaci, 2010).

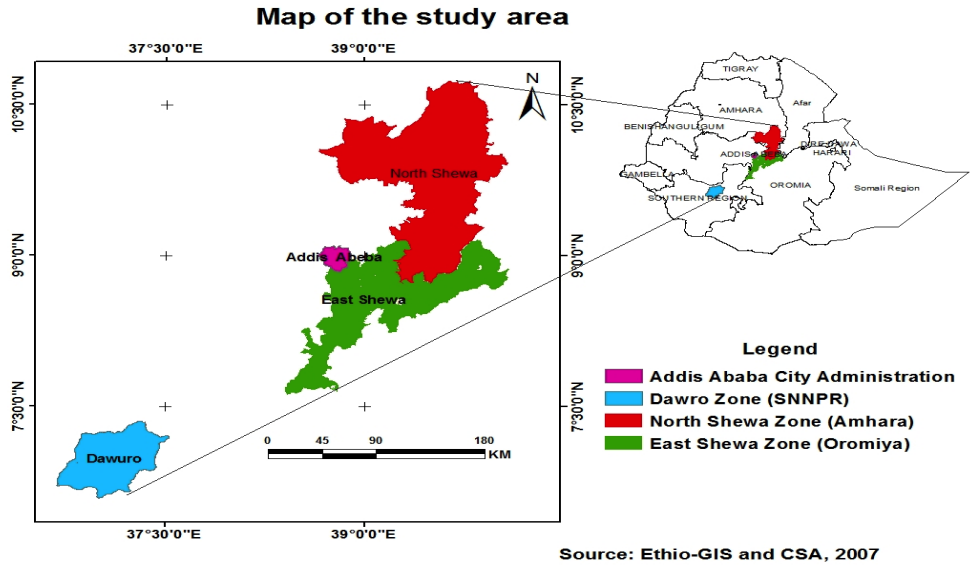


Figure 3. 1 Location of the study areas

3.2 Research design and justification

Being a macro level policy research, this study attempted to capture both the retrospective and current issues of environmental governance in Ethiopia. Due to the scope of the study that was aimed to capture issues from wide temporal and spatial scales on the one hand, and the complex nature of environmental issues on the other hand, the study followed a pragmatic approach of research which helps to apply multiple tools and methods to arrive at valid conclusions. Thus, **t**his study adopted a mixed research design to broadly guide the objectives. Particularly, mixing of the design was to triangulate the data to be generated from multiple sources and tires of administrations in order to comprehensively explore the study objectives and draw valid

conclusions. Among the various strands of mixed research design, the study used concurrent research design where both qualitative information and quantitative data were collected simultaneously. Since the study objectives could primarily be captured by qualitative information, thus, more weight was given to qualitative studies and it was complemented by findings from the quantitative study. In this regard, the quantitative aspect of the study was mainly used to develop EG index and see the effectiveness of environmental governance through identifying the determinant variables as well as assessing the role of local people in the governance of environmental resources in the context of communities around CCNP. The study applied cross sectional research design to collect data from sampled population.

3.3. Data sources

Primary data was collected from senior federal government officials, regional heads of EPA (or its equivalent), zonal and *wereda* representatives and experts from environment and agriculture sectors as well as local communities in four selected regions including Addis Ababa city administration. Secondary data was collected from relevant government ministries and offices across tiers while the bulk of archival data were accessed from federal and regional relevant offices.

3.4 Sampling strategy, sample size and site selection

Selection of survey sites, experts, key informants, and participants for group discussions was done by employing a purposive sampling technique. In other words, since the study was meant to capture the broad and complex issue of EG that requires inclusion of diverse geographic and socio-economic as well as cultural contexts, which were categorized in certain typologies, selection of the study sites was done purposively. However, from purposively selected study sites, upon determination of the sample size for quantitative survey, the ultimate units of the study were selected on random basis using probability sampling method.

Selection of federal level institutions:

Relevant Federal level institutions that were thought to provide information to the study objectives were chosen purposively. In this case, federal institutions such as MoEFCC, MoANR, BDI, Ethiopian Wildlife Conservation Authority (EWCA), and National CRGE secretariat were selected for their indispensable roles in the policy formulation and execution of the environmental governance across the country. Two private companies/industrial plants in Addis Ababa (Cheralya food processing and Ayka Addis textile factory) were purposively selected to

represent private companies with environmental impact. Forum for social studies (FSS) and forum for environment were selected to generate information representing research institution and environmental civil society group respectively.

Selection of regions/city administration for case studies:

Among the nine regions of the country, Oromia, Amhara, SNNPR and Addis Ababa city were selected purposively. Selection of these regions and specific sites within the regions was guided by developing some five different typologies that were aimed to be inclusive of major and diverse geographic and social contexts of EG studies. These typologies were: Institutional concentration typology, urban industrial typology, upland agrarian typology, pastoral community typology, and protected area or resource conflict typology. Hence, The federal level was selected to represent Institutional concentration typology**;** Addis Ababa city was selected to represent the urban industrial typology; Asagirt *Wereda* in North Shewa Zone of Amhara Region was included to represent the upland agrarian typology; Fentale pastoralist *wereda* of Kereyou communities in Oromia regional state and adjacent to Awash national park was selected to capture the wider perspectives of governance in pastoralist community context, and finally, Esera and Tocha *weredas* from Dawro Zone of SNNP Region, which are adjacent to Chebera Churchura national park were selected to represent the protected area or resource conflict typology. The selection of Chebera Churchura national park, besides generation of the required data for computation of EG index and determinants, was mainly to represent the extent of local community participation in relation to natural resource management as well as synergy of policy and practices at different tiers of administration. Hence, the sample selection was based on this reality, which was purposive.

Sample size determination:

The overall sample size for the survey was determined by using the sample size determination equation that takes into account the desired confidence level (95 %), error margin (5%), and non-response rate (10%) where the exact number of households in each *Wereda* or the sampling frame is known (i.e., 8,350 households). The sampling frame was based on the household number of kebeles identified from both Fentale (pastoralists) living adjacent to Awash NP and Dawro communities near CCNP where resource conflict and governance dispute was widely

evident. The required sample size was determined by using Kothari (2004) sample size determination formula equation (3.1).

$$n = \frac{Z^2\, p * q * N}{e^2\ (N-1) + Z^2 * p * q} \qquad (3.1)$$

Where: *n* is the required sample size. Z = Z value (e.g. 1.96 for 95% confidence level); p = percentage picking a choice, expressed as decimal (0.5 used for sample size needed); q the percentage of not picking a choice (1-q); e = error margin, expressed as decimal (e.g., 0.05 = ±5); N (the sampling frame, total number of HHs in the purposively selected sites=*8350*), and 10 % contingency for a non-response rate. As a result, the required sample size for the study was 367 + 10 % (37), totaling 404 households. Since the two communities represent two distinct contexts or typologies of the study as indicated above, which were purposively chosen, taking an equal size of samples from these two different communities was imperative for the purpose of comparison and representation of distinct governance typologies, 202 HHs were taken from each, totaling 404. Among these, 2 households were dropped during data management due to errors and hence the survey result was based on the responses of 402 households.

Undertaking survey:

Household survey was carried out in the case study sites of Kereyou pastoralist communities from Oromia region and farming communities from Dawro Zone surrounding the Chebera Churchura national park. While the bulk of quantitative data was generated from the rural households as mentioned above, the in-depth qualitative data was generated from communities and key individuals of the two case study sites (Asagirt *Wereda* of North Shewa Zone, Amhara Regional state, and two sub cities of Addis Ababa City Administration- Akaki kality and Kolfe keranio) whose in-depth qualitative information was deemed to complement the household survey generated from the rural communities so as to make the findings complete and conclusive to the wider context. Combining the data (qualitative information and quantitative data) from all the case study communities or sites was primarily to capture the wider perspectives of the political economy of environmental governance in Ethiopia in synergetic ways and enable the study to arrive at valid conclusions. Hence, it was based on the belief that the study findings from these four regions of diverse geographic contexts would be able to show and represent the overall picture of environmental performance of the country.

With regard to the household survey, the selection of ultimate units in the two study sites was done by using a random sampling technique which included a total of ten randomly selected kebeles (five from Fentale and Five from Dawro). The household survey was conducted to serve the generation of quantitative data to construct a composite index of the effectiveness of environmental governance (EEG) and the corresponding determinants using binary logit model. Furthermore, the quantitative data was used to address the community level study which dealt with comparison of community participation in park and non-park based resources around Chebera Churchura national park where separate questions were administered to the 202 households, in addition to those similar questions to Kereyou communities.

3.5. Instruments of data collection

Besides the quantitative household survey, a range of qualitative data collection instruments were used to carry out data triangulation and to arrive at valid conclusions. Hence, the instruments under these two categories are described as follows:

3.5.1 Qualitative data collection instruments

In order to generate an in-depth qualitative information on the study objectives, widely applied data collection instruments such as key informant interview, expert interview, focus group discussion, and field observation were used, which are presented below.

3.5.1.1 Key Informant Interview

Qualitative data were collected from key individuals, officials, community leaders, and experts drawn from federal, regional and local level institutions with pertinent connection to the study objectives. At the federal level, the interview included key policy personnel from Ministry of Forest and Climate Change, Ministry of Agriculture and Natural Resources, National Biodiversity Institute, National Wildlife Conservation Authority, Addis Ababa city EPA, Forum for Social Studies (FSS), CRGE coordinating council representative from the Prime Minister's office, and Key person who took part during the guerrilla struggle of TPLF where environmental resource rehabilitation was carried out in rebel held areas of the northern part of the country whose experiences were included in the study to draw the historical background of the EPRDF led government's governance trends in current Ethiopia. Furthermore, key individuals and scholars who had been working with the government of Ethiopia on environmental policy and legislation, and had significant marks on the current EG and EP of the country were also

interviewed. Individuals who were in the ministry or EPA but currently not, and individuals who had certain influence in policy and implementation of environmental protection were identified, accessed and contacted for an in-depth interview.

At regional level, heads of environmental institutions (the nomenclature varies from region to region), were included both in Oromia, Amhara and SNNPR. Similarly, the respective representative offices of these institutions down the Zonal and *Weredas* administration in SNNPR, Oromia, Amhara regions and Addis Ababa city were contacted. The KII was focused on the trends of environmental policy making and governance as well as institutionalization of environmental mandates over the three regimes, institutional setup and the effect of its dynamics in recent years, the role and influence of actors including the role of wider public; the local participation and enforcement of environmental regulations, the challenges and successes of the policy across different tiers of administration, and local people's role as well as breadth and width of decision making platforms with regard to locally available resources both in terms of protected areas and community managed resources. Their views were also considered to be important to triangulate with the quantitative findings in relation to the effectiveness of EG in the country. Moreover, special emphasis was given to the views of experts from five purposively selected federal level (private and state) institutions whereby one from each institution was interviewed. The primary purpose of this was to find out expert opinion on issues related to institutional dynamics and its implications to the current EG performance in the country. In general, a total of forty KIIs were conducted. To maintain anonymity, KIs were coded and cited in the text accordingly (see appendix VIII for full list of codes of KIs).

3.5.1.3 Focus Group Discussion

Focus group discussions were organized to collect necessary information at community level. To this end, two community groups in each study kebele of Esera and Tocha *weredas* at Chebera Churchura national park, Fentale *wereda* of Kereyou pastoralist communities, Asagirt *wereda* of North Shewa zone in Amhara regional state, and two *weredas* of Addis Ababa City administration were organized and relevant data was collected from communities. The participants were drawn from those community members with direct relation to the study objectives. In Dawro zone, six community FGDs were conducted in two study *weredas* adjacent to the CCNP with a focus on environmental resource governance, the role of different tiers of

government, other relevant actors and the role of community in the governance of both park based and non-park resources. In Fentale *wereda* of Oromia region, three pastoral community FGDs were conducted with a focus on resource use and governance, role of different actors, responses to the livelihood issues, governance of park resources and benefit arrangements if there was any. Communities in the surrounding of selected industrial plants in Addis Ababa were contacted in order to obtain pertinent information in relation to the community participation, knowledge, role, and above all, their perception towards the degradation of environment because of those projects including the role of environmental institutions in curbing the ongoing degradation of environment due to the polluting industries, the enforcement of environmental laws and the functioning of the institutions. In Asagirt *Wereda*, based on selected watershed area, communities engaged in soil and water conservation works were contacted.

Moreover, in areas where there are national parks, the harmony of environmental governance between the local and upper echelons, the mode of governance applied for park resource conservation, and the actual effects of this approach on the lives and livelihoods of adjacent communities as well as the existing reaction among communities towards the conservation objectives were given due attention. Hence, different sets of decision making in terms of resource conservation and use, benefit sharing, and level of ownership were attempted to capture through community discussions. In industrial area, the details of environmental, social, economic and health effects of those industries on the dwellers and their natural environment, and the level of their role as well as the effect of environmental management being practiced by the industries was thoroughly studied through collecting adequate data from the communities by using unstructured questionnaire. In view of this, a total of sixteen FGDs were carried out.

3.5.1.4 Field Observation

Field observation was conducted in the four of the case study sites by using observation checklist in order to get clear and actual view of the environmental governance processes, effects, and hence to check the reality on the ground. Relevant photos and videos of the actual processes were recorded and used as corroborative evidences.

3.5.2 Household Survey

Quantitative data pertaining to the two study objectives, chapter six and seven, was collected by using structured questionnaire. Households in two selected case study sites (Kereyou pastoralist

and Dawro farming communities) were surveyed in order to generate numeric data in relation to the effectiveness of EG (third objective), and role of local communities in environmental resource governance (fourth objective), which were supported by depth of qualitative information collected from the remaining two selected communities (Addis Ababa City administration and Asagirt *Wereda)* in the case of objective three. The primary purpose of the survey from 404 HHs was to assess the effectiveness of environmental governance and to develop an index of EEG.

Moreover, it was intended to generate descriptive data for the other study objective that dealt with the role of local communities in resource governance in the case of Dawro communities, which was aimed to complement the bulk of qualitative data gathered from the locals. Though quantitative data was collected from two sets of communities (Fentale and Dawro), additional and different set of questions were administered for Dawro community in order to capture the community level study objective. Hence, households of Dawro community have provided additional data on the dichotomous nature of environmental resource governance between participatory soil and water conservation and exclusionary protected area governance in the adjacent Chebera Churchura national park. This particular objective was based on the data from only Dawro communities mainly because of the peculiarity of the issue that it was meant to make comparison between non park and park based environmental resource governance. Hence, besides providing evidence on similar questions related to EEG indicators and determinates like Kereyou communities did, the Dawro communities have provided evidence to additionally administered questions specific to the final objective of the study.

Therefore, sampled households were contacted through face-to-face interview by trained enumerators. Before the actual data collection, the survey instrument was translated to local languages and piloted in adjacent areas among 28 households (18 male and 10 female); as a result, proper corrections were made mainly with regard to those questions which were lacking clarity, cultural and linguistic appropriateness, and found to be redundant.

3.5.3 Document review

The document review was guided by using checklists in order to generate relevant and in depth information. The policy and legislative documents were rigorously analyzed by using the review instruments. To this end, document review included the following major groupings:

Historiacal documents: These included archival documents that indicate the historical and political development of environmental policy-making and the responses from the Imperial era to the military regime such as proclamations, decrees, orders, plans and reports.

Current legal frameworks: These include the FDRE constitution, environmental legislations, decrees, proclamations, directives, EIA law and directives, and others issued since the transition era. Besides these, the national and regional proclamations on setting up ministries and regional environmental bodies were thoroughly reviewed and analyzed.

National policies: Environmental policy, the rural and agricultural development policy and strategy, Industrial policy and strategy, the national conservation strategy (CSE), Forest Policy, the PASDEP, the CRGE, the National Adaptation Plan (NAP-ETH), and the two GTP documents were rigorously reviewed.

Sectoral plans and reports: A review of policy implementation by the former EPA and the current MoEFCC was carried out. The national performance reports such as the UNFCC (Rio+20) reports and other relevant documents were used.

3.6. Methods of data analysis

Data were coded, edited, and cleaned for further analysis being assisted by software packages such as SPSS (21.0) and STATA (14.0) interchangeably. Thus, the analysis and presentation of the data involved both qualitative and quantitative techniques of data analysis. The qualitative information generated through key informant interviews, focus group discussions, field observation, and document reviews was coded and analyzed using N'Vivo (10.1) software. The results from qualitative studies were summarized in the form of description (texts, photos, and direct quotes) along with the quantitative survey results. Alternatively, the quantitative data were analyzed, summarized and presented in different statistical forms, including descriptive statistics such as (percentage, mean, standard deviation) used to present the descriptive findings of each objective. In addition, inferential statistics such as chi-square test of association was used to capture the wider perspective of effectiveness of environmental governance in Ethiopia. In this regard, different software packages such as SPSS (21.0) and STATA (14.0) were employed to assist the analysis as well as CS-Pro (6.0) software was used to design and manage the survey instrument.

3.7 Indicators of effective environmental governance and index estimation strategy

Environmental governance, being rapidly growing research agenda among academics, development partners, and consultants, there has been debates as to which indicators or variables to use in quantifying the effectiveness of environmental governance. In this case, Schomaker (1997) proposes that indicators should be SMART: specific, measurable, achievable, relevant and time-bound. These indicators must be clearly and unambiguously defined, be measurable in qualitative or quantitative terms, be achievable in terms of the available resources, be relevant for the issue at hand and be sensitive to changes within policy time-frames. In addition, OECD (2001, p. 203) suggest three major selection criteria such as policy relevance, analytical soundness and measurability. In general, one of the most extensive lists of criteria is provided by NRC (2000), which highlights the following evaluation criteria: general importance, conceptual basis, reliability, temporal and spatial scales of applicability, statistical properties, data requirements, necessary skills, robustness, international compatibility, and finally, costs, benefits and cost-effectiveness (pp. 52–59). In line with this, in selecting those relevant, indicators and variables, this study looked into the concepts, theories and analytical framework as well as empirical studies at different geographies of scale. Based on the theories guiding the study, conceptual and empirical studies reviewed, the following major indicators or variables, unit of measurement, hypothesized signs and functional relationship are summarized in Table 3.1. In this study, EEG was assumed to be the result of the complex web of interaction among the 13 components, which were used to measure EEG (See Table 3.1). Following the work of Darimani *et al*. (2013)[9], the indexation was used to create a single measure of EEG using 13 components[10].

[9]In this study, the effectiveness of environmental governance and outcomes for gold mining in the context of Obuasi and Birim North Districts of Ghana using five variables such as participation, accountability, fairness, partnership and institutional quality. This study was based on a survey from four communities and interviews of 384 households, which were carried out between August to September, 2017. Although the current study adapts some of the variables used to measure the effectiveness of environmental governance and quantification procedures in North Ghana, it proposed 18 indicators based on theoretical, conceptual and empirical reviews to capture the exiting situation of effectiveness of environmental governance in Ethiopia, linking micro, meso and macro level realities. By doing so, the study may contribute to the methodological debates surrounding the quantification of environmental governance at different geographies of scale based on cross-sectional data generated from different levels of study.

[10] The effectiveness of environmental governance in the current study was measured using 13 indicators such as accountability, participation, awareness, knowledge, institutions, actors, environmental laws, transparency, enforcement and compliance, environmental sensitization/advocacy, partnership, fairness of dispute resolution, and adaptiveness (See Table 3.1, for measurements, hypothesized signs and functional relationships).

Therefore, the computation of each EEG indicator value followed the process of standardization adopted from HDI (UNDP, 2007). This calculation is shown in equation (3.2).

$$\text{Index Value (Standerdized value)} = \frac{\text{Actual Value} - \text{Minimum Value}}{\text{Maximum Value} - \text{Minimum Value}} \qquad (3.2)$$

Following the UNDP (2007) variable normalization process, the EEG index was computed as a raw sum of the different variables divided by the number of variables for each of the 13 component, which was latter aggregated to get the composite index by multiplying the respective index value with the weights attached to each index (i.e., number of variables that formed each component). In this approach, the weight attached to each variable was based on the number of questions asked for that variable (Darimani *et al*., 2013). This index was further coded into dummy variable (1=effective environmental governance, 0=ineffective). Following the dependent variable computation, binary logit model was used to identify factors affecting the effectiveness or ineffectiveness of environmental governance in Ethiopia.

Table 3. 1 Indicator Variables used to measure the Effectiveness of Environmental Governance

Indicator symbol	Indicator definition	Unit of measurement	Hypothesized signs	Functional relationship
Acc (I_1)	Accountability	Yes(1), No (0)	(+/-)	The higher the accountability system, the better EEG.
Prt (I_2)	Participation	Yes (1), No (0)	(+/-)	The higher the participation level, the better the EG.
Awr I_3)	Awareness	Yes (1), No (0)	(+/-)	The higher the awareness raising activities, the better the EG.
Knl (I_4)	Knowledge	Yes (1), No (0)	(+/-)	The higher and more diversified the knowledge level, the better the EG.
Ins (I_5)	Institutions	Yes (1), No (0)	(+/-)	The more capable and adequate local institutions, the better the EG.
Act (I_6)	Actors	Yes (1), No (0)	(+/-)	The more diversified the actors, the better the EG.
ELw (I_7)	Env'tal laws	Yes (1), No (0)	(+/-)	The more diversified the laws, the better the EG
Trp (I_8)	Transparency	Yes (1), No (0)	(+/-)	The higher the transparency level, the better the EG.
Enf (I_9)	Enforcement & compliance	Yes (1), No (0)	(+/-)	The stronger the enforcement of laws, the better the EG.
ESP (I_{10})	Env'tal sensitization	Yes (1), No (0)	(+/-)	The higher the environmental sensitization practices, the better the EG.

Prn (I_{11})	Env'tal partnership	Yes (1), No (0)	(+/-)	The more diversified and strong the partnerships on environment, the better the EG.
DR (I_{12})	dispute resolution	Yes (1), No (0)	(+/-)	The higher the fairness level, the better the EG.
Adp (I_{13})	Adaptiveness	Yes (1), No (0)	(+/-)	The higher the adaptiveness level, the better the EG.

Source: Adapted from Das Gupta *et al*. (2000); de Loë *et al*. (2009); Benjamin & Fulton (2011); Darimani (2011); Darimani *et al*. (2013); (Brooke *et al*., 2016)

3.8. Binary logit model estimation

In this study, EEG index constructed falls along a continuum ranging between zero and one. Using the index values, EEG value was categorized into two categories for clearer analysis and creation of EEG thresholds in Ethiopian context. Therefore, effectiveness of environmental governance (EEG) threshold approach was adapted to create EEG threshold (Darimani *et al*., 2013). Where, the value of EEG ≥ the mean value, which is to indicate that environmental governance was effective and the value ≤ the mean value was meant to indicate that environmental governance will not be effective. Thus, effectiveness of environmental governance was considered as an outcome variable, which was dummy (1=EG is effective and 0=EG is not effective). Then, binary logit model was used to identify factors that affect the effectiveness of environmental governance in the study area context. The logit regression model as indicated in Darimani *et al*. (2013) is expressed as equation (3.3):

$$\mathrm{EEO} = \alpha + \beta EG + \mathrm{Z}_{\gamma} + \epsilon \qquad (3.3)$$

Where,

EGO, is to indicate the environmental governance outcome (the dependent variable), where ($1 = \mathrm{EG}$ is effective and $0 = \mathrm{EG}$ is not effective).

α is a constant or intercept which is the value of EEO when all the proxies equal zero.

β is the regression coefficient of the sample which determines the EEG. This is the coefficient of interest and its statistical significance will be determined from the T statistics from the regression.

Z is a vector of demographic and socio-economic characteristics of individual respondent including sex, marital status, occupation, education, role in community, and agro-ecological zone, (See Table 3.2).

EG is environmental governance (the independent variable).

γ is a vector of parameters, and

ϵ is an error term.

Table 3. 2 Explanatory variables used to measure factors that affect environmental governance effectiveness

Variable Code	Definition	Measurement/Unit	Type
SEX (X_1)	Sex of the respondent	1 if male, 0 otherwise	Dummy
MARS (X_2)	Marital status of the respondent	1 if married, 0 otherwise	Dummy
OCC (X_3)	Occupation of the respondent	1 if farmer/herder, 0 other than farming/herding	Dummy
EDC (X_4)	Education of the respondent	1 if literate, 0 if illiterate	Dummy
RC (X_5)	Role assumed in community	1 if assumed any role, 0 if none	Dummy
AEZ (X_6)	Agro-ecological zone	1 lowland, 0 high/midland	Dummy
YL (X_7)	Years lived in the area	In years	Continuous
LT (X_8)	Type of Land tenure	1 if own, 0 otherwise	Dummy
FS (X_9)	Family Size	In number	continuous
BS (X10)	Benefit sharing scheme	1 if any, 0 if none	Dummy
CIT (X11)	Cash income earned(annual)	In birr	Continuous
AF (X12)	Access to forest use	1 if any, 0 if none	Dummy
Nfh (X13)	Involvement in non-farm/herd activities	1 if involved, 0 if not	Dummy
CM (X14)	Membership to local cooperatives	1 if member, 0 if none	Dummy

Source: Adapted from Benjamin & Fulton (2011); Darimani (2011); Darimani *et al*. (2013); de Loë *et al*. (2009); Dunlap *et al*. (2000); Talento *et al*., (2017); Karmi (2013); Ezebilo *et al*. (2010); Ogunjinmi *et al*. (2012)

CHAPTER FOUR: ENVIRONMENTAL POLICY AND GOVERNANCE IN ETHIOPIA BEFORE 1991: TRENDS, DRIVERS, INSTITUTIONS AND ACTORS

4.1 Introduction

The chapter deals with the historical trends of environmental thoughts, policy responses, legal frameworks, institutional developments, actor relations and roles as well as the major driving causes of the policy and governance trends in Ethiopia before 1991. It discusses the findings of historical trends of policy and governance across two regimes of the Monarchy (before 1974) and the Military government (1974-1991). Even though environmental measures and policy undertakings in Ethiopia were poorly documented until recently, the chapter is largely based on data sources from key informants supplemented with archival sources and review of relevant empirical studies as well as policy and legal documents.

The holistic understanding of and concern over environmental degradation as interplay of loss in the quality and quantity of the biosphere, lithosphere, hydrosphere and atmospheric elements has appeared recently even in the developed world with the effects of industrialization (Eliot, 2006; Chambers & Green, 2005; Barrow, 2005). In the case of Ethiopia, which is a country of entirely an agrarian society (FDRE, 2012; MoFED, 2014; Endeg, 2015; Bisahw *et al*., 2013; Eshetu, *et al*., 2014), there is no wonder why environment could not be understood apart from land-based resources, i.e., soil, water, vegetation and wildlife. Keeping in mind that the holistic understanding of environment and environmental concerns of the recent period did not clearly and fully exist in periods before 1980s, which even clearly emerged with the Rio summit of 1992 (Keeley and Scoones, 2000), the discussion of trends of environmental policy and governance in Ethiopia would largely lend itself to the discussions of soil, vegetation and wildlife conservation; which is rather about land based resources that have direct relationship with agricultural food production and tourism to some extent. Hence, the policy and governance measures of the past two regimes were limited to both conservations of available resources and rehabilitation of degraded resources (Bekele *et al*., 1998).

4.2 Environmental policy and governance during the Monarch (before 1974)

4.2.1 Policy and governance of environmental conservation

4.2.1.1 Forest conservation

The environmental policy and governance measures during the monarchy can be best seen since post Italian occupation, as there were scant evidences that indicate advances in environmental affairs except measures which were undertaken in a piecemeal and rudimentary basis. During the five years of Italian invasion, there were attempts of forest conservation by the Italian forces whereby they exercised strict regulations to protect forests in southwestern and central parts of the country with a purpose of protecting the trees from the reach of the local people and to use it for extensively practiced timber production (Bekele, 2008). They managed to setup an institution known as 'Miliza Forestale or forest militia', to protect and exploit forest resources for the occupants' economic interest whereby the local people were abandoned to use it (Bekele, 2008; Alemayehu *et al*., 2013; Alemayehu, 2014). The forceful protection of forests by the invaders was not aimed at conserving the resources for their ecological purpose; it was rather geared by their interest to exploit the resources for timber and related construction works. In this regard, Bekele (2008) has noted that;

> The resource laws during the Italian occupation focused on the economic potential of Ethiopia's natural resources rather than their ecological value. During this period, the Italians issued over twenty forest decrees and implemented destructive forestry programs to fuel infrastructural development (P.338).

With all its flaws, environmental protection measures of the monarchial era had begun to be evident after the period of restoration being laden by fears of similar foreign invasion or intrusion and obsession towards agricultural production to feed the growing population (Bekele, 2008; Zemenfes, 1995). Hence, the forest conservation practice during the monarchial era was eclipsed by the political set up of the monarchial government, which was manifested by its relationship with the people and its cross-border relationships with external forces. Since resource conservation requires public mobilization and coordination that brings the people and the political institutions in to a close contact, the political mistrust between the people and the ruling class had been detrimental to undertake conservation activities. As the extracts form the primary data have indicated, there was a resource depletion for an extended period of time in the northern and eastern parts of the country due to a host of factors such as the rugged topography of the land and poor practice of farming, population density, openness to international trade routes that contributed to resource depletion, and border wars since they had an extended contact

with foreign forces. On the contrary, natural resources in the southern and western parts of the country haven't been exposed to depletion, as there was no significant contact with foreign powers both in terms of resource trade and conflict. In further explaining this, a veteran ecologist noted:

> The central rulers had given little attention to the southern parts of the country because of their lack of access to foreign forces posing no threat of political and military infiltration. In areas where foreign infiltration was feared, local chiefs were believed to avoid close and cordial contact with the people and put in place tyrant rules to avoid free assembly and deliberation. Besides cross border trade in the north and east that caused resource depletion, lack of mutual trust between the rulers and the people hindered conservation works which requires communal gathering and coordination. In southern part, where there was no such a threat of foreign infiltration, there was no need for the rulers to keep themselves as aloof as it was in the north and east. Because of the two major factors, lack of foreign contact to trading resources and threat to foreign powers infiltration, the resources in the southern and western part of the country were better conserved by the people, as we witness today that these areas have better stock of forested and fertile lands (KIF/01, April 2017)[11].

Evidences have also indicated that the emperor's era had the worst record of conservation of forest resources (Challa, 2015). During this era, land covered by forest was seen as wasteland. In order to allocate land tax, individual land holders were classified on the basis of their land resources. According to the key informant, there were three tiers of land classification for levying tax:

The first one was "Tef meret" or wasteland, which was entirely covered by forest. This land was the least of all types of land in terms of economic value and little amount was levied from it. The second one was partly forested and partly cultivated land (lem-ketef), which was believed to be partially cultivated and fertile. The third and best form of land resource with the highest value was known as 'Lem-meret' - fertile land, fully covered by crops and entirely free from trees (KIF/01,2017).The primary data finding is consistent with the documented evidences that proclamation no.8 of 1942, 'Tax on Land', has categorized the tax system in to three and reads as follows: *"The tax shall be at the following rates: for each Gasha of land or part thereof, classified as fertile $15,* classified as semi-fertile $10, classified as poor $5" (Negarit Gazeta, no.1, 1942, p.17).

[11] The KIs were coded and cited to maintain anonymity. See appendix VIII for the list of coded KIs and FGDs.

The Amharic version of the proclamation reads the same with the response of the key informant mentioned above as fertile means 'Lem', semi fertile means-'lem-ketef', and poor indicates 'tef' whose further meaning denotes wasted land in Amharic. From the above classifications, it can be inferred how forest was detested and undermined. As the key informant underlined, *"The nobility had no knowledge about what forests were all about. They simply hated it."* Thus, environment has had a very little knowledge in this era. Similarly, there are also written evidences that support as to how forest was a negligible resource during the regime.

The overt disdain for forests, according to Dessalegn (2001), was also based on two other reasons. The first one was that clearing forest was encouraged by the monarchial government in order to encourage increased food production and economic growth through increasing the size of cultivable land. Secondly, forests were feared to be the shelters for armed bandits or '*Shiftas*' and thugs as well as bad spirits, and therefore clearing forests was encouraged both for economic and security reasons.

The disregard for forest conservation during the monarchial era was seen from its reluctance both before and after the Italian invasion. As noted by Bekele (2008), the monarchial regime has enacted virtually no rules with regard to forest protection before the Italian invasion, while the invaders had enacted over twenty laws in five years of their occupation, which was purely aimed at securing the forests for rapid exploitation with no intention to their ecological values. After the restoration, the government heavily focused on agricultural development, which utterly encouraged clearance of forested lands for agricultural expansion, and national forest lands were also officially distributed to individuals for agricultural cultivation (Bekele, 2008). Even though the 1955 constitution had provisions that encouraged conservation of resources, there were no clear policy steps undertaken by the government to materialize what was stated in the constitution. Hence, Bekele (2008) further explains the devastating effect of the period of 1955-1968 as the worst period ever seen in Ethiopia's forest governance and thus an estimated half of the country's forest resource was destroyed from six million hectares in 1937 to three million hectares in 1960s (p. 339).

The legal and institutional setup for forestry governance under ministry of agriculture (Negarit Gazeta, 1996, p. 140) had also been geared towards maximization of economic benefits from forest sector. Based on the imperial government's land tenure system, there were state, private

and community forestry system each of which was recognized by law. However, irrespective of its ownership, the entire goal of forestry development had nothing to do with its ecological implications. Thus, the imperial government had issued successive laws on forestry governance since 1965 emphasizing on the economic generation from the forest resources. Pursuant to the state forest and protective forest (*tibiq den*) proclamationno.227 of 1965, two legal notices were issued by the Ministry of Agriculture to provide protection for both private and state forests. These were the legal notice no.343 of 1968, which provided for protection of forests on private lands; and legal notice No. 344 of 1968 that stipulated the protection of state forests (Negarit Gezeta,1968). The forest law, however, was mainly about commercial forestry that emphasized the economic benefits of timber production; devoting much of the details about sales of the forest products either to the local people, merchants or for state use. The provision also includes details of sales of state forests in auction for local people individually or collectively (Negarit Gezeta, 1968).

The Private forest regulation stipulated necessary measures to be undertaken by private forest owners in terms of fire protection, protection of insects and forest disease care as well as other threatening dangers in fear of contagion of such threats in to the nearby state forests whereas the state forest regulation, on the other hand, stresses on restriction of access to the local people for grazing, cutting trees, and setting fire (Negarit Gezeta, 1968:2). The forest laws have entirely been about maintaining economic gains out of the forest resources and the year of 1968 can be said a year of successive forestry regulations with about nine forest related laws were enacted by the ministry of agriculture (Table 4.1).

Table 4. 1 Forestry regulations of 1968

Forestry regulation	**Cited as**	**Purpose of the regulation**
Legal Notice No.343 of 1968	Protection of Private forest regulation	To provide for protection of private forests form irresponsible use that could cause harm to the nearby state forest
Legal Notice No.344	Protection of State	To provide for protection of state owned

of 1968	Forest Regulation	forest from unauthorized use
Legal Notice No.345 of 1968	Exploitation of State Forest Regulation	To provide for exploitation of forest by the state (timber) and for sale to the local people[12] through auction.
Legal Notice No.346 of 1968	Exploitation of Private Forest Regulation	To provide for authorized cutting of trees from private forests. It also obliges an owner to reforest the area
Legal Notice No.347 of 1968	Management of Protective Forest Regulation	Requires an approval of management plan for any forest regardless of its ownership, including private forest
Legal Notice No.348of 1968	Establishment of Community Forest Regulation	Provides for organization of community forest commission[13] at kebele level
Legal Notice No.349 of 1968	Powers of Rangers Regulation	To provide for establishment of forest ranger service for the protection of forests and implementation of Proc.no.225, 1965
Legal Notice No.350 of 1968	Powers of Forests Guards Regulation	To provide for establishment of uniformed forest guards which protect state forests form illegal use
Legal Notice No.351 of 1968	Trade of Saw Logs and Veneer Logs Regulation	Provides for control and authorization of private timber sawmills, veneer mills and plywood factories

Source: Compiled from Negarit Gazeta no.1, 1968 (pp, 1-21)

As it can be seen from Table 4.1, there were about nine regulations related to forestry development and governance enacted in a single year of 1968 with too much emphasis placed on the economic use of the forest resources. Though the regulations had provided for development of private and community forests, the sole purpose was for timber production and domestic use of forests with no sign of care for maintenance of species and genetic diversity.

In conclusion, the monarchial government's policy response towards conservation of forests had been massive during the late 1960s, which came after the long term negligence that resulted in deterioration of the country's forest resources to the unprecedented level. This policy rush, according to some writers, was due to the rising voices and pressure from experts, both domestic and expatriate, as well as long term concerns raised by donor agencies (Dessalegn, 2001).

[12] The amount of sales of forest trees to the local residents upon their demand for fuel and domestic use, was fixed not to exceed 1000 birr a year (see Negarit gazeta no.1, 1968, p. 5).

[13] Community Forest Commission is a governing body of forests at kebele level including planned expansion and control of forests (see Negarit gazeta no.1, 1968, p. 10).

4.2.1.2 Wildlife conservation

With increased interest by the monarchial government to gazette parks for wildlife protection, designation of national parks began to take place in late 1960s with the primary intention of game hunting and expanding facilities for leisure of the nobility (Asebe, 2012). Besides this, there was an intention to conform to the western trend and acquire money from foreign tourists (Negarit Gezeta, 1969). The first national park established by the monarchy was Awash National Park (1958) followed by Semen National Park (1959) and Omo National Park in the same year (Vreugdenhil *et al*., 2012). Even though Awash National park was established in 1958, its official establishment law was enacted ten years later by order No.54 of 1969 (Negarit Gezeta, 1969).

The interest for park designation has got its roots from the experiences of the colonial African countries to some extent, the personal experience and exposure of the monarchial elites to the western countries, and the influence of western experts and multilateral organizations such as UNESCO and FAO to larger extent (Zemenfes, 1995). In colonial Africa, the practice of gazzeteing wide areas for wildlife protection was mainly for game hunting and recreation of the colonizers and their young children where the knowledge and experience was purely western induced, which ended up with the vast portions of African savannah lands in Kenya, Ghana, South Africa, etc. were gazzeted for protected area and game reserves (Boon, *et al*., 2009; IUCN, 2010; Paterson, 2008). Though gazzeting of protected areas in Ethiopia was not a direct result of western forces, the monarchy and the then elites relished to undertake similar measure and gazetted protected areas with the purpose of controlled hunting and tourist attraction (Huxley *et al*., 1963).

Hence, the approach of designation of the parks was exactly similar to the one that prevailed in colonial Africa, following similar approach of the so-called Yellowstone model[14], which was characterized by its exclusionary nature (Abraha, 1991; Asebe, 2012) ever resulting in conflict between the local communities and the officials and institutions of the protected areas (Jacobs & Schloeder 2001; Bassi, 2003; Teklu, 2006; Stellmacher, 2007; Abiyot , 2009; Stellmacher & Nolten, 2010; Zewdie, 2010; Asebe, 2011; Asebe, 2012). The parks were designated in areas

[14] Yellowstone model is an exclusionary approach of strict park designation which does not allow the engagement of local people in its governance and benefit sharing. The name is derived from the first national park of US.

with relatively scarce population and most often challenged by the local communities and landowners (Dessalgn, 2004). In this regard, one of the key informants has noted the following:

> Had there been dense population, I don't think the Siemen mountain park would have been designated. The same was true to Awash, which was also designated for tourist and game hunting purpose, and there was no initial intention to conservation as well as to benefit the local residents from the resources. There was no intentional move towards connecting the park with resource conservation, as there was no environmental thought as such. In general, there was no concept of environment in the era. No clear policy and legislation that was aimed at the ecological aspects of conserving park based resources [KIF/10, June 2017].

In support of the above comment, the other KI has noted that the protected areas were gazzetted in areas, which were claimed to be vacant. Even though the areas that were gazzetted by the then government were said to be vacant, there were evidences of some strong resistances from the local resource owners, the communities in some parts and landlords in others. Emphasizing this idea, the same key informant narrated:

> To the best of my knowledge, the emperor had an intention to gazette as many areas as possible. However, it was limited to the gazetting of the few parks such as Semien Mountain and Awash national parks during the initial period mainly because of the local resistances. The easy gazetting of these parks could have even been due to two main reasons. There were either no claimants, or the claimants were not powerful in these areas (KIF/10, June 2017).

Thus, the park designation, with technical and financial support from foreign institutions such as UNESCO and IUCN (Asebe, 2012; Abraha, 1991) was undertaken by the Emperor but not with consent of the people and the landlords in and around the designated lands, and attracted continued resistance from the locals (Asebe,2012).

A key informant from the EWCA also noted that land was privately owned, and more of the land was property of few local chiefs and hence, it was difficult to put clear demarcation between state owned land and the private land which often invited confusion and resistance at the same time. As a practical illustration of this, the key informant noted:

> The first forest protection law of the emperor has got severe resistance and its enforcement was far from reality. It invited strong resistance even from the parliamentarians and the nobility across the country. This indicates that the pervasive reluctance of the enforcement of conservation laws and regulations was due to the then land tenure system, controlled by few feudal elites, as well as the strong power of the nobility to maintain the resources at their disposal. Hence, park designation was not that easy by then because it would bring sizeable land in to the grips of the government (KIF/09, June 2017).

However, documented evidences indicate that, regardless of the resistance, the monarchial government had been able to gazette about 12 national parks and game hunting reserves since 1958 to 1974 and most of these were gazetted towards its final years of reign (Vreugdenhil *et al*., 2012). With regard to the land ownership and its implication on the resource protection, a Key informant from policy research center has underlined that though the land tenure was said to be private, there was no clear demarcation between public and private land. By then, there was no defined land property right (KIF/10, June 2017).

The existing traditional and arbitrary type of land tenure allowed some landlords to own wide acres or *'gasha'* of land and it lacked defined regulation for ownership and demarcation. There was an arbitrary expansion to encroach any portion of *'tef meret'* or open land by the landlords and local chiefs, and thus, the emperor's move towards designation of parks and public forests was inherently aimed to bring big size of lands to the hands of the government where the forested land was thought to be the government's property. There was of course vast area of land even the government didn't control and thus, parks were designated to bring those lands in to the close control of the government. As time went on and being advised by FAO in this regard, the same key informant noted, there was a sign of shift towards improving governance of forestry and wildlife resources and the government begun to undertake measures in areas of building domestic expertise and creation of conservation institution. Hence, there was an attempt to develop scientific knowledge on forestry and wildlife conservation, which was demonstrated by the emperor's commitment to open schools and colleges that offered conservation courses. Colleges such as Jimma and Ambo used to offer courses on forestry and some Ethiopians were also sent abroad to study forestry and wildlife conservation (KIF/10, June 2017)..

The monarchial government enacted numerous legislations to protect wildlife. The Game proclamation no.61 of 1944 G.C which vested powers in the ministry of agriculture to pass orders in wildlife protection (Negarit Gezeta, 1972), Wildlife conservation order of 1970 which provided for the establishment of Ethiopian wildlife organization (Negarit Gazeta, 1970), Wildlife conservation amendment regulation of 1974 which amended the wildlife conservation regulation No.416 of 1972 (Negarit Gazeta, 1974) were some of the major laws. As a common emphasis, these laws were meant to protect wildlife with a primary objective of maximizing the instrumental or economic and leisure values of the wildlife. Besides issuing license for paid

hunting, the roles of the wildlife organization included designation of parks in areas where wild animals were abundant (Negarit Gezeta, 1970). The orders enacted for wild life conservation and game hunting had always been characterized by the annexes of long list of wild animals including birds and their corresponding price in birr to be paid by the hunters (Negarit Gazeta, 1972; Negarit Gazeta, 1974). There was virtually no conservation objective that tends to promote the intrinsic values of the wildlife and the entire inclination was to maximize the utility or instrumental values of the resources emphasizing on the economic benefits generated from hunting.

4.2.1.3 Soil and water conservation

There are evidences suggesting a long history of traditional conservation works in Ethiopia. Conservation works were even dated back to the reign of king Yakob (1596-1607), as the King declared the Wofwasha and Jibat forests to be protected forests with an effort to afforesting Wachacha and Yerer mountains through planting seedlings of Juniperous procea to create Menagesha forest, which was a clear attempt to curb land degradation (Zemenfes,199; Yitebitu, *et al*., 2010; Dagim, 2016) and plantation forestry was also introduced by Emperor Minelik through planting eucalyptus tree in order to alleviate scarcity of fuel wood in urban areas including Addis Ababa(Dagim,2016). The practice of conservation was not only limited to the government sphere, but also churches and local chiefs had an experience of good traditional practice of conservation since 17th century (Vreugdenhil *et al*., 2012). The tradition of conservation both within the palace, the church and communities continued to exist and Menelik II was the first king to introduce formal law in 1901 which was meant to protect wildlife from arbitrary hunting (Vreugdenhil *et al*., 2012) and passed another law that recognized the various aspects of importance of forests and declared all the forests resources to be under state ownership with additional measure to halt clearance of forested lands for agricultural use (Zemenfes, 1995) which was indicative of the need to protect soil degradation. Explaining this traditional practice of environmental rehabilitation and conservation that long existed before the modern era, a veteran policy maker said:

Traditional environmental protection is an age-old practice in Ethiopia. Ethiopians have a long history of terrace building to protect erosion of their lands. Since Ethiopian rulers had contact with foreign powers via the northern and eastern part of the country, there were exchanges in trade and natural resources, which had an impact on the environment while the western and

southern parts were left intact. Hence, the people felt the effects of degradation and carried out soil protection measures in their own as part of their agricultural routines (KIF/01, April 2017).

Therefore, such traditional practices have been inherited from generations to the generations and the political regimes had to build on these popular traditions. Even though there have been good traditions of environmental protection and concern for nature among different parts of the society across the country, the same key informant contended that the policy moves by the successive governments, particularly during the monarchial period, was very poor in building on what had already been with in the society in terms of conservation.

As discussed earlier, terrace building and similar soil conservation works have long been practiced in Ethiopia across every corner in which the traditional practice of the Konso people being one of the best examples (Zemenfes, 1995). However, evidences suggest that little effort was made to emphasize on such traditional experiences as terrace building of the Konso (Yeshambel, 2013; Watson, 2009; Forch, 2003) and agroforestry of the Gedeo where the agricultural activity is carried out harmoniously with the forest resources on the same plot of land (Abiot *et al*., 2013;Tadesse, 2002).

Even though building on the already existing conservation practices was reported to be poor, the monarchial era had witnessed the practice of soil and water conservation with the occurrence of droughts and resulting famines (Zemenfes, 1995). According to qualitative extracts, there were severe recurrent droughts during the years between 1950s and 1960s, which claimed the lives of many citizens followed by the widely known Wello famine that had strong political and diplomatic ramifications on the monarchial rule. As indicated by a key informant, the monarchy and its elites were ashamed of telling the world that they were ruling a country whose people were being starved to death. As a veteran key informant further noted, a conflict of ego between fame and shame had led to conceal the havoc from the rest of the world. However, the monarchial elites managed to conceal it only until the BBC TV presenter, Jonathan Dimbleby made a shocking presentation of the hidden reality calling it “The Unknown Famine” with the most striking images that brought the pictures of fresh bodies of those who died of hunger and the emperor’s own picture caught on camera while feeding his lions with large pieces of meat, and telling the reporter that there was no hunger in Ethiopia and reproaching him not to report negative things about the country (Charles, unknown).

Thus, according to the key informant interview extracts, the internal and external pushes were mounting by stressing that the major cause of the famine was the ongoing land degradation. Consequently, the monarchy was under serious pressure both from inside and abroad and forced to undertake soil conservation measures. The regime begun to respond to the growing pressure by the assistance of multilateral organization which offered financial and technical support as part of humanitarian aid (Dessalegn, 2001). On the account of this, a program of food-for-work was designed by the aid agencies with allocation of resources. The program was aimed at providing food for survival and deploying the rural labor on water and soil conservation works in famine stricken areas, which would sustainably reverse the likelihood of future famine (Dessalegn, 2001). Documented sources also suggested that, even though the land degradation was severe and followed by the great famine of 1973, the SWC works were given marginal emphasis by the monarchial government. As Bekele, *et al*. (1998) argued, prior to 1974, the importance of conserving farmland was largely neglected and the problem was attempted to get policy attention only after 'the devastating famine' in 1973/74 (Bekele *et al*., 1998).

Thus, the food for work initiative of soil and water conservation work in the drought stricken areas and the agricultural extension program of the green revolution perspective in the southern parts of the country were the approaches intended to improving soil and water resources as well as increasing agricultural production, none of which produced an outcome that was sought by the regime (Bekele *et al*., 1998). The neglect of conservation work, as noted by Tizale (2007), was its disregard to the smallholder farming in particular and agriculture sector in general. To this end, the monarchial government's economic policy had given less emphasis to the contribution of the small holder farming and the effect of soil degradation to the agriculture sector. This was evident in the successive two five year plans of the monarchial government (1957-61) and (1962-67), which equivocally emphasized on industrialization and large scale commercial farming while being negligent to the small holder farming that makes up the lion share of the country's economy (Tizale, 2007, p. 28) as a result of which the frontier economy perspective followed by the monarchial government disregarded the natural resources with the view that they were plenty, unfinished, and should be exploited for national economic growth (Keeley & Scoones, 2003).

Even though the FFW program had attempted to implement soil and water conservation works through building stone bunds and terraces in and around the degraded agricultural lands, there were meager results registered because of lack of public awareness, absence of technical support to the farmers, and mainly due to the top-down approach of planning (Desalegn, 2001). In general, the emperor's era has witnessed no significant policy measures and outcomes in soil and water conservation lacking clear purpose for improving agricultural productivity through curbing the ongoing degradation of soil and vegetation cover (Desalegn, 2001).

4.2.2 Major drivers of environmental policy and governance during the monarchy

The major drivers of Monarchial environmentalism can be attributed to some push and pull factors. Being motivated by the experiences of the colonial African countries, and due to the growing interest to modernize the country through emulating the western tradition of development, designation of national parks was relished for two major reasons. As Hilman (1992) noted, with the obsession to reap economic gain from tourist attraction on the one hand and to respond to the ecological apocalyptic views of the 1950s that the country's resources were undergoing massive destruction (Patterson, 2007), the Yellowstone model of park designation was undertaken through a direct copy of colonial African countries (Asebe, 2012). Thus, it can be said that the top down and exclusionary wildlife conservation measure was driven by economic interest (pull) on the one hand and the raising voices from the emerging conservation communities including expatriates from UNESCO and other bilateral agents (push).

Likewise, the soil and water conservation works of the later stage of the monarchy were fully driven by the neo Malthusian thoughts of foreign experts and the fear of recurrence of droughts (Hoben, 1995). The famine that hit hard millions of population in the northern part of the country forced the regime to opt resettlement and soil conservation works as lasting solutions. Thus, the soil conservation work, though not effective (Dessalegn, 2004), was entirely driven by the effects of the drought. Key informant interview findings have also confirmed that drought was the most powerful driver behind the monarchial era environmentalism during its later days of tenure more than anything else (KIF/01; KIF/02; KIF/03; KIF/10). In general, the regime's environmental policies were driven partly by push factors such as drought and fear of ongoing degradation, wildlife in particular, and by pull factors such as economic development, which was sought to follow the footsteps of the civilized world.

4.2.3 Institutions and actors for environmental policy and governance during the monarchy

As there was no clearly stated environmental policy except in the form of patches of legislations towards wildlife conservation and forestry, there was no defined institutional setup with explicit environmental mandates. Apart from ministry of agriculture which was given the mandate of governing state forests by proclamation No.225, 1965, with later development that established state forest development agency by order No.74 of 1970, the first independent institutional setup outside ministry of agriculture was Ethiopian wildlife conservation organization (EWCO) that emerged in 1970 by Order No.65, 1970.

Even though the wildlife organization was led by an independent manager, the board was still chaired by the minister or representative of ministry of agriculture. In one way or the other, the mandate of governance of forestry and wildlife during the monarchy stayed in and around the ministry of agriculture since the game proclamation of 1944(proc.No.61 of 1944). Hence, there was no other institution in charge of environmental mandates fully or partially, except the ministry of agriculture and the subsidiary organization of EWCO. With the narrow view of environment that was all about wildlife and forest resources, the concept of institutions was also limited to a single ministry of agriculture.

Similarly, in terms of actors, the entire duty of governing the resources was on the hands of the monarchial government whereby the EWCO and the ministry were in charge of governance of natural resources. According to the EWCO establishment order No.65 of 1970, the governing board consisted of eight members namely, ministry of agriculture, ministry of finance, ministry of education and fine arts, ministry of commerce, industry and tourism, Haile Selassie I University, and the general manager of the organization. Thus, there were no evidences for actor involvement other than these government branches (Negarit Gazeta, 1970).

Moreover, there is no documented evidence that indicates public engagement in the forestry and wildlife conservation activities since the entire endeavor was top down and based on command and control approach of conservation. According to the key informant;

> The narrowly viewed environmentalism of the monarchy was limited to wildlife and forestry until soil conservation appeared a necessity with the effects of the drought, which resulted in the involvement of some donor agencies like WFP. Till then, there was no significant actor engagement as such. The narrow understanding of environment and lack of policy did not allow actor engagement, including the public itself (KIF/01,April 2017).

Even if there were international organizations such as UNESCO and foreign experts in support of the planning and designation works of national parks, their role was simply limited to technical and financial assistance (Dessalegn, 2004; Bekele *et al*., 1998). However, there are evidences that the soil conservation work had attracted some local and international actors. Following the famine, the WFP was the major donor and provided both resources and technical assistance. FAO and other international organizations were also involved in similar assistance (Zemenfes, 1995).

Nevertheless, as qualitative data indicated, the role of these partners was not only limited to the resource assistance, but also they were involved in close supervision and evaluation of the implementation process (KIF/01; KIF/05; KIF/10). The soil conservation work did also involve the peasants who carried out the conservation work in drought stricken areas through the program of food- for -work (Bekele *et al*., 1998). In general, the limited nature of conceptualization of environment lacking any clear policy coupled with the top down approach of conservation of resources could not allow significant engagement of non-state actors including the public. Therefore, there was no significant institutional setup and actor involvement in environmental affairs except the centralized role of ministry of agriculture and its subsidiary wildlife conservation organization.

4.3 Environmental policy and governance during the Military Government (1974-1991)

With the 1974 revolution, the military Dergue toppled the monarchy and removed its political structure through a number of drastic measures (Hilman, 1992). The major and foremost reform undertaken by the Dergue was the transfer of rural lands to the peasantry and confiscation of the lands of the monarchial elites across the country through proclamation no. 31 of 1975. However, the trend in policy front with respect to environmental governance during the military regime has not shown any significant change in terms of conceptualization of environment and in the nature and content of related policies and legal frameworks from that of the monarchial era until its final phase of rule. Despite similar legislative measures in wildlife and forestry as well as introduction of valley development initiative, which came at later period, there was no comprehensive and coherent environmental policy during the military rule.

4.3.1. Policy and governance of environmental conservation

4.3.1.1 Forest conservation

Following the change in political system in 1974, the forest policy was given due attention. The land reform of 1973 being the flagship of the Dergue's reform undertakings abolished the land property rights of the monarchial period and confiscated a great deal of land owned by the nobility including private forest plantations of mega sizes, which was aimed at dismantling the political and economic base of the landed elites (Clapham, 1988; Ottaway, 1990). The change in land policy had a strong effect in forestry policy which saw some changes in institutional setup and legislative advances (Dessalegn, 2001; Zemenfes, 1998). Thus, the forest proclamation of 1980(No.192 of 1980) established the Forest and Wildlife Conservation and Development Authority (FAWCDA), by repealing the monarchial legislations that instituted separate institutions of state forest development agency (order no.74 of 1970) and wildlife conservation organization (order no.65 of 1970) by bringing both forestry and wildlife mandates under the control of a single central body (Negarit Gazeta, No.17, 1980). The purpose of reorganization of the authority was to curb severe degradation of forest and soil resources, and emphasis was also placed on the need to halt the danger of extinction of wildlife. This proclamation, which repealed the previous regime's orders that provided for establishment of wildlife conservation organization in 1970 including state forest development agency formation order, was critical of the failure of the past regime and outlined the purposes of the conservation measures to be followed. The preamble of the proclamation states:

> Whereas Ethiopia's forest which formerly covered most of the country has been depleted by the defunct feudo-bourgeoisie order for the selfish interest of the Aristocracy and the nobility; Whereas the wildlife of the nation is exposed to the danger of extinction due to failure to take the necessary care; whereas immediate and decisive actions must be taken in order to avert this disastrous situation by agitating and coordinating the broad masses to plant, conserve, develop and administer the country's forest and wildlife resources(Proc.no.192,1980:1).

For Dergue regime since ousting the monarchy, it took at least more than six years to undertake visible policy and legal measures with regard to forest and wildlife protection. As indicated in the proclamation, the resource degradation was so rampant and the reckless use of the resources during the monarchial era was clearly indicated in it. From the preamble, it can be understood that the forest degradation was massive and resulted in soil degradation that was threatening the lives of agricultural communities. Even though it was a positive policy move, Dergue was not

quick enough to respond to the ongoing degradation until 1980s, which was indicative of similar reluctance towards forest conservation.

As it is evident from the proclamation, it spells out that the forest conservation was aimed to be conducted by 'agitating' the peasants to 'plant, conserve, develop and administer', without having any sign of involving the people in decision making. Across the entire proclamation, there was no any provision that permits how the peasants should be benefited out of the forests they were supposed to develop. Even though the proclamation emphasized the role of local people in forest development under the grass root organization of 'Gebere Mahber', most of the mandates over forestry were granted to the FAWCDA. It rather granted the FAWCDA with unlimited power of issuing permits for use of forest products and undertake punitive measures on those who fail to obey the proclamation and similar regulations in the sector. The punishments were so severe that range from monetary fine to imprisonment (Negarit Gazeta, No.17, 1980).

Hence, FAWCDA discharged its responsibilities through demarcating additional forested lands without the consent of the local people. The central Authority undertook massive demarcation measures and created 58 National Forest Priority Areas (NFPAs) in an area of 4.8 million ha (Demel *et al*., 2010; Bane *et al*., 2008). Besides this, with the financial support of ADB and the World Bank, it established the Addis Ababa Fuel Wood Plantation Project in 1982 and executed other similar projects around the major cities as a response to the growing demand of fuel wood in urban centers (Bane *et al*., 2008).

The national forest priority areas, however, were blamed to have included the farm plots of the peasants and communal grazing lands resulting in forceful displacement of the peasants without any compensation (Alemayehu, *et al*, 2012). Evidences also indicate that the then FAWCDA enjoyed a strong government support and the size of its staff even grew in ten-folds with concurrent boost of budg*et al*location resulting in quick increase in the size of state forestry plantations from 42,300 ha in 1973 to 250,000 ha in 1985 (Demel *et al*., 2010; Malaku, 2003). As some writers contend, the FAWCDA was the strongest institution ever appeared in the institutional setting of forest sector, which was able to undertake massive plantation of forests. FAWCDA attracted global bilateral and multilateral support from FAO, UNDP, and SIDA from which immense financial and technical supports were received for forest development, training and related capacity building activities. This support along with the government's emphasis on

production forestry resulted in the institutionalization of forest training and research centers including Wondo Genet Forestry College (Yonas, 2001; Demel, 2004).

FAWCDA placed emphasis on plantation of exotic tree species, mainly eucalyptus, which was later feared by many farming communities for affecting soil fertility and draining soil moisture (Alemayehu, *et al*., 2012). Besides the emphasis on exotic trees, the approaches followed by the regime towards afforestation had ensued unpopularity due to three major reasons. The incorporation of farm lands in to national forest priority areas that often caused forced eviction was one of the sources of unpopularity while the coercive approach that was opted to undertake the afforestation activities was another source of public grievances. Furthermore, lack of use right from the developed forest resources had also intensified the unpopularity of the Dergue's forest policy in general (Dessaleng, 2001; Bekele, 2003). Nevertheless, the works of FAWCDA were given a notable merit as the total size of forest cover in the country significantly improved with living examples of big public forests still existing in different parts of the country (Berhanu, 2009; Yonas, 2001; Melaku, 2003).

On contrary to the regime's commitment to foster conservation and improvement of forest resources of the country, Dergue introduced some misguided policies that were detrimental to forest conservation. The viligization and resettlement policy coupled with the political mistrust developed between the government and the people have resulted in swept away of the forest resources in most of the natural and forcefully afforested areas. To this end, the controversial policy undertakings related to resettlement and village formation was meant to achieve development through bringing the rural people in to manageable quarters, and thus to foster economic and social development from the socialist perspective (Cohen & Isaksson,1987). In implementing these, the Dergue forcefully moved people from different areas which were affected by drought, soil degradation and inaccessible to foster social and economic development (De Waal, 1991). Hence, from parts of the Northern provinces, particularly from Wello, people were brought to the southern parts in the form of resettlement (Amonge, 2013). As evidences indicate, by August 1988, 12 million people had been villagized (Lorgen, 1999) while about 600,000 households were resettled until 1986 (Chala and Terefe, 2015). In most parts, the resettlement and villagization were done in forested areas and hence, the damage done to the resources was believed to be immense (Dessalegn, 2001; De Waal, 1991: 232). According to a

key informant interview extract, with the downfall of Dergue, however, the farmers retreated back to their original places and still continued to affect the forest resources for house construction, fuel wood, timber and other benefits (KIF/10, 2017). Thus, during the course of the entire process, the villagization and resettlement measures have had massive negative effect on the natural resources. The Dergue era environmental conservation discourse, according to Desalegn (2001), was led by the motto that the government knows how to conserve and the people do not. Hence, either conservation works or other development programs were imposed from top to down. Desslaegn (2001) further explains the effects of the Dergue's misguided policies as follows;

> The worst enemy of state environmentalism under the Dergue was the state itself, many of whose rural policies worked against environmental objectives. Collectivization, villagization, and resettlement, which were carried out on a large scale in the 1980s, were accompanied by extensive deforestation and soil erosion (Dessalegn, 2001:38).

Dergue's environmentalism was based on the fallacious belief that the top down way of imposing policies was believed to be the right approach to solve development problems and hence the people were entirely disregarded in matters that pertain to their own lives and their local resources (Keely & Scoones, 2003). In this regard, Dessalegn (2001) argued that the views of the peasants towards resources were about sustainable use while the government's views were that the people were simply destructive (Dessalegn, 2001). The government puts the entire blame on peasants for every resource degradation and opted to apply forceful conservation measures. Thus, the two constituted parallel views of nature conservation and this led to the growing antagonism of interest (Dessalegn, 2001), which ultimately led to severe resource degradation by the people themselves during the final days of the authoritative regime (Tefera, 2015).

In general, the military government being guided by socialist principles gave a deaf ear to the views of the people and persisted in undertaking policy measures which, from the regimes perspective, were believed to yield anticipated socio-economic changes while the benefits of most of the measures to their lives and livelihoods were oppositely seen from the peoples' perspectives. Hence, despite the conservation and afforestation campaigns undertaken by the regime, the misguided policies of forced resettlement and villagization had resulted in massive resource destruction (Mekonnen *et al*., 2011; Reusing, 2000:1256; Jacobs & Schloeder, 2001).

4.3.1.2 Wildlife conservation

The trend in wildlife conservation had shown no significant change of policy during the Dergue regime, which consolidated the monarchial governance setups, except bringing the independent wildlife organization of the monarchial period under FAWCDA, whose mandates were inclusive of forestry and wildlife. As it was during the monarchial era, the purpose of wildlife conservation was for income generation through controlled hunting and tourism. The Dergue regime passed a decree that recognized the economic and leisure importance of wildlife and the need to protect them as some of the animals were threatened due to poaching, illegal hunting and population pressure in protected areas (Negarit Gazeta, 1980).

Similarly, the same proclamation stipulated the expansion and governance of national parks, which was initiated by the monarchial era. Therefore, the newly instituted forest and wildlife authority was endowed with full mandate of control over the existing protected areas and further expansion of similar national parks (Negarit Gazeta, 1980). The trend in park designation and governance, however, has never shown any change from that of the previous regime with limited expansive advances in terms of park designation which was far less than that of the monarchial period that was able to designate at least 11 protected areas from 1958 to 1974; whereas Dergue managed to gazette only two parks (Asebe, 2012; Verugdenhil *et al*., 2012). Even though there were rare undertakings with respect to expansion of protected areas, the governance of the protected areas remained the same throughout the regime, as the old exclusionary Yellowstone model was adhered to in a more severe and repressive manner (Asebe, 2012). The eviction of local people from the park areas and punitive measures undertaken towards those who fail to abandon grazing and use of the park resources were unpopular among the local communities (Asebe, 2012).

Consequently, the conservation of resources in parks was unsuccessful and the wild animals and their habitat had been facing ferocious attack from the communities regardless of the fenced approach of governance (Abraha, 2008). Forceful and continual adherence to the exclusionary protected area policy in conjunction with a nationwide lack of basic development amenities, and diversion of finances toward the civil war in the northern part of the country, were the most significant factors contributing to the lack of success in conservation programs (Hillman, 1992). Besides this, as one of the key informants has noted, the Dergue regime put in place policies related to resettlement and forceful vilagization through eviction of peasants from their original

lands (KIF/10, 2017). As the same key informant indicated, these policies resulted in significant damages of natural resources when a change in government occurred. With the downfall of the military regime, there was disorder and lawlessness in the country for certain period of time (Jacobs & Scholder, 2001, p.15). During the transition period, institutions were malfunctioning and thus failed to exercise control over the resources, which were already under threat from hostility of the local people (Hillman, 1992). The exclusionary approach of governance of protected areas, hence, has developed deep-rooted resentment among the local people because of loss of their lands, inaccessibility to resources, and mainly because of deteriorating livelihood conditions (Hillman, 1992). Consequently, the transition period was marked with the rampant degradation of biodiversity resources. As evidences suggest, one of the most degraded parks during the transition period was the Awash national park, which was exposed to illegal settlement, resource exploitation, and land use (CARE, 1994).

4.3.1.3 Soil and water conservation

In early periods of the military regime, there were little advances in undertaking policy measures that were directed towards environmental protection. The institutional and legal frameworks of the monarchial era with regard to both wildlife, and soil conservation continued to some extent. However, the regime began to capitalize on what were already begun by the monarchial period with increased concern over the threats of the drought and the on-going land degradation (Bekele *et al*., 1998).

During Dergue, the emperor's trend of disregard to forests was substantially changed. The Land reform proclamation has significantly contributed to the organized and individual conduct of conserving natural resource in and around the newly distributed plots of land (Dessalegn, 2001; Chala, 2015). As evidences indicated, the understanding and response to environmental problems, soil and vegetation resource conservation in particular, of the Derg era was better than that of its predecessor which was demonstrated through increased institutional and policy responses (Kebede, 1992; Tesfaye, 2003; Chala, 2015). Unlike the monarchial era, Public engagement at local levels begun, as farmers were permitted to gather together at what was called 'Gebere-mahber' to discuss on resource conservation issues, which was not the case during the previous regime (Dessalegn, 2001). Cutting trees would result in punitive measures and planting was highly encouraged. A senior researcher from FSS has also underlined that with

the aftermath of Wollo famine, the afforestation and soil conservation work by FFW was taken as the lasting solution to ensuring food security.

During the monarchy, landlords had a power to challenge the decisions and there was formidable resistance from below. However, during the Dergue, nobody was able to challenge the top-down decisions (Dessalegn, 2001). The power given to the Gebere-Mahber to enforce the regime's policies, as per the proclamation no.71/1975 was very strong and local resistance would result in severe punitive measures and hence there was little room for disobedience. Consequently, massive activities in terms of area closure, terracing and construction of stone bunds, as well as afforestation were carried out forcefully and through use of food for work incentive (Bekele *et al*,1998). Even though there was a common platform for the peasant communities to discuss and get informed on the conservation activities at Gebere-Mahber level, the practice was far from popularity and purely imposed by the government and was top-down (Gadisa, 2016; Gebregzabiher *et al*, 2016; Bekele *et al*,1998). By further explaining the situation and the underlying causes of unpopularity of the work, the senior researcher said,

> The conservation work was unpopular not only because it was done forcefully. But there were three major reasons for its unpopularity and failure to sustain. Firstly, the stone bunds and terraces were thought to consume sizeable portion of the farmland. Secondly, it posed difficulty of plowing with oxen as the distance between the terraces hindered easy movement of the farming animals. Thirdly, during rainy seasons, the flood between the terraces was thought to flow in to any river in the vicinity while in places where there were no such rivers, it had to flow in to open areas and created unnecessary ponds. Thus, after consuming the food incentive and doing it for some time, they damaged it because they hated it for the aforementioned reasons. This was mainly due to poor technical planning and onsite support, and lack of adequately trained technical personnel at local levels (KIF/10, June 2017].

To this end, Bekele *et al*. (1998) has also noted that the unpopularity of the work was evident from the unsustainability of the conservation works, which they did not want to carry out maintenance works. As soon as the food incentive program was withdrawn, they conservation works were automatically abandoned (Bekele *et al*., 1998). The program was not compatible with the interest of the farmers and the carrot and stick approach that integrated coercion with food incentives became so unpopular and could not help to last the conservation work for long (Tefera, 2015, Gebremedhin, 2004). As a result, when the military government was overthrown by the EPRDF forces in 1991, the people destroyed most of the physical works and forests in protest against the misguided and imposed policies which had never considered the interest of the people (Keeley & Scoones, 2003). However, the key informant from the research institute

could not rule out the outcomes of the afforestation practices and hence noted that the conservation effort in terms of afforestation activities in particular, despite all the limitations, have yielded some good outcomes in improving the stock of forest cover in some of the areas which are still managed and used by the communities in different parts of the country. As afforestation was done by a huge food for work program, another senior official from the environment sector also noted that the purpose of conserving forest resource was beyond its economic values and its ecological values began to be understood.

Furthermore, with the recurrent droughts and resulting famines, the Dergue regime had begun to concentrate on conservation activities enacting some laws, policies and setting up institutions in charge. Similarly, a senior policy advisor from the Prime Minister's office also underlined that the major driving force for Dergue's environmentalism was the drought. Hence, environmental conservation, being the sum of soil, water and vegetation, became one of its focus areas in response to the agonies of the drought. By way of explaining the progress in terms of environmental thoughts and responses, another key informant also noted that the understanding of environmental problems and the need to respond to it in a comprehensive manner grew to the level that brought about decisions to initiate a research project for policy formulation. Phase one of the national conservation strategy project, hence, was initiated at the final years of the Dergue and preliminary studies for formulation of the current environmental policy were also begun during the penultimate year of the military government (Falloux & Talbot, 1993).

The growing trend in the diversity of Dergue's environmental taught at its final years of rule was also evident from its valley development initiative, which was one of the remarkable undertakings of the regime. Dergue formed an institution to conduct comprehensive study of the natural resource potential of Ethiopian valleys and to devise policy measures to protect the valley based environmental resources. Hence, the Ethiopian Valley Development Studies Authority (EVDSA) was formed by proclamation no. 318 of 1987 (Negarit Gazeta No.16, 1987). Even though there were rarely documented evidences of the outputs recorded by the agency, one of the key informants noted that studies were conducted on the basis of which some development activities as well as protective measures were carried out in some of the major valleys. The principal aim of the initiative, as it reads from the proclamation, was about economic utilization of the existing resources across the major valleys of the country. Its introductory remark reads as:

Whereas, the promotion of the social and economic progress of Ethiopia requires that proper use be made of its natural resources whereas, continued integrated utilization of the natural resources in the nation's valleys and, in particular, coordinated optimal allocation of water resources, indispensable for development, to irrigation and other uses calls for study and research as an urgent task; (proc. no. 318, 1987:1).

Even though the initiative was mainly about resource utilization, the introductory paragraph emphasized on the planned utilization of the resources. The phrase 'continued integrated utilization' indicates the idea of sustainability in resource use. The same proclamation, under the section of 'objectives of the Authority', no. 3 states "Conduct studies for protection of the environment" as one of its measure mandates. Hence, there was an understanding of the protection aspect of environment though the overriding object was economic use of the resources in the valleys, particularly water, arable land, wildlife and forests. In the section of 'Powers and duties' of the authority, the sub article 9 states:

…conduct environmental research and studies with a view to controlling depletion of natural resources in valleys; initiate policy and devise ways and means for the protection of the environment and, upon approval, supervise the implementation of same (Page 3).

From the above statement, it can be noted that environmental protection was acknowledged as institutional mandate and this document could probably be seen as the first most document that came out with clear statement about 'environment' and 'environmental protection'. Thus, there were advances in the concept and policy measures of environmental protection and sustainable use of resources at the later stages of the Dergue regime. This indicates that the country's polices were began to be under the influence of international environmental discourses as the period was witnessing emergence of the sustainability paradigm with the 1987 report (Our Common Future) of the World Commission on Environment and Development (Brundtland,1987). Thus, it can be noted that the last stage of the Dergue regime began to embrace the imperative of environmental protection and the term 'environmental protection' appeared at policy and legislative documents for the first time, which had never been the case in the entire period of the monarchy and most of the ruling periods of the military Dergue itself.

4.3.2 Major drivers of environmental governance during the military government

Without having any coherent environmental policy, the Dergue undertook massive programs of environmental rehabilitation which were done either using the relief aid or through involuntary involvement of the rural people through forced measures (Dessalegn *et al*., 2007). Similar to the

Monarchial period, the Dergue's environmentalism until its final stages, was largely driven by rising tones of apocalyptic views of foreign experts that proclaimed the catastrophic effects of resource degradation on the one hand and. On the other hand, the recurrent droughts that were causing food shortage and took the lives of many citizens forced the regime to undertake conservation works as well as massive resettlement programs which were also unpopular for their disruptive implications on the lives of the settlers (Challa, 2015).

As the environmental discourse in Ethiopia was largely dominated by expatriate views who lacked adequate knowledge of the socio cultural and economic setting of the country since the Emperor's period, the Degrue regime had also been under similar influence. Since 1950s, expatriates working under FAO as technical advisors urged the governments that the country's resources were under massive depletion including forest, soil and water.

As most of the expatriates were foresters, according to Dessalegn *et al* (2007), the scare-mongering was that the forests in the north would soon be shifted to the south due to the increasing deforestation and population pressure in the north (Dessalegn *et al*, 2007:13). These expatriate experts and the donor agencies preached a neo Malthusian environmental policy perspective justifying that the resource depletion and resulting famines were due to the growing population pressure. Consequently, they recommended massive and 'standardized' environmental management packages to be conducted hastily without any prior study and led towards measures of forced implementation (Hoben, 1995; Chala, 2015). Hans Hurni, a Swiss soil scientist, was an advisor to the ministry of agriculture whose continued concerns over the level of depletion of soil resources had resulted in increasing pessimism among policy makers that ensued forced and unwarranted conservation measures. Hence, it set a policy trend of doing the work at any cost through relief that later perpetuated dependency syndrome on the one hand and through coercion on the other hand. The forceful means of implementation resulted in unpopularity of the program and caused destruction of the conservation schemes by the people themselves when the regime was ousted by the incoming new regime (Dessalegn *et al*, 2007). Meanwhile, domestic experts and policy decision makers were highly influenced by the voices of the foreign experts whose 'apocalyptic' views had shaped the environmental narratives and successive policy measures undertaken in the country (Hoben, 1995; Dessalegn *et al*., 2007).

The key informant interview extract has also indicated that the conservation ideas in the ministry of agriculture were rarely dependent on the existing domestic knowledge and there was strong influence of imported knowledge, which often lacked deep understanding of the social, cultural and ecological realities of the country. Thus, expatriate knowledge was highly acknowledged and major policy decisions were dependent on their advices. For instance, the soil and water conservation schemes were merely recommended by these experts and implemented without any in-depth assessment or piloting (KIF/05, 2017). On the other hand, the exclusionary approach of park designation that precluded the local people from their customary use rights of resources was due to advices from these expatriates. The other senior policy figure from agriculture sector also noted:

Until the opening and expansion of agriculture and forestry colleges in the country, there was a serious knowledge gap in these areas. Hence, major policy decisions were heavily dependent on donor prescriptions and expatriate expert advices who were working under the donor agencies such as FAO and WFP (KIF/02, May 2017).

Overall, the major drivers that shaped the environmental policy discourse and the resulting governance setting were more or less similar to the monarchial period as the fear of resource depletion and the effects of drought driven famine were the major ones. At its later stages, Dergue's policies towards environmental protection were driven by the international discourse of sustainable development to some extent and the need to conduct sustainable use of resources including the major valleys of the country.

4.3.3 Environmental institutions and actors during the military government

The institutional set up of environmental mandates during Dergue has shown little changes from that of the monarchy. Ministry of agriculture being the major institutional setup, stayed as the center of gravity towards environmental mandates, expanding its roles with the newly instituted department of soil and forestry conservation. According to one of the senior officials;

Though there were no new initiatives from the earlier regime, activities were expanded in volume, space and time and broader than the previous ones. The function of Ministry of agriculture during this era was broader than the previous era where it included not only agriculture, but also natural resource and livestock. Concern for conservation appeared since the famine of 1973 and there were structural and policy attempts to link soil and water conservation with natural resource and agricultural production. Hence, soil and water conservation unit was set up under the ministry, which was later promoted to department (Memria) level. The role and support of WFP was strong in this era and forestry was given due emphasis (KIF/02, May 2017).

Proclamation no.192 of 1980, re-established the Forest and wildlife conservation and Development Authority, granting it with the governance of forests and wildlife or national parks. Initially, FAWCDA was instituted independently and hence undertook some significant steps in forestry development. However, in 1984, it was merged into the Ministry of Agriculture. The projects and aggressive afforestation activities being undertaken by FAWCDA were stopped after the merger that took time in the process of restructuring. Through the restructuring, FAWCDA was set to be under the new department of Natural resources conservation created in 1985(Bane *et al*., 2008). Even though the new department under which FAWCDA was restructured had been led by a vice minister, the earlier advances seen in forestry development could not maintain similar pace that was seen in the past 5 years of the independent FAWCDA (Demel, 2004).

Accordingly, the role of ministry of agriculture became broader in scope and stronger in power. Apart from this, there was no any recognized environmental institution until the final periods of the regime. In the late 1980s, the regime instituted an Authority known as EVDSA (Ethiopian Valley development and Study Authority), which was independent of the commonly known ministry of agriculture. The Authority was granted with the mandate of studying the potentials of the major valleys and to have devised strategies for sustainable use of the resources (Negarit Gazeta, 1987). However, under Ministry of economic planning, there was a department of natural resource planning which involved in the initial study of the national conservation project (TGE, 1994). Later on, the task was transferred to ministry of agriculture with the downfall of the regime. In general, even though Dergue undertook many policy and institutional reforms in different social and economic sectors over its seventeen years of tenure, there were no significant institutional changes recorded in environment sector.

In terms of actors, the major player in the governance of environmental resources was the government itself. Since the major policy paradigm of Dergue was state-centric and top-down, the role of other actors was very weak. Even though the reforestation and soil conservation works were massively carried out by the rural people, the entire policy decisions were undertaken by the government institutions in highly centralized manner and thus the wider public had no room to influence the policies as well as the implementation strategies. There were over forty donor agencies and environmental NGOs who were engaged in support of rehabilitation

works (Dessalegn *et al*., 2007) whose expert advices were influential in shaping the policy contents as well as implementation strategies (Challa, 2015). Thus, more than the people, who were merely forced to accept and implement the top down decisions, the foreign donors have had a strong role in policy making and design of national conservation plans. Therefore, it can be argued that there was a state centric and top down approach of governance that gave little room for public participation in general while the financial and technical support of donor agencies had played significant role in expediting the national plans of soil conservation, afforestation and wildlife protection.

4.4 Chapter conclusion

Until recently, environmental policy and governance in Ethiopia has been characterized by stagnancy, conceptual confusion and weak regulatory and institutional responses while lacking any coherent policy. Over the last two regimes before EPRDF, environment was entirely attached to the land-based resources of wildlife, forestry, soil and water. Even though the country had a long history of traditional resource conservation including terrace building and agroforestry, there was little emphasis by respective regimes to build on these experiences until recently. The monarchial government's focus to development of forest resources was mainly based on the need to satisfy the economic demands and the ecological values of forests were poorly understood. Thus, forest clearance was encouraged implicitly and explicitly and resulted in massive clearance of Ethiopia's forest resource being labeled as the worst period in Ethiopia's forestry history.

The Wildlife conservation was carried out through introduction of protected areas basically driven by the influences of colonial experiences of the African counterparts and to maximize the economic benefits from hunting and tourism. The Park system was introduced in Ethiopia by the help of multilateral organizations, which resulted in the adoption of the traditional Yellowstone model. Wild animals and forest resources, hence, were conserved to generate income and expansion of parks was aimed at bringing large sizes of open lands in to the palms of the monarchial government which was not a popular move from the perspective of the local elites and the nobility whose intention was to maintain strong private control over rural lands. Thus, resource conservation efforts of the regime were strongly resisted and the policy and legal advances were very limited until the second half of the 1960s during which some significant

forest related laws were promulgated. The emperor's era had left a legacy of equating wildlife and forestry with environment and Dergue, its military successor, did not make any significant change in legal, institutional and conceptual aspects of environmental policy and governance until its final years of tenure. With the most significant policy measure in transferring land to the rural people, Dergue dismantled every political and economic policy and institutional arrangements of the monarchial era. However, the wildlife and forestry development and conservation practice had seen little changes in terms of institutions and approach of governance. Though there was significant attempt to expand forestry through coercive approach, the management of park-based resources was kept almost the same being exclusionary, resulting in forceful eviction of local people and loss of their livelihoods. In terms of scale, Dergue even failed to undertake further expansive measures and did gazette fewer parks in its entire lifespan than the monarchy.

Lacking any coherent environmental policy as its predecessor, Dergue did not introduce any significant change in the institutional setup of the environment sector. The institutional setup of forests and wildlife, with some modifications to the monarchial era, had stayed in and around ministry of agriculture, consolidating the thought that labeled ministry of agriculture as the single repository of Ethiopia's environmental mandates until recently. It failed to set up any new environmental institution throughout its entire tenure except establishment of soil conservation department under ministry of agriculture and formation of valley development and study authority in late 1980s. Until its final years, the environmental narrative that drove the Dergue regime was similar to the monarchial era with the frontier economy approach being the overriding objective. Towards its final stage of reign, the environmental views of Dergue were under the influence of the global environmental narratives and hence began to undertake some policy measures such as development and sustainable utilization of valley-based resources and initiated preliminary study of the national conservation strategy, which was culminated after its downfall. Similar to the period of monarchy, the role of foreign donors and the influence of expatriate expert views were dominant in shaping the Dergue's policy decisions. Due to the effects of droughts and neo Malthusian resource pessimism instilled by the foreign experts, the regime implemented coercive top down approach of resource conservation, which was very unpopular among the local implementers.

CHAPTER FIVE: ENVIRONMENTAL POLICY AND GOVERNANCE IN POST 1991 ETHIOPIA

5.1 Introduction

From the discussions of the last chapter, it is evident that environmental policy and governance system in the previous regimes was highly limited to laying out scant legal and institutional frameworks to govern land based resources (soil, water, vegetation and wildlife) which were synonymous with 'environment' and the major intention of the conservation measures was basically economic and leisure with little focus to the objective of achieving the ecological balance of nature (Amonge, 2013). The issue of existence of the resources in their own right was poorly understood and the ecosystem goods and services were partially acknowledged while only focusing on the cultural (recreational) and provisioning aspects among the multiple and complex types of goods and services they provide, which was labeled as a frontier economy approach (Colby, 1991).

During the EPRDF era, environmental policy and governance has shown significant progress and characterized by increased concern for environmental problems as a whole whereby broad environmental issues were addressed through policies, strategies, legal frameworks and institutional setups (EPA, 1998). However, as discussed in the following sections, a couple of years in its early stages were characterized by little emphasis to environmental affairs as the regime's priorities were achieving political stability ahead of anything else. Therefore, before going in to broad discussion of environmental policy and governance trends of the EPRDF era, the chapter begins with brief discussion of environmental responses and related problems during the early period of political transition.

5.2 Environmental responses during the transitional period (1992-1995)

Following the downfall of the military rule by the EPRDF led coalition forces in 1991(EPA, 2012), the country faced lawlessness, instability, and anarchy for a brief time (Jacobs and Schloeder, 2001; Amonge, 2013). After long years of suppression and tyranny, the people have begun to vent out their hatred to the overthrown regime through destructing its institutions. According to a senior retired government official, the nationwide resentment developed due to the execution of Dergue's misguided policies and the application of top-down approaches of their implementation was so intense. Following the downfall of the regime, the key informant noted, there was lawlessness and instability for a brief period until the newly coming force took

full control of the situation. Hence, there were destructive actions elsewhere demonstrated by looting, destruction of properties and premises of cooperative unions, and local government offices, etc. Cutting trees and clearing lands, which were protected for area closure and forestry widely took place in an attempt to control additional farmlands (Dessalegn, 1994).

Demolition of soil and water conservation works such as stone bunds and terraces was also one of the ways how the disorder and lawlessness were manifested. Even though there is no concrete evidence with regard to the magnitude of the damage done to resources, the size of cleared public forests was immense (TGE, 1994, p.7). As indicated in section 4.3.1, where the practice of park governance had never taken in to account the livelihood rights and demands of the local people and was done in an exclusionary way, park resources were also targets of destruction (Jacobs and Schloeder, 2001). To this end, Awash national park was the one, which was the main target of destructive measures of the local people (Dessalegn, 2001; CARE, 1994). As what Dessalegn calls it "deforestation as an act of protest" and "eco-violence" (Dessalegn, 2001), this was a resentful response to what they thought was unjust practice that had been imposed upon them. Hence, they soon took measures to send their cattle in to the park, cut trees for coal production, and killed animals for bush meat and other purposes (Dessalegn, 2001; CARE, 1994). In some parts, land was cleared and the local people invaded park areas, begun farming and turned sizeable portions in to residence area (Dessalegn, 2001).

The new regime, being encountered with such a reality, had to focus on broad spectrum of reforms for economic recovery in one hand and the restoration of peace and instability on the other hand over the coming few years (MoFED, 2002) and hence, little was done in protection of the environmental resources which were under a continuous attack and invasion (TGE, 1994). This fact can be seen from the lack of any regulatory responses on the part of the new regime in the first few years. As archival evidences indicate, there were no any laws, regulations, or policy responses over the period of transition with respect to resource conservation. After three years of full engagement on peace, stability and introduction of major economic reforms (Sisay,2008), the first attempt towards responding to the ongoing degradation of resources was seen in 1994, with the enactment of the proclamation of forest conservation law (Negarit Gazeta no.94, 1994) and the formulation of the ADLI policy in which effective utilization and conservation of land resources was emphasized as a prerequisite for agricultural growth that would lead to

industrialization(TGE, 1994; MoFED, 2002). With the restoration of law and order, the resource conservation gradually began to take shape as local governments were established and the justice system begun to function (TGE, 1994).

The aforementioned forest protection law, proclaimed by the transitional parliament was the first step to respond to the massive destruction of forests and ongoing soil degradation. Its preamble underlines the threat posed on forest resources and the level of land degradation and reiterates the necessity to provide for protection of these resources. It also emphasized the need to develop and conserve forests while considering the livelihood demands of the resource communities whereby their participation in the management of and benefit sharing from public forests would be given legal recognition (Negarit Gazeta No.94, 1994). Despite those attempts mentioned above, the major focus of the new regime was to put in place an orderly path to a secure and stable national political system guided by the transition charter (Negarit Gazeta No.1, 1991) and hence over the following years, degradation of resources persistently took place (Dessalegn, 2001). As noted by Amonge (2013), an estimated 60 per cent of the conservation works, including state forests were destroyed in a brief period of the transition (Amonge, 2013).

The FGDs in Fentale *wereda* of Awash national park have noted that the transition period was the worst period for the park as its resources were severely damaged by the local people until restoration of law and order. Similarly, the key informants as well as FGDs in the surrounding kebeles of Chebera Churchura Park have noted that nearly about one third of the natural forest in Esera and Tocha *weredas* of Dawro zone, adjacent to the current national park was cleared by the local people only during the period of transition. They connote the period, as the worst period of all time during which they lost their forest resource, which they believe, could never be restored. As they currently undertake and being benefited from the practice of participatory forest management (PFM), which is well underway and proved full engagement of the local people in terms of conservation and sustainable use of resources, they feel an enormous pity and regret for the resources that they had lost only because of their poor knowledge by the time. They noted that the residents simply attached the forest with the mal-administrative practices of the regime and cleared it in an implacable action, which they believe was absolutely wrong. In general, the transition period can be said a period of restoration of law and order as there were no significant steps taken to protect the environment. Equally, it can be labeled as the worst period

of resource devastation in the country's history, which involved massive destruction of forest and wildlife resources in a way that restoration was still very difficult. The people living adjacent to CCNP recall that there were tragic poaching activities of illegal hunting on elephant population in the currently designated area of Chebera Churchura where the ivory trade became a lucrative business by those who were armed with automatic machine guns acquired from the ex-soldiers for cheap prices.

Deterioration of the country's food production exacerbated by recurring droughts and soil degradation defined the initial periods of the new regime and followed similar trends of soil and water conservation through the use of Food-For-Work (FFW) assisted by donor agencies (TGE,1994). The donor assisted SWC practice was done across the country in areas with recurrent food deficit (Bekele *et al*, 1998). However, the conservation practice was weak in terms of reversing the situation since there were no strong local institutions to draw public participation on one hand and to fight against the aid dependency syndrome, which was detrimental to the free and voluntary release of the rural labor, on the other hand (Zemenfes, 1995). While the practice was intermittently done in the rest of the country, there was organized and mass based conduct of SWC in Tigray region, which was simply the expansion of the TPLF's previous experience in some parts of the region during the armed struggle. Studies have indicated that the SWC works were already there before the downfall of Dergue, supported by REST (Aregawi, 2008; Berhane, 2017) and the newly constituted regional administration of Tigray had no difficulty in realizing public mobilization whereas in the rest of the regions, they had to begin from the scratch to make a shift from relief driven, unsustainable and piecemeal SWC work to the one which engages the voluntary release of popular labor in massive scale. Hence, as key informant from the environment sector noted:

> The practice in the rest of the country was very poor both in terms of public participation and geographic scale as well as quality of the conservation works. Thus, besides use of the documented evidences which were collected and analyzed during the Dergue regime, the conservation strategy formulation was partly based on the practical filed experiences of Tigray region (KIF/01, April 2017].

As the period of transition was mostly marked as preparatory period in which the foundations of most of the economic and social policy including ADLI were laid through dismantling the socialist oriented policies and institutional setups of the previous regime (EPA, 2012), the same

was true for environmental policy and legislation to be conceived during the period. Following its participation in Rio summit of 1992 (Ruffies *et al*., 2010), and the increasing severity of resource degradation prevailed in the country, the government instituted a new ministry of Natural Resources and Environmental Protection in 1993, and environmental mandates were brought to it form the ministry of agriculture which was an eternal home of Ethiopia's environmental mandates (Negarit Gazeta, 1993). Accordingly, the national conservation strategy formulation for the second phase (1991-1994) was completed during this period. Being an extension from the previous era (phase I), which was housed by the then Ministry of Planning, the second phase was conducted by the transitional government under the mandate of the new ministry (TGE, 1994).

Table 5. 1 Description of the three phases of Conservation Strategy Project

CS Phases	coordination center/funding sources	Process	Major objective of each phase	Engagement (participation)
Phase I (1989-1990)	Ministry of Planning/ SIDA	Reviewing institutional and policy situations as well as environmental trends	Situation analysis phase	Expert based, no evidence of public/ stakeholder participation
Phase II (1991-1994)	MoP for some time, and CSE secretariat under new MoNREP/ ODA (UK), UNSO	Development of five volumes of strategy document addressing environmental trends, policy & institutional issues, provide action plan for investment	Strategy development (planning phase)	Involved zonal government staff, community representatives and central government Staff
Phase III (1995-1998)	MoNREP dissolved and EPA established	Focus on institutional and technical arrangements at national and sub-national levels for implementation	Implementation phase	Regional and local governments; communities

Source: Compiled from the CSE-Phase III document (1997).

As it can be seen from the table, the first phase was carried out during the Dergue regime, which was mainly about identification of environmental problems, analysis of institutional and policy situations, laying basis for further strategy formulation (TGE, 1994). Even though environmental issues were housed under ministry of agriculture, the preparation of national conservation strategy was assigned to the ministry of central planning (Dergue), which was later named as

ministry of planning and economic development (EPRDF). The second phase of the conservation project was aimed at development of five volumes of strategy document addressing environmental trends, policy and institutional issues, and to provide action plan for investment. The process was said to be participatory that involved local stakeholders across selected regions (TGE, 1994). However, the key informant data indicated that the participation was simply that which allowed mere consultation of the federal, and regional bodies (KIF/02; KIF05). The third phase of the project was about implementation and virtually done by experts (EPA, 2012). All of the preparatory phases were supported and funded by multilateral and bilateral agencies and the technical work was executed by IUCN (EPA, 2012). Hence, the donor influence was evident from the texts in the document itself. In the second phase document, it was stated that the country had to respond to the structural adjustment requirement of the multilateral agencies and hence, it reads as:

> In September 1992, the Government presented its Policy Framework Paper 1992/1993 - 1994/95 (PFP) to the IMF and the World Bank as a major step in implementing its economic policy. The Policy will be implemented in three overlapping phases: stabilization, structural reform and further structural reform. It comprises a new macro-economic package, which includes the devaluation of the Birr, improved incentives for the agricultural sector to produce and export a surplus and the promotion of sustained growth of the economy. The PFP includes the formulation of a National Conservation Strategy in its package of policies and strategies for structural adjustment. Of the 18 policy areas covered in the PFP[15], 8 are dealt with directly or indirectly by the National Policy on Natural Resources and Environment (TGE, 1994:15).

Thus, as the period was characterized by imposition of market liberalization and deregulation prescriptions by the so-called structural adjustment programs (Falloux & Talbot, 1993) it was indicative that the process was influenced by the requirements of the Bretton woods institutions (EPA, 2012). However, evidences also indicated that, unlike many other countries, Ethiopia did not fully accept the National Environmental Action Plan (NAEAP) template presented from the donor agencies and the CSE was accepted instead (EPA, 2012) and the government owned the process effectively while minimizing the extent of likely influences from donor agencies (Falloux & Talbot, 1993).

In terms of its content, the strategy was a comprehensive document that had adequate explanations of the environmental situations and trends in the country, and wary of the anthropogenic causes to the environmental health and with some lucid explanations of mitigation

[15]Policy Framework Paper.

and adaptation actions to be undertaken against the effects of climate change. It also pinpointed the need for the country to be engaged in global climate politics in diplomatic front while lining up its new economy in to the green and sustainable path of development (TGE, 1994, p.94). The strategy further indicated the need to mainstream environmental issues in every development sector planning and specified the best possible integration, synergy, and coordination among sectors and national as well as sub national bodies (TGE, 1994, p. 94). However, despite the specific recommendations and strategic directions of the CSE, its implementation was not far from challenge. The issue of integration was impractical due to capacity limitations and limited level of awareness (EPA, 2012). As indicated in the national assessment report of EPA (2010), even though the idea of sustainable development was hotly spoken agenda from Ethiopia's participation in the Rio summit, the periods of transition were focused on formulation of social and economic development policies whereas the integration of environmental issues could not materialize and even took longer time to happen (EPA, 2012). Indicating lack of integration of environmental issues in different sectoral policies and plans, the report noted:

> The 1990s and early 2000s development plans focused on the economic and social development pillars, and integration of the environmental pillar began during PRSP in 2002/3, as the country's economy begun double digit growth rate. PASDEP integrated the environment in the development plan with clear indicators and targets (EPA, 2012, p. 20).

From the above extract, inference can be made that until the formulation of Plan of Accelerated Sustainable Development to End Poverty(PASDEP-2005/6-2009/10),environmental mainstreaming and integration in to social and economic development policies, programs and sectoral plans was almost absent which is indicative of poor environmental awareness across sectors. In general, the transition period can be said the period of lawlessness and instability that forced the entire focus of the government to be on reforms mainly aimed at creating a secure and stable economic and political transition. Thus, the political disorder and lawlessness resulted in massive resource destruction across the country. On the other hand, as it was a period of political transition to stability and tranquility, it was also a preparatory period that led to holistic environmental policy and governance in the coming years after the formation of the constitutional government of EFDRE in 1995.

5.3 Environmental policy and governance in the post transitional period

The post transitional period had witnessed key milestones in environmental policy and governance which was demonstrated by formulation of the FDRE constitution and the Environmental policy as cornerstones for the consequential undertakings in environment sector.

The 1995 constitution can be regarded as the turning point in Ethiopia's environmentalism with strong implications on legal, institutional and policy frameworks. The constitution, being the supreme law of the land, devoted two articles for environment, which lifted the degree and status of environmental concerns to the highest level from being side issue to the status of major human right issue. Article 44 is about environmental rights, which puts environmental security as part of basic popular rights, dictating, *"All persons have the right to clean and healthy environment*" (Negarit Gazeta, 1995, p.16). This article is consistent with and adopted in reference to the Principles (1 & 2)[16] of the Rio declaration on Human Environment (Vasseur, 1973). Similarly, article 92 stipulates environmental objectives and recognizes the government's obligations to ensure that citizens were entitled to live in "clean and healthy environment" (p. 33).

In the same year, the Environmental Protection Agency (EPA) was established by proc.no.9/1995 (Negarit Gazeta, 1995). The constitution, being an umbrella law, has significantly influenced the existing environmental policy narrative whereby environment has long been conceived as land based resource (forest and wildlife). Based on the constitutional provisions, the formulation and ratification of the country's first most environmental policy document was culminated in 1997(EPA, 2012).

Environmental policy of 1997 was the most comprehensive type of policy document ever stipulated in the country in which major environmental problems and their respective solutions were spelt out (EPA,2012; Melese & Solomon,2012). The environmental policy, along with the ratification of the long-awaited Conservation Strategy in the same year, did open a new era of

[16] **Principle** 1: "Man has the fundamental right to freedom, equality and adequate conditions of life, in an environment of a quality that permits a life of dignity and well-being, and he bears a solemn responsibility to protect and improve the environment for present and future generations. In this respect, policies promoting or perpetuating apartheid, racial segregation, discrimination, colonial and other forms of oppression and foreign domination stand condemned and must be eliminated"; **Principle 2**: "The natural resources of the earth, including the air, water, land, flora and fauna and especially representative samples of natural ecosystems, must be safeguarded for the benefit of present and future generations through careful planning or management, as appropriate".

environmentalism in Ethiopia whereby the concept of environment was no more limited to wildlife and forestry.

This massive development in policy being backed by a strong constitutional provision resulted in proliferation of legal instruments, directives and execution plans that were directed towards improving the country's environment that has experienced a long term degradation both in industrial/urban areas and agricultural landscapes of the rural areas (Colby EPG, 2011). A senior policy advisor also noted that the policy can be considered as a point of departure for the current practice of soil and water conservation work being undertaken in the rural areas while the industrial projects have been subjected to undergo a scrutiny of legal EIA process for their compatibility to the environmental requirements (KIF/05, 2017).

5.3.1 Policy and governance in relation to environmental conservation

5.3.1.1 Forest conservation

As indicated in the last chapter, there was massive destruction of forest resources during the period of political transition. The state forestry system imposed by the Dergue used to annex a sizeable portion of the farm and grazing lands of the local peasants and thus resulted in growing resentment which later caused massive destruction of forests by the local claimants (Dessalegn, 2001). Dessalegn also noted that during the first two years of transition from 1991 to 1992, the state forests across the country were targeted to massive clearance including resources in the national parks where the PA governance was exclusionary (Dessalegn, 2001, pp 52-80). The first most endeavor of the transitional government in forest conservation was demonstrated by enacting a proclamation that provided for the Conservation, development and utilization of forests, proclamation no.94/1994 (Negarit Gazeta, 1994). Unlike the past regimes, which exercised highly centralized political power and imposed top down policies, this proclamation was seen as a departure in Ethiopia's forest governance, which provided for decentralized and participatory engagement of the local people and governments. Since there were massive political and economic reforms undertaken by the transitional government with formation of regional and local governments that were given broad decentralized power of decision-making, this political stance of the government was clearly reflected in the new forest law, which emphasized forest governance and development as a major undertaking by the local governments and communities (Negarit Gazeta, 1994).

After four years of tragic destruction that the forest sector absorbed due to the early reluctance of the transitional government, the 1994 law was the first significant step towards saving Ethiopia's forest resources from an ongoing destruction. The proclamation recognizes three categories of forests namely state forest, regional forest and private forest. By state forests, it means those forests under the jurisdiction of the federal government (Negarit Gazeta, 1994). With the enactment of the forest law, practical measures were begun to be undertaken. One of these measures was the preparation of EFAP, Ethiopia's Forestry Action Program, which was an early attempt towards implementing the law. Even though the practicality of this law and the EFPA require deep scrutiny, evidences indicate that there were more or less improved tendencies and practical responses of forest protection throughout the regional governments (Alemayehu, 2014). Until the repeal of this law in 2007 by a proclamation entitled 'Forest Development, Conservation and Utilization Proclamation no. 542/2007, there were both economic and environment oriented approaches of forestry development. This was evident in the EFPA which was seen as a practical commitment of the government with the major aims of enhancing forest products for the economic demands, curbing soil degradation and enhancing agricultural production through forest development, and to protect the forest ecosystem, among others, which also emphasized on the practice of agroforestry which was supposed to be done by individual farmers. Hence, the program was aimed at achieving both economic and environmental goals (Amonge, 2013).

The NFPA was a comprehensive forest policy document produced by the then ministry of natural resources and environmental protection based on the EWCDA's ten-year strategic plan (1983-1993) that put a target of increasing the country's forest cover to 24% by the end of 1993, though its implementation was far from its promises (Bane *et al*., 2007; Alemayehu, 2014). One of the remarkable contributions of the policy can be attributed to the opening-up of the forestry governance landscape for multi-level and multi-actor based governance, which was never the case in the past regimes. To this end, the role and importance of NGOs in sustainable forest management was duly recognized by the government and hence gave rise to the participation of different local and international NGOs in forest governance in which community mobilization and participatory forest management has been widely practiced since the second half of the 1990s (Alemayehu, 2014).

As evidences suggest, NGOs and community based organizations such as Farm Africa, SOS Sahel, GIZ, JICA, NABU, MELCA Ethiopia, and other CBOs have been involved in PFM practices in different parts of the country working closely with local communities. Most of these are working in national priority forest areas designated by the government and these stakeholders for conservation purpose (Young, 2012). Participatory governance coupled with the government's commitment for planned restoration of the country's forest cover have given momentum to massive plantation of tree seedlings in the country (Alemayehu, 2014). Throughout the decade to the new Ethiopian millennium, tree planting became a celebratory activity in Ethiopia and during the PASDEP implementation from 2004/05-2009/10 alone, the forest cover of the country increased from 4.1 million ha (3.56%) to 8.8 million ha (6.0865) of the total area (MoFED, 2010).

Following the 1995 constitution, which outlined the major principles of environmental protection, the conservation strategy and formation of EPA as well as regional environmental protection agencies, the implementation of the EFAP has got momentum and another improved forest law came in to effect in 2007 (Bane *et al*., eds.,2007). Amid these developments, a renowned Woody Biomass Inventory and Strategic Planning Project (WBISPP), a centrally initiated project came to the scenes and produced some invaluable documents and data on forest sector and provided assistance to the regional governments in areas of forest planning and policy implementation including generation of valuable forest sector data (Bane *et al*., 2007). According to the senior KI, the woody biomass project has incredibly helped the forest sector with the data needed for further planning and policy making, which helped the regional governments, most of which were seriously suffering from limited expertise in this particular policy area (KIF/01, 2017).

With rapid economic development and poverty reduction being the major economic policy discourse of the country, there has been a long-standing debate in the outcomes of the country's forest development policy implemented so far. The debate is based on whether the economic policy that puts priority to agricultural growth at all cost has been undermining the forest resources in particular and the environmental security in general. Needless to bring forth the two sides of the debate, which is beyond the scope of this chapter, there are reports that that policies have positively contributed to the forest development. To this end, FAO (2003) reported that the

economic and environmental policies of the EPRDF era were done in response to the global discourse of sustainable development and hence, such policies as the conservation strategy, the environmental policy, the forest action program, Biodiversity Conservation and Development Policy and Strategy have all had direct relevance to and contribution for the forest development and conservation (FAO, 2003).

Similarly, the government has also claimed that the forest policy being linked with the agricultural development has yielded a remarkable increase in Ethiopia's forest cover (MoA, 2010). However, there are plenty of critics that the agricultural extension approach overemphasizing on crop production has undermined forestry to considerable extent and hence, there were little achievements compared to the extent of policy rhetoric that has been underway until recently (Alemayehu, 2014; Amonge, 2013).

Even though there were reports of significant developments of farm based trees in the non-forested lands and regions (Bane *et al*., 2007), the policy discourse was all about rapid economic development (Kruger,2013) which further undermined forest development and gave little emphasis to the conservation of forest resources for their ecological balance. The 2007 forest policy, in this regard, was also criticized for its being 'one sided' which underscores economic forestry and gives limited room for development of forest with respect to its ecological virtues (Bekele, 2008; Mulugeta & Tadesse, 2010). With the delay of preparation of implementation directives and guidelines which would have followed soon after the enactment of the 2007 policy, the critics further contend that the inclination towards agricultural extension and economic sided aspect of forestry has affected the outcome of forestry development, reiterating on the apparent limitations of complementarity between the forestry policy and agricultural intensification (Bekele, 2008; Birhanu, 2009; Tibebwa & Negusu, 2009).

The institutionalization of forest sector stayed under ministry of agriculture at department level that has had considerable negative effects on the conservation efforts. Since the merger of the MoNREP in 1994, it stayed as a department in MoA where it was overshadowed by agricultural intensification. As indicated by Alemayehu (2014), this overshadowing was evident both in human and financial resource allocation which unfavorably treated the forest sector and gave

overwhelming attention to agricultural development. In explaining the negative impact of the institutional marriage of forestry with agriculture, a senior researcher has noted the following.

> Forestry has been kicked around MoA for long. The need to tap the massive resources it attracted from international donors was one of the reasons to arrest it within the ministry. However, the major reason is related to the basic policy paradigm of looking forestry through the lens of agricultural production and the need for easy expansion of fertile arable land. Since everything was towards agricultural growth, MoA intended to control forestry sector in order not to lose unlimited discretion over land resource. Thus, this was the reason to keep it under MoA (KIF/10, June 2017).

Similarly, another KI from the environment sector noted that forest development stayed under the influence of the agriculture sector, which is difficult to keep together because agricultural expansion by its nature is against forest conservation and keeping the two under the same ministry would not have been a proper way of institutionalization. The implicit reason for maintaining forestry institution inside MoA was the need to maintain agricultural growth by stunting the growth of forest sector (KIF/04, 2017).

Besides policy and institutional gaps in forest sector, government's policy of inter region and intra-regional resettlements have also been criticized for their negative effect on the forest resources of the country. As part of the response for the recurrent drought induced food deficit that hit hard millions of families for years, the food security strategy was formulated in early 2000s in which inter regional and intra-regional resettlement program was emphasized as an integral component (FDRE, 2002). The resettlement program was intended to help households get access to adequate size of fertile land through moving them to unsettled open areas in the host region or zone. However, studies have reported that in most of the hosting zones and *wereda s*, there was poorly planned intervention resulted in massive destruction of natural forests mainly caused by failure to adhere to the operational guideline of the program (Jaleta *et al*., 2011). It was reported that, mainly in Oromia and SNNPR regions, most of the resettlement programs were carried out in densely forested, wood lands and shrub lands, which were cleared off in order to construct thatched houses and for farming (Jaleta *et al*., 2011). Similar study has also reported a significant change in land use and land cover in Tigray and Amhara regional states which is quoted as follows:

In Tigray and Amhara regions, satellite imagery in 2000 (before resettlement) and 2007 (after resettlement) was taken to know the magnitude of change in land use and cover associated with the resettlement program., the results of the spatio-temporal analysis showed marked decrease in woodland (25.8%) and an increase in arable land (21.8%) and grassland (3.8%)…. the present findings indicate the alarming rate of deforestation underway in the area. Most of the woodland has been replaced by arable land for the cultivation of cash and food crops. The observed increase in arable land use (almost by 100 %) has resulted in about 42 % reduction of woody vegetation cover in the district. Rapid increase of population and associated agricultural expansion and other accompanying factors (e.g. high pressure of livestock) are believed to contribute considerably for reduction in forest population (Jaleta *et al*.,2011, pp 28-29).

The same study also concluded that similar forest clearances were evident in SNNPR and Oromia regional state and the host communities reported scarcity of cultivable land which they were not in favor of the resettlement as it ruined their natural resources and forced them to face competition for resources including arable and grazing land (Jaleta *et al*., 2011). Similarly, studies conducted in different places across the country have consistently reported that the status of natural vegetation along with land use and land cover of the resettled areas have significantly been changed due to poorly undertaken resettlement programs(Teshome *et al*., 2011; Mulugeta *et al*., Amonge, 2013; 2014; Shombe, 2015; Kefelegn *et al*., 2017), which were reported to have been implemented with poor adherence to the operational manual prepared by the government (Jaleta *et al*., 2011). By the same token, the government policy that promotes transfer of land for large scale agricultural investment, which was termed as “land grab” (Dessalegn, 2011; Lavers, 2012), has attracted severe criticism both domestically and internationally for its damaging environmental impacts. It was conducted in the densely forested peripheries such as Gambella, SNNPR (South Omo Zone), and Benishangul regions where investors were provided with large sizes of arable lands for commercial agriculture. However, evidences indicate that it was done on the expense of clearance of natural forests and expulsion of wildlife (Dessalegn, 2011).

In a nutshell, this is indicative of how the sustainable development discourse has been misunderstood and skewed towards the economic aspect undermining the environmental counterpart of the broader concept. As noted by Kruger (2013), the rapid economic development was seen as synonymous to sustainable development and thus both industrial and agricultural development activities have been carried out in a way that undermined the environmental aspect of it.

The trends of forestry governance over the last seven years, however, have undergone a new wave of policy and institutional reforms. In recent years, Ethiopia's growing connection to the global economic and political forces has had an influence in terms of embracing the environment and development discourse of sustainable development through formulation of relevant policies and putting in place institutional arrangements which are thought to be in line with the multilateral agreements the country has ratified so far as well as its growing voice and role in regional and global forums related to climate negotiations (MoFED, 2014). Thus, one can argue that the GTP1 and the CRGE strategy along with the new institutional reform towards setting up a full-fledged ministry of forest and environment can be a significant undertaking, despite the disputed allocation and fragmentation of forestry mandates among some institutions including MoCT to which the EWCA was annexed to, and MoA still assuming forest development mandate[17].

5.3.1.2 Wildlife conservation

National park system of Ethiopia is an outcome of IUCN categorization of protected areas which lies under category II of PA classification and further given legal force by proclamation NO.541/2007, which provides for the development, conservation and utilization of wildlife (Tamang, 2016). Even though the controversial approach of protected area governance practiced during the past regimes has continued to be the dominant approach applied by the EPRDF government, there are some significant changes in terms of expansion of parks, and introduction of new governance approaches. Since the overthrowing of the Dergue regime, the number of NPs of the country reached 21, with additional 10 national parks gazetted over the last two decades (EWCA, 2016). As part of its effort for natural and cultural diversity conservation, the country has managed to set aside 21 national parks, 2 wildlife sanctuaries, 3 wildlife reserves, 6 community conservation areas, 20 controlled hunting areas, 5 biosphere reserves, and over 80 national priority forest areas (Young, 2012).

The governance of protected areas during EPRDF era has undergone some changes with regard to devolution of power and application of multiple governance approaches to some extent. With

[17] While forestry development was officially transferred to the MoFECC by Proclamation No. 916. /2015 and EWCA was detached from MoA by Proclamation no. 575/2008, MoA still maintained the power of forest development in the guise of being MoA&NR. On the other hand, the EWCA has been affiliated to MoCT on the grounds that the ministry would generate income from wildlife and park based tourism.

enactment of Proclamation NO.541/2007, which provided for the development, conservation and utilization of wildlife, the traditional way of centralization of power over national parks was partly devolved down to the regional governments (Negarit Gazeta, No.51/2007). The proclamation, under section two, article four and five divided the PA governance between two levels, namely, the federal and the regional governments. It maintained the governance of parks with national and global significance, parks that lie in cross borders of two or more regions, and parks which were peculiar in that they inhibit endemic and endangered species, to lie under the jurisdiction of the federal government while granting the regional governments with the power to designate and govern regional parks and reserves apart from those under the jurisdiction of the federal government. The same proclamation, under section two, article 5 and 6 provided for privately administered conservation areas and community administered conservation areas respectively (Negarit Gazeta No.51/2007), which are indicative of a concomitant stance to the market economy approach implemented in the country that encourages private sector involvement in the economy.

As evidences indicate, among the currently existing 21 national parks, 12 are under the jurisdiction of the regional governments, most of which are located in SNNPR and Oromia regional states (Young, 2012). Thus, besides an increase in number of the protected areas, the devolution of power of PA governance to the regional bodies can be regarded as a major departure from the previous regimes. However, the decentralization of PA governance has nothing to do with the park governance approach which continued to be the same in most of the country's national parks.

Though the regional governments were given the power to govern most of the parks, with the exception of those parks and reserves with national, cross border and international significance, the actual practice of governance of the parks within the regions has stayed almost the same old approach of classical fortress model (Asebe, 2012). Therefore, it can be argued that the decentralization has had no local significance in practice, which has not reached the local level and was simply a transfer of power from one mega center to the other center. Pursuant to the proclamation no.541/2007, there were two legislative undertakings that brought the national EWCA in to an independent entity and the regulation no.163/2008 that distinguished the NPs to be administered by the federal government, i.e., EWCA. Therefore, it distinguished twelve parks

and sanctuaries[18] to be administered by National authority of EWCA (Reg.No.163/2008).The most notable provision in this regulation, however, was the one that underlined the exclusive approach of governance over the parks to be administered by the federal government. Under Part two article five, it specified that the local people would even be prohibited from grazing and watering of their cattle in the protected areas. The article utterly excludes the local communities and the entire regulation has provided nothing for the local peoples' role and engagement. Thus, despite the devolution of power to the regions to designate and administer regional parks, the regulation strictly maintained the fortress model of PA governance over the Parks that lie under the jurisdiction of the federal government. This means, however, does not mean that the regional governments have no discretion to exercise an inclusive approach to park governance, which allows local people's engagement in their conservation efforts.

Even though the centralized parks were strictly excluded from the reach of the local people, it can be argued that the regional governments are better situated to exercise participatory approaches due to their political and administrative proximity to the local people in one hand, and because most of the parks they administer are neither of cross border significance nor inhabit endangered species, on the other hand. However, the current regional park governance is more or less similar to the federal style which emulated the same approach of exclusion whereby similar conflict between the local people and the park officials as well as the park resources has been stiff and continued to threaten the conservation objective (Asebe, 2012). The case in point is the community-park conflict observed in CCNP, which is being administered by the regional government of SNNPR. As the community FGD and KII responses unanimously suggested, the local people were not allowed to take part in its designation process and precluded from any type of access to the park while they suffered uncompensated eviction from their old villages and currently exposed to a recurrent attack by the fast populating wildlife which is costing the lives of their livestock and crops, by and large.

Thus, the apparent disregard of the rights and roles of local people around the national parks has been a source of academic and policy debate on the one hand and became a source of growing

[18] The list includes Simien Mountains National Park, Bale Mountains National Park, Nechsar National Park, Omo National Park, Abijata Shala Lakes National Park, Awash National Park, Senkele Swayne's Hartebeest Sanctuary, Babille Elephant Sanctuary, Gambella NationalPark, Alatish National Park, Kafta Shiraro National Park and Geralle National Park (Regulation No.163/2008).

concern on the part of conservation communities as the park based resources have been threatened by the pressure and mounting resentment of the local communities who felt that they were disregarded and precluded from the use of the resources. In a response to these problems, there have been some rudimentary attempts to introduce different models of park governance in recent years. Thus, there is an endeavor to apply a quasi-co-management model (QCM) in the management of the Semen Mountains National Park (SMNP) while the neo-liberal model of governance was attempted for Nechsar national park.

Quasi-co-management approach of PA governance in SMNP: Participatory management is being practiced in SMNP in response to the reported massive degradation of the park resources and fast reduction of the endangered wildlife species. As the park is a UNESCO world heritage site, which is under a regular supervision of the international body, the measures undertaken to re-demarcate its boundary and to respond to the local people's rights and livelihood demands became mandatory. According to the senior official from EWCA, the planned measures to resume the parks position back in to the UNESCO world heritage sites were undertaken after the ultimatum given by the organization. Hence, these measures were aimed at accommodating the local people's demands and put in place all-inclusive solution that achieves both the objectives of conservation and local livelihoods (KIF/09, 2017). To this end, participatory engagement of the local people was duly recognized and the re-demarcation was done in full consent of the local people and their institutions (EWCA, 2014).

Alternative livelihood strategies were devised and put in to practice in collaboration of the regional and federal governments as well as aid agencies. According to the official report of EWCA, there was a planned intervention of creating alternative livelihood strategies in order to mitigate the livelihood pressure of the local people on the park resources (EWCA, 2014). This plan included provision of skills training to the youth population on selected off farm activities, provision of equipment and materials for productive activities, and access to finance. Promotion of backyard farming and agro forestry was also the major component of the intervention while community based eco-tourism was also emphasized as sustainable income generation strategy. According to the report, these and related community engagement activities have resulted in improved park-community relations, significantly decreasing the pressure on the park resources.

The report has further indicated the outcome of the inclusive approach as "*The performance of on-farm and off-farm activities has also encouraged community based conservation systems and created sense of ownership by the local community"* (EWCA, 2014, p.4*).*

Similarly, Hurni *et al*. (2008) have witnessed the changing trend of governance from top down and 'park without people' perspective to the participatory and inclusive way of governance in recent years. The same study noted that the long existed way of exclusionary approach has had a huge cost on the park resources with increasing encroachment of the local people for farming and settlement which threatened the park leading to its black listing in the UNESCO records. There was also a violent conflict, which led to the expulsion of park officials for over 10 years. Since the introduction of participatory engagement of the local stakeholders, participatory alignment was undertaken which even resulted in increased expansion of the park from 136 square KM^2 to 234 KM^2 expansions. With increasing level of tourist flow, benefit sharing was introduced to the local people, which in turn has increased sense of ownership (Hurni *et al*., 2008). When asked about the viability and possibility of further expansion of the management approach applied in SMNP, another senior official from EWCA said:

> The participatory governance endeavor in SMNP was a desperate response by the government to rescue the cancellation of the park from UNESCO world heritage record. Even though the benefit sharing and livelihood improvement issues are yet to be fully addressed, the distance we have gone in the case of SMNP can be regarded as promising. The experience can be worthwhile to scale up for other sites. In fact, there is no another national park in which similar participatory management has been practiced. There were some rudimentary attempts to work with and benefit the local people such as allowing cut and carry system of grass in Sinkele Swayne's Hartebeest Sanctuary. However, most of our parks are under community pressure, which requires appropriate response towards benefit sharing and participatory engagement in the conservation work (KIF/08, Sep. 2017).

In general, the experience of responding to the local pressure that forced park governing bodies to act in such a manner that introduced participatory approach of park management in SMNP can be an evidence that similar policy commitments can be applied to the entire park system across the country which are under the same local pressure. Hence, some good lessons can be drawn from the practice being implemented in SMNP.

The Neo-liberal or market based approach of PA governance: Effective conservation of protected areas usually calls for financial and technical capacities and adequate funding. However, as studies suggest, most of the PAs in developing countries face resource constraints

as they rarely generate adequate income that can cover the costs for continuity of their conservation works (McCarthy & Prudham, 2004). In this context, besides generation of tourist based income and subsidy by governments, there is a growing practice of transferring the park management by negotiating with NGOs and private business who have a motive of achieving reputation through greening (Igoe, 2010; Sullivan, 2012). When the transfer of the resource is made to the private business, it should focus on generating income and making profit out of it through increased tourist flow. Hence, this way of transferring the park management to the private companies is usually done through disregarding the rights of the local people by further alienating them from using the resources, which still perpetuates environmental injustice (West *et al*., 2006; MacDonald, 2010) by commoditizing the park resources and further alienating the local people (Furtwangler, 2007; Robertson, 2006).

This approach, though not widely practiced, was tried in the management of Nech Sar national park. NSNP was one of the national parks with intense dispute due to local pressure for settlement and grazing from the Guji Oromo community (Tamang, 2016). The park management was transferred to the Dutch based private firm known as African Parks, on the basis of the so-called Public Private Partnership(PPP) approach in 2004 (Tamang, 2016). However, the private firm emulated a similar approach of a reinforced fortress model through alienating the local people whose livelihood demands haven't been fully responded to. As per the contract signed between the government and the firm, the relocation or resettlement of the neighboring farm households should have been accomplished on the framed timeline, which the government could not accomplish as per the contract signed between the two parties. Thus, the firm vacated the agreement and withdrew in 2008 (Nishizaki, 2014). The same firm also entered in to similar agreement to govern Omo National park in 2005 which it could not continue due to a reported conflict over the unsustainable use of park based resources among local communities (KIF/07, 2017).

Even though this type of park management through neo-liberal approach was not widely undertaken in the context of Ethiopian PA governance, the experience of African Parks in NSNP has shown that it simply echoed the old model of Yellowstone park management system in a more vigorous fashion which resulted in increased level of conflict with the local communities (Nishizaki, 2014; Tamang, 2016). Similarly, there was a privately owned export oriented

crocodile ranch known as Blen Crocodile Ranch (Nishizaki, 2014), which used to operate in connection with Arba Minch Crocodile Ranch (state owned) for supply of young crocodiles. The Key informant data from the EWCA indicated, the company has recently withdrawn due to its internal reasons. According to one of the EWCA officials:

> The neoliberal model was tried only with the African parks, which was not successful in its endeavor to manage Nech sar, Omo and Gambella National parks. In all instances, the firm could not work in harmony with the competing local interests and hence vacated before the formal expiry period of the contract. Currently, we have no similar governance arrangements underway. There is of course another attempt to work with an American company, which has been under contact with EWCA, and there is a possibility for entering similar agreement in the near future (KIF/07, Sep. 2017).

Even though the attempt to introduce different models of park governance other than the traditional fortress model can be regarded as a step forward, it did not work as envisaged by the government since there is no enabling condition around the parks, being filled with numerous local interests which were either legitimate or parochial in their nature and not fully addressed by the government, whatever the cases may be. In general, in a context where the livelihoods of the local communities are highly dependent on the resources and the opportunity created by those resources including intended and un-intended benefits from tourists, transfer of the resources to profit oriented market forces can pose further problems of local resentment and conflict which could exacerbate the livelihood situation of the local people above all. This was the fact that the African Parks could not stay for long in Nech Sar National Park because it was very difficult for it to withstand the confrontation with the locals (Tamang, 2016).

The Fortress model of park governance: This is the most practiced model of park governance applied so far since the introduction of national park systems in Africa and Asia, which emulated the establishment of the first American National Park, the Yellowstone national park (Vaccaro *et al*., 2013). This approach was established on the belief that the national parks being set aside as either scenic beauty or wildlife conservation would be conserved for collective benefit beyond the interest of the nearby communities which signifies the concept of *'creating spaces than places'* (Feld & Basso, 1996). Thus, its conservation should be carried out by central bodies through excluding the sites from reach of the local people. It considers the local people and their authorities as problematic to the conservation objective and disregards the importance of the local communities who always claim that they were naturally endowed with the rights of

ownership of the resources. The model is characterized by park without people approach often resulting in displacement of local dwellers. And, its focus mainly relies on managerial endeavors of defending its boundaries from the local people often considering them as outsiders. In most cases, the managers assuming the insider position by virtue of their professional and legal power see the local guardians as outsiders to the NPs and do not relate themselves to the local people and their indigenous institutions (Brockington, 2002).

On the other hand, the idea is that the resources are seen as collective public goods, that transcend beyond local ownership and hence this derives the legitimacy of government intervention and control (Foucault, 2007). Its approach shares a meaning with the naming of park system per se; i.e. protected areas, thus the entire focus is on protecting the parks from the nearby folks.

Though the approach has long been practiced, its optimality to the basic conservation objective has often been questioned (Wilshusen *et al*., 2002). Its criticism mainly arises from being one sided approach of favoring the macro level objectives of conservation that is meant to serve non local interest with the apparent disregard of the local people's rights and imposing environmental injustice that in turn resulting in conflict, local encroachment in to the PAs, and vengeful action that ultimately endangers the maintenance of most of those cherished floral and faunal resources (Asebe, 2012; Adams & Hutton, 2007). This approach was applied in Ethiopia, too, with the introduction of the earlier NPs. Since then, excluding the resource owning people through disregarding their rights and giving deaf ear to their voices has been an entrenched tradition in the quarters of Ethiopia's wildlife and tourism sector (Asebe, 2012; Vreugdenhil *et al*., 2012).

Even though the policy paradigm of the country is towards local empowerment and participatory development, the conservative tradition in this particular policy area has seen little changes. Despite the fact that Proclamation no 575/2007 and regulation number 163/2008 have all provided for devolution of power to the regions and inclusion of private and community conservation in to the mix of protected area ownership, the same regulation (163/2008) has utterly reinforced the fortress (Yellowstone) model of park governance over the parks to be administered by the federal government. Hence, there is no practical inclination by either the regions or the federal government towards adoption of participatory and co-management model.

Even if there is a commitment to engage in co-management model, there is a need to amend those conservative articles of the proclamation and related regulation.

To sum up, the governance of environmental resources in the protected areas during EPRDF era has brought some improvements in the scenes of expansion and governance with devolved power to the regions, communities and private sector. It has also attempted to introduce some governance approaches other than the traditional Yellowstone model. However, overwhelmingly, the PA governance in the country, regardless of the devolution of power to the regional governments, has continued to favor the fortress model both in policy and practice which undermines the rights and livelihoods of the local communities, posing an outstanding question of environmental injustice on the one hand and leaving the resources to be in a dilemma of mounting local threat, on the other hand.

5.3.1.3 Soil and water conservation

Soil and water conservation work has been seen as an integral part of the environmental policy response of EPRDF led government. Since the transition period every policy document including poverty reduction strategy paper, PASDEP, and the major ADLI policy have all reiterated the issue of curbing soil degradation problem. The conservation strategy of Ethiopia, which was ratified in 1997, along with the environmental policy of 1997 have all put SWC at the center of their focus. As indicated by one of the senior policy makers:

> Nothing else was as threating to the country's sovereignty as drought and the resulting famine, which were potentially feared to ruin us. The fact that the people below poverty line were above 40 percent was mainly due to the deteriorating economic conditions in rural areas. Due to poor environmental policy responses during the past regimes, soil and water degradation in the major agricultural landscapes was threatening with fast decrease in crop productivity. The ADLI policy, hence, should have put its sheer focus on curbing the on-going degradation of soil and water conservation, by and large. Since the formulation of EP, the regional governments have made significant advance in formulating and implementing their respective conservation programs that were in line with the national conservation strategy (KIF/05, May 2017).

The national conservation strategy of Ethiopia, which was prepared during the transition period laid basic policy foundations for the initiation of broad based soil and water conservation works in the country. It estimated the amount and the severity of soil degradation and its implications to the already fragile economy of the period. The document being a comprehensive one that fully embraced the concepts of sustainable development and the cross cutting nature of environmental

problems across all sectors of economy and sections of the society (CSE, 1994, pp 2-5), was not shy of indicating the policy flaws of the previous regime which either failed to put in place coherent and workable policies to protect the environment or, at worst, put in place policies that were against environmental conservation (CSE, 1994, p.5). The strategy, hence, pointed out that resource degradation was rampant and its repercussions to the economy at large were damaging:

> In economic terms, soil erosion in 1990 was estimated to have costed (in 1985 prices) nearly Birr 40 million in lost agricultural (i.e. crop and livestock) production whilst the burning of dung and crop residues as fuel nearly Birr 650 million. Thus in 1990 approximately 17% of the potential agricultural GDP was lost because of physical and biological soil degradation. The permanent loss in value of the nation's soil resources caused by soil erosion in 1990 was estimated to be Birr 59 million. This is the amount by which the nation's soil "capital" should be depreciated in the National Accounts or put another way which should be deducted (as capital depreciation) from the country's Net National Income(CSE,1994:9).

By then, the poverty situation was precarious with more than 40 percent (28 million) population being in absolute poverty and GDP per capita income was estimated to have been 120 USD, which was the lowest even in the context of sub-Saharan Africa(TGE,1994). As usual, the number of people who were lining up to receive food aid was reported to be 8.5 million (WB, 1992). Even though urban poverty has had its own share in exacerbating the situation, there were evidences that the rural situation was fast deteriorating with falling level of agricultural production due to the soil degradation and absence of remedial policy measures (TGE,1994). Thus, the period of transition was marked with such preparatory works in environmental policy in general and soil and water conservation works in particular.

The periods between 1994 and 1997 were also marked with preparation of coherent and refined policy documents including the major environmental policy of EFDRE and the ratification of final CSE document which again was translated in to regional conservation strategies. Following the ratification of the aforementioned policy documents at national level, regional governments prepared their respective conservation strategies known as Regional Conservation Strategies (RCS) by the technical assistance of IUCN (EPA, 2012), which was also another milestone towards soil and water conservation works.

As to the key informants, until the formulation of these EP and conservation strategy documents, conducting soil and water conservation works through mobilization of free rural labor was very

difficult. This was mainly because the relief based approach has developed dependency syndrome among the peasants and the experts as well as officials in agriculture sector. Most of the extension workers including their senior level supervisors believed that it would not be possible without relief and NGO support (KIF/02, 2017). Hence, the major focus of the strategy was to achieve a breakthrough in changing this entrenched aid dependent attitude among the farmers and the experts as well as the officials in agriculture sector.

According to another key informant from agriculture sector, the initial periods of implementation were highly challenged at lower levels because of the established aid dependence syndrome as people were demanding payment, in cash or in kind(food), to carry out a piece of soil conservation work in their own plots. However, as time went on, free mobilization of the farming households became a habitual routine in some places which were later used as exemplary to most parts of the country(KIF/03,2017). As reports indicate, the success in conservation works was largely driven by the agricultural and rural development strategy, which was geared towards increasing agricultural productivity (crop and livestock) and transforming rural political economy that was detrimental to agricultural development.

As noted above, it postulates the need for building the capacity of the farmers and their local institutions towards achieving uninterrupted rural labor mobilization. Its major focus, hence, was to create awareness among the farmers so that they can make efficient use of their labor, which otherwise would be lost due to poverty and communicable diseases such as malaria (FDRE, 2000). On the account of this, expansion of farmer's training center and deployment of tens of thousands of extension workers was carried out across the major regions (MoA, 2016). Through enhancing the local execution capacity of the agriculture sector, the conservation work became a flagship of the agriculture sector in the major regions, which yielded remarkable results in changing some of the most degraded agricultural landscapes in Tigray, Amhara, Oromia, and SNNP regions(KIF/01,2017; KIF/03, 2017).

The field evidence of two kebeles (Tamo and Tidesh) in Asagirt *wereda* of North Shewa zone, Amhara region, indicated that their mountainous landscape was severely degraded and their lives and livelihoods were highly threatened by the floods flowing down the hills. They lost a number of livestock due to flood and their crops were devastated during rainy seasons due to the down

flow of floods. There were gullies, which created deep gorges and made movement from place to place very difficult. With the introduction of the "terara limat" meaning watershed management on the hills, they were organized, got technical and input support from the government and begun working collectively on the mountain sides. With their unanimous decision to abandon free grazing, the conservation work was intensively done on the hillsides and stone bunds were built in their farmlands. Thus, a woman FGD member in Tamo kebele said:

Look at the mountain over there, it now became a source of income and the plots on the foothill became safe places for crop production and residence. You can take a look at the farm plots and our homesteads. We have completely changed the face of the mountain and the farm plots of our kebele residents. Between the terraces in our farmlands, we grew Gesho plant, which is of lucrative market value at the moment. It gives us protection from floods and earns significant income; it is like killing two birds with a stone. So, we won't let lethargy visit us once again and we won't let our lands degraded once again [FGD, Tamo Kebele, May 2017].

Source: Field Photo (May, 2017).
Figure 5. 1 Gesho (Rhamnus Prinoides) planted in the terraced farmland, Tamo Kebele

This is one of the practical examples of the outcomes of the policy, which was implemented across the major regions in full scale. According to the former policy advisor to the prime minister of FDRE, the current success in SWC, which drew participation of the rural mass particularly in major regions[19], can be attributed to the environmental policy of Ethiopia. Since then, the regional governments, having developed their respective regional conservation strategies (RCS), were able to undertake practical measures on soil and water conservation to reverse the ongoing degradation in most of the severely degraded areas of the country. Hence,

[19] Major regions are Tigray, Amhara, Oromia and SNNPR regional states being fully ruled by the EPRDF coalition.

the minister further stated the following:

Following the promulgation of EP, there were sectoral plans and strategies in which environmental care was begun to be given emphasis. Throughout the major regions, watershed management and related afforestation/reforestation activities have been massively undertaken as part of strategy for increasing agricultural productivity and curbing the drought situation. In my opinion, commendable achievements have so far been registered in rural environmental governance. If we continue the way we are doing now, I am confident that the afforestation and area closure activities will bring about massive change in the status of the rural agricultural landscapes (KIF/05, Feb. 2017).

Even though the success achieved since the EP was hailed to be immense, according to the same source of qualitative responses, it has limitations in terms of reaching out all regions. To this end, the minister compares the efforts in terms of major and peripheral regions. He further argued that the success recorded after the EP in general and the formulation of rural and agricultural development strategy in particular is not uniform across regions. The SWC works have been effectively carried out in major regions of Tigray, Amhara, Oromia and SNNPR where the government structure is fully controlled by the ruling party whereas little achievements have been recorded in the emerging regions[20] due to weak execution capacity (KIF/03, 2017). Therefore, it is argued that, despite its success in major regions, the practice is resulting in regional disparity.

5.3.2 The CRGE strategy towards building green and climate-resilient economy

With a growing involvement in international environmental issues and being signatory of important multilateral environmental agreements since 1990s (Alemayehu, 2014), Ethiopia's progress in environmental policy and governance has shown fast changes in scope, where environmental concern clearly crossed sectoral boundary and directed towards green and climate resilient development (Kaur, 2013).

According to the senior government official, the recent attainment of holistic environmental views through formulation of comprehensive policies and strategies was a product of the internal pressing demands and clear articulation of global trends towards sustainable economic development. The CRGE strategy was, hence, the outcome of this understanding particularly at senior leadership level. Anchored in a green and sustainable path, the strategy envisions 'achieving middle income by 2025 through building a climate resilient green economy' and it is

[20] Emerging regions include, Benishangul Gumuz, Gambela, Afar and Somali regional states.

said to be a synthesis of the conservation strategy documents (FDRE, 2011). The senior official who had a leading role in the CRGE and environmental policy formulation processes noted:

> The CRGE simply brought together the already existing adaptation strategy of resilience with the greening aspect of the economy, which is indicative of our commitment to the global alliance to combat climate change. In the GHG mitigation strategy, though our contribution to the emission of GHG is so insignificant, we had to demonstrate our conviction so as to influence the world's major emitters. We should not merely blame others for GHG emission, but we have to show that we will never opt to develop in the same way they did (KIF/01, April 2017).

Ethiopia's commitment in being one of the pioneering countries in producing green economy strategy was taken as a breakthrough (IIED, 2013). The same source indicated that among the nine LDCs, which have formulated green growth policies since 2009 and have been nicknamed as "early adopters", it puts Ethiopia in a pre-eminent position to choosing the right path of development (Kaur, 2013). However, there are critics that take skeptic position whether the process was driven by domestic demand and context driven initiation further arguing that it was influenced by donor interests and the need to tap climate finance (Jones & Carabine, 2013), as it was the case for conservation strategy which was initially pushed by the world bank being a criterion to be eligible for multilateral lending (TGE, 1993). The strategy is also criticized for entirely being mitigation strategy which lacked adequate content of adaptation (Jones & Carabine, 2013). However, the serving senior officials in the environment and agriculture sectors do not support the said critics and contend that the policies have never been driven by donors. To this end, a serving minister who had active role in major development policy formulations refuted the argument as follows;

> Policies of the incumbent government are mirror images of our domestic realities. Every policy measure was undertaken in a response towards challenges that the country was facing in terms of economic development in general and environmental degradation in particular. Climate induced challenges have long been threatening the country. Poverty in our case is all about resource degradation. Therefore, our policy efforts were entirely push by our internal realties (KIF/03, June 2017].

With regard to the critics on the one-sided nature of the strategy, the senior policy makers admitted that the first CRGE document was the general strategy that mainly focused on the mitigation aspect and indicated that the detailed strategy for adaptation would follow. However, they contend that the four pillars of the strategy along with the chosen initiatives for fast tracking were deemed to achieve mitigation objective as well as adaptation at the same time. Despite the

responses of the policy makers, the CRGE document is short of indicating or explaining this mutual relationship. As evident from the review of the CRGE document, it clearly lacks a proper balance and conceptual understanding in the nexus and complementarity between the two climate responses.

The divisive conceptualization and independent treatment of mitigation and adaptation responses to climate change has been evident both at research and policy levels until recently, which has affected the pace and attainment of maximum possible outcome that could arise from synergetic responses (Swart & Raes 2007; Ravindranath, 2007) and created dichotomy in terms of 'spatial, temporal, and socioeconomic scales' (Ayres & Huq, 2008). This trend of differential treatment of the two responses has set a common perception that the actions and benefits of mitigation are exclusively seen from global scale while adaptation and its benefits are left to local levels, which has resulted in disregard to their complementary nature (Willbanks *et al*., 2007).

Nonetheless, there is a growing body of literature that indicates the complementarity of mitigation and adaptation to climate change. Because adaptation measures are tantamount to development interventions in the context of the third world countries, strategies that link mitigation and adaptation would enhance local adaptive capacity while significantly contributing to reduced greenhouse gas emissions, leading the economy in to a sustainable path (Venema & Rehman, 2007; Ayres & Huq, 2008; Klein *et al*.,2007; Morand *et al*., 2015). Likewise, strategies that tend to reduce emissions are able to contribute to the enhancement of adaptive capacity while reducing vulnerability to climate induced risks (Ayres & Huq, 2008; Morand *et al*., 2015). Such a policy undertaking, hence, should bring together a portfolio of interventions that can have complementary outcome in achieving both objectives. To this end, among many options of interventions available to national governments, agriculture and forestry are the optimal areas to attain the envisaged outcome that achieves both mitigation and adaptation goals in short to medium terms (Klein *et al*., 2007).

Independent treatment and conceptual differentiation of mitigation and adaptation measures in Ethiopian context is clear from the CRGE document. From the review of the CRGE strategy it can be noted that, even though the selected interventions were well suited for simultaneous attainment of both responses on different temporal and spatial scales, the policy document adheres to the usual dichotomy. The fact that the strategy was partly criticized for its tendency

towards attraction of climate finance, and largely emphasized on the greening aspect of the economy is clearly evident.

As the bulk of the climate literature suggests, adaptation measures are the first and most viable priority to the third world countries that are being hit hard by the effects of climate change (Venema & Rehman, 2007; Ayres & Huq, 2008). The CRGE strategy, hence, has two major pitfalls in this regard. The first pitfall can be seen in terms of the sequence of the response. While Ethiopia's contribution to the atmospheric carbon emission is almost negligent at global scale (FDRE, 2011), mitigation appeared to be the first policy response prior to adaptation-which is the most crucial response given the countries high vulnerability to climate change induced problems (FDRE, 2011; Semane, 2011; Eshetu *et al*., 2014; Savage *et al*., 2015) laying in the category of 100 most climate vulnerable countries in the world (Huq & Ayres, 2007). Secondly, even though the four major pillars along with the sector specific strategies selected for fast tracking were intrinsically appropriate to achieve both mitigation and adaptation goals, they were largely considered as strategies suited for mitigation only.

Thus, the mutual relation among the interventions in terms of their outcomes over different time and spatial scale was poorly understood. For instance, among the four pillars selected, the first three (agriculture, forestry, and renewable energy) can easily yield both mitigation and adaptation outcomes. In agriculture sector, increasing crop productivity through improved land management backed by soil and water conservation works can improve carbon sequestration and reduce vulnerability to climate change induced hazards. Improving the livestock productivity through switching to high yield varieties can have a significant effect on the reduction of greenhouse gases which accounts for the lion share of the country's total emissions (FDRE, 2011) while resulting in automatic effect on enhancing the adaptive capacity of the rural vulnerable population (Halsnaes *et al*., 2007).

On the other hand, the soil and water conservation work directed towards improving productivity, and emphasis on agricultural intensification can rather have a direct effect on improving the stock of biodiversity and forest resources (Ayres & Huq, 2008). Thus, the first pillar can have a positive effect on the effectiveness of the second pillar. Afforestation and reforestation measures, unless emphasis is placed on introduction of exotic species which has a

long term negative effect on loss of ecosystem viability and biodiversity (Ayres & Huq, 2008), will be a proven tool to carbon sequestration, and can attract carbon finance that can be used to enhance local adaptive capacity. The soil and water conservation works and the afforestation/reforestation works, if done synergistically, will have a direct effect on improving the surface runoff and enhance the amount of river flows in the down streams, with a positive effect for hydro power generation. Besides supply of clean energy to the entire economy and reduction of GHG which could otherwise be generated from use of fossil fuel, generation of foreign currency can enhance the adaptive capacity at national scale (Halsnaes *et al*., 2007). In contrast, though the interventions selected in the green economy document were those that best suited for attainment of the two objectives, the strategy is not considerate of the possible synergies, trade-offs, and complementarities among the interventions.

Besides the aforementioned drawbacks, implementation challenges eclipsed the CRGE strategy with strong concerns over the amount of finance it requires. As stated in the strategy, the total expenditure required for implementation over the coming twenty years was about 150 billion USD, which was expected to be raised mainly from international sources (FDRE, 2011). However, as noted by the KI from MoEFCC, throughout the last seven years, a meagre amount of finance was obtained from the expected international sources, which would even continue to be worse with the changing political situations at global level as some of the developed countries like the United States have shown retreat in their commitment to the global combat against climate change. The KI highlighted that the efforts of the late Prime Minister Meles Zenawi in accessing climate finance were begun well ahead of the CRGE formulation. Even though the Copenhagen negotiation of 2012 failed to achieve its intents, the following years have glimpsed some hopes that resulted in the formation of Green Climate Fund, in which the role of the late Prime Minister was pivotal. During the last few years, there were flows of climate finance from different sources either in the form of direct climate grant or in the form of support for specific programs and projects such as SLM, food security program, water, and forestry, all of which have climate related implications.

Even though there has been a flow of meagre amount of finance from some OECD countries over the last few years, according to the senior official from the MoEFCC, the finance planned to be raised was so ambitious that the amount collected so far is still very small compared to the

targets of the CRGE(KIF/04,2018). In general, during the last seven years, which is one third of the target year (2030), the amount raised so far is far below the expectations and attainment of the CRGE goal is highly challenging, unless further efforts are exerted in this regard. Therefore, implementation has been stifled by lack of finance.

With regard to the missing part of the strategy, preparation of national adaptation strategy, or national adaptation plan (NAP-ETH), has recently been completed and officially launched for implementation, which came after seven years of formulation of the green economy strategy. To this end, a state minister noted the following:

> The previous strategy missed the adaptation aspect of the response while giving emphasis to mitigation. There were of course some attempts to prepare sector based adaptation plans whereby some of the major sectors have made their own preparations, which in practice lacked synergy and coordination. Hence, we have been working to make it complete and the national adaptation plan preparation has recently been completed (KIF/04, March 2018).

The newly launched adaptation plan is a comprehensive national strategy that is intended to bridge the previous gaps observed due to the fragmentation of piecemeal adaptation plans scattered across sectors, regions and short term time scales. It underlines that Ethiopia had such plans of adaptation before the CRGE formulation in 2011, namely; Ethiopia's National Adaptation Plan of Action (NAPA); Draft adaptation strategies for Regions and city administrations; Sector adaptation strategies; and Ethiopia's Program of Adaptation to Climate Change, all of which were characterized by piecemeal approach, limited to sectors and regions, and intended to achieve short term goals (FDRE, 2017. P.2). Thus, the new plan is envisaged to rectify these limitations through *"a programmatic, multi-sectoral and long-term planning approach''* (FDRE, 2017, p.2). It also aims to integrate adaptation efforts with the major development efforts so as to bring about synergistic outcomes that enhance adaptive capacity and decrease vulnerability to climate change at national and local scales with a special focus on highly vulnerable groups such as women.

NAP-ETH emphasizes on the highly vulnerable sectors such as agriculture, forestry, health, transport, power, industry, water and urban development and 18 adaptation options were selected for implementation across these sectors and tiers of administration *(FDRE*, 2017, pp 26-28). Similar to the previous CRGE strategy, the new adaptation plan is also finance-intensive with an estimated implementation budget of 90 billion USD to be raised over the next fifteen years until

2030, which means, it requires 6 billion USD per annum (FDRE, 2017). Both foreign and domestic sources were suggested to be potential funders for the proposed finance. However, given the nature of the adaptation interventions most of which are very difficult to easily discern them from the regular development works, it is unclear whether the estimated amount is inclusive of the budget required by the government to execute those development activities. Even though the NAP-ETH is believed to fill the missing link of the CRGE strategy, its implementation can still pose a problem unless there is a synergy between the green economy strategy and the adaptation strategy, which can be best achieved if implemented in a coherently integrated manner. The co-benefits of the responses and their mutual and intrinsic relationships should be well articulated both at policy and implementation levels. There can still be a problem due to parallel implementation of the two strategies which would even have significant cost implication. Since the proposed adaptation interventions are more or less similar to those selected in the CRGE strategy, undertaking adaptation measures independently from the mitigation measures would still be problematic, which would result in increased cost of implementation, institutional and planning burden, and duplication of efforts by further contributing for erroneous understanding of the co-benefits of the two strategies at implementation levels.

Despite the drawbacks of the CRGE discussed above, senior officials from MoEFCC argue that the strategy has had positive diplomatic implications to Ethiopia. By initiating the strategy ahead of many developing countries, Ethiopia became a forerunner in climate politics. As a result of the strategy, Ethiopia is currently presiding over two global platforms namely, LDC Climate Negotiation Platform, and Climate Vulnerability Forum, each of which has 48 LDC members. It is also a founding member of High Ambition Coalition Countries (HACC)[21] including developed nations such as Canada, the EU, and others from Latin America, Asia and the Caribbean. These venues have provided Ethiopia an opportunity to bring forth issues that favor its national interest. For instance, as state minister of the MoEFCC noted, in the climate forum conducted in Bonn, Germany in 2018, Ethiopia won acceptance to have agriculture sector considered as international climate policy component, which had long been refused by the DCs (KIF/04, 2018).

[21] HACC is a platform organized to raise collective voices towards setting ambitious national emission reduction goals.

In a nutshell, as the CRGE was a further attempt to provide for sector and economy wide implementation of the environmental policy objectives, the previous PASDEP and consecutive GTP (GTP 1 and GTP 2) documents can be considered as planned interpretations for implementation of the goals and objectives set out in the environmental policy (FDRE, 2012). However, separation of the inseparable items, i.e., mitigation and adaptation; and excessive focus on mitigation aspect while Ethiopia is one of the most affected countries due to climate induced shocks; has been problematic and ensues serious implementation challenges. Besides this, the knowledge of the strategy across tiers is shallow which is detrimental to its implementation. Hence, its implementation is seriously challenged by lack of budget on the one hand and lack of knowledge across tiers on the other hand.

5.3.3 Major drivers of environmental policy making and governance during EPRDF era

The attainment of current policy and governance measures in Ethiopia's environment sector has mainly been driven by crucial domestic demands on the one hand and the coincidental factors of domestic development demand that fitted in to the international policy climate which strongly promotes sustainable economic development. Similar to the previous regimes, there is a common denominator that prevailed over the last fifty years to be the major driver of Ethiopia's environmental responses. Drought and resulting famine exacerbated by land degradation, hence, has been the major threatening factor behind the policy responses of all of the regimes, despite the varying degree of approaches and scope of responses by each regime.

In retrospect, the economic policy reforms of EPRDF government, agricultural development in particular, were largely overshadowed by the potential threats of the drought that defined the fate and face of the country at global level (FDRE, 1997). The policy responses, hence, have always given a heightened emphasis to strategies directed towards coping with the drought and resulting food and water stress (TGE,1994; FDRE,1995; FDRE, 1997, FDRE, 2002). Fighting food insecurity was not seen apart from fighting land degradation and this was responded by undertaking soil and water conservation measures and afforestation. The CSE, the EP, the ADLI, the rural and agricultural development policy, the food security strategy, etc. have all been anchored on the imperative of containing the effects of recurrent droughts. Once, as a key informant recalled, drought was monstrously feared by the senior policy makers, including late Prime Minister Meles, and was nicknamed as 'land slide' which would devastate the country. It

was thus considered as a threat to the continuity of the country as a nation. The fear due to the recurring drought, hence, was one of the major drivers of the environmental policy responses of the EPRDF era (Bekele, 2008; Dessalegn, *et al*., 2008).

The other internal driver was the need and strong ambition to reduce/eradicate poverty. Even though poverty and food insecurity are interconnected, a senior policy advisor argued that the government was wary of the vicious nature of the two, further highlighting that rural poverty is exacerbated by resource degradation and vice versa. Thus, the agricultural and rural development strategy was a response to improve both poverty and resource degradation in rural areas through provision of diversified livelihood options that relieve the resources from depletion (FDRE, 2002). Therefore, the fight against poverty, similar to the drought, was based on the fear that it would dismantle the country's national integration unless timely responded to. This was the philosophical basis of the entire environmental and economic policies of the EPRDF era that resulted in more holistic and comprehensive environmental policy responses than its predecessors.

On top of these internal jolts, there were also external drivers behind the attainment of broad based environmental policy responses, which are still pushed by the internal factors. The global trend towards promoting environmentally sustainable economic development was relished by Ethiopia as its economic policies were basically leant on development and restoration of its natural resources (soil, water, and forest resources). Looking in to this coincidence, Ethiopia quickly adjusted itself to line up in the global setting of sustainable development through opting the green growth path that was believed to be the comparative advantage in the context of Ethiopia. As a senior official from MoEFCC argued:

> The many criticism as if we were driven by external influence to accept climate politics was unfair and ungrounded. We had no feasible development choice other than developing by using our natural resources in sustainable manner. Being a country nicknamed as water tower, what else can we opt to generate power for the growing demand of energy amid the oil price in hike for decades? As a country with ambition to develop, we had to focus on our comparative advantages. Hence, green growth was the best option on the table based on our comparative advantage, but not driven by external interest. If we fail to stick to our comparative advantages, we opt to stay in poverty (KIF/04, June 2017).

Thus, basically driven by domestic development demands, Ethiopia has been motivated by the international policy climate that brought an opportunity to be tapped for further facilitation of its development efforts. Hence, a coincidence of the paradigm shifts in domestic development policy and the international policy climate that promotes sustainable development have driven the current environmental policy and governance responses of the country.

5.3.4 Environmental institutions during EPRDF era

As noted in previous chapter, environment was not more than wildlife, soil and forest during those two regimes, even though the later one began to embrace broader environmental issues during its final days. Hence, the traditional trajectory of environmental institutions over the last two regimes stayed more or less similar.

The EPRDF government, however, has taken significant steps in formulating comprehensive policies and legal frameworks, which in turn were followed by fast dynamism in institutional formations and reformations. Therefore, the institutional issues of EPRDF era have been discussed in a more detailed manner than the previous regimes because of the proliferation of many environmental institutions from federal to local levels and the growing nature of role and mandate distribution among them, which has a strong implication to the policy implementation and governance.

5.3.4.1 Emergence of the first environmental institution and the role conflict with other sectors

Ministry of agriculture (MoA) has long been the powerhouse of Ethiopia's environmental responses. The wildlife and forest governance as well as soil and water conservation activities were housed under MoA since the monarchy (Bekele, 2008) because environmental resources were seen from their contribution to agriculture and emphasis was only on soil and vegetation (Dessalegn, 2001). Thus, institutionalization and governance of these resources was highly unlikely to detach from MoA. During the period of political transition (1991-1995), the government undertook the first historic attempt to setup an independent Ministry of Natural Resources and Environmental Protection (MoNREP) in 1993, which can be spotted as the first wave of environmental institutionalization. The ministry was meant to bring environmental affairs into a single visible institutional setup. According to the qualitative extracts, it was established by separation of natural resource related mandates from the MoA inclusive of

broader environmental issues such as pollution control, climate change mitigation and adaptation. However, the brand new ministry, being a fresh phenomenon in the policy landscape of Ethiopia's environment sector did not stay long and suffered a merger back in to the old repository in about two years' time.

According to the senior officials, there were two reasons for merger of the short-lived ministry. First, the political orientations of the officials and experts under the ministry were found to be incongruent with that of the government which was readying itself to undertake massive soil conservation measures through public mobilization. The tendency within the ministry was expert-driven approach of conservation, which was not in harmony with the urgency that was posed by the recurrent droughts and resulting food deficit in the country.

Second, there was a fierce antagonism from the old bureaucracy within the agriculture sector, who believed that governance of natural resource should have always stayed there, thus, the pressure from MoA coupled with the observed lack of fitness of the new ministry's personnel into the political views of the transitional government led to the fast merger of the ministry (KIF/01, 2017; KIF/02/2017; KIF/03, 2017). Despite its fast merger, it can be noted that the country's commitment to set up the first independent ministry can be regarded as an attempt to line up in to the globally emerging paradigm of sustainable development and the Rio summit decisions to which Ethiopia was an active party. As the literature suggests, this was the period that gave significant impetus for proliferation of environmental institutions on the aftermath of the long standing skepticism of third world countries over the sustainability paradigm that it could impede their economic development (Park *et al*., 2008; Ravnborg *et al*., 2013)). It was also evident that since the WCED report to Rio summit and a decade after the summit, there were over forty countries which prepared and approved environmental regulations with concurrent formation of relevant environmental institutions (Barrow, 2005; Ravnborg *et al*., 2013).

5.3.4.2 The second wave of institutional development

As the quick merger of the first environmental ministry did not win acceptance from both donors and domestic environmentalists, and attracted fierce criticism from donors and domestic experts alike, the need to have another form of environmental regulatory organ was strongly pushed forward. In effect, Environmental Protection Agency (EPA) was established by Proclamation no.

9/1995. The mandates of the regulatory body were inclusive of the major environmental governance components and became the focal body to the UNFCC (Ruffies *et al*., 2010). The EPA, hence, facilitated the formulation of the environmental policy of 1997 and its regulatory roles were further consolidated with the enactment of some key environmental laws such as the Environmental Impact Assessment (EIA) law (Mellese & Mesfin, 2008; Tsion, 2008; Ruffies *et al*., 2010), waste management proclamation, pollution control proclamation, and being a repository of the multilateral environmental agreements (Damtie & Salamon, 2012; Mulugeta, 2012).

Despite its re-establishment by proclamation 295/2002 (Negarit Gazeta, 2002) which was an attempt to further strengthen its functions, its performance has got a lot of criticisms. According to the senior researcher from research institution, its regulatory accomplishments in maintaining compliance were considered to be poor. The major criticism arises from the lazes-fare practice of the implementation of the EIA proclamation (KIF/10, 2017). A number of studies conducted in this area have also shown that the country's overall performance in achieving compliance on development projects was extremely poor (Mellese & Mesfin, 2008; Tsion, 2008; Ruffies *et al*., 2010; Adugna, 2016). As noted by a senior researcher:

> The EPA lacked adequate expertise and institutional capacity. For most of the time, the EIA study was left to the project proponents and they were preparing the document by hired consultants who often do it in the best interest of their clients. Consequently, the damage done to the natural and social environment was immense (KIF/10, June 2017).

Moreover, it lacked adequate statutory power to exercise effective control over government projects. Since many of the line ministries, which initiate the projects had more hierarchical power than the EPA, it was unable to exercise EIA rules on state sponsored projects (Mellese & Mesfin, 2008). Both qualitative extracts and empirical evidences have indicated that the negligence prevailed to tolerate some of the most polluting old industries in Addis Ababa was so harmful. Tanneries and textile factories in some of the major cities including Addis Ababa, have long been causing air and water pollution to unprecedented level. As empirical evidences also suggest, While the effect of the unregulated effluent discharge has ever been worse, the record of EPA in deterring these factories was very poor (Ruffies *et al*., 2010; Mulugeta, 2012). The FGD responses from two sub cities of Addis Ababa have shown that there are old tannery and textile industries being sources of public miseries while the EPA regulation has never worked. They

reported that the old industries have long been polluting the environment and many of the residents have acquired respiratory diseases such as asthma and hence fled the area.

In the course of persistent institutional change, Proclamation no. 295/2002 provided for not only the re-establishment of EPA, but also created a platform for establishment of broader environmental organs both at federal and regional levels. Hence, formation of environmental council of higher profile and environmental units at sectoral levels of the federal government was undertaken coupled with establishment of regional environmental agencies (Negarit Gazeta, 2002). With this proclamation, the role and influence of EPA seemed to have been enhanced to the level that brought about advancement in environmental awareness at policy level and resulted in formulation of the Climate Resilient Green Economy (CRGE) strategy as well as the first Growth and Transformation Plan (GTP I) which unequivocally included environmental protection as a cross cutting development agenda (MoFED, 2010). However, as indicated by key policy makers, the poor awareness of environment was still pervasive among policy makers themselves which posed a challenge to mainstreaming environmental targets in to sectoral plans (KIF/01,2017; KIF/02,2017).

The implementation of the strategy was also highly challenged with failure of some ministries to set up internal environmental units or making them idle even if they organized the units. The establishment of similar arrangements and practical implementation at the regions was also highly challenged. In this regard, a serving state minister noted that the institutional setup in the regions has been characterized by lack of uniformity and consistency with the national environmental policy goals. While the influence of agricultural sector on environment sector has begun to subside at federal level, the reality in the regions is still the same as environmental departments were locked for years under bureau of agriculture. Even though there were clear legal frameworks that provided for adequate and capable environmental institutions, the stature of institutional setup was far from strong (KIF/01, 2017)

5.3.4.3 The third wave of institutional development

The CRGE strategy formulation by itself dictated cross-sectoral and regional engagement and brought about a new setup of institutionalization of environmental mandates across sectors and sub-national governments. With the raising voice of Ethiopia at international fora of climate

politics, formulation of CRGE strategy was carried out in a manner that brought environmental thoughts to the next level (FDRE, 2011) and soon followed by GTP-I which laid basis for planned response of environmental issues across sectors(MoFED, 2010). The green development perspective was largely hailed by the policy elites and the need to carry out strong adaptation measures was seen as a key for agricultural growth that has often been vulnerable to climate induced shocks (FDRE, 2011). With the need to foster the country's vision of economic prosperity, on one hand and to resolve the weak regulatory capacity of EPA in relation to its lower hierarchical profile in the face of the muscular line ministries, on the other hand triggered the establishment of a full-fledged ministry of environment (MoE) for the second time in 2013 (Negarit Gazeta, 2013). After two decades, the country undertook similar measure to setup the ministry once again but with broader and clearer view of environmental understanding and policy context than the one before. MoE was established in 2013 to replace EPA, and it was again reestablished as Ministry of Environment, Forest and Climate Change (MoEFCC) in 2015 with mandates that comprise regulatory and development roles. Hence, the ministry has got broader role than ever before with all pertinent environmental mandates included in its role description (Negarit Gazeta, 2015). In 2014, prior to the re-establishment of the broader ministry (MoEFCC), the national environment and forest research institute was established by the council of Ministers under Regulation No. 327/2014 with the major objective of forest research, protection and development (Negarit Gazeta, 2014, p.1). Despite the ongoing controversy of governance of forest related resources, which has long been oscillating in and around MoA, the new institutional setup of MoEFCC seems to have seized this mandate in full terms.

5.3.4.4 Gaps and overlaps in institutional roles at federal level

All of the contacted senior policy personnel agree that the tradition of role confusion in demarcation of power among the federal institutions has long been interruptive for environmental policy implementation in Ethiopia. In this regard, the case in point is related to the governance of forest aspect of the natural resource. With the historical tradition that favored MoA to be the home of forest resource governance in nexus to agricultural expansion, the current governance of forestry aspect of resources has been scattered among different institutions for different reasons, as depicted in table 5.2.

Table 5. 2 Duplication of roles over forest resource governance

Institution	Policy focus	Governance role	Institutional motive	Drivers
Ministry of Agriculture and Nature Resource	Soil fertility and agroforestry	Natural resource rehabilitation	Enhancing productivity	Agricultural intensification tradition
Ministry of Culture and Tourism	Developing tourist destinations	Governs federal parks	Revenue generation	Colonial tradition of game hunting; frontier economy paradigm
Ethiopian Wildlife Conservation Authority	Conservation of Wildlife	Protection of parks	Conservation of wild life	Fortress model of conservation
Ministry of Environment, forest &climate change	Environmental protection	Regulatory body	Developing and protecting forest biota	Sustainable development paradigm

Source: Synthesized from qualitative data collected by the researcher (2017).

Even if the governance of forest resources has recently been brought to the MoEFCC, there are traditional tendencies and misalignments among institutions in forest and wildlife governance. The qualitative study indicated that some element of forest of governance still exists at ministry of agriculture in the guise of 'Natural Resource', and the EWCA is also engaged in management of national parks where the forest resource is the major habitat of the wildlife which is so difficult to detach one from the other (Damtie, 2010). While MoEFCC is fully responsible for forest resource development and governance, the EWCA is affiliated to the MoCT (Damtie, 2010; EWCA, 2016).

The vertical and horizontal integration of these institutions around forest based resource governance lacks clarity and logical connection. Since the Monarchy, EWCA had long been in and around the ministry of agriculture until its separation as an authority in 2008 (EWCA, 2016), which again was annexed to the MoCT. The archival documents have shown that the authority was once absurdly affiliated to the national Biodiversity institute (Proc.No.120/1998), which in turn was instituted under the Agricultural Research organization of the MoA. According to the official from EWCA, its affiliation in to the institute had no single justification and brought back to the MoA only a year after its annexation by another proclamation, 167/1999 (KIF/08, 2017). Since then, the Key informant noted that there was a continued effort to elevate its status and

hence the current EWCA was established in 2008 (Negarit Gazeta, 2008). The same official further noted that the process for establishment of independent EWCA was under serious dispute from MoA personnel. However, it was again affiliated to another remotely located ministry (MoCT) by proc.No.916/2015, whose roles were about development of culture, art, and tourism(KIF/08, 2017).

Apart from the observed misalignment of the EWCA with the MoCT, role confusion is still prevalent between the MoEFCC and MoA. In the role description of MoA, according to the Proclamation No. 916. /2015 (MoEFCC, 2014), there is still a residual sort of forestry governance that was expressed in terms of conservation of 'natural resource'. Hence, the new nomenclature of the ministry, Ministry of Agriculture and Natural Resources (MoANR), was aimed at legitimizing the consideration of forest resource as its mandate component. On the other hand, the MoEFCC has already been granted with broad forestry development mandate (Negarit Gazeta, 2015, p.50).

The other controversy is that MoA has been named as MoANR by proclamation number 916/2015. Yet, there is only a single article that specifies what the natural resource related mandate of the ministry should be. Among nineteen sub articles that specify the duties and responsibilities of the MoANR, eighteen were exclusively devoted to agricultural development without any reference to natural resource development except a single sub article (e), which is read as: "promote sustainable natural resources development and protection and, expansion of agro-forestry" (Negarit Gazeta, 2015). From this, one can infer that the forestry related mandate of the ministry is virtually unnoticeable and hence there is no adequate legal ground for the ministry to be involved in forest resource governance activities, which have already been transferred to the MoEFCC. However, the reality is totally different from what has been indicated in the proclamation. The practical engagement of the MoA in forest development and natural resource rehabilitation is massive. Hence, in contrary to the thinning of the mandate in the legal document, and despite the seizure of the forest related mandates by MoEFCC, field evidences indicated that MoANR is currently a real implementer of natural resource conservation more than anyone else. Explaining the significance of its practical engagement and justifying why the ministry should retain the forestry related activities, the former minister of agriculture argued as follows:

MoA has long been endowed with huge grass root structure to mobilize the rural people. No other ministry has such a local capacity to closely work with the farming households. Even though forest related mandates were given to MoEFCC, it would not be able to mobilize people as it lacks strong grass root institution. If you scatter conservation works through different offices, you still scatter the work force at local level. In terms of CRGE, the vast work still lies under MoANR. However, to contain some aspects of environmental issues other than natural resource, and to have a focal body to UNFCC, establishment of MoEFCC was an imperative (KIF/03, June 2017].

From the above extract, it can be noted that regardless of the seizure of forest resource governance by the MoEFCC, which severely suffers from lack of capable local representative institutional setup, development and conservation of forests has been practically undertaken by the MoANR. Hence, the argument is that despite the law granting the mandate to the MoEFCC, MoANR is a de facto institution, which still maintains the practical aspect of afforestation activities. The point is, there is an ongoing confusion in terms of both legislation and practice particularly in relation to forest and natural resource governance. There is still lack of harmony as to who should do what and why, both in legislative documents and practical undertakings. Moreover, since the country is prone to recurrent droughts, the overwhelming focus of policy makers is towards agricultural development driven by fears that rigorous environmental regulations could affect the effort towards food production. Hence, there is an implicit tendency of policy makers that forest governance should be the task of agriculture sector.

In spite of the above argument, a key informant from environment sector contends that since the legal mandate of natural resource development has already been transferred to the MoEFCC, there was no need for MoANR to engage in natural resource conservation. The KI further argued that the 2015 proclamation was crystal clear in its provisions that forest development and conservation is exclusively the task of the new ministry (KIF/04, 2017). In a nutshell, the redundancy of efforts, confusion of roles, lack of coordination at local levels, and perceptual fallacies among senior policy makers themselves, as revealed in this study, with regard to the forest and wildlife aspect of resource governance has been intense and of course invites confusion both at policy and implementing grounds.

5.3.4.5 Trends and regulatory challenges of regional and local environmental institutions

Regional environmental organs epitomize another essential level of environmental institutions in Ethiopia, which were stipulated to be established across the regions in 2002 (McKee, 2007).

Following the 2002 proclamation that provided for establishment of the federal environmental organs including EPA and codified the establishment of independent regional environmental organs (Negarit Gazeta, 2002), there have been continuous re-establishments of the regional equivalent of the federal EPA that witnessed a chain of ups and downs with regard to nomenclature, autonomy, and statutory visibility (Damtie & Salamon, 2012). Before the establishment of the MoE, regional governments had undertaken their respective measures to form environmental institutions with varying degree of uniformity to the federal arrangement. Hence, there were continuous changes in some of the major regions throughout a decade characterized by unnecessary amalgamation of environmental mandate with other executive functions (Tsion, 2008). As Melese and Mesfin (2008) noted, lack of consistency in defining the regulatory mandates of regional EPAs, and blending them with land administration has been a characteristic feature of regional arrangements which have negatively affected the overall policy performance across regions. Empirical studies also noted that the fast changes have caused regulatory instability and lack of institutional memory. In those blended institutions, the non-environmental blends were given overwhelming executive support while the environmental blend was given feeble attention. Similar arrangements down to zones and *wereda s* have even suffered more confusion, lack of clarity and support (Damtie & Salamon, 2012). In this regard, a senior official has noted:

> The regulatory role of EPA was unpopular since there was little understanding of the necessary balance between environment and economic development. Environmental protection, at its early periods of EPA, was seen as something detrimental to the country's economic development that was exercised due to external pressure. Even though there were fast responses of regions to form focal offices, it was not based on the real interest and knowledge to setup such a regulatory body that plays an actual deterring role over the possible harms caused by development projects. That was why every region was blending the environmental unit either in to land administration or agricultural department while refusing to give it an independent and elite status (KIF/02, April 2017).

However, the recent setup of regional environmental institutions since the formation of the third generation environmental institution at federal level, has shown some progress (Table 5.3).

Table 5. 3 The current setup of regional environmental institutions

Region	Non-environmental blend	Status
Amhara	-	Cabinet member
Tigray	Rural land Administration	Below Cabinet status
Oromia	-	Cabinet member
SNNP	-	Below Cabinet status
Benshgul Gumuz	Land administration	Cabinet member
Gambella	-	Cabinet member
Afar	Rural land Administration	Below Cabinet status
Somali	Mines and Energy	Below Cabinet status
Harari	-	Below Cabinet status
Addis Ababa	-	Below Cabinet status
Dire Dawa	-	Below Cabinet status

Source: [MoEFCC, 2017]

As can be seen from Table 5.3, among eleven regional institutions, three of them are blended with land administration and use, while that of Somali region is blended with mines and energy, which is entirely different arrangement from the rest. The number of regional institutions with purely environmental mandate has shown significant increase from that of the EPA era as discussed earlier. Some of these regions even tried to follow similar nomenclature to the federal ministry being inclusive of 'environment, forest and climate change'. Thus, progress has been made in terms of creating independent environmental institutions with purely environmental mandates. However, there are still some formidable challenges in the current regional arrangements, as discussed below. As highlighted in above section, the changes in institutionalization have been chaotic and interruptive. The study revealed that there were three major pitfalls and regulatory challenges commonly encountered by regional and local institutions.

A. Challenges in relation to autonomy and decision making

The former EPA's poor performance in enforcing the EIA law was partly related to its lower status than the ministries that initiate government sponsored projects as these were members of the council of ministers with more power than the EPA. The EPA, hence, was short of the power to influence these ministries (Damtie & Salamon, 2012). Similarly, seven out of eleven regional institutions, regardless of their nomenclature and composition of tasks, are below cabinet status with less power than the other bureaus. In this regard, an official from SNNNPR has noted that

because of its lower status than other regional bureaus, the regional EPA has been challenged to enforce environmental laws including EIA. Those at cabinet status often disregard the regulatory demands of EPA and implementation of the rules is dependent on the willingness of the bureau heads who enjoy the executive power at regional executive council (KIR/01, 2017).

B. Weak executive support and lack of uniformity

Weak support and lack of uniform arrangements down to the zonal and *wereda* levels is another challenge. As the responses from KIs across the regions have asserted, the sector receives the lowest human, material and financial support in comparison to other sectors (KIW/01,2017; KIW/02, 2017; KIW/03/, 2017). As one of the *wereda* KIs stated;

> When there is a need to make a choice between economic and environmental issues, environmental protection is often disregarded and decisions are passed on the expense of environmental security (KIW/04, April 2017).

According to the interview extract from Amhara region, even though the structure at region level is at cabinet status with purely environmental mandates; the reality down to the zonal and *wereda* levels is totally opposite. Thus, the zonal arrangement has completely eliminated the environmental nomenclature and structured as '*zonal department of Rural Land Administration and Use'* under which *"Environmental Sustainability process*" was organized as a unit being run by finger counting experts. The same replica of this zonal arrangement prevails at *wereda* level while the degree of lack of support and attention increases from zone down to *wereda* (KIR/02, 2017). Hence, the commitment demonstrated at regional level couldn't be repeated at lower levels where much of the regulatory and development activities take place.

By the same token, in the SNNPR, qualitative evidences have shown that the zonal and *wereda* arrangements have followed the regional arrangement of EPA. However, besides marginal support in terms of budget and facility, the deployment of office heads in some of the zonal and *wereda* administrative structures has not been meritocratic. As noted by a regional official, the position of EPA head in some of the administrative divisions was assumed by those who have either lost their previous jobs due to incompetence, or it is considered to be a position to land someone a new comer with no experience. Hence, incompetent individuals were appointed in some of the lower administrative branches, which is indicative of weak attention given to the sector (KIR/01, 2017). As it was evident from the *wereda* level interview responses, the meager support to the *wereda* environmental protection offices has been detrimental to achieve their

planned targets. One of the *wereda* EPA heads in SNNPR narrated: *"we are unable to carry out our regulatory roles due to lack of budget, office and field facilities. We are given virtually the least support as compared to other line offices" (KIW/04, 2017).* Similarly, EPA representatives (KIW/08, 2017; KIW/09, 2017) and FGD members in Akaki Kaliti and Kolfe Keranio sub cities of Addis Ababa city have also reiterated that the regulatory performance of EPA has been seriously constrained by poor executive support.

C. Overlaps in roles and mandates

The third problem is related to the role confusion with the bureau of agriculture. The influence of agriculture sector on the environment sector is still immense. Because of its historical legacy, the mandate of forest governance has got confusion between two institutions. Similar to the federal level, forest governance has fully been transferred to environment sector in all of the regions. However, the agriculture sector still carries out forest related function without any adequate legal support. As noted by the senior official from Amhara region,

> The agriculture sector still maintains forest development activities while the environment sector has been given clear legal mandate. They are still conducting afforestation activities and the Natural Resource department within the sector down to zonal and *wereda* levels is often confused to whom to report. They are currently reporting to dual lines of command, both to the agriculture office and to the environment sector. The reason for this confusion is a race for resources. There is a huge flow of resources from foreign sources and that is why the battle to retain the forest mandate is still intense [KIR/02, June 2017).

Similarly, the KI from SNNPR EPA noted;

> The resources and benefits from forest support projects have long been there and widely utilized within the old sector. Hence, nobody wants the new sector to overtake what was thought to have been the old sector's private endowment. This is the main source of antagonism with the newly emerging sector of environment and allocation of environmental mandates has been mostly influenced by the parochial interest from the old sector (KIR/01, June 2017).

Consistent with the responses of the regional KIs, the field level study from three regions has also confirmed that the practice of forest development is being carried out by the agriculture and natural resource branches of the lower levels. In Tamo and Tidesh kebeles of Asagirt *wereda* in Amhara region, in Fentale of Oromia region, and in Esera and Tocha *wereda s* of SNNPR, the FGD an KII information as well as the field observation have all indicted that natural resource conservation was carried out by agriculture sector or its equivalent office in pastoral areas whereas environment sector has rarely been engaged in coordination of this particular activity. In

the case of Addis Ababa city, the city level EPA has relatively good resource support, expertise and infrastructure to carry out its regulatory mandates. However, the reality down the Sub-city and *wereda* levels is totally different. There is an office head at sub-city level being poorly resourced and weakly empowered to undertake regulatory measures. At *wereda* level, a single expert was employed under the *wereda* administration office. During the field data collection, the designated experts of the *wereda* 7 of Akaki-Kaliti and *wereda* 13 of Kolfe-Keranio have noted that they lacked clarity on what they were supposed to do; they have no clear job description, execution plan and resources (KIW/08, 2017; KIW/09, 2017). Hence, there is no institutional response to the public outcry that arises from the industrial pollution from the old industries which operate without treatment plant.

As the foregoing discussions made it evident, the dispersion of regional institutional setup poses a formidable challenge to enforce national environmental laws and achieve common targets. Some of the regional heads are even skeptical of why the country faces such diversity in institutional arrangements across regions. Lack of similarity has negative effect from the perspective of the KI from federal MoEFCC. The KI noted that lack of similarity and blended nature of the institutions with non-environmental mandates has made it difficult to provide necessary support to the regions. The regional offices are often confused to directly report their performances to MoEFCC since there are dual lines of command. For instance, the Somali regional office should report to both MoEFCC, and to the ministry of Mines and Energy. This makes it difficult to provide clear support for the region (KIF/04, 2017). In a nutshell, evidences suggest that the current arrangement, even though progresses have been made since the end of EPA era, is posing critical challenge to the smooth implementation and harmonization of the environmental policy in general and the CRGE strategy in particular across the regions.

With respect to the effects of institutional changes over the years, the expert interview responses from federal institutions suggested that the dynamics has been turbulent, unpredictable and consequently harmful. All of the interviewed experts shared similar views that there have been quite many institutions in terms of number. However, they were incapable to enforce the laws and suffered instability due to changes in nomenclature, mandate allocation and frequent amalgamation that was often based on arbitrary decisions while regularly being subverted by *'muscular'* project proponents (KIF/06,2017; KIFE/01,2017; KIPS/03, 2017; KIW/01, 2017;

KIPS/01, 2018; KIPS/02, 2018; KIFE/02, 2018). Over all, the dynamics, according to the experts has negatively affected the environmental governance performance of the country. In general, the EPRDF era has seen three waves of institutional proliferations quite differently from its predecessors characterized by fast changes, mergers, amalgamations, and yet with evident regulatory challenges that undermined their performances.

5.3.5 Actors and their role in environmental governance

Environmental policy implementation and governance calls for active participation of different stakeholders from the very phase of problem identification and planning to implementation and evaluation of the results. As discussed in above sections, effective environmental governance requires strong actor participation that is ruled by strong institutions to guide the behavior of individual actors (Melese & Solomon, 2012). The new governance paradigm, which emphasizes the defined and well-articulated role of non-state actors, calls for redefinition of boundaries of engagement for both the state and non-state forces. To this end, Evans (2012) argues that the new governance framework emphasizes on the importance of engagement of key and relevant actors and setting institutional rules that serve as a *'glue'* in directing their actions (p.74). Accordingly, there should be strong and viable institutional setup which establishes a common platform and rules of the game for key actors to *'voluntarily'* discharge their respective roles. Thus, environmental governance framework, which applies the principles of good governance, is inclusive of the state, civil society, and the private sector (Evans, 2012).

5.3.5.1 The role of state and non-state actors in environmental governance

In the environmental policy of 1997, little was said about the role of non-state actors in environmental governance. The need to engage non state actors has only got a mention in the policy document as follows:

> To ensure that legally established coordination and management bodies from the federal down to the community level handle the sectoral and cross sectoral planning and implementation issues identified as the responsibilities of concerned line ministries commissions, authorities and bureaus, as applicable to the level of organizations, including those of the relevant federal executive organs as well as regional and municipal governments, elected councilors, non-governmental organizations, community representatives, representatives of professional or other environmental associations and the private sector (EPA, 1997, p.26).

On the account of this policy provision, there were practical attempts of varying degree to involve the state and non-state actors in environmental policy implementation and governance.

Despite the lack of clear legal modality for actor engagement at national level[22], there have so far been rudimentary attempts of engaging non-state actors in environmental affairs. In this case, it is important to see the definitional aspect of actors in the context of environmental resource governance and agriculture laden environmental policy implementation in Ethiopia before going in to the scrutiny of role and engagement of the so-called non state actors.

During the qualitative interview, much of the responses from different senior federal and regional officials have shown that the nature and definition of actors in Ethiopia's environmental policy context has got a peculiar aspect. In actors, they virtually mean the people, or local implementers. To this end, one of the former ministers argued that there are *'primary and secondary actors'.* In primary actors, he would mean, the implementers and beneficiaries including the political leadership and the technical staff within the relevant sectors (KIF/03, 2017). Thus, key and most important actors in the implementation of the EP are the rural people who release their labor and resources on voluntary basis in the course of the conservation work. As part of these, he argued that the entire political leadership and the technical staff, who guide the political and technical aspect of the work and take a leading role in mobilizing the people, are part of the major actors(KIF/03,2017).. With respect to the private and civil society groups, most of the respondents put their role in remote and secondary position (KIF/01, 2017; KIF/02, 2017; KIF/03, 2017, KIR/01,2017).

The views of the respondents have clearly shown that in policy implementation and governance, the role of non-state actors is secondary and is not perceived to have a role that is more than support. All of the regional and federal level KII responses have indicated, referring to the premises of the rural and agricultural development policy- which puts the potential of Ethiopia's development to lie under a sheer palms of the rural mass (FDRE,2002), they firmly argue that every other's engagement in this regard would only be the second best. Consequently, the role of civil society and private sector has been so marginal and limited to financial and technical support, which is not in line with what the governance literature suggests (Evans, 2012). In explaining the role of non-state actors, evidences from the federal ministry of environment,

[22] "There is no nationally set out modality of actor engagement as such", this was a response from officials of the MoEFCC during qualitative study.

forest and climate change have indicated that, there is only an infantile beginning to bring these forces on board (KIF/04,2017).

The civil society and private sector representatives participate in the national arrangement known as 'advisory board', which provides technical support to the CRGE secretariat. Their role, however, is not decision-making. Across the study areas over the regions of Oromia, Amhara, SNNP, and Addis Ababa, there were little evidences on the engagement of non-state actors. The field data from Asa girt *wereda* of North Shewa zone, Esera and Tocha *weredas* of Dawro zone in SNNPR, and Fentale *wereda* of East Shewa zone of Oromia region have all indicated lack of any meaningful role played by NGOs and private business in terms of making environmental decisions, except some project based supports in terms of input provision (KIR/03,2017; KIW/07, 2017; KIZ/03, 2017; KIW/06, 2017).

Similarly, the FGDs of Addis Ababa, in two sub cities of Akaki Kality and Kolfe Keranio have indicated that the environmental decisions are purely made by government actors, which is even different from the realities prevalent in the rural areas of the rest of the regions where community participation is immense. In Addis Ababa, l*et al*one to bring on board the non-state actors, community role in EG is not even acknowledged where it seems that the governance vacuum has often been resulting in a growing hostility of community members towards the business entities (polluting industries) and a bitter discontent over the feeble regulatory response from the local state actors. There are some cases in all of the study sites where NGOs undertake community mobilization and technical as well as input support works in collaboration with the government bodies.

Despite the apparent lack of meaningful participation of NSAs in environmental governance across the study areas, evidences indicate that most of the NGOs participate in project based support activities as well as advocacy programs mostly in forest and wildlife as well as water shed management areas. To this end, Young (2012) attempted to provide an exhaustive list of different local and international NGOs in Ethiopia, which were deployed in similar areas. Hence, about twenty-one NGOs (domestic and international) have been reported to be working on biodiversity management, participatory forest management, wildlife rescue and care, sustainable land management, and watershed management, whose role is overwhelmingly limited to

provision of support to the communities and implementation of specific targets in those pockets of project areas (Young, 2012).

The NSAs are not only loosely connected to the primary actors, but also vary among one another with the degree of their involvement in environmental decisions varies from entity to entity. For instance, key informants from the MoEFCC noted that there are some civil society groups with more pronounced voice and participation in environmental affairs while others have remote engagement in Addis Ababa city and in the regions. As the KII response from the SNNPR indicated, the role of NGOs such as Concern Ethiopia, MELCA Ethiopia, and NABU, among others is more visible than others (KIR/01, 2017).

Similarly, Green Future Hawassa (civil society group) is more vocal in urban greening and pollution protection whereas others take part in similar works sporadically. Hence, the role and level of engagement differs from place to place and with the environmental agenda they uphold. Thus, NSAs are remotely located to the central agenda of EG and they are mainly engaged in provision of technical and input support. This is indicative of the above explanation that most of the environmental decisions are made by state sector domain of actors.

In short, EG in Ethiopia is characterized by the overwhelming dominance of the primary actor (state sector) while the role of the non-state(secondary) actors has been sporadic, suffers from lack of clear legal modality, and limited to input support, advocacy, and project implementation activities with nearly no role in policy related decisions.

5.3.5.2 Community participation in rural-urban setting

As discussed earlier, the level of community participation is far better in rural areas than in urban centers. Field data has shown that the participation of the rural communities in making environmental decisions has been growing from time to time. The field evidence of *Tamo* and *Tidesh* kebele communities in Asagirt *wereda* of Amhara region has indicated that the role of community is so vibrant whereas the state domain is actively engaged in steering the public efforts in an organized way. As the FGDs of the two kebeles asserted, the entire decision over the conservation work and related use of the resources or benefit sharing is on the hands of the local community and their institutions. The communities are organized in smaller units to undertake the conservation works and abide by the locally stipulated by-laws. The entire decision

over resource use and benefit sharing is carried out on the basis of the by-law. The role of the *wereda* government in this regard has been pivotal. Coordination and mobilization activities were assisted by the wereda leadership and technical support was intensively given by the local agricultural extension workers. There was also support from the *wereda* council in endorsing the local by-laws to give force and avoid legal disputes. Even though the pyramidal mix of actor constellation is missing in Ethiopia's EG, the level of community engagement and state based support in study kebeles of Asagirt *wereda* has proved effective from the rural point of view. In urban EG, both are missing. Neither community nor non-state actor participation is clearly prevalent in urban environmental governance. This has been asserted by all of the interviewed officials and experts both at federal and regional levels some of whom have raised strong concern over the situation of raising urban pollution. To this end, one of the KIs at federal level has noted the following:

> Commendable achievements have so far been registered in rural EG. When we see EG in urban areas, there are a lot of problems in terms of implementing the policies and regulations. Rural EG has currently been involving millions of citizens where they employ their labor and resources voluntarily for collective benefit. They are actively involved in environmental decision-making. Urban communities, however, haven't been empowered as their rural counterparts. Hence, while environmental concerns and their impacts in urban areas are higher, sensitive and harmful than in rural areas, little has been done in empowering the urban population (KIF/05, Feb.2017).

The urban environmental problems, according to the key informant, are worse and debilitating. Yet, the level of public engagement is far behind the rural one. Hence, it can be concluded that the actor participation in urban areas is missing the major actor component while it has been better practiced in rural areas. From the foregoing discussions, it can be summed up that environmental governance in Ethiopia is characterized by state dominant actor constellation whereas the role of NSAs is limited to support provision both in urban and rural settings with no defined actor engagement modality and legal framework that establishes a platform for democratic participation in environmental decision making. Significant community participation in rural EG has been demonstrated with the natural resource conservation work whereas the urban communities have not so far been engaged and mobilized to curb the growing and severe urban environmental problems. Thus, enforcement of environmental laws and regulations in urban areas has been seriously challenged due to absence of community engagement, on the one hand and poor participation of non-state actors, on the other hand.

5.4 Comparison of policy and governance of EPRDF era with the past regimes

Based on the findings of the two chapters (4 &5), the following summary table portrays the evolution and changing trends of environmental policy and governance responses over the three political regimes in Ethiopia. To make comparison of policy and governance responses of the current regime with the past two regimes, policy context, guiding environmental discourse, approaches of governance, institutional set up, roles of actors, major drivers, and policy outcomes were used as indicators. Thus, the comparison indicates that Ethiopia's environmental response has evolved from narrow, land based and agriculture driven environmental conceptualization during the past two regimes to the holistic and all-encompassing view of environmental understanding and concurrent broad based policy responses in the current period (Table 5.4).

Table 5. 4 Summary table of comparison of policy and governance trends of EPRDF era with the past two regimes

Indicator	**Political regime**		
	Monarchy	**Military Dergue**	**EPRDF**
Environmental Policy	No coherent EP except patches of legislations on forestry and wildlife	no coherent EP; legislations on forestry and wildlife	Broad conservation strategies; coherent EP backed by constitutional provisions; broad mid-term plans with explicit targets of environmental component; numerous regulatory tools; and the CRGE strategy
Environmental discourse	Frontier economy approach	Frontier economy approach, eco development to some extent	Frontier economy, Eco development, sustainable development
Major drivers	Expatriate knowledge; Neo-Malthusian views; drought and famine; emulation of modernity	Socialist way of development(collectivization/viligization);expat advices of Neo-Malthusian views; drought and famine; donor influences	Drought and famine; poverty alleviation; coincidence of external and internal development paradigms
Institutional setup	Wildlife organization; State Forest Agency; and MoA	FAWCDA (major institution of forest & wildlife); MOA	Though its sheer dominance is decreasing, MoA's influence is still significant; A mosaic of environmental institutions at federal, regional and local levels outside the auspices of the traditional MoA.

Actor role	government was a sole implementer; involved some international agencies/donors	government was a sole implementer; involvement of international agencies/donors	Government and local community (major, primary role), international donors, NGOs (secondary role)
Approach of EG	Top-down and exclusionary resource conservation	Top-down; coercive and exclusionary resource conservation	Decentralized and participatory in natural resource conservation. But, centralized and exclusionary in protected area governance
Policy outcomes	Conserved endemic wildlife in national parks; massive degradation of natural forest cover; Left a legacy of exclusionary PA governance; Left a legacy of MoA as a repository of EG	Conserved endemic wildlife in national parks; Left some state forests through harsh protective measures; resulted in destruction of conservation measures forcefully done by community and forest areas that incorporated farm lands; misguided policies caused massive destruction of forest and wildlife resources; aid dependent SWC approach	Massive SWC through participatory approach and reversal of aid dependent practices; Agricultural development based on natural resource conservation became an international best practice (e.g. Tigray); The narrow environmental view has been replaced by holistic view crossing sectoral and geographic boundaries; A new path of green and sustainable development adopted; Poor policy implementation and law enforcement; policy disharmony (e.g., resettlement policy and large scale land grab) resulted in massive forest degradation; development projects disregarded environmental security and social rights of citizens; continued adherence to the old exclusionary park governance is posing a threat to the wildlife resources and their habitats.

Source: Compiled by the researcher from primary and secondary data collected for the study (2017).

5.5 Chapter Conclusion

The current trajectory of environmental policy and governance in Ethiopia can be said to have seen significant advances in policy narrative and resulting institutional as well as legal frameworks. Unlike the previous regimes, forest governance was elevated to the next level through policies and legal frameworks that provided for decentralized power and participation of different stakeholders, which resulted in improved forest protection within the regions. However, the obsessive inclination towards enhancement of agricultural production has resulted in harming the forest stock whereby forests were cleared for additional land use. Besides agricultural expansion that affected forest protection, the resettlement program has also undermined forest resources. Decentralization of park governance was undertaken concomitant to the federal system and park governance was divided between the center and regional governments. However, the decentralization did not materialize failing to reach local level and it was only meant to be a transfer of power from one mega center to the next level of mega center. In response to the dissatisfaction over the Yellowstone model, introduction of some additional

approaches including quasi co-management and neo-liberal or market model were tried, which have not been effective, though. The traditional Yellowstone approach of park governance, however, has continued to be the dominant model whose negative outcomes still call for improved legal and policy responses that are considerate of the voices and livelihood demands of local communities who are closely co-habiting with the nature around them. In response to the effects of climate change, formulation of the CRGE was significant undertaking. However, more focus was placed on mitigation while the country is one the most vulnerable countries in the world whereby adaptation measures should have been of major focus. Its implementation is also highly challenged due mainly to lack of understanding across the tiers, on the one hand and lack of anticipated flow of foreign finance, on the other hand. Thus, the regime attained attractive policies at paper level yet poorly and badly implemented.

Institutional development of the current era has seen many changes where a mosaic of EIs have been instituted in the center and regions with different nomenclature. The institutionalization followed the broad policy narrative and experienced chaotic changes which, in some aspect, have been detrimental to the effectiveness of policy implementation. The institutional setup has got many gaps and overlaps mainly characterized by its failure to enforce the major laws. The actor participation in EG has been characterized by a dichotomy of primary (state sector) and secondary (non-state sector) actors which relegated the role of the later to be limited to resource and technical support. On top of this, there is a clear dichotomy of rural urban disparity in terms of public participation with respect to environmental decision-making. The role played by urban communities is very weak compared to the rural setting where the farming communities have been engaged to undertake strong environmental protection measures across the major regions. Thus, the weak institutional setup coupled with poor public participation in urban setting has contributed a lot to the prevailing problems of urban environmental quality. In general, even though there were significant achievements recorded in policy, legal frameworks, and institutional proliferation, the country is facing a formidable task of grappling with both climate change induced problems on the one hand, and rampant environmental degradation due to failure to make a necessary balance between economic development and environmental sustainability, on the other hand.

CHAPTER SIX: INDICATORS AND DETERMINANTS OF EFFECTIVE ENVIRONMENTAL GOVERNANCE IN ETHIOPIA

6.1 Introduction

This chapter deals with the effectiveness of EG in Ethiopia. It is based on the survey data collected from 402[23] rural households from Fentale *wereda* of Oromia region and Esera and Tocha *wereda s* of SNNPR, near Chebera Churchura national park. The study findings from quantitative survey were complemented by in-depth qualitative data collected from the rest of study sites in order to arrive at valid conclusions (see section 3.4). Following the descriptive discussion of thirteen indicators along with their components, the section presents computation of EG indices and discusses the results whether the current governance practice is effective or not. Finally, based on the results of the binary logit model, determinants of effective environmental governance are presented and discussed. The indicator variable data was originally collected by using a five point Likert scale (1=strongly disagree, 2=disagree, 3=neutral, 4=agree, 5=strongly agree). However, for computational purpose, it was recoded into a dummy variable i.e., those with values 4 and 5 were recorded into 1=Yes, whereas those with values 1, 2 and 3 were recorded into 0=No.

6.2. Descriptive statistics

6.2.1 Household profile

The average family size of respondents is 6.94(± 2.744046) with 14 maximum and 2 minimum. This size is slightly above the national average which is (CSA, 2014). The average age of the households was 36.7 (±11.44752) while the minimum being 18 and the maximum 82. With regard to years lived in the study area, the average length was 31.48(±14.50035), while the minimum 1 and maximum being 75 years (Table 6.1).

Table 6.1 Descriptive statistics of household profile

Variable	N	Mean	Std. Dev.	Min	Max
Family size (no.)	402	6.938	2.744	2	14
Age (years)	402	36.667	11.448	18	82
Years lived (years)	402	31.480	14.500	1	75

Source: Household Survey (2017)

[23] The original size of sampled HHs was 404. However, two of the HHs were dropped during the data analysis due to error.

6.2.2 Socio economic profile of the households

The agro-ecology of the study areas was predominantly lowland which accounted for 275(68.41%) of the responses followed by midland, represented by 90(22.39%) of the responses. In terms of sex, a large number of respondents was male, i.e. 324(80.6%), whereas female respondents were as few as 78(19.4%). About 300 (74.81%) of the respondents were married (to a single spouse) whereas only 22(5.49) were single. With insignificant figure on divorce, i.e., only 20(4.99%), about 57(14.21%) of the respondents were found to be polygamous, having married to more than one spouse. With regard to religious affiliation, followers of Islam were 179(44.53%) followed by Orthodox Christians being 110(27.76) and Protestants accounted for 89(22.14%). While Christians from catholic sect accounted for some 11(2.74), few number of respondents were found to be followers of traditional and other unspecified beliefs (Table 6.2). In terms of occupation, 268(66.67%) of the respondents were either farmers or herders (this is because of the socio economic nature of the study *weredas* where both pastoral and farming communities were included). 86(21.39%) of the respondents were engaged in crop production and sales and 25(6.22%) of respondents were salaried employees. 23(5.72%) were engaged in other petty income generating activities (Table 6.2). As many as 285(70.9) of the respondents were not currently engaged in community level responsibilities while 9(2.24) of them assumed leadership roles in their respective religious denominations. 69(17.16%) of the respondents were involved in kebele administration duties whereas 39(9.7%) were involved in coordinating community development activities (Table 6.2).

Table 6.2 Socio economic profile of the households

Variables	Frequency	Percent
Agro-ecological Zone		
High land	37	9.20
Mid-land	90	22.39
Low-land	275	68.41
Sex of respondents		
Male	78	19.40
Female	324	80.60
Marital status		
Married, single spouse	300	74.81
Single	22	5.49
Divorced	2	0.50
Widowed	20	4.99
Polygamous	57	14.21
Religion		

Orthodox	110	27.36
Muslim	179	44.53
Catholic	11	2.74
Protestant	89	22.14
Traditional religions	5	1.24
Other (not specified)	8	1.99
Main occupation		
Farmer/herder	268	66.67
Salaried work	25	6.22
Others occupation [24]	23	5.72
Crop production and sales	86	21.39
Role in the community		
None	285	70.90
Religious leader	9	2.24
Coordinator of community development	39	9.70
Kebele Administrator	69	17.16

Source: Household Survey (2017)

6.3 Indicators of effective environmental governance

In the following section, the survey result for thirteen indicators of EEG is presented. The indicators, as shown in the respective tables, are the sum of each specific component that form the major indicator.

6.3.1 Accountability indicators

Accountability in environmental governance has been considered as the sum of four components as indicated in Table 6.3. As the responses to the first component suggested, local government bodies are not held accountable when the local people experience any environmental harm due to decisions passed by the governing institutions. To this end, 345(85.82%) of the respondents indicated lack of accountability in this regard while only 57(14.18%) reported its existence. The chi-square test for this component indicates a non-significant result (table 6.3). Similarly, 259 (64.43%) of the Responses have shown that the local /*Wereda* government does not timely respond to the community demands related to resource use such as demand for pasture, water, firewood, and farming land. The chi-square test for this component has also shown a significant result ($p < 0.001$). By the same token, the survey response has yielded a negative outcome for the rest of two major components of accountability. To this end, 226(56.22%)have reported that roles and responsibilities of the *Wereda*, *Kebele* and local communities lack clarity in terms of environmental resource management. The chi-square test for this component has also shown a

[24] From the survey data, the other groups included were (Non-farm product trader # 5; beverage (tella, tej, areke), # 5; wage labor (local) # 3; Handicraft # 3; student # 7, totaling 5.72 %).

significant result (p<0.001) indicating the absence of clarity in terms roles and responsibilities. Likewise, 269(66.92%)of responses have indicated actions and decisions at all tiers of government (Kebele, *Wereda*, Zone and upper tires) in terms of environmental management were not consistent with the needs of local people and the respective laws and regulations with blurring of accountability, with a chi square test showing a significant result of (p<0.001). Thus, there is a poor exercise of accountability in relation to clarity of roles and responsibilities whereas the government bodies across relevant tiers are exercising weak accountability to the people failing to respond to their demands, and there prevails inconsistent practice on the part of the government bodies in undertaking resource conservation actions. Overall, there is a poor practice of accountability in environmental governance (table 6.3).

Table **6. 3** Indicators of accountability

Accountability	Response		χ^2 value
	No	Yes	
Government bodies are held accountable when the local people experience any harm due to environmental governance decisions	345(85.82)	57(14.18)	3.736
The local /*Wereda* government timely responds to the community demands related to environmental resource use (pasture, water, firewood, farming land).	259(64.43)	143(35.57)	51.810***
The roles and responsibilities of the *Wereda , Kebele* and local communities are clear and unambiguous in terms of environmental resource management	226(56.22)	176(43.78)	109.813***
Actions and decisions at all tiers of government in terms of environmental management are consistent with the needs of local people and the respective laws	269(66.92)	133(33.08)	71.808***

Source: Household Survey (2017)
Note: *** p<0.001, ** p<0.01, * p<0.05

6.3.2 Participation indicators

Participation of communities in environmental governance was broken down in to eight specific components in order to capture the salient features of participation in its real sense. In response to the first component, 232 (57.71%) of respondents have reported that they were involved in the early phase of planning and took part in problem identification while 170 (42.29%) of them reported the absence of involvement during this phase. The chi-square test for this component has also shown a significant result indicating that there is community participation in the early phase of environmental problem identification (p<0.001). The survey response has also shown

the same result for ‘participation in the planning phase of environmental protection and governance’ and hence they participate both at problem identification and planning phases as well (Table 6. 4). In terms of participation in implementation of planned activities, 285 (70.90%) of the respondents have reported positively while 117 (29.10%) responded ‘no’. The chi square test for this component has also shown a significant result ($p< 0.001$) which indicates the prevalence of community participation in implementation of the planned measures of environmental governance (Table 6.4).

With regard to participation in setting local governance rules, 250(62.19%) of respondents responded ‘yes’, and the Chi square test has also been significant ($p< 0.001$). Even though the survey result indicated the existence of popular participation in rule setting, 250 (62.19%) of the responses have shown that local people do not actively take part in enforcement of these rules and regulations. The chi square test for this components has also shown significant result ($p< 0.001$), which is indicative of poor engagement in rule enforcement (Table 6. 4).

Likewise, results for the rest of indicator components suggest the absence of significant community participation. Thus, their participation in monitoring and evaluation activities were found to be weak with more than average 210 (52.24%) of the respondents reported its absence. The chi square test has yielded a significant result that there was weak participation in relation to their engagement in M&E activities ($p< 0.001$). Similarly, more than half of the responses 241(59.95%) have indicated that the local people have not been taking part in decision making related to resource use. The test result has also yielded a statistically significant relationship between the two sets of responses ($p< 0.001$), which suggests that there is lack of community role in decisions related to resource use and distribution.

Moreover, the survey result indicated absence of any benefit arrangement in resource use and lack of participation with regard to arrangement of such schemes with a response rate of 260 (64.68%). The chi square test has also shown the absence of such community role in arrangement of benefit sharing schemes ($p< 0.001$). In general, despite community participation prevailing at the stages of problem identification, planning, and implementation of environmental activities as well as rule setting, local people do not take part in decisions that matter most to their livelihood on the one hand and to the environmental protection goals on the

other hand. Hence, their participation in the later stages of governance, particularly in decision making has not clearly prevailed (Table 6.4). Therefore, it can be said that there is a weak practice of community participation in environmental governance.

Table 6. 4 Indicators of participation

Community Participation in environmental governance decisions	Response		χ^2 value
	No	Yes	
Local communities are involved in identification of environment governance problems	170(42.29)	232(57.71)	142.903***
Local communities are involved in planning of environment governance measures	170(42.29)	232(57.71)	142.903***
Local communities are involved in the implementation of governance measures	117(29.10)	285(70.90)	52.364 ***
Local communities are involved in setting rules for environmental protection	152(37.81)	250(62.19)	55.483***
Local communities are involved in the enforcement of environmental protection rules and regulations	250(62.19)	152(37.81)	86.652***
Local communities take part in monitoring and evaluation of environmental resource management activities	210(52.24)	192(47.76)	160.815***
Local communities take part in making decisions related to environmental resource use and distribution	241(59.95)	161(40.05)	48.954***
Local communities take part in the arrangement of benefit sharing modalities from public resources	260(64.68)	142(35.32)	17.129***

Source: Household Survey (2017)
Note: *** p<0.001, ** p<0.01, * p<0.05

6.3.3 Indicators of awareness creation

In order to capture the extent of awareness raising practices conducted in relation to environmental governance, four indicator components were considered and the responses to these components have shown positive result. Most of the responses 295 (73.38%) have suggested that the local people were provided with regular awareness raising opportunities while only 107 (26.62%) have reported its absence. The chi square test has also shown a significant relationship between the two sets of responses ($p<0.05$). In terms of taking part in such awareness raising training and meetings, majority 283(70.40%) have positively responded and the chi square test has also shown a statistically significant result ($p< 0.01$).

Hence, there households have a practice of participating in awareness raising activities. 281(69.90%) of the respondents reported that they were well aware of protecting their

environment while 119 (29.60%) were not. The chi square test has also indicated a significant outcome ($p< 0.001$), which shows that the local communities have adequately been informed about the importance of protecting their natural environment (Table 6.5). With regard to the changes in attitude towards their role in environmental protection and development of skills necessary to manage their resources, households have a relatively divided opinion. To this end, 204(50.75%) of them reported change in attitude and skill while 198 (49.25%) of them did not confirm the existence of changing attitude as well as skills for environmental protection. Despite the contested nature of responses to this indicator component, the chi square test has shown a statistically significant difference between the responses ($p< 0.001$) and hence it can be said that there has been change in their attitude and skills. In general, there is a growing tendency in the level of awareness among the local communities with regard to environmental protection and governance (Table 6.5).

Table 6. 5. Indicators of awareness in EG

Awareness creation	Responses		χ^2 value
	No	Yes	
There are regular awareness raising practices (meetings, trainings) for local people on environmental management	107(26.62)	295(73.38)	8.658*
Local people actively participate in trainings/meetings related to environmental resource management	119(29.60)	283(70.40)	14.561**
People are well aware of protecting environmental resources	121(30.10)	281(69.90)	32.171***
The awareness raising efforts have been able to change local people's environmental resource management attitudes and skills	198(49.25)	204(50.75)	62.536***

Source: Household Survey (2017)
Note: *** p<0.001, ** p<0.01, * p<0.05

6.3.4 Knowledge indicators

Effective environmental governance is characterized by application of indigenous knowledge and local community practices for the management and conservation of environmental resources. In order to assess the prevalence of such practices, six component indicators were administered during the survey. The components were aimed at identifying whether the local knowledge was used for the governance of environment on the on hand and the use of other sources of knowledge from micro to macro levels, on the other hand. 283(70.40%) of the respondents

reported that their traditional knowledge has not usually been applied for conservation while some 119 (29.60%) have reported its application. The chi square test has yielded a statistically significant result ($p<0.001$) which indicates that there is a weak practice of applying IK for resource conservation. On top of this, 281(69.90%) of the households also reported that their knowledge is even not recognized and backed by the expert knowledge while about 153 (38.06) reported differently. The chi square test for the two components has shown a significant result ($p<0.001$) and hence, environmental governance has poorly been complemented by community knowledge. Even though community knowledge has been poorly applied, the survey indicated that knowledge used for EG is mainly from local level experts, which further indicated that knowledge from upper tiers has not been widely applied. It was also reported that there is no support from non-state actor sources such as the NGOs and the private sector. Therefore, the main source of EG knowledge was local expertise while lacking adequate support from remote echelons of the government on the one hand and non-state actors on the other hand. There is also weak application and recognition to community knowledge (Table 6.6).

Table 6. 6 Indicators of environmental knowledge

Environmental knowledge	Response		χ^2 value
	No	Yes	
Our traditional knowledge of resource conservation is frequently applied for conservation of resources	283 (70.40)	119(29.60)	113.574***
Our traditional knowledge has been recognized and backed by local level expert knowledge for environmental resource management	249 (61.94)	153 (38.06)	73.834***
Local level expertise has been used for environmental resource governance more frequently than expertise from upper levels	121(30.10)	281(69.90)	37.996***
knowledge and expertise from upper tiers (zone, regional, central) play supportive role but not imposed on local levels for environmental resource governance	244 (60.70)	158 (39.30)	117.853***
There is support of knowledge and expertise from NGOs in order to improve our environmental governance performances	375 (93.28)	27 (6.72)	13.291**
There is engagement of knowledge and expertise from private sector in order to improve our environmental governance performances	382 (95.02)	20 (4.98)	14.838**

Source: Household Survey (2017)
Note: *** $p<0.001$, ** $p<0.01$, * $p<0.05$

6.3.5 of Institutional indicators

Existence of adequate environmental regulatory institutions, their proximity to and harmony with local context, and engagement of traditional community institutions were the three major indicator components used to measure institutional factor for EG effectiveness. Hence, 269 (66.92) of responses have sown that there were no adequate environmental institutions in charge of EG in their locality while 133(33.08) reported the opposite. The chi square test has shown a significant result ($p<0.001$), which indicates lack of such adequate institutional set up both in number and type (table 9). Regarding the involvement of local level institutions in EG decisions and the level of support from the upper echelons, 273(67.91%) of the household reported its absence while 129 (32.09%) favored the presence of such a practice. The test result has also supported the response ($p<0.001$) that decisions are not solely carried out by community level institutions which also lack the necessary support from above. Similarly, 308 (76.62%) of respondents indicated the absence of significant involvement of community's traditional institutions in EG decisions while 94(23.38%) reported the opposite. For the above two components of institutional indicator, the chi square test has shown statistically significant result at $p<0.001$ and $p<0.05$ respectively. Hence, it is evident that the local level environmental institutions including traditional ones lack adequate involvement in decision making and enjoy little support from the upper tiers (Table 6.7).

Table 6. 7 Indicators of institutions

Institutions	Response		χ^2 value
	No	Yes	
There are adequate EIs in the locality with clear mandate and capacity to coordinate Environmental protection	269(66.92)	133(33.08)	89.243***
EG decisions are carried out solely by local level institutions with adequate support from the upper tiers	273(67.91)	129(32.09)	61.161***
Local community's traditional institutions have significant role in EG decisions	308(76.62)	94(23.38)	9.519*

Source: Household Survey (2017)
Note: *** $p<0.001$, ** $p<0.01$, * $p<0.05$

6.3.6 Actor indicators

The survey findings regarding the role of different actors in environmental governance has also shown consistent result with the above indicator components. In the study areas, it was evident that there was no involvement of non-state actors in EG as such. Hence, the governance of

resources has been carried out by government bodies and communities which was overwhelmingly confirmed by 334(83.08%) of the surveyed households. The chi square test has yielded a significant result ($p<0.001$) indicating a sheer role of government actors. The role of NGOs has been very minimal as 383(95.27%) of the responses confirmed the absence of such a role. The chi square test for this indicator component has also shown a statistically significant result ($p<0.001$), which shows the absence of civil society involvement. Similarly, 333(82.8%) of responses have shown the absence of involvement of CBOs with a statistically significant result ($p<0.001$). Likewise, it was reported that the private sector has no involvement in such a role, as confirmed by 386(96.02%) of the respondents. The study has also revealed the absence of any combined effort from state and non-state actors, as reported by 375(93.28%) of the households. This response has also been further confirmed as the chi square test has shown a statistically significant result of ($p<0.001$). Thus, actor involvement in the study areas has merely been limited to the government and communities while there was no significant involvement of both CBOs, NGOs, private business separately or collectively (Table 6.8).

Table 6. 8 Indicators of actor roles

Actors	Response		χ^2 value
	No	Yes	
Environmental governance is carried out by the government bodies and local communities	68(16.92)	334(83.08)	17.292***
Environmental governance is supported by participation of civil society actors	383(95.27)	19(4.730)	17.650***
Environmental governance is facilitated by CBOs	333(82.84)	69(17.16)	70.299***
Environmental governance process engages private sector	386(96.02)	16(3.98)	11.845**
Environmental resource or protected area is conserved by collaboration of communities, CBOs, NGOs, government and private business	375(93.28)	27(6.72)	32.151***

Source: Household Survey (2017)
Note: *** $p<0.001$, ** $p<0.01$, * $p<0.05$

6.3.7 Indicators of environmental laws

In terms of laws and regulations in relation to environmental protection and governance, three component indicators were presented to capture the perceptions of the survey households. With regard to adequacy of laws and regulations, 320 (79.60%) favored its adequacy while 82(20.40%) answered the opposite. The test result also shows that there were adequate laws and

regulations at local level, which is statistically significant (p<0.001). About 298 (74.13%) of the responses have shown that environmental protection laws were well known to and communicated among the local communities, while 104 (25.87%) responded the opposite which is still statistically significant finding (p<0.001). However, most of these laws and regulations were brought down from the upper echelons while the bylaws and rules set by the local people played little role in the governance of the environment. To this end, 233(57.96%) of the responses have indicated that local bylaws were less applied than those from above while 169 (42.04%) responded the opposite. The chi square test for this component also indicated a statistically significant result (p<0.001) and thus, the rules and regulations set by the locals have little to do with the governance of environmental resources (Table 6.9).

Table 6. 9 Indicators of environmental laws

Environmental laws	Response		χ^2 value
	No	Yes	
There are adequate environmental governance rules and regulations at local level	82 (20.40)	320(79.60)	15.236***
Environmental protection laws are well known to and communicated among the local communities	104 (25.87)	298 (74.13)	15.629***
Besides government laws, community bylaws have also been frequently used for environmental resource protection	233 (57.96)	169 (42.04)	47.672***

Source: Household Survey (2017)
Note: *** p<0.001, ** p<0.01, * p<0.05

6.3.8 Transparency indicators

According to the qualitative extracts from community members, there is lack of clear benefit sharing arrangement in all study sites, particularly in protected areas. The indicator components for transparent practice of resource use have indicated absence of any such practice, which is consistent with the qualitative findings. To this end, 287(71.39%) of the households reported the absence of transparent practice in the distribution and allocation of income from protected area or other sets of environmental resources while only 115(28.61%) reported otherwise. The chi square test has shown a significant difference between the two sets of responses(p<0.01) and hence, there lacks transparency in allocation of income from public resources, if at all there is any. In terms of making open decisions that involve the local people, responses are still negative with a response rate of 237(58.96%), being statistically significant (p<0.001). Similarly, with regard to clarity over the roles and responsibilities of the local people in the management of environmental resources, 251 (62.44%) reported its absence while 165(41.04%) have favored

'yes' response ($p<0.01$). In general, there is weak practice of transparency in environmental decision making (Table 6.10)

Table 6. 10 Transparency indicators

Transparency	Response		χ^2 value
	No	Yes	
The allocation and distribution of benefits from environmental resources is managed transparently	287(71.39)	115(28.61)	11.163**
Decisions related to resource use and management are known to the local people and done openly	237(58.96)	165(41.04)	19.424***
Local communities know their roles and responsibilities related to environmental protection	251(62.44)	151(37.56)	9.458**

Source: Household Survey (2017)
Note: *** $p<0.001$, ** $p<0.01$, * $p<0.05$

6.3.9 Indicators of law enforcement

In order to find out the extent of enforcement of environmental laws and implementation of rules and regulations, four indicator components were administered during the survey. In relation to the level of local community participation in implementation/enforcement of environmental protection laws, 320 (79.60%) have reported that the laws have been widely enforced by their participation while only 82(20.40%) reported the opposite. The chi square test shows a significant result ($p<0.001$), which means that local people were engaged in enforcement of environmental laws (Table 6.9). In terms of palatability and ease of implementation of the rules and regulations, 220(54.73%) households reported "yes" while 182(45.27%) were not in favor of it. Since the test result also shows significant difference ($p<0.05$) between the two sets of responses, it can be said that the rules were relatively easier and clear to enforce. The survey findings have also shown that the resource protection laws have been positively responded to. To this end, 220 (54.73%) of the surveyed households reported that the local people do abide by these laws and regulations which indicates existence of compliance. Likewise, the laws are enforced accordingly when there occurs a breach. To this end, 319 (79.35%) households have reported that punishments were exercised against those who fail to abide by the rules. The test result has also shown a statistically significant difference between the responses ($p<0.05$). Therefore, the environmental resource governance rules and regulations have been implemented by participation of the locals, and implemented accordingly (Table 6.11).

Table 6.11 Indicators of implementation/law enforcement

Compliance and enforcement of laws	Response		χ^2 value
	No	Yes	
Environmental protection laws are implemented by participation of the local communities	82(20.40)	320(79.60)	14.260***
The existing rules and regulations on environmental resource or park area conservation are easy for implementation.	182(45.27)	220(54.73)	6.162*
There is an optimum level of compliance to the environmental rules and regulations at local level	144(35.82)	258(64.18)	14.918**
People who breach environmental protection rules are made liable according to the law	83(20.65)	319(79.35)	8.496*

Source: Household Survey (2017)
Note: *** p<0.001, ** p<0.01, * p<0.05

6.3.10 Indicators of environmental sensitization/ advocacy works

As Environmental governance involves strong advocacy and sensitization practices, three component indicators were used to capture prevalence of the indicator. In this regard, 216(53.73%) of the respondents reported that there has not been adequate practice of promotion on regular basis, while 186 (46.27%) reported the opposite, which is statistically significant (p<0.001). This is indicative of inadequate practice in terms of environmental sensitization. Besides lack of adequate promotional and sensitization work, household survey also indicated lack of any significant incentive mechanism to motivate local people to be engaged in the management of environmental resources (p<0.001). It was also reported that there were no environmental clubs that promote the importance of EG. In general, environmental governance activities have not been supported by instruments such as economic incentives, advocacy and sensitization works (Table 6.12).

Table 6.12 Indicators of environmental sensitization practices

Environmental sensitization practices	Response		χ^2 value
	No	Yes	
Environmental resource conservation is promoted regularly	216(53.73)	186(46.27)	23.847***
There are incentives aimed at encouraging local people for environmental resource conservation	345(85.82)	57(14.18)	18.227***
There are local environmental clubs/groups that advocate NR conservation	327(81.34)	75(18.66)	48.633***

Source: Household Survey (2017)
Note: *** p<0.001, ** p<0.01, * p<0.05

6.3.11 Indicators of Partnership in EG

In order to capture the extent of partnership being practiced in EG among stakeholders involved, three explicit indicator components were used. Hence, 340(84.58%) of the responses indicated that there was strong partnership between the local environmental institutions and the local communities which is a statistically significant response ($p<0.05$). In contrast, 338 (84.08%) of the households have reported that there was weak partnership between EIs and other government units in the study areas ($p<0.05$). Hence, there was no adequate cross sectoral partnership among government institutions. Similarly, 311(77.36%) of the households reported that there was no partnership among different entities including GOs, research institutions, NGOs, CBOs, and the private sector ($p<0.001$). Therefore, the survey indicated that partnership is exercised only between local EIs and communities while there is a weak link among EIs and other government sectors as well as stakeholders out of government sphere, which is indicative that EG is dominantly practiced by government-community linkage (Table 6.13).

Table 6.13 Indicators of Partnership in EG

Environmental partnership	Response		χ^2 value
	No	Yes	
Environmental institutions in the locality have strong partnership with the local communities	62(15.42)	340(84.58)	8.106*
Environmental institutions in the locality have strong partnership with other government units	338(84.08)	64(15.92)	8.8878*
EG in the locality is done in partnership with NGOs, private business, CBOs, etc.	311(77.36)	91(22.64)	18.903***

Source: Household Survey (2017)
Note: *** $p<0.001$, ** $p<0.01$, * $p<0.05$

6.3.12 Indicators of dispute resolution

Three component indicators were used to capture the extent of dispute resolution mechanisms to handle disputes that occurs in environmental resource use and management. With regard to dispute handling, 279 (69.40%) of the responses indicated that there were adequate dispute resolution mechanisms for handling conflicts that arise over environmental resources while some 123 (30.60%) reported its inadequacy. The chi square test has shown a significant result ($p<0.001$) which indicates existence of adequate dispute resolution mechanisms in local environmental governance. Despite the fact that there are institutional mechanisms of dispute handling, 272 (67.66%) of the responses indicated lack of fairness and timeliness in its implementation. Even though 165 (41.04%) of the households favored the "yes' response to this

indicator component, the chi square test has yielded a statistically significant result ($p<0.001$) which suggests lack of fairness in dispute resolution. Moreover, it was also reported by 237(58.96%) of the households that the existing dispute handling mechanisms were not set by participation of local people and poorly known to them. Though 165 (41.04%) of respondents reported differently, the chi square test has shown significant result ($p<0.01$). Hence, the dispute resolution mechanism has neither been participatory nor widely known to the local people. In general, despite its presence at local levels, the dispute handling system was found to be unfair, untimely, and non-participatory (Table 6.14).

Table 6.14 Indicators of dispute resolution

Dispute resolution	Response		χ^2 value
	No	Yes	
There are adequate dispute resolution mechanisms for handling conflicts that arise over environmental resources	123(30.60)	279(69.40)	74.972***
Usually, disputes over environmental resources are resolved fairly and timely without any delay and bias	272(67.66)	130(32.34)	52.837***
Dispute resolution mechanisms are set by public participation and widely known to them	237(58.96)	165(41.04)	11.822**

Source: Household Survey (2017)
Note: *** $p<0.001$, ** $p<0.01$, * $p<0.05$

6.3.13 Indicators of adaptiveness

The adaptiveness index is aimed at capturing the local peoples' capacity to respond to environmental constraints, shocks and problems as well as institutional supports that help them own such a capacity in order to be able to cope with the environmental adversaries. To this end four component indicators were used to assess the prevalence of such an indicator. With regard to the ability and capacity of the local people to respond to environmental shocks, 243 (60.45%) of the households have reported that they have limited capacity while 159 (39.55%) have reported they were capable. The chi square test in this regard indicated a statistically significant difference between the responses ($p<0.001$). Hence, there is weak adaptive capacity among the respondents during environmental stresses. To the question whether there were institutional supports during the shocks, 211(52.49%) of the households claim that local government bodies have not given them any support, while 375 (93.28%) reported absence of any support from civil society institutions. 335 (83.33%) of the responses have indicated that there was no cooperation seen among private business, local government and NGOs to help the locals withstand the

problem when environmental shocks as well as resource constraints such as shortage of water, pasture, firewood and others happen. The chi square test for all of the above indicator components have also shown statistically significant results (Table 6.15) and hence, there was a weak adaptive capacity among the local people with weak support and coordination from pertinent government and non-government bodies.

Table 6. 15 Indicators of adaptiveness

Adaptiveness	Response		χ^2 value
	No	Yes	
The local people are able to or do have the capacity to respond when environmental resource constraints happen (shortage of water, pasture, firewood and others)	243(60.45)	159(39.55)	41.392***
The local government is capable of helping the communities to withstand the problems when environmental resource constraints happen	211(52.49)	191(47.51)	162.641***
The local level NGOs are capable of helping the communities to withstand the problem when environmental resource constraints happen	375(93.28)	27(6.72)	9.169*
Local people, private business, local government and NGOs cooperate to withstand the problem when environmental resource constraints happen	335(83.33)	67(16.67)	28.294***

Source: Household Survey (2017)
Note: *** p<0.001, ** p<0.01, * p<0.05

6. 4 Environmental governance indices

As presented in the above descriptive results section, there were thirteen major indicators of EEG being captured by using a total of 53 specific components. This implies that the thirteen indicators are crucial precursors for effectiveness of environmental governance in a given situation. Hence, the study has made an attempt to assess whether the country's EG is effective or not through weighing the relative values of components under each major indicator which further helps to identify the EEG threshold. Following the descriptive statistics of indicators, the indices used to measure the EEG are presented in Table 6.16 and discussed hereunder.

Accountability, being a sum of four component indicators, has been computed with an aggregate index value 0.57(±0.31) and hence, the survey respondents have shown that accountability is a key to EEG. Participation of communities in EG was also found to be an important indicator with a mean value of 0.54 (±0.39). Awareness index, being an outcome of four components, was

also perceived by the households as one of the key indices to measure effectiveness of environmental governance. Use of different sources of knowledge including the IK in combination with the expert knowledge was seen to be crucial for environmental governance performance, which has got a mean index value of 0.42 (±0.21). Institutional performance was another key indicator of EEG as perceived by the respondents with a mean index value of 0.61 and (±0.27). Similarly, the role of different actors and the level of discharging EG responsibilities has been strongly considered by the households with a mean index value of 0.23 (±0.17). Availability and clarity of adequate rules and regulations (environmental laws) was also considered as one of the major indicators with a mean index value of 0.65 (±0.35). Transparency in EG decision making was also considered as an important index with a mean value of 0.40 (±0.40). Law enforcement, being the most crucial indicator, has been perceived by the respondents with a mean index value of 0.69 (±0.34). Hence, it has got the highest index value followed by Awareness index. Likewise, environmental sensitization index with a mean value of 0.26 (±0.32), environmental partnership index with a mean value of 0.59 (± 0.27), dispute resolution index with a mean value of 0.59 (± 0.37) and adaptiveness index with a mean value of 0.28 (± 0.24) were perceived by the respondents as key indices of effective environmental governance (Table 6.16). Thus, these thirteen indices, as presented in table 6.16, are used to measure the effectiveness of environmental governance.

Table 6.16 Environmental governance indices

Environmental governance indices	**Obs.**	**Mean**	**Std. Dev.**	**Min**	**Max**
Accountability Index (AccI)	402	0.57	0.31	0	1
Participation of local communities Index (PrtI)	402	0.54	0.39	0	1
Awareness raising index (AwrI)	402	0.66	0.35	0	1
Knowledge index (KnlI)	402	0.42	0.21	0	1
Institutions index (InsI)	402	0.61	0.27	0	1
actors index (ActI)	402	0.23	0.17	0	1
Environmental law index (ELwI)	402	0.65	0.35	0	1
Transparency index (TrpI)	402	0.40	0.40	0	1
Enforcement index (EnfI)	402	0.69	0.34	0	1
Sensitization index (EspI)	402	0.26	0.32	0	1
Environmental partnership index (PrnI)	402	0.59	0.27	0	1
Dispute resolution index (DRI)	402	0.59	0.37	0	1
Adaptiveness index (AdpI)	402	0.28	0.24	0	1

Source: computed from household survey data (2017)

6.5 Determinants of effective environmental governance

The following section is devoted to the discussion of determinants of EEG whereby fourteen explanatory variables were entered in to the binary logit model to investigate the extent to which these predictors affect the dependent variable, Effective Environmental Governance (EEG) either positively or negatively.

6.5.1 The dependent variable and the result of its threshold estimate

Based on the scores of 13 major indicators of effectiveness, which were further measured by the outcomes of fifty-three specific components, the dependent variable (EEG) was constructed. Thus, the dependent variable is denoted as: EEG= f [Acc (I1), prt (I2), Awr (I3), Knl (I4), Ins (I5), Act (I6), ELw (I7), Trp (I8), Enf (I9), ESP (I10), Prn (I11), DR (I12), Adp (I13)], where EEG indicates Effective Environmental Governance and I1 to I13 in the parentheses denote the indicator variables of accountability, participation, awareness raising, knowledge, institutions, actors, environmental laws, transparency, law enforcement, environmental sensitization practice, partnership, dispute resolution, and adaptiveness respectively, which are the outcomes of specific components presented and discussed under section 6.3. Thus, the dependent variable is the outcome of these thirteen indicators which have their relative weights computed from specific components. The computation of the average value or the threshold was done by summation of the values that was computed by multiplying the index values of each indicator by the number of its respective components, and divided to the total number of the specific components i.e., fifty-three. Thus, the threshold is a mean value of the sum of the thirteen index values divided by the total number of specific components which formed these thirteen indicators (equation 6.1).

$$\bar{x} = \frac{\sum[(A1 \times Wi1) + (A2 \times wi2) + \cdots + (A13 \times wi13)]}{\sum[\mathrm{Wi} = (1 - 13)]} \qquad (6.1)$$

Where, $\bar{x}$ denotes the mean value or the threshold estimate of the index; A_1 to A_{13} indicate the thirteen indicators; Wi denotes the number of specific component variables or weights under each indicator. Therefore, the computer generated mean or threshold value is 0.42 with SD of 0.140, (maximum 0.811 and minimum 0.110), which was responded by 52.99 cumulative percentage of respondents while the rest 47% responded above this threshold value of the composite index. Thus, as indicated in section 3.8 following Dariamani *et al*. (2013), if the indexed value $\leq\bar{x}$, the EG is ineffective (Y=0), whereas if the indexed value $\geq\bar{x}$, the EG is regarded as effective (Y=1). In this regard, the index value has shown that the EG outcome is

ineffective, falling below the threshold. On the account of this, the dependent variable was taken as a dummy variable (EG is effective, Y=1; EG is ineffective, Y=0) (see annex VI).

The results from the above descriptive statistics and index computation have indicated that there were clear flaws in the performance of environmental governance in the study areas. In section 6.2, among thirteen major indicators with fifty-three specific components of EEG, responses have confirmed that each indicator has not been free from irregularities. For instance, in terms of accountability, the survey showed poor results where there has been very appalling practice of accountability. Among four component indicators of accountability, there was no any component which was positively responded to. Thus, the study indicated lack of clear accountability lines in the governance system. In terms of participation, among eight component indicators, the first four were positively responded by the households while the rest four were negative. The study has clearly shown that popular participation in EG was observed at early stages of problem identification, planning, rule setting as well as plan implementation. However, when it goes down to the later and crucial stages of decision making like M&E, decision in benefit sharing schemes, etc., there was no room for popular participation. Hence, it can be concluded as a nominal type of participation that only allows people to take part in early stages which do not involve critical decision making that matter most to the lives and livelihoods of the people, on the one hand and to the effectiveness of the environmental governance practice, on the other hand.

In terms of environmental awareness, positive results were reported by the respondents as there were repeated practices of local level meetings in relation to resource conservation, mainly carried out by government institutions. Therefore, people reported that they were well aware of the vices of environmental degradation as well as virtues of protection measures.

With regard to use of indigenous knowledge and traditional practices, the survey has shown abysmal results. Though expert knowledge at local level has been used for resource conservation, it failed to make use of and integrate the IK with expert knowledge on the one hand and suffers from lack of adequate support of the upper tiers of government on the other hand.

Regarding the two crucial indicators of institutional performance and actor roles, the survey has uncovered clear inadequacies. Even though there are reportedly adequate local environmental

institutions (state) which coordinate environmental protection and governance activities, they have not been creating enabling conditions for community based traditional institutions to take part in the governance activity. There is also no cross sectoral integration among government institutions in working towards environmental sustainability. In terms of actors, the survey report indicated the prevalence of government and community roles where the duo undertakes the entire EG activity without any role assumed by either NGOs, CBOs, or private sector actors. Thus, EG is limited to government institutions steering local communities but not working with community's traditional institutions nor empowering non state actors. Similarly, decisions in relation to resource use were not done on transparent basis while there was lack of cross sectoral partnership and cooperation among government institutions at local level, l*et al*one with the non-state entities.

Moreover, decisions in relation to disputes that occur among communities with respect to resource use have not been free from bias and not done in participatory manner. Overall, even though there were some indicators with good performance outcomes like awareness, sensitization, and law enforcement, most of the crucial indicator performances have been below the average which ultimately resulted in ineffectiveness of environmental governance in general. As shown in the index computation, the aggregate result of EEG indices has revealed that the EEG performance was below the estimated threshold or average value of the composite index, and environmental governance in general has proved to be ineffective.

The above quantitative finding was also supported by the qualitative extracts collected from the rest of two sites of the study including the federal level. The FGD extracts in Kolfe Keranio and Akaki Kaliti sub cities of Addis Ababa city administration have shown consistent results with the quantitative finding. In these sub-cities, industrial pollution takes place in unprecedented level and causing sever environmental harm. However, there was hardly any accountability on the part of polluting industries while the local governing officials never respond to the public outcries on repeated bases. There was no any practice of implementing the *'polluter pays principle'*, as clearly stated in the environmental policy (EPA, 1997). It was also indicated that environmental decisions were carried out in a non-transparent manner, and there were no environmental institutions at local level while participation of communities, and other non-state actors was almost non-existent.

Qualitative responses of key policy makers at federal institutions have also shown consistent result to the above findings. A senior policy maker from environment sector has reiterated that the governance practice was highly ineffective for different reasons. The KI contends that environmental priorities were poorly understood by policy makers themselves and in most cases, environmental protection was considered as detrimental to economic development. Hence, the EIA law has always been breached by government sector more severely than the private sector. The governance system was highly negligent to the harms that were caused by initiation of poorly planned industrial plants, agricultural investments and others since economic growth is the first most priority undertaken on the expense of environmental quality (KIF/02, 2017). The KI further noted that due to lack of clearly spelt out land use policy (LUP) at national level, the country is experiencing gross damage to its natural and social environment. He further explained that lack of the LUP has led to arbitrary allocation of land for different investment projects. The case in point, as mentioned by the same KI was that the fertile agricultural land on the outskirts of Addis Ababa city was blindly allocated for industrial development through evicting farming households whose livelihoods were ultimately left in jeopardy(KIF/02, 2017).

Due to lack of responsible body to make a planned use of the country's land resources, the rift valley lakes including Lake Abijata have now been on the verge of elimination since it was the government itself who recklessly undertook unplanned investments in this highly sensitive geographic corridor. Industrial plants around the major lakes and water bodies including commercial agriculture which uses inorganic chemicals have consistently been the source of flow of effluents in to the adjacent water bodies causing damage to their aquatic biota. He further narrated his view as follows:

> Rapid urban expansion is happening on the expense of the livelihoods of the neighboring farmers while there is no clear regulation to respond to the legitimate claims of the victims. Similarly, when agricultural expansion takes place, it is done on the expense of dense forests and wetlands, too. However, there is no clear policy that protects these ecosystems from damage due to increasing population and cultivation of additional lands on yearly basis. There is no clear demarcation of where and how to expand urbanization and not, where to cultivate and not, where to plant industries and not. In general, there is no holistic policy approach that clarifies the proper and cautious use of resources in the way that does not undermine the social and ecological environment. In short, every economic and social planning is not done through the lens of land management and environmental protection (KIF/02, April 2017).

Another KI and serving minister also reiterated the same concern that environmental policy implementation has been so problematic lacking accountability lines, poorly designed institutional architecture, weak constellation of actors, weak understanding of environmental impacts of development on the part of policy makers and investors alike, etc.(KIF/03,2017). The FGD reports from Esera and Tocha *wereda* of Dawro zone have also indicated that the governance system has been full of flaws for a number of reasons. Protected area governance was highly centralized, alienated the local people, with no accountability to the harms that were inflicted to the local people due to park designation, and lack of any clear benefit sharing arrangement from the resources.

In terms of institutional and actor indicators, evidences from the expert interview have shown clear flaws. Experts withdrawn from the federal level institutions have raised similar issues that the current environmental institutional architecture, though experiencing fast evolution, has been suffering from internal weaknesses and failed to achieve compliance of environmental regulations. According to the same experts, it is challenged by a number of conflict of interest that arise from unclear and confusing allocation of mandates. They also contend that actor participation is not supported by clear legal modality which immensely affects the governance system (KIF/06, 2017; KIPS/01, 2018; KIPS/02, 2018; KIPS/03, 2018; KIFE/01, 2018).

With respect to transparency in environmental governance, extracts from key informants and FGDs have all shown that resource related decisions were done in non-transparent manner. To this end, they contend that there were many instances that land and other natural resources were allocated for investment projects (public/private) in a nontransparent manner where the local people and their institutions have little room to know or get involved in the allocation process. Such lack of transparency has been causing series disputes between the project initiators and the local people (KIW/08, 2017; KIW/09, 2017). On the other hand, due to lack of properly designed dispute resolution mechanisms, such disputes often turn in to violence between locals and the project owners, causing further damage (KIF/02, 2017). Thus, the qualitative data, too, indicated lack of transparency and poor practice of dispute handling mechanisms in the EG process, two of which are among the key indicators of effective environmental governance. In general, according to the qualitative extracts across the four regions, it became customary that development projects are initiated in and around dense human settlements, forested lands and pristine nature areas,

biodiversity hotspots and around sensitive and fragile ecosystems often resulting in uncompensated eviction of local residents, destruction of habitats, and destabilization of the socio-ecological systems further causing irreversible damage.

Similarly, there were empirical studies that support the findings presented above. To this end, studies suggest that environmental resource governance decisions, either with regard to use rights or conservation measures have been undertaken through undermining local people's rights of participation, resource use, compensation and livelihood security while the government institutions have undertaken unilateral decisions with little or no accountability to the implications of their decisions and actions (Kelboro & Stellmacher, 2015; Moreda, 2017), and often resulted in growing resentment among local communities whose customary resource governance right is always contested by government's top down approaches(Seifu & Beyene, 2014).

Other studies also suggested the prevalence of poorly designed governance architecture resulting in ineffectiveness (Ruffies, *et al*., 2010) whereas environmental laws were poorly enforced, experiencing weak inter-sectoral coordination and stakeholder participation, and low synergy among actors in initiating development programs that affect the environment (EPA, 2012, Kruger *et al*., 2013). Failure to meaningfully involve stakeholders at all levels of the society, particularly at the local level was also reported as one of the weak links of the governance system (Jones & Carabine, 2013). To this end, it was evident that weak institutional arrangements, poor distribution of actor roles, concentration of governance mandates in the hands of state actors have led to substantial regulatory failure in general (Melese, 2008; Melese & Solomon, 2012). Even though EG is considered as crucial policy focus, little is known about the need to create a conducive setup for effective environmental governance across the lower levels (Jones & Carabine, 2013) and environmental management issues were included in numerous rural development polices superficially (EC, 2007).There are also evidences that, because of poor governance performance, Ethiopia is not living up to its international commitments as there are wide discrepancies between its environmental agreements and the actual implementation to improve environmental quality (Cesar & Ekbom, 2013). As mentioned above, failure to properly enforce EIA laws was also another area of concern and considered as covert manifestation of institutional weakness (Tesfaye, 2012; Mellesie & Mesfin, 2008; Ruffeis

et al., 2010; Dejene, 2013; Mulugeta, 2013; Adugna, 2016) which is indicative of failure to pursue transparency and accountability indicators. In a nut shell, both the quantitative results and qualitative findings as well as the empirical evidences have shown clear ineffectiveness in the governance system. Therefore, based on the computed outcome variable, a binary logit model was used to further identify those factors that have been affecting the effectiveness of environmental governance in the study areas.

6.5.2 Results of binary logit model

In order to identify the factors that determine the effectiveness of environmental governance, fourteen predictor variables were entered in to the binary logit model. In other words, sex of respondents, marital status, main occupation, education level, role in the community, agro ecology, length of years lived in the study area, family size, land tenure system, status of benefit sharing, income, access to forest use, engagement outside crop production, and membership to local cooperatives or other community based organizations were used to fit the model. Among these fourteen variables, seven were found to have a statistically significant effect on the dependent variable.

Sex of the respondents is one of the predictor variables with significant negative effect on the effectiveness of EG. Accordingly, the study has shown that the contribution of male respondents towards effectiveness of EG decreases by 12.5% (-0.125) compared to their female counterparts. In other words, being male is negatively correlated to EG effectiveness ($p<0.1$). This finding is consistent with both empirical evidences and qualitative findings. The FGD and KII extracts from Esera and Tocha *wereda* communities have shown that female headed households have been playing a leading role in environmental protection including the soil and water conservation works being widely undertaken in the area(KIW/04, 2017; KIW/05, 2017). Moreover, the extracts emphasized that women have rarely been involved in resource degradation such as deforestation, which is largely attributed to the actions of their male counterparts. Even though there is a mixed result in the literature regarding the effect of sex on environmental outcomes which is dependent on the social and economic contexts (Buttel, 1987; Dunlap *et al*., 2000; Talento *et al*., 2017), there are evidences that support this particular finding which indicate the positive contribution of female to improved environmental governance demonstrated in more pro-environmental behavior than their male counterparts(Stern *et al*., 1993; Hunter *et al*., 2004; Luchs & Mooradian, 2012; Scannell & Gifford, 2013; Kalantari *et al*., 2007).

Similarly, marital status of the respondents was found to be one of the factors which is inversely related to the effectiveness of environmental governance. The study indicated that the probability of married households towards the effectiveness of EG decreases by 0.158 (15.8%) compared to unmarried respondents ($p<0.05$). Akin to this finding, an empirical study in china has indicated that unmarried persons have demonstrated more pro-environmental behavior than married ones (Chen *et al*., 2011)

On the other hand, the study has indicated that respondents' main occupation, being farmer or herder was positively correlated with effectiveness of environmental governance. Thus, respondents who were fully employed in farming or herding are more likely to contribute to the EEG and their contribution increases by 29.8% ($p<0.01$) compared to those who were deployed in rural occupations other than farming or herding. Similar studies also indicate that households whose entire livelihood is dependent on the security and sustainability of environmental resources are more environmentally concerned than those who are not (Ezebilo *et al*., 2010; Xiaodong *et al*., 2011).

The study has also shown that households who take part in some form of community role and responsibility have positively been affecting the EG performance. Hence, those with some role in the community are more likely to contribute to the EEG by 33% ($p<0.01$) than those who assume no roles. This finding is also supported by empirical evidences that people with more responsibility in their respective communities were found to demonstrate more pro-environmental behavior than those who did not assume any role (Chen *et al*., 2011).

Likewise, agro-ecological location of the respondents was found to have a significant effect on EEG. Respondents located in lowlands were found to exert a positive influence on the outcome of environmental governance. Accordingly, the probability of lowlanders to contribute to the EEG increases by 14.4 %($p<0.1$) compared to those in high/mid land agro ecology. Therefore, being in the lowland agro ecology has a positive effect on the improvement of environmental performances. Empirical studies also confirm this finding that people who dwell in environmentally stressed areas suffer from negative effects of the degradation and hence be more concerned for the environment than those in environmentally safer areas (Ojwang *et al*., 2010). Qualitative studies and field evidences from *Fentale* and *Dawro* communities have also

corroborated this finding that those in lowland areas have often faced the effects of environmental stress and therefore demonstrated more concern for environmental protection.

The other predictor variable of interest was benefit sharing. The availability of an arrangement for sharing benefits from environmental resources has a lot to do with the conservation attitude of the local people.

To this end, it was found out that respondents who have been benefited from the available community resources through a benefit sharing arrangement are more likely to contribute positively towards improved governance. Thus, the likelihood of contributing to EEG by those who are accessible to benefit sharing schemes increases by 14.3 %($p<0.05$) compared to those who reported the absence of such an arrangement. Similar studies also suggest consistent evidence in this regard. Thus, benefit sharing was found to be a factor that led to improved stakeholder attitude towards better conservation of forest resources (McFarlane, 2000) and became an optimal policy instrument in an attempt to improve the governance of natural resources so that communities could develop sense of ownership. Owing to this, the convention for biodiversity (1992) and the Millennium Ecosystem Assessment of 2005 both emphasized benefit sharing as policy prescriptions towards improved environmental resource conservation (Nkhata *et al*., 2012). Field evidences have shown that communities which enjoy such an arrangement have shown positive conviction towards improved environmental protection and governance. This was evident both in Asagirt *and* Esera *weredas* where the people are provided with the possibility of using resources in sustainable way and collectively undertake conservation works. However, the strict application of exclusionary approach in park resources in CCNP has proved to invite public resentment which has been a threat to the effectiveness of environmental governance. Therefore, benefit sharing has a strong predictive power over the dependent variable in this study which calls for policy attention.

Similarly, providing households with a planned access to forest related resources, in order that they can sustainably make use of forest products, pasture, water, etc. for their livelihood support can be a contributing factor to enhance the attitude of communities towards improved environmental governance. In this regard, this study has indicated that households who enjoy some form of access to public forest resources have shown a positive correlation with governance effectiveness. Thus, those who have access to the forest resources found to

contribute by 0.238% ($p<0.01$) more than those who do not have such an access, which is also supported by similar studies that access to forest resources leads to improved stakeholder attitude towards better conservation of forest resources (McFarlane, 2000). In general, the effects of the predictor variables discussed above have been crucial on the effectiveness of environmental governance which calls for a thought-out policy intervention (Table 6.15).

Binary logit model summary of determinant variables

Variables		
EEG (1=Effective)	**Regression**	**Marginal effect**
Sex (1=Male)	-0.512*	-0.125*
	(0.306)	(0.0722)
Marital (1=Married)	-0.651**	-0.158**
	(0.300)	(0.0701)
Main occupation (1=Farmer/herder)	1.232***	0.298***
	(0.282)	(0.0635)
Education (1=Literate)	0.0773	0.0192
	(0.304)	(0.0757)
Community role (1=involve)	1.379***	0.330***
	(0.271)	(0.0587)
AEZ (1=Lowland)	0.579*	0.144*
	(0.300)	(0.0735)
Years lived (year)	0.0135	0.00336
	(0.00963)	(0.00240)
Tenure (1=own)	0.0709	0.0177
	(0.309)	(0.0771)
Family size (number)	-0.0599	-0.0149
	(0.0497)	(0.0124)
Benefit sharing scheme (1=Yes)	0.576**	0.143**
	(0.283)	(0.0692)
Cash income total (birr)	7.59e-06	1.89e-06
	(1.04e-05)	(2.60e-06)
Access to forest use (1=Yes)	0.975***	0.238***
	(0.310)	(0.0728)
Involvement outside crop production (1=Yes)	0.183	0.0453
	(0.312)	(0.0769)
Cooperative membership (1=Yes)	-0.104	-0.0259
	(0.275)	(0.0684)
Constant	-1.525**	
	(0.762)	
N	402	
Pseudo R^2	0.208	
LR $chi^2(14)$	115.55	
Prob > chi^2	0.001	

Note: Standard errors in parentheses, *** p<0.01, ** p<0.05, * p<0.1
Source: computed from household survey (2017)

6.6 Chapter conclusion

Effective Environmental governance is an outcome of synergistic interaction among relevant and diverse set of actors, capable regulatory institutions and clearly defined rules and regulations. To investigate the effectiveness of EG in the study areas, this study adapted key indicators of effectiveness based on the literature. The study also attempted to identify key determinants of EEG. The findings indicated that the implementation of and adherence to these thirteen key indicators was found to be inadequate, which this study arrived at such a conclusion that EG was ineffective in terms of implementation of most of the key indicators. Besides determining whether the current EG practice is effective or not, the study developed a composite index for measuring effectiveness of environmental governance for future policy performance.

Moreover, the qualitative data generated from different study sites across four regions and evidences from similar empirical studies have corroborated the above finding that environmental policy implementation in Ethiopia has been facing an arduous challenge in terms of weak accountability, lack of transparency, poor enforcement of EIA laws, weak exercise of rule of law and unchecked provision of environmental permits, poor public participation in environmental decisions that affect both communities and the local resources. It also suffers from failure to involve key actors characterized by weak institutional setup, and lack of transparent and just system to consider community interests in resource conservation and use and thus, massive environmental and social harms have been taking place causing considerable damage to the socio-ecological systems.

The results of binary logit model have shown that some key explanatory variables such as sex, marital status, occupation, role in community, agro ecology, existence of benefit sharing scheme and households access to natural resources such as forest were found to be significantly affecting the dependent variable (effectiveness of environmental governance). Therefore, policy based interventions towards improving the performance in each key indicators is an imperative. Moreover, measures to contain the effects of determinant variables that negatively affect the EG performance on the one hand and, reinforcing or improving the positive effects of variables which favorably affect the EG performance on the other hand, should be given attention both at policy and implementation levels.

CHAPTER SEVEN: THE ROLE AND PARTICIPATION OF LOCAL COMMUNITIES IN ENVIRONMENTAL GOVERNANCE

7.1 Introduction

The last chapters have attempted to portray the broad and macro level policy and governance issues ranging from historical trends to the current practice of governance. This chapter, being limited to specific context of local community, deals with the distribution of governance roles between local communities and other actors in environmental governance and the outcome of these roles in the conservation of the environmental resources. By examining the extent of harmony between micro and macro level environmental governance practices, it focuses on the practices related to conservation, management and use of environmental resources in and around the national park of Chebera Churchura and explores the pros and cons of protected area governance with respect to the role of different actors and the attitudes of the local people towards how the PA was designated, managed and protected. Basically, the chapter is aimed at portraying the micro and local level practices of environmental resource governance in order to make connections with the macro level policy discussions of the last chapters.

The chapter's discussions are primarily based on both quantitative and qualitative data collected from households and key individuals living adjacent to Chebera Churchura national park in Esera and Tocha *weredas* of Dawro zone, SNNPR state. Since this particular study objective is meant to assess the dichotomy created in governance of locally available environmental resources (non- park versus park-based resources) and the effects of these dichotomy in natural resource conservation, with the view of capturing the micro level challenges and flaws of such EG practices as well as to show the micro and meso level role differences, the necessary data was collected only from Dawro communities where there is peculiarly such a practice involving both community based SWC work and government based protected area governance of CCNP. Due to this peculiarity, the HHs of Dawro were made to provide additional data besides that of similarly administered questions related to the last chapter (chapter six) for both communities including Kereyou. On this account, this chapter is based on the quantitative data generated from five kebeles of Esera and Tocha *weredas* and 201 households residing adjacent to CCNP, where there is massive soil, water and forest conservation works being carried out by local communities. The quantitative findings are also widely complemented by qualitative information

generated from officials, experts and communities. Moreover, relevant and recent empirical studies conducted in the study area were used to support the evidences.

7.2 Demographic profiles of the respondents

As shown in table 7.1 below, 164(81.59) of the respondents were male while 37 (18.41%) of them were female. With regard to age, 135 (67.1%) were in the range of 21 to 40 years. While 50 (24.9%) of the respondents were in the category of 41 to 60 years, those below 20 and above 60 constituted very small margins. Thus, it indicates that majority of the respondents were in the productive age ranging from 21 to 60, which is consistent with the CSA report both at national and sub-national levels (CSA, 2013). Regarding marital status, 155 (77.1%) of the respondents were married and 24 (11.9%) were married to more than one woman where polygamy resembles to be widely practiced. Few of the respondents were single, constituting 19 (9.5%) of the responses. Concerning the respondents family size, it is evident that 110 (54.7%) of them had a family size ranging from 6-10 while 70 (34.8%) of them were having less than five family size. However, only 20 (10%) had larger family size constituting more than 11 persons.

In terms of religion, adherents to Orthodox Christianity constitute the highest figure with 11 (50.2%) followed by Protestants of different denominations, which constitute 88 (43.8%). Catholic followers constitute 11 (5.5%) whereas only 1 (0.5%) of the households were reported to follow traditional belief. Even though most of the households have had some form of education that ranges from basic literacy to college education, there were 27 (13.4%) respondents who do not read and write. 39 (19.4%) of the households have had adult literacy and were able to read and write whereas 69 (34.4%) have got primary education from grade 1-8. Those with secondary school education were only 15 (7.4%) whereas 47 (23.4%) have a certificate and acquired some level of technical training (Table 7.1).

Table 7. 1 Demographic profiles of the respondents

Variables	**Frequency**	**Percent**
Sex of respondents		
Male	164	81.59
Female	37	18.41
Age range		
20 and below	6	3
21 to 40	135	67.1
41 to 60	50	24.9

Marital status		
Married	155	77.1
Single	19	9.5
Divorced	1	.5
Widowed	2	1.0
Polygamous	24	11.9
Family size in range		
5 and below	70	34.8
6-10	110	54.7
11 and above	20	10.0
Religious affiliation		
Orthodox	101	50.2
Catholic	11	5.5
Protestant	88	43.8
Traditional religions	1	0.5
Level of education attained		
Can't read and write	27	13.4
Non-formal adult literacy	39	19.4
Primary (1-8)	69	34.4
Secondary (9-12)	15	7.4
Certificate (10+1,10+2,10+3)	47	23.4
BA/BSC and above	4	2.0

Source: Field survey (2017)

7.3 Local people's role and participation in natural resource governance

While the livelihoods of the local people are largely dependent on the natural resources around the CCNP, the conservation goal of the park system is highly susceptible to the level of engagement and attitude of the local people towards park governance. Unless their participation is guaranteed in resource conservation and governance, there is no guarantee for the attainment of the overriding conservation objective. Therefore, the present study made an attempt to bring forth the level of local participation and role of communities in the governance of natural resources both within the protected area and outside of it, even though the governance regimes of the two sets of resources are quite different.

7.3.1 Local community participation in non-park resource governance

7.3.1.1 Level of community participation in conservation works

As local officials (KIs) indicated, there were three major conservation activities conducted in the study sites with soil and water conservation being the major one, followed by afforestation and area closure activities. The average scores of community participation in these conservation

activities were summarized in table 7.2. Thus, it is evident that communities were participating in all of the activity phases with more or less similar intensity. However, their participation is higher in implementation stage (average score 3.580 with SD of 1.327) than the other phases which was followed by enforcement of environmental protection laws (average score 3.381 with SD 1.411), setting rules of environmental protection (average score 3.376 with SD 1.402), planning (average score 3.286 with SD 1.458), problem identification (average score 3.264 with SD 1.434), and participation in M&E being the least one (average score 3.050 with SD 1.446). Hence, there is a wide room for communities to be involved in the planning and implementation of conservation measures in which they exercise their local power to set and enforce rules to protect resources from degradation. The responses from FGD in Nada and Gudmu kebeles of Esera wereda have also indicated that their engagement in conservation and governance of local resources is undisputed. Being supported by the technical staff at local level, they plan the major conservation activities and carry it out in an organized way bi-annually. In explaining this, one of the FGDs in Maliga Meracha kebele, Tocha wereda narrated as follows:

The entire work of *Tefases limat* is carried out by us. The government institutions, office of agriculture and its local staff assist us in writing the plan and provide us technical assistance. We decide on what to do, how much to do and when to do the conservation work. We carry out physical works during dry season and plant tree seedlings when it rains. The rules we set are strong enough to protect free grazing and entry of animals and we enforce it through strong local sanctions. Our efforts so far have been more or less successful in protecting forest degradation and our forests have shown an improvement (FGD, Maliga Meracha, May 2017).

From field observation, focus group discussion and key informant interviews, there were evidences that the local communities have been carrying out intensive resource conservation activities in all of the study kebeles. The soil and water conservation activities followed by afforestation and reforestation are the major activities while area closure has been done to some extent. According to the key informant interview of the *wereda* office of Environmental protection of Tocha *wereda*, communities have recently been engaged in promising conservation activities. The KI further narrated as follows:

The dense forests of our *wereda* had undergone continued deforestation since the period of transition period and this resulted in soil erosion. In recent years, there have been strong reforestation and afforestation measures in this *wereda*, which have now changed the faces of our landscapes. We are strictly applying community-based rules to protect forests and resource degradation. In order to assist community endeavors in enforcing locally set rules, the *wereda*

justice bodies take legal measures on individuals who are found guilty of breaching local laws. Thus, the *wereda* laws support the enforcement of local rules (KIW/06, May 2017].

Table 7. 2 Community participation in conservation activities

Variable	Mean	Std. Dev.
Problem identification	3.264	1.434
Planning	3.286	1.458
Implementation	3.580	1.327
Setting rules for environmental protection	3.376	1.402
Enforcement of environmental protection regulations	3.381	1.411
M&E	3.050	1.446

Source: Field survey (2017)

7.3.1.2 Facilitation of conservation works

Concerning the means of facilitation of SWC activities, most of the responses indicated that conservation works have largely ben facilitated by the interest and common decision of the community members. The household survey data indicated that other factors such as social sanctions, incentives and rewards from government have not been widely practiced for the SWC works. However, the responses suggest that there were such practices of coercive measures from government officials, and social sanctions from community institutions to some extent which can be indicative of the existence of local and *wereda* level legal measures that complement each other in achieving compliance and restraint over resource abuse. Thus, there is a complementarity of community decisions with the support of justice system of *wereda* and *kebele* government while the role of non-state actors is almost none, with 167(83.1%) of the responses indicating the absence of incentives and rewards from NGOs (Table 7.3).

Table 7. 3 Means of facilitation of conservation works

Indicators	Response	Frequency	Percent
Punishment by government officials	Yes	97	48.3
	No	104	51.7
Social sanctions from community	Yes	78	38.8
	No	123	61.2
Incentives and rewards from government	Yes	42	20.9
	No	158	78.6
Incentives from NGOs	Yes	28	13.9
	No	167	83.1
Common consent and community decisions	Yes	147	73.1
	No	46	22.9

Source: Field survey (2017)

7.3.1.3 Application of local practices and indigenous community knowledge

Majority of the responses 111(59.04%) have shown that the communities apply local practices and indigenous knowledge for resource conservation and governance while 77(40.96) reported that there was none (Table 7.4). The chi-square test of association also revealed that there was an application of local practices and indigenous knowledge for resource conservation, which was found to be statistically significant response ($p<0.001$). Therefore, there was a practice of using indigenous and local knowledge for resource conservation. However, 127(64.47%) of the responses have made it clear that acknowledging and encouraging these practices for further achievement of conservation works has not been given emphasis by the government bodies while 70(35.53%) of the respondents reported the opposite. A chi-square test of association also indicated that the local practices and indigenous knowledge have not been acknowledged by the government bodies for resource conservation, which was found to be statistically significant ($p<0.01$). Moreover, 61(84.72%) of the response indicated that there was no attempt on the part of the government to integrate those indigenous practices in to formal and institutional ones, whereas only 11(15.28%) of the responses indicated the existence of such practices (Table 7.4). A chi-square test of association further indicated that there was poor practice of integration of the practices in to the formal and institutional ways of conservation ($p<0.001$). Therefore, the practice of integrating locally available social capital with formally induced ways of conservation has been poor on the part of the government bodies. In this regard, qualitative extracts have shown that there were good local practices and indigenous knowledge applied for resource conservation both in terms of facilitating conservation activities as well as enforcing rules and regulations.

According to the KIs from Esera and Tocha *weredas*, there were informal institutions such as *Bayra*, which means the elders forum. The forum serves as facilitative platform towards implementing the planned conservation activities. The elders sit down and bless the day of the conservation work before the actual work begins. They give advice to the working group of people not to let lethargy take the place of hardworking and industry. They also discipline the behavior of the youth and children so that they can abide by the community rules and embedded values. Failure to accomplish the shared works would be considered as socially deviant behavior and this could result in curse, which is believed to put the fate of the person in jeopardy. Besides

the commonly applied informal community institutions such as *Idir*, the local churches in Esera and Tocha have been largely contributing to the implementation of conservation plans, and compliance to the local rules of resource conservation (KIK/03, 2017; KIK/04, 2017; KIK/05,2017).

The traditional beliefs attached to some of the indigenous tree species are very much constructive. According to the local KI, cutting such tree species as Warka , Shola, and Kosso among others, which are commonly known for their wide branches and broad leaves as well as medicinal purposes, is often labeled as just like killing a milking cow since these trees are used as community gathering venues, traditional courts, medicines, resting places during the winter season, shelter for other smaller tree species and profoundly needed for their wider branches providing possibility for placing beehives to produce honey(KIK/05, 2017; KIK/07,2017). The original traditional non-Christian belief known as '*Allaamaa'* (local witches) have a customary practice of conservation. The traditional curer or prophesy teller mostly preserves a sizeable portion of forested land where they pay annual sacrifice for their spirit and l*et al*one cutting trees, access to those sacred places is even forbidden for those who do not belong to their family and belief(KIK/06,2017). Consequently, there are a number of forested places under a strict protection of the local traditional belief.

However, as the quantitative data indicated, there is poor integration of these informal local institutions and indigenous knowledge in to the formal institutional setup in a way that contributes to the resource conservation endeavors. Planting eucalyptus tree has recently been widely practiced while little attention was given to planting seedlings of indigenous tree species (KIW/05, 2017). There are also some good local practices such as preserving tree and crop seedlings for over extended time both in the form of indoor and outdoor storage. As the KIIs and FGDs indicated, the local people have a good knowledge of ecological and medicinal values of the local species and incline to grow such trees. However, the recent trends by the government institutions have not been towards promoting such practices. The KII data has also indicated that there was no intentional and planned effort to further strengthen these local practices and indigenous knowledge to be integrated with the modern knowledge and practices of conservation (KIZ/01, 2017).

Table 7. 4 Application and acknowledgement of indigenous practices

Indicator	Response	Frequency	Percent	χ^2 value
Application of local practices and indigenous knowledge for resource conservation	Yes	111	59.04	12.597***
	No	77	40.96	
Local practices and indigenous knowledge are acknowledged by the government bodies for resource conservation	Yes	70	35.53	10.762**
	No	127	64.47	
Integration of local and indigenous practices with formal and institutional ways	Yes	11	15.28	12.953***
	No	61	84.72	

Source: Field survey (2017)
Note: *** p<0.001, ** p<0.01, * p<0.05

7.3.2 Local community participation in Park resource governance

The CCNP was designated in 2007 bordering three *wereda s* of Esera, Tocha, and Konta special *weredas*. It is specially known for being a habitat for about 37 larger mammals such as African elephant, African buffalo, lion and hippopotamus and 237 species of birds (Alemneh, 2015). The wide area of savannah grassland combined with dense forests has a rich natural resource base endowed with rich spices, wild coffee, wild honey, and many other useful floral and faunal lives (Aberham *et al*., 2018).

CCNP is covered by diverse and densely situated montane forests in upland areas while most of the river basins are covered by tall and dense riverine forests since the area is rich in rivers of different capacities being tributaries of the bigger Omo River. The lower area of the park is covered by savannah grass land and scattered trees which covers about 725 km^2 (Aberham, 2016). Even though there is no empirical evidence on the size and distribution of forests before designation of the park, the local informants witness that the size of forest degradation was very vast since the transition period up until the park designation. According to some of the key informants, almost one third of the forest cover was deforested over the last two decades. However, all of the key informants agree that the level of deforestation has shown a significant decrease since the designation of the park as a protected area in 2007.

As qualitative responses indicated, the surrounding communities have a long history of dependence on these vast resources both for food, income generation, medicinal herbs, and cultural, aesthetic and traditional beliefs. The FGDs of Menta Tulema *Kebele* of Tocha *Wereda* pointed out that some part of its territories was even used by the local communities as graveyard

and some places were also used as sacred places to which they used to pay regular sacrifices. However, the current trend of relationship between the communities and the park governing bodies does not seem to be in harmony, which has been an outstanding source of grievance and hostility. In the following sections, the level of local peoples' relationship with park governing body since its designation and their attitude towards the park governance will be discussed based on the primary data collected from the study sites.

7.3.2.1 Local peoples' role in park designation

The responses of the local people have indicated that they were not consulted when there was a plan to designate the park (Table 7.5). To this end, 143(71.14%) of the responses have shown that they were not contacted during its designation and only 58(28.86%) reported to have been contacted during designation. The chi-square test has also revealed that the local people were not consulted during park designation, which was statistically significant ($p<0.001$).

Regarding the reasons for lack of involvement in the designation process, majority of the respondents 117(86.67%) have shown that they were not even told about it. This indicates that the park designation process was solely done by the park governing bodies and the role of the local people was not considered crucial. From the responses, it was evident that the local communities were not provided with adequate information about the park designation. To this end, when asked whether they were told about the designation and refused to take part for personal reasons such as apathy, 111(99.26%) have confirmed that they didn't do so. Similarly, 113(96.32%) of the respondents had no knowledge whether other members of the community took part in the process. The responses have also shown that the reason for not being involved could not be lack of interest in the process, which was seen from their responses. To this end, 130(64.7%) have shown that they have a belief that it is their legitimate right and duty to be involved in the process.

The responses from park officials in this regard were inconsistent with the community responses. Even though they have no documented evidence, some of the officials attempted to defend that the process was participatory. One of the officials argued that there were community consultations during the designation, though there was no documented evidence at all (KIZ/01, 2017). However, most of the local KIs admitted that the process was poorly handled in such a way that undermined the role of local communities (KIK/01, 2017; KIK/02, 2017; KIK/03,

2017). In general, both quantitative results and qualitative responses have asserted that there were no consultative engagements during the designation.

Table 7. 5 Consultation during park designation

Indicator	Response	Frequency	Percent	χ^2 value
Consulted and took part in the park designation process	Yes	58	28.86	13.780***
	No	143	71.14	
Reasons for not being consulted				
Nobody informed me about it at all	Yes	117	86.67	0.159
	No	18	13.33	
I was informed about it but refused to take part for personal reasons	Yes	1	0.74	0.466
	No	135	99.26	
Though I did not, I know others took part	Yes	5	3.68	0.324
	No	131	96.32	
I did not take part because it was not my job	Yes	4	2.0	0.394
	No	130	64.7	

Source: Field survey (2017)
Note: *** p<0.001, ** p<0.01, * p<0.05

7.3.2.2 Respondents' access to park resources before and after park designation

Communities' grievance and hostility towards the park and its governance regime emanates from the sense that they have lost their legitimate right to take part in the process of designation. However, more importantly, their resentment is directly related to the benefits they have lost, which they used to get from the park area before its designation. In this regard, their response to the question of access to the resources before and after designation was a straightforward one. Hence, most of the respondents (with the mean score of 2.463, SD 1.855) reported to have had high level of access to park resources before its designation and lost the access after the designation took place. Similarly, only few respondents with mean score of 1.204 (SD 0.743) reported that they have access to the resources after its designation (Table 7.6), which is indicative that the community members have had wide access to the resources in and around the park before it was officially designated. In this regard, Abrerham *et al*. (2018) have found out that the local people were enjoying open access use of resources from the park area such as bush meat, free grazing and pasture, fuel wood, forest based spices, wild honey, and arable land for agriculture (Aberham *et al*., 2018), which is the source the current community resentment.

Table 7. 6 Access to PA resources before and after designation

Access to park resources	Mean	Std. Dev.
Before designation	2.463	1.855
After designation	1.204	0.743

Source: Field survey (2017)

7.3.2.3 Respondents' perception of the Effects of park designation

Even though 89(44.95%) of responses reported differently, about 109 (55.05%) of the respondents believe that the local communities were negatively affected by the park designation which is statistically significant response ($p<0.001$). From the figure, it can be seen that there is still a good number of households that believe the park designation has not affected them. According to the qualitative evidences, this is due to the fact that the communities have no objection to the major conservation objective of the park. In spite of the fact that governance of the park is poorly arranged and denied of their legitimate rights to participate and share benefits in sustainable manner, the communities have never opposed the need to have the park in their area. The entire FGD responses from the five Kebeles have shown that they have no objection to the conservation objective of the park. They are still arguing that they have to be heard and benefited without compromising the prime objective. Different studies conducted in the area have also shown similar evidence in this regard. To this end, a study conducted among 9 kebeles of the park has found out that majority of the households were reported to have no objection towards the conservation objectives of the government despite their legitimate complaints to be considered as important stakeholders in the park governance (Aberham *et al*., 2018).

In terms of the effects, 68 (60.18%) have reported loss of additional income while 79 (69.91%) reported denial of access to forest products. Similarly, 80 (70.80%) of the households reported that they were affected due to lack of access to water and grazing land, which was also not statistically significant. Even though the chi square test has shown a non-significant result for all of these responses, both qualitative study, field observation and empirical evidences have been consistent with these findings. To this end, similar study conducted around the park has reported denial of access to the resources mentioned above (Aberham *et al*., 2017).

In terms of displacement, only 40 (35.40%) have indicated that they were displaced from their original places while majority have reported that they were not. Even if the percentage of

households reporting the problem is less than those who did not, field observation and qualitative evidences have confirmed that there were households who actually suffered uncompensated eviction during park designation. On the other hand, 63 (31.3%) of the households have reported that the park populated wild animals that in turn have been attacking their crops and livestock. This report was also supported by both qualitative and field observation evidences that people located closer to the park suffer wildlife attack on permanent basis due to the growing wildlife population. Likewise, majority of the respondents 72.57(82%) have indicated that they were not denied of access to sacred places including cemetery while only 31(27.43%) have reported that they were denied right of entry to their spiritual places.

From the qualitative extract, it was evident that denial of access to their cemetery and sacred places was part of severe complaint reported from Menta Tulema *kebele* residents, one of the five kebeles covered by the survey, and hence, the problem was limited to this specific survey site. Thus, though specific to one of the five kebeles, the problem is existent, factual and caused a serious community grievance. In general, the negative effects of the park were clearly felt by the respondents, though they do not miss the bigger picture with regard to the long term benefits from the park (Table 7.7).

Table 7. 7 Perceived negative effects of park designation

Indicator	Response	Frequency	Percent	χ^2 value
Park designation has negatively affected community life	Yes	109	55.05	13.504***
	No	89	44.95	
It caused loss of additional income from the forest resources (charcoal, spices, wild coffee, honey and timber)	Yes	68	60.18	0.233
	No	45	39.82	
It caused denial of access to forest resource for construction, firewood, farm implements and equipment)	Yes	79	69.91	0.001
	No	34	30.09	
It resulted in lack of access to grazing land and water for livestock	Yes	80	70.80	1.156
	No	33	29.20	
Caused eviction from original place and disruption of livelihood	Yes	40	35.40	2.537
	No	73	64.60	
caused denial of access to sacred places including cemetery	Yes	31	27.43	7.878**
	No	82	72.57	
It has populated wild animals that attack our crops and animals	Yes	63	55.75	3.674
	No	50	44.25	

Source: Field survey (2017)
Note: *** p<0.001, ** p<0.01, * p<0.05

7.3.2.4 Perceived benefits or positive effects

With regard to the communities' perception over the benefits of the park, the data has shown that majority of the respondents believe that it has no benefits. To this end, 114 (59.38%) households reported that there were no benefits while 78 (40.63%) have reported that they were benefited from the park designation. This shows that an exceeding number of responses indicate absence of benefit from the park. The chi-square test has also shown a significant result ($p<0.001$) indicating that people are not considering the park benefits.

However, despite the fact that the chi-square tests for each indicator have shown a non-significant result, people believe that the park system would be important in keeping their ecological balance. 59 (29.4%) of the responses have shown that it has contributed for improved soil fertility, and 41(53.25%) have reported an increase in the number of wild animals for tourism and recreation. However, indicators such as creation of alternative livelihood opportunities and improvement of local infrastructure have got negative reaction that there were no such benefit arrangements due to park designation. 43 (53.95%) of the responses have shown that there were no benefit schemes for improved livelihood, while 34 (44.16%) believe that there were some. Even though the test result yielded a non-significant figure, filed evidences also suggest that there has been hardly any attempt to make them be benefited from the resources.

In general, except its ecological benefits, community responses suggested that there were no benefit schemes derived from the park. Therefore, it can be noted that the park designation has not been serving the dual objective of improving the local people's lives while conserving the wildlife and other biodiversity resources within the park. It seems to be a unilateral effort from the government towards conserving the park resources without considering the needs, rights, and of course the potential negative reactions of the local people in the governance of their local resource, which they feel, were alienated (Table 7.8).

Table 7. 8 Perceived benefits of park designation

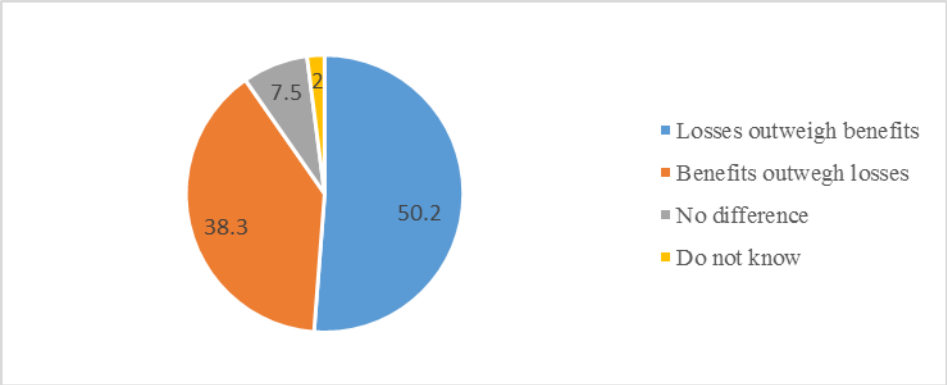
Indicators	Response	Frequency	Percent	χ^2 value
It has benefits to the community	Yes	78	40.63	28.984***
	No	114	59.38	
Contributed for improved soil fertility	Yes	59	75.64	0.6226
	No	19	24.36	
Contributed for restoration of water resources	Yes	48	63.16	2.641
	No	28	36.84	

Increased the number of wild animals for tourism and recreation	Yes	41	53.25	1.084
	No	36	46.75	
Created other livelihood opportunities (sell of artifacts and agricultural products) following the coming of the tourists	Yes	35	46.05	2.917
	No	41	53.95	
Caused an improvement in the local infrastructure	Yes	34	44.16	0.544
	No	43	55.84	

Source: Field survey (2017)
Note: *** p<0.001, ** p<0.01, * p<0.05

7.3.2.5 Respondents' comparison of pros and cons of park designation

Community perception over the pros and cons of the park was evident from the responses in Figure 7.1. The comparison of perceived benefits and loses has shown that the losses they have experienced due to the park designation were found to outweigh the benefits with a response rate of 50.2 % while the opposite response has been 38.3 %. Thus, the cumulative perceptual position of the community indicates the loss outweighs the gains, which calls for rethinking of the current governance approach (Figure 7.1).



Source: Field survey (2017)
Figure 7. 1 Comparison of perceived benefits and losses from park designation

7.3.2.6 The negative outcomes of Park governance on local communities

As the bulk of qualitative information suggested, the exclusionary approach of park governance has affected the livelihoods of the local communities in many aspects. Since the demarcation of park area was not done in consultation with the communities, the social and economic as well as spiritual loss they have experienced were enormous. To this end, the FGD members in Menta Tulema kebeles of Tocha *wereda* have reiterated that they were severely harmed due to the top down approach of park designation. Some of the members were among those who were forcefully evicted from the designated area and given no adequate land in replacement. While being evicted, they left behind not only their homes, but also their perennial crops, which were

destroyed by wild animals. Most of them seriously complain that they were not given proper and adequate land in terms of size and suitability for agriculture. They were not even paid a humble penny in the form of compensation for what they lost.

In general, the FGD members complained that their lives were seriously jeopardized due to the park designation that hardly took their needs and rights of participation in to account. But, more importantly, what makes it special to these communities is that they were denied of further access to the age-old symmetry they used to rest the bodies of their ancestors. The moral and psychological implication of this was very strong and the resentment was too intense. What makes it worse is that, they were not only denied of access to the old symmetry, but also not given adequate place for graveyard in their new village. They complained there were different government officials visiting the kebeles, which ranges from *wereda* and zonal chiefs to the members of federal parliament to whom they have never been shy of presenting their complaints.

However, according to the FGD extracts, they have never got any practical response in return. In all of the study kebeles, another source of public complain was related to the continued attack from the fast populating wildlife in the park. The FGD members reported that their lives became so threatened due to the on-going ferocious attack by the animals such as hyenas, lions, tigers, pigs, buffalos and elephants. The wild animals have destroyed crops, livestock and even attacked their family members including women and children, some of whom did sustain lifelong scars. However, there is no clear mechanism of protection on the part of the park governing bodies (KIP/01, 2017). In this regard, studies conducted in relation to the human-wildlife conflict have shown that there were alarmingly growing number of wildlife attacks on the crops, animals and human lives of the local communities.

A study conducted by Alemayehu and Mathewos (2015) in 9 kebeles has revealed that from 2007-2011, there were about 1364 livestock losses due to predation by wild animals. The study has also shown that the attacks were not only in the fields, but also in their homes. The animals easily intrude in to the village since there is no defined and adequate means of protection (Aberham *et al*., 2018). Thus, it was reported that from 2007-2011, there were 15 individuals, including women and children attacked by different wild animals (Alemayehu & Mathewos, 2015, p.139). The extent of crop damage was also reported to be severe (Demeke & Afework,

2013) and the threat of contagious and malicious animal diseases as well as attack on human being remain outstanding problems (Aberham *et al*., 2018).

Source: (Photo by the researcher, May 2017)

Figure 7. 2 AN elephant near the village of Menta Tulema, CCNP

7.3.2.7 Alternative strategies applied to benefit affected communities around the park

Even though the harms that the local communities have been experiencing from the park designation were severe, there were nearly no attempts by the park governing body to compensate or to mitigate those negative effects through different livelihood support strategies which is often the case in such circumstances that result in eviction and/or loss of livelihoods of surrounding communities in protected areas. The household survey result (Table 7.9) has shown that there were no arrangements made for benefit sharing. To the first question whether there were sustainable and clear arrangements for benefit sharing from park resources, 140 (69.7%) households responded 'no' while similar disapproval responses have been provided by respondents with regard to off farm and on farm supports. 79.6% of the responses confirmed there was no off-farm support provided to the local communities and 81.1% of responses have indicated that there were no supports in terms of on-farm activities (Figure 7.9).

Whether there were compensations for the loss of the community livelihood either fully or partially, 81% of the responses have indicated that there were not, either in cash or in kind. In general, there were no any attempts by the park governing body to compensate or ensure further benefits from the resources (Figure 7.9). As indicated by the communities and their local experts, the park governance system was simply eco-centric which often takes care of the wildlife and

negligent to the day to day harms that the communities experience. The KII response from national EWCA has also confirmed that there were harms by the wild animals on the local communities and nobody can deny the livelihood losses experienced by the local people (KIF/09, 2017). However, it has been very difficult to provide benefits from the park since there is no legal instrument in this regard. According to another KI from EWCA:

The CCNP is one of the best parks in the country which is known for its elephant population and other large mammals. There were of course complaints from communities in relation to wildlife conflict, which we believe should be controlled and rectified. In terms of benefit sharing, there is no legal regime even at national level to do so. However, benefit sharing is a commonly told conservation jargon, which is practically difficult and often became a challenge for the overriding conservation objective. We believe that the local people and their institutions should sacrifice their benefits and see the bigger picture of conservation of wildlife and their invaluable habitats (KIF/08, July 2017).

However, there is a different view in this regard that community concerns deserve their own merit. To this end, one of the officials from SNNPR bureau of culture and tourism admitted that;

The park governance was not effective and seriously compromised the needs, livelihoods, and security of the local people. It is obvious that the conservation objective by itself will shortly be challenged if we keep on neglecting the growing complaints of the surrounding communities. We have not properly responded to the loss of animals and attack on humans, which has been repeatedly reported in recent times. The longstanding complaints of the local residents with regard to eviction and loss of their sacred places has not been addressed. There is a long overdue of governance deficit in relation to park-community relations. There is no alternative benefit provision mechanism and even no infrastructure improvement in most parts of the park area. I do not believe the park should be conserved in such an isolated manner making the local people so alienated (KIR/04, Oct. 2017).

In general, CCNP is one of the promising national parks designated in recent years. However, it is being conserved through compromising the local peoples' lives, livelihoods, and rights, which would result in local hostility and retribution. To this end, some of the recent studies have also suggested that the communities have reported that they were running out of their patience and begun to see the park as something that is not in their favor (Aberham, 2016). Thus, the purely Yellowstone approach of CCNP governance would no longer suffice the current demands of the local people which strictly calls for legally binding solutions.

Table 7. 9 Alternative strategies employed

Indicators	**Response**	**Frequency**	**Percent**
Benefit sharing arrangements made available from park resources	Yes	30	14.9
	No	140	69.7
Supports were provided for off farm activities	Yes	10	5.0

	No	160	79.6
Supports were provided for on- farm activities	Yes	7	3.5
	No	163	81.1
People evicted from the park were compensated in cash	Yes	3	1.5
	No	167	83.1
People evicted from the park were provided with adequate size of land in replacement	Yes	3	1.5
	No	167	83.1

Source: Field survey (2017).

7.4 Distribution of governance roles between communities and different tiers of government

Role distribution of environmental resource governance in the study area is a key factor in the conservation and efficient utilization of the resources. It is, hence, a combination of governance roles both outside and inside the park. As discussed in above sections, the local people have active role and participation in conservation and management of ERs in their locality and their level of engagement has recently been increasing with concurrent increase in the stock of their natural resources, especially forest, which had been severely degraded before.

Responses in Table 7.10 have clearly shown role of different actors in the governance of resources, indicating the dichotomies prevailing in the governance of two different sets of resources, non-park resources versus park-based resources. The role of local people in ER governance is the highest of all with a mean score of 2.530 (SD 1.761); followed by *wereda* government assuming the second position with a mean score 2.20 (SD 1.621). The role of zonal government is lower than those of kebele and *wereda* being rated the third with a mean score of 2.095 (SD 1.331). With respect to the role of regional government, the data has clearly indicated the obvious dichotomy related to park based resource governance. The role of regional government, though lower than the lower tiers (mean score 1.978 with SD 1.445), has still been significant because of its exclusive role in park governance, which was further verified by the qualitative information gathered from the local officials. Therefore, the data has shown that there has been the highest involvement of local level government in non-park ER governance and the role of the regional government has been emphasized due to its exclusive role in park governance.

The data has also shown that there were nearly no community based organizations nor NGOs engaged in the governance of ERs. Thus, governance in the study area was carried out mainly by communities and government institutions. This also indicates that there were no non-state actors

in ER governance and the interaction is only between government and communities. The quantitative findings are consistent with qualitative responses generated from the study communities and officials. The FGDs in five kebeles have reported that they were actively engaged in the conservation and governance decisions of ERs. Their role in this regard has been significantly growing with participatory forest management (PFM) being practiced currently. They also contend that their participation in governance of local resources has resulted in improved restoration of the forests. However, they were bald enough to underline the nullity of their role in park governance. To this end, the FGD members in Gudmu kebele narrated:

We did not know how to live in harmony with our forests and used to destroy them because of ignorance. When we were thought about the effects of deforestation, we begun to protect them. Our role gradually grew to the current level as we are carrying out conservation works and use resources without any further damage. In terms of park, the officials overlooked us as though the resources were not ours. As we are protecting the forests around us, we can protect the park resources, too. We don't know why we were not trusted in this regard. We have no objection in park designation. We have hopes to see tourists and reap the advantages in the future. If we are able to conserve these resources, why not we conserve the park resources more than anybody else? (FGD, Gudmu, May 2017).

Thus, it can be noted that they demand improved and inclusive park governance.

Table 7. 10 Respondents' perception over the role of different actors in NR management

Indicators	Mean	Std. Dev.
Local gov't (kebele)	2.530	1.761
Wereda gov't	2.420	1.621
Zonal gov't	2.095	1.331
Regional gov't	1.978	1.445
CBOs	1.557	1.185
NGOs	1.057	0.322
Private business	1.047	0.283

Source: Field survey (2017).

7.5 Harmony between local and macro level resource governance

7.5.1 Harmony of governance roles with respect to non-park based resources

From the findings of both qualitative and quantitative data and the foregoing discussions, it can be noted that the local peoples' participation and role in resource related decision-making has been immense. Communities have a lion share of role in making decisions related to resource conservation from the early phase of problem identification to monitoring and evaluation (see Table 7.2). The forest protection and conservation activities were undertaken by the communities

themselves through use of locally set rules and regulations being supported by the *wereda* law enforcement bodies. As shown in table 7.3, the resource governance activities were largely facilitated by the interest and consent of the community members whereas community rules and *wereda* government laws were in harmony and complementarily implemented so as to achieve strong compliance to the protection of mainly forest resources. The process of community empowerment in this regard has resulted in a growing awareness of the importance of taking care of the forest resources. In all of the study sites, every member of the FGD was well aware of what the forest resources were all about. There was no confusion in the importance of protecting the forests. They were even feeling guilty of their past experiences that they used to destroy the vast area of their dense forests. In line with the above notion, a female FGD member in Nada kebele has narrated the following:

Some years before, we were foolishly felling trees for no good reason and lost some of our invaluable treasures. We survive because of these forests. If the forest is cleared, we will be left to many disasters and our entire livelihood will be jeopardized. Thanks to the government bodies and the extension agents around us. They relentlessly thought us about the long-term benefits of the forests and told us that the government cannot protect them if we fail to do so. Hence, we began to take care of our forests, though we had lost a big size of it due to ignorance in the past. The trees are our shades, source of food, medicine, and even they have a good spirit of calmness. When you clear away trees, you don't have the grace for your land and the entire village would lose a good spirit. That's why we are taking care of them (FGD, Nada, May 207).

The FGD extract indicates that conservation works can be best achieved through community engagement. They took the responsibility over the resources and began to fight those who fail to obey community decisions. The forests around the national park, which are not part of the park, are now being conserved by community engagement. The role of the government authorities was to organize them in development groups and one-to-five networks which became effective tools for facilitation of resource conservation works, and staging continuous capacity enhancing discussions with the community members at kebele level. As the KII from Esera *wereda* office of EPA accentuated;

There was a continuous effort from the government bodies to raise the community awareness. They were given support to adopt their local rules including monetary punishment. They collect the money and use it for further community works. When someone fails to comply with these rules, the *wereda* justice bodies intervene and bring those disobedient individuals to the court to get punished. Hence, the community decisions being supported by the *wereda* government have been effectively protecting the resources. If you trust them and work with them, they can really bring change that is what we have been witnessing in recent years. They were empowered not

only to take care of the resources, but also to use the resources in a sustainable way, such as wild spices, wild honey, bee keeping in the forests, etc. (KIW/04, May 2017).

Therefore, it can be concluded that there has been harmony in the allocation and discharge of governance roles between the local people and the upper echelons of government in terms of non-park resource conservation. Even though the acknowledgement and use of indigenous conservation knowledge has not been emphasized by the government bodies, the local peoples' role in non-park resource governance has been effective, which can be considered as an optimal means for park resource conservation, too. The level of harmony achieved in role distribution has ensured effective resource governance while ensuring benefit sharing, improved livelihood and effective and sustainable conservation of resources around the park.

7.5.2 Exclusion and environmental injustice in relation to park governance

As the conservation literature suggests, following the American system of national parks that were exclusionary and left aside certain places as scenic beauty for collective use other than local use, the experience of designating national park systems in a similar fashion rapidly expanded in developing countries since 1950s with some effective efforts to protect wildlife and increasing the population of large mammals in particular (Nepal & Weber, 1995). However, the effort of establishing the park systems was the one that placed a heaviest burden on resource owning communities. As Nepal and Weber (1995) suggested, "… *it has proven to be a gross disincentive to effective conservation*". Thus, similar model of park system was also introduced in Ethiopia which was seen as national commitment to modernize the country by emulating what was by then seen as the civilized way of the developed nations (Hilman, 1994).

A growing body of literature in the debate over park protection and local peoples' needs indicates the extent of policy and practical confusions and their consequences on the very objective of nature conservation. In most literature, the issue of striking a right balance between local people's need and conservation objectives has been duly emphasized (Nepal & Weber, 1995a; Nepal & Weber, 1995b; Fernandeznd Martin, 2007 Bachert, 1991; Newmark *et al*., 1994). However, Paavola (2004) provides a lucid explanation on the governance deficit of protected areas that has been a common problem. Accordingly, governance of protected areas has to satisfy two aspects of justice (Paavola, 2004). It has to satisfy what he calls both 'distributive and procedural justices'. In distributive justice, he argues that there should be a fair and legitimate way of distributing both benefits and adversaries or negative outcomes, which

means the local communities should be shared of both the legitimate benefits and the negative outcomes that could arise from protected area governance (Paavola, 2004). For instance, if the local people are allowed to share legitimate benefits from the park resources in a sustainable means, they commit themselves to develop maximum tolerance to bear the wildlife conflict that they face on daily basis. In procedural justice, Paavola (2004) would simply mean that the park designation process should not preclude their involvement and hence it should satisfy their decision-making needs with regard to designation. On top of this, there should be a point of concession in park designation procedures to accommodate genuine livelihood and security needs without compromising the major conservation objective. Thus, both distributional and procedural justice issues have to be addressed, if the protected area governance should result in sustainable conservation and produce a long-term solution for both parties, i.e., conservation authorities and local communities in this case.

In this study, the non-park resource governance, which fully took in to account the role significance of local communities and allowed their full participation in conservation activities was reported to be the successful undertaking not only for the livelihoods of the local people but also for the attainment of the major conservation objective. Even though protected area governance is left to the higher levels of government bodies on the grounds that the area which was set aside for either scenic beauty or wildlife protection is to be protected for national and collective use, this should not be confused with the selective engagement of the local people in park governance whereby they can contribute positively in such roles that are exceptionally assumed by them and can never be fulfilled by any other means or agent. If the conservation objective fully undermines the lives, livelihoods and rights of the local people, the park officials are merely opting to turn them in to unflinching foes to the resources to be conserved, which would simply turn in to a lose-lose situation.

The study has revealed that people around CCNP have a lot to complain and express their anger with emotions that transcend beyond mere grievances for material loss. However, their worries are much deeper that the vast land of Chebera Churchura, which they used to live with for their age, has now been seen as the one that took away their material, spiritual and psychological assets. It is seen as the cause for uncompensated eviction from their origins, loss of their plantations, and restriction of movements with their cattle for grazing and watering. The spiritual

sites, the herbal medicines, the wild spices such as korerima and zinjibil they used to collect, and the wild honey they used to harvest were some of the loses they have experienced so far.

However, these were not the only cases for their deeper grievances. According to the FGD members of Menta Tulema, these were to be compromised for the long term benefit that they aspire from the park with which they hope to have improved infrastructure, income from tourist flow and above all employment for their young and educated children. They were all clear about the importance of the park, provided that it is not set to be against their lives and livelihoods. However, they were serious about two most painful experiences. Besides uncompensated eviction on some of the residents, the Menta Tulema people have left behind a cemetery which they used to rest the bodies of their families since long ago. They were not provided with adequate land in replacement. The second point is related to the day to day attacks that they were experiencing from the growing population of wildlife. Above all, they were furiously explaining about the extent as to how the wild animals were considered as more valuable than themselves. In explaining this, one of the FGD members in Menta Tulema Kebele highlighted as follows;

> We have lost our land and our grave in the first place. When they designated the park, they were extremely ambitious and included too much size of arable land inclusive of the villages. There should have been a wide stretch of buffer zone, which could leave some distance between the wild animals and us. Since there is no fence, the wild animals easily intrude into the village and attack us. If they did it in consultation with us, this wouldn't happen. We were evicted from our original places without any compensation. The most sickening experience is that when some of us attack the animals in response to what they do, we would be punished by serving more than six months of prison and a fine of 700.00 birr. But, when the animals attack our livestock and even our children, we are not paid anything. That is a complete disgrace that we are feeling unimportant for the park officials. That is why we often tell government bodies that we were less valuable than the elephants or hyenas in the park (FGD, Menta Tulema, May 2017).

Thus, they were denied of both procedural and distributional justice. In procedural justice, the process of designation, and the rules and procedures set to govern the park were exclusively done by the higher governing body. In distributional justice, they were deprived of legitimate benefits from the park resources which could have been earned in a planned and sustainable way. On the other hand, if the local people were engaged in the process and benefited from the resources in a defined way, they would also tolerate the adversaries from the park or the negative outcomes such as loss of their original places and attack of wild animals, which could have been a win–win approach. Above all, the approach followed by park officials is not in the right direction that the local people are running out of their patience as they are experiencing persistent attacks from the

wild animals on daily basis and as long as their security is continued to be threatened, it is obvious that they will turn in to foes other than being friends of the park. The reality in this area triggers a question of whether conservation should be done on the expense of lives and livelihoods of the local people, which is an outstanding issue relevant to park governance policy reform in Ethiopia from the experiences of CCNP.

In a nutshell, comparison of the non-park based environmental resource governance and protected area governance in and around CCNP has indicated that park resources can be better conserved if similar but tailored strategy of involving the local people is practiced. To this end, there are empirical evidences that conservation objectives in protected areas were less effective than those in community managed resource sites. Taniya (2006) found out that there was no significant difference in conservation outcome of forests in protected areas as compared to forests in community-managed places. The study examined data from 13 countries whether formally protected areas could be more effective in achieving conservation objective than those forests governed by local communities. Thus, there was no statistically significant difference in 'forest conditions' between the two. Rather, there was more density of forest vegetation and existence of more forest governance rules prevailed in places where forest management was conducted by communities, concluding that the conservative way of protected area governance may not be the optimal way of conservation (Taniya, 2006).

7.6 Chapter conclusion

This chapter was aimed at looking in to the roles of local communities in resource conservation and governance both in protected area and community based conservation area focusing on the role of different bodies including state and non -state actors in resource governance. Attempt was made to see the distribution of governance roles between communities and different echelons of government and the outcome of these roles in resource conservation both for park and non-park based resources. Community participation and decision making in natural resource conservation activities begins from problem identification, planning to implementation and M&E. The local people have been engaged in restoration of their degraded resources mainly reforestation, soil and water conservation including area closure. They are taking active part in forest management and sustainable use of forest based resources. The community based conservation works were facilitated by community consent, use of locally adopted rules being complemented by the

wereda laws and rules. There was a strong harmony between the roles of local communities and the *wereda* government in resource conservation and management, though it lacks engagement of non-state actors. In contrast, there is a serious concern on the dichotomy created over the level of local people's empowerment on resource conservation between protected area and non-protected area, which has developed a resentment and confusion. The local people's participation in non-park resource governance has proved effective while they were largely alienated and disregarded in relation to protected area governance, which strictly applies the traditional exclusionary model. While the process of conservation of non-park resources applies active engagement of the local people from the very stage of problem identification, park governance on the contrary has not even involved them at the initial phase of designation, which they claim that it was erroneously done without the local peoples' consent.

The entire process of PA governance has alienated the local people, disregarded their customary rights of resource use, resulted in uncompensated eviction, curtailed them of some of their spiritual, moral and material assets, and ultimately exposed them to uncontrolled and persistent attack of wild animals which forced them to have lost more than 1360 cattle over the last 7-8 years. It also caused persistent damage of their crops and even attacks on their children and women. There is no any benefit sharing arrangement, with no any legal instrument that provides for benefit sharing even at national level. Even though the local people have no objection to the existence of the park in their locality, hoping that it would bring lasting benefits to them, they have seen none of these benefits yet and continued to face the harms that have been pushing them from being conservation agents to the potential foes that begun to question the very existence of the park in the first place. Its governance was so poor that park managers considered the local people as extra burden to the park management rather than counting them as an integral part of the park system whose role to achieve the envisaged conservation objective would be second to none.

CHAPTER EIGHT: SYNTHESIS

8.1 Introduction

This PhD dissertation was aimed at exploring the political economy of Environmental policy and governance in Ethiopia while looking in to the trends of policy making, actor constellation and institutional responses as well as major drivers of policy orientations over the three political regimes and to determine the outcome of the current EG performance. The study used both qualitative and quantitative techniques to generate data which was complemented by historical and archival evidences. As indicated in the conceptual framework, the core purpose of the study was to portray major trends in policy and legal frameworks, their influence across different time scales and political regimes being demonstrated in shaping the subsequent policy decisions in terms of actor constellations and institutional architecture, which in turn influence the scope and breadth of environmental policies, its implementation and governance as a whole. In so doing, the connections among major components i.e., historical trends in policy and legal frameworks, institutional setup and actor engagement, drivers of environmental responses, and the social, economic and demographic determinants of policy and governance were explored from different temporal and spatial perspectives. Thus, the study has answered the basic research questions that were raised in order to produce evidences for the stated objectives. Hence, the synthesis of the major findings with respect to the original basic questions and objectives, the implications of past trends to the current EP and EG, and the major challenges of EG and EP are briefly presented in the following sections. The relevance of theoretical frameworks used for this study has also been discussed. Finally, conclusion is drawn from the foregoing discussions of the synthesis and policy recommendations as well as further research gaps are also pointed out.

8.2 Discussion of major findings

The historical evolution of environmental thoughts and policy responses in Ethiopia has partially rooted itself in the traditional practice of nature conservation of farming communities, traditional rulers, and religious quarters to some extent while most of it can be attached to the challenges of resource degradation and climate change-induced droughts, exacerbated by demographic and economic factors. Since holistic views in environmental thoughts and policy responses around the world were relatively of a recent past, attainment of full understanding of the environment in the context of Ethiopia is at its infantile stage, which appeared over the last two decades.

During the period of monarchial rule, there was no concept of environment as such. It was rather about wildlife and forests until the *Wello* drought forced the regime to ponder about soil and water conservation, as part of its environmental responses. It had no any coherent environmental policy except patches of executive and legislative decisions or laws. The major paradigm of environmentalism during this period was a frontier economy approach which viewed resources as fundamental engines of economic development and instruments of modernization. Hence, the piecemeal measures of the monarchy which were begun to be evident just after the independence, emphasized on forestry and wildlife conservation with the major aim of bringing lots of forested lands in to the hands of central rulers. With lack of clear land tenure system and vast size of land left on the hands of local elites/landlords, the enactment of consecutive forestry laws were intended to bring forested or open lands in to the grips of the central government through state forest proclamations that concurrently followed by gazetting of protected areas. Even though the setting aside of national parks was driven by a motivation to emulate the western ways of modernization through promotion of game and commercial hunting, it was not championed by the local people on the one hand and the landed elites on the other hand, which forced the regime to face fierce opposition. Though the Imperial government promulgated a number of forest laws and instituted the first forest organization, the practice could not stand the test of history that the later days of the monarchial era were labelled as the period of worst forest destruction in Ethiopia.

The Imperial government's negligence to forest was not only evident from massive forest clearance that took place across the decade of 1960s, but also forest was seen as unimportant resource and this was even manifested in the regime's tax laws that labeled forested land as 'waste land' and the size of tax levied from forested land was significantly less than agricultural lands. Besides forestry and wildlife, the monarchial government's environmental responses had begun to embrace soil and water conservation, driven by drought and famine. The SWC initiative begun with the help of multilateral agencies and use of external experts, which was unsuccessful attempt at all due to factors such as lack of knowledge, top down approach of planning, and resistance by local people due to its technical difficulties. The regime's narrowly viewed environmentalism was characterized by some major drawbacks and factors that ill-drove its responses. The then government bureaucracy was inadequately organized both in terms of knowledge and resources to undertake conservation measures and hence it was entirely

dependent on foreign source of expertise and financial aid. The expatriate advices were not considerate of the local context and plans were driven down from the center with no prior studies. Being overwhelmed by the Malthusian uproars of the 1960s and 70s, the western experts authoritatively preached the apocalyptic views of resource pessimism that led to hasty implementation of conservation works as well as setting aside of a number of national parks with in the reaches of the local communities.

The trend of assigning environmental mandates to the MoA had begun by then due to the fact that the expats and multilateral donors were in and around the ministry as part of international support to mitigate the famine effects. Thus, environmental policy and governance measures of the era put a strong foundation of predicament for today's environmental governance in two ways. The first one is that it established a convergence of environmental thoughts to be limited to land based resources, negligent to versatility of environmental problems, and limited the governance role and institutional setup to be anchored in the ministry of agriculture. Secondly, it heavily relied on expat knowledge and foreign aid to undertake conservation measures which has left an indelible mark on today's EG performance characterized by more dependence on expert knowledge than the indigenous practices and age old experiences of the local people on the one hand and lack of confidence on domestic researches and expertise on the other hand. On top of this, dependence on the prescriptions of foreign authorities has anchored the tendency of top-down approach of planning which has still been an impediment to the healthy application of resource conservation across the country.

The continuation of the trends of the imperial regime was witnessed during the military Dergue era with little or no changes in legal and institutional set up as well as approach of planning. Even if Dergue undertook significant reforms in all aspects of political and economic setup of the monarchy with the historic land reform being at the center of these reforms, it did not make any major change in how environment was viewed, governed, and instituted. Rather, Dergue further complicated things through undertaking forced SWC measures which were highly unpopular by the local people due to their coercive approaches, and the forest development measures which focused on forceful encroachment of agricultural lands from the hands of the farmers. Though it has left a good stock of public forests in some areas, the national policy of viligization and resettlement caused widespread damage to the forest resources while

jeopardizing the lives and livelihoods of many rural households. The influence of the neo Malthusian views of expat advisors under MoA and the prescriptive approach of donor agencies continued to stay firm during the entire period of the Dergue and top down approach of planning and exclusionary resource governance were strictly applied until the demise of the regime. In terms of institutional set up, the same practice was reinforced by the Dergue that environmental mandates were exclusively kept under ministry of agriculture while the wildlife organization was also kept under it. Thus, besides lack of any coherent environmental policy similar to the Monarchial period, the historical trend of environmental views, legal and institutional set up as well as approaches of implementation during the Dergue were direct reflections of the foundations laid by its predecessor.

After seventeen years of insurgency, the EPRDF led forces ousted the military regime and undertook massive political and economic reforms marked with a shift from command economy to market based economy. Similarly, the incumbent government showed considerable lag to protect resources under attack and policy reforms in terms of resource conservation. The period of transition, hence, was characterized by a sheer focus towards political and economic reforms while neglecting the on-going destruction of protected areas as well as public forests. However, there was the first historic attempt to set up separate and independent environmental ministry, though it suffered immediate merger back to the old ministry whose power was unassailable. The era has witnessed certain breakthroughs away from the entrenched trends. The most remarkable one was the attainment of a broad view of environmentalism which was demonstrated by constitutional provision and formulation of comprehensive environmental policy that embraced other aspects of environmental issues apart from the traditional pillars of environment, i.e. land based resources. This can be said a real departure that changed the major foundations of policy narrative in environment sector. Following the attainment of comprehensive policy, relevant environmental regulatory bodies were setup at the center and regions with different nomenclatures.

The change in policy discourse during the EPRDF era was further pushed by internal threat that was posed by recurrent droughts and by an opportunity that came from the coincidental event at global level since the period was characterized by the hails of sustainable development paradigm where Ethiopia was participant at the Earth summit of 1992 in Rio de Janeiro. As the climate

politics took the center stage, the fast changes in international environmental policy landscape drove Ethiopia to the next level being the right and opportunistic coincidence since the country's persistent problems of drought and resulting famine could only be contained through lining up into the international climate politics. Thus, this has further driven the country towards opting clean and green path of development.

These were the causes for the policy breakthrough and to make a shift away from the traditional course of narrow environmentalism. The policy discourse during the current regime, from its early stages, was a mixed one that upheld both frontier economy approach, on the one hand and eco development perspective, on the other hand. As the study findings have shown, though the country has attained a wider perspective of environmental policy at paper level, it has not been free from the legacy of old trends in terms of approaches of planning, resource governance, and policy implementation which are still dominated by top down approach particularly in protected area governance.

The frontier economy perspective has still been dominant as environmental policy prescriptions are ill understood, poorly implemented, and mostly given shelf services while the laws intended to protect the environment are not adhered to. Economic development seriously undermines environmental sustainability and in most cases, development projects have been the main source of irreversible environmental damage. Policy makers, implementers, and even private investors do care little for the environment if it is to reap economic gain. Thus, despite a significant shift from the influence of past trends in terms of attaining coherent and comprehensive environmental policy; the practice has still been under clear influence of the past trends. Even if the policy is comprehensive, the major responses are still gravitating towards land based resources (soil, water, forest and wildlife) while giving little attention to urban and industrial environmental problems. This is evident from the study findings that rural environmental activities were better handled through raising public participation and achieving some good results in SWC across major regions[25]. However, the findings have shown that urban environment is under serious challenge since industrial pollution is taking place with hardly any legal restraint, being exacerbated by feeble institutional presence at local levels and lack of

[25] Major regions are Tigray, Amhara, Oromia and the SNNPRS which are ruled by the member parties of the EPRDF coalition.

enforcement of environmental protection laws which are only written to provide shelf services. In terms of institutional setup, the influence of history is also evident. Though environmental regulatory bodies have flourished over the last two decades, the influence of MoA is still strong and crosses the boundaries of environmental institutions, such as forestry in particular. Practical tendencies are evident that environmental institutions have been locked in to agricultural bureaus and the new sector suffers from weak executive support in terms of resource allocation and law enforcement. Furthermore, these institutions are given far less attention compared to MoA and its interference over forest resource governance, despite the fact that the legal provisions do not favor it, has been so immense.

Moreover, the current regime has followed similar trends in the governance of protected areas. The centralized park governance system of the monarchial period has seen no significant change in its designation and governance. There are still similar trends of uncompensated eviction of communities and failure to legally recognize their customary resource use rights. Even though there have been significant achievements registered in improving the size of the country's forest cover over the last two decades, there were also some erroneous actions that have resulted in irreversible environmental damage. Besides poorly planned investment projects that seemed to have a liberty of enjoying implicit exemption from rigorous EIA examination and inflicting damage to the soil, water and forest stocks; government sponsored resettlement programs since late 1990s have caused immeasurable damage to the forests of the south and south western regions. In sum, the historical trends of the past have still been prevalent putting strong influence in policy implementation, governance, and allocation of institutional mandates.

The Sixth chapter, which examined the extent of governance outcome has attempted to provide standard parameter to measure the country's performance more precisely and quantitatively. To this end, the study developed key indicators which can be used for measuring EG performance and from these indicators, a standardized EG index was developed. The study has a twin objective of finding out the level of EG performance of the country on the one hand and producing a composite index for future use of measuring the EG performance in precise terms, on the other hand. It indicated that the EG performance has been ineffective, falling below the threshold or the average value of the composite index (0.420) in which only 47.01% of the responses were in favor "effectiveness" while 52.99% of responses have shown ineffectiveness,

i.e., below the mean value of the composite index. The performance outcome of most of the indicator components has shown an appalling result. The model outcome has also shown that such variables as sex, marital status, occupation, community role, agro ecology, benefit sharing, and households access to forest resources were found to have a statistically significant effect on the EEG, which require policy response in improving the governance performance through planned intervention in these factors. As stated above, the governance system suffers from top down approach whereby state actors are the sole implementers while there is no legally binding arrangement for non-state actors to engage. Hence, the old tradition of governance has still continued to influence institutional, legal, and governance practices in the country.

Similarly, the findings of the community level study in chapter seven have also shown a consistent result with the previous chapters. While there are improved practices in SWC, there is still the same old model being practiced in PA governance, which is exclusionary, non-participatory, highly centralized and inconsiderate of the local people's voices. Nothing has been changed throughout the fifty years of PA governance in Ethiopia. The way PA resources are managed today is almost similar to the one in 1960s- the so-called Yellowstone model.

8.3 Relevance of theoretical frameworks

There were theories used as frameworks to guide this study namely political ecology, theory of structuration, and actor oriented approach (see chapter two). This section, hence, is devoted to the discussion of the relevance of these theoretical frameworks to the study findings.

Political Ecology is one of the three theoretical frameworks reviewed in chapter two. Since political ecological discussions are based on the study of interactions or interplay between political system and socio cultural setting in shaping environmental issues, this particular study largely lends itself to the discussion of interaction between micro and meso level political economic decisions that determine the governance of environmental affairs.

As Bryant and Bailey (1997) suggested, political ecology being a debate that focuses on interactions between the state, non-state actors, and the physical environment(p.190), the political economy of environmental governance in Ethiopia has been shaped by the political and economic contexts across the regimes over the last fifty years and policy decisions, conservation

actions and resource management systems were much under influence of the political and ideological orientations of the state actors on the one hand and the socio-cultural context of resource communities on the other hand, where the decisions of the political system have had enduring effect on the conservation outcomes and livelihoods of the communities.

In contrast, the ever growing local acrimony and dispute over the injustices due to political decisions have been instrumental in the deterioration of conservation outcomes across the country. The study has also come up with some vivid evidences and explanations that most of the major sources of environmental degradation have been political such as centralized planning and forced implementation of SWC works, exclusionary and fenced approach of park governance, coercive viligization and resettlement decisions that resulted in massive environmental degradation and social crisis; and investment decisions driven by political expediency being carried out on the expense of environmental sustainability both inflicting environmental and social harm were rooted mainly in the political spectrum. Thus, since the discussions of political ecology brings forth the key importance of political sources either for degradation or conservation of environmental resources (Bryant, 1980), the relevance of the concept of political ecology to this study is undisputed, which establishes the need for further studies and policy directions towards basing on the tenets of the theory making it imperative to anchor policy decisions and governance actions that consider the interaction of political, socio cultural and ecological factors to spot environmental problems, on the one hand and to devise governance measures, on the other hand.

The other theoretical framework, theory of structuration, was also reviewed to support the study. This theory, as discussed in chapter two, was coined by Anthony Giddens focusing on the relationships between structure and agency and emphasis was placed on concepts such as power, identities, contexts, and social systems (Giddens, 1984). The theory pinpointed on the structural aspects of the societal makeup by placing too much emphasis on the way how societies structure themselves, which was believed to matter more than anything else. Hence, its basic tenets gave little attention to socio-cultural and human aspects (Ley, 1996). The theory further emphasizes on the importance of rulemaking and use of power to influence and expedite changes within a given society, which Anthony Giddens (1984) calls ‘transformational’ and are created, changed and combined in diverse forms so as to be used by actors for social relations (Turner, 1986, p.

972). Thus, it focuses on allocative and authoritative facilities for power mobilization. In this regard, the theory was found to have lacking consideration of the key role of human agency within the socio political and economic decisions, which in the case of this particular study, is related to environmental resource decisions. To this end, Ley (1996) was critical of the theory for disregarding the human agency, considering it as unimportant element in social change and failing to take in to account the human values, concepts, perceptions and culture above all.

Pertaining to this particular study, the entire policy and governance issues related to environmental problems in Ethiopia have been seen in light of the interaction between human agency, the political economic context, and the structural elements that are manifested by the rules of the game. Hence, the entire discussion of the study chapters indicated that the rights, perceptions, values, socio political and economic interests of diverse societal organizations, political and cultural entities, being aggregated in the form of actors has been the crux of the matter in determining the policy and governance performance of environmental responses in Ethiopia, apart from the rules of the game, which are only the soft aspects of the interaction. As environmental issues are seen from the wider spatial and temporal perspectives, the role and nature of the human agency, with different socio cultural background, comes in to the center of the policy and governance debate. Hence, separation of the most compelling aspects of human and actor elements from the discussion of environmental issues and focusing merely on structural issues ultimately conceals the findings and has little relevance to this particular study.

On the other hand, Actor oriented approach being the third theoretical framework of the study, has been widely used in recent debates to explain the role of actors in resource governance. It is conceived as indulgence on the rights, interests, and choices of humans and being represented in particular actor constellation in a contest to gain the most out of any given decisions (Nyamu-Musembi, 2002, p. 1). The theory highlights the key importance of human agency in the struggle towards getting the most out of the duel over resources (Singer, 1990, p.1841). Hence, the implications of these struggles for resources may be considered as either protective or destructive.

As human decisions driven by their interests may result in either constructive or destructive effects, effective environmental protection cannot be thought without any proper consideration of

the interests of the local people. The case in point can be seen from the findings of this study in chapter 7. The protected area governance in CCNP in particular and in the other national parks in general has been concluded to be faulty in its approach for being exclusionary. The governance system in CCNP alienated the resource communities-human agency, from its early phase of designation. It disregarded the voices of the people and alienated them, resulting in forced and uncompensated eviction. The park governing bodies have little consideration of the rights and interests of the local people and much worried about the wildlife instead of the people around it. The livelihoods of some of the local people have been seriously jeopardized due to the faulty approach of park governance while the park governing bodies consider them as 'problems' to the park rather than an integral part of the park's socio-ecological system. This faulty approach, which undermined the key role of the human agency in conservation task is now facing a growing challenge. Therefore, the agency/actor based approach is very relevant to the study in this particular case. On the other hand, the study has vividly shown that EG has failed to be participatory in many instances and the role of different actors has been minimal. It is only state centric actor role that prevails in EG practice and there is nearly no non state actor participation in environmental governance and major decision making platforms. Therefore, human agency and role of multiple actors who have undeniable interest over the governance of environmental resources have been largely neglected, which verifies the relevance of this theoretical approach to the study.

8.4 Contributions of the study

Despite its obvious limitations mentioned in chapter one, this PhD research is believed to have made some significant empirical, methodological and theoretical contributions.

Empirically: The study being the first of its kind in terms of addressing the EG issues from the broad perspective, makes connection between the historical trends and the current practice. Its findings have significant contribution to the knowledge in this rarely studied field in Ethiopian context in general, and developing economies in particular. Since most of EG studies focus on specific issues to extrapolate the outcome of policy and governance, on the one hand and endeavor to find out the cause of performance problems from immediate sources, on the other hand, this study provided a broad framework of analyzing a country's environmental policy performance through the lens of the historical legacies and their underlying effect on the current

policy narrative, institutional setup and actor relations.

Thus, the study has provided a new empirical insight that today's policy implementation problems do not only emanate from the current and immediate causes, but also rooted in the historical trends of policy and governance, traditions of institutionalizing and structuring environmental mandates that were in turn shaped by drivers and determinants that arise from the political economic orientations over different political periods. Thus, the study has attached Ethiopian environmental performance problems not only to immediate factors, but to the remote legacies of the historical trends which were found to have a strong shaping effect on today's legal and institutional performances. Moreover, it provided a new analytical tool, the composite indicators to measure the country's overall EG performance, which can be used as a parameter to quantitatively measure the country's EG performances. Therefore, the findings of this study can be used for framing knowledge to understand Ethiopia's environmental problems and challenges from the broader historical, temporal and spatial scales.

Theoretically: The study used three different theoretical approaches which were to guide the analysis and consequential discussions. Thus, it was found out that Political ecology, even if one of the oldest theoretical frameworks in the field, it has been proved to be relevant till today in the context of the political economy of Ethiopia's environmental governance. Actor oriented approach, likewise, has been relevant to the discussions of EG in the context of Ethiopia whereas the theory of structuration has not been relevant to frame EG studies in the current context that is laden by complexity, dynamics, and diversity of actors and institutions. Therefore, the study has served as a proof for theories that work and that do not work in this particular context.

Methodologically: The specific contribution of this study can be seen from its application of a mixed approach. In addition to the commonly used approach of studying environmental policy performance through qualitative approach complemented by archival and secondary sources, this study attempted to analyze governance and policy performance quantitatively. Besides exploring long term trends through in depth qualitative study covering a broad geographic area and diverse categories of social and ecological settings, quantification of the EG performance has helped to capture those aspects of the study which were difficult to capture either qualitatively or by reviewing archival documents. Therefore, this study approached the problem quantitatively to

measure environmental governance in the context of Ethiopia, which can be a regarded as a noteworthy methodological contribution in the field.

8.5 Conclusion

The study, as indicated in the conceptual framework, has made it evident that the current practices of environmental policy implementation and governance have been immensely affected by the legacies of historical trends in environmental responses and drivers behind environmental decisions. Even though the country has achieved some major breakthrough in broadening its policy narrative through incorporating issues other than land based resources, including climate change mitigation and adaptation responses, the actual practice has been under serious influence of the historical legacies of how environment was viewed and treated. Even though the country crossed some significant waves of institutional reforms, the regulatory stature of those institutions in achieving compliance has been stifled by multiple problems that emanate from lack of clarity of mandates, weak political support and feeble execution capacity as well as law status granted to these institutions by law. Actor engagement has been improving with significant increase in the level of community participation in rural EG. However, there is no defined modality of actor engagement in general which gave no room for participation of the CSOs and the private sector while urban community participation in EG is almost nil. Thus, weak institutional capacity coupled with poor actor engagement have contributed enormously to the ineffectiveness of environmental governance in the country.

The current feature of EG in Ethiopia has seen many promising reforms fostered by approval of numerous multilateral environmental agreements and being active agent at global fora of climate politics. However, the policy implementation and governance in all fronts of major environmental indicators suffers from serious shortfalls. Measured by key performance indicators, the country's EG has fallen below the average, i.e., ineffective.

Despite all the efforts in formulation of relevant policies, strategies and legal frameworks, as well as institutional reforms, Ethiopia's environmental performance is in crossroads. There is a huge mismatch between the actual practice and what is on the paper. The policy prescriptions and legal provisions are rarely enforced by regulatory bodies which suffer from weak internal capacities and lack of independence. The economic sector, be it government sponsored or

private, is often doing business on the expense of environmental security with nearly no accountability. Industrial and agricultural development works are conducted with little attention to the environment and the long term effect of these projects on the environment is poorly understood by the government bodies and the investors, too. Unless cautious governance reforms in every aspect of environmental protection are undertaken, Ethiopia is going to lose its invaluable endowments such as rift valley lakes, ground and surface water resources including fast depletion of aquifers, major wet lands, biodiversity hot spots, wildlife and indigenous tree species, scenic beauties and landscapes; and continued exposure to serious environmental hazards would also escalate deterioration in public health conditions, with further unchecked discharge of industrial and agricultural effluents polluting the water, air and food system. In the face of growing population pressure and the country's susceptibility to climate change induced shocks, failure to build a governance system that properly enforces environmental laws and policies would allow an ongoing, irreversible and costly damage to the natural and social environment.

8.6 Recommendations and future research focus

Based on the findings of the study, the following recommendations are suggested. Since the environmental policy implementation and governance system suffers from limited and nominal actor engagement lacking participation of non-state actors across different levels including communities in urban areas, policy and legal frameworks that clearly define the types and roles of multiple actors at all levels should be put forth in order to bring actors on board. Thus, the participation should be the one that realizes the new governance spectrum in which the state, the civil society, and the private sector are involved. Moreover, participation of urban communities should also be emphasized to curb the on-going urban environmental pollution while setting up a functional and independently empowered EPA branches across all tiers.

Environmental mandates should be allocated on the basis of the depth and breadth of the current environmental concerns and future targets the country envisages to achieve. Institutional mandate allocation should not hinge around individual, group or sectoral interests and should be free from the influence of agriculture sector. The departure in policy thought should begin by clear demarcation that environment is not limited to agriculture and land based resources. To this end, the issue of forestry, which has long been a bone of contention, needs to be resolved

amicably in a way that brings to an end the longstanding dispute over benefits that emanate from getting hold of forestry related mandates.

The government should work towards ensuring inter-sectoral coordination in environmental matters. Every sector has to be legally responsible to what it does with respect to the environment and demonstrate its commitment through integrated planning of environmental issues in to sectoral plans. The cross cutting nature of environment, hence, should be emphasized as legal requirement for every sector.

The government has to ensure that necessary balance between environment and agriculture is made since the two are the most important sources and means of living on which the entire population of the country depends. Policy makers must see environment as crucial sector which is so delicate, sensitive, cross cutting, and should be given proper attention while economic development plans are devised. Negligence to environmental impacts of development projects should never be tolerated at policy and implementation levels. Policy makers and executors should be able to observe whether development measures are undertaken in environmentally benign way.

Environmental regulatory bodies across the tiers should be independent, free of conflict of interest, free from executive and private sector influences and given adequate support to discharge their roles. Rule of law in protecting the country's environment should be ensured. To do this, Ethiopia needs a strong and independent environmental regulatory institution at national level, and erect similar regional bodies which will extend their strong presence across local tiers. Regional environmental heads should be given an elite status similar to other executive and legislative branches most of which initiate development projects that require rigorous EIA examination. Environmental regulatory organs should be directly accountable to their respective parliamentary bodies, i.e, the House of Representatives and the Regional Council, with the same replica down to zones and *weredas.*

Policy advocacy works should be done by to create clarity over the necessary interaction between the human, environmental and economic systems. Emphasis should be given to inculcate the very idea that *'development which compromises environment is underdevelopment'.*

Regulatory measures should be taken to curb the ongoing pollution being caused by the old industries in and around Addis Ababa. Here, two alternative policy measures could be undertaken. They should be forced either to make use of standardized chemical treatment plant, or move in to the newly constructed industrial parks.

There is a strong need for policy shift in protected area governance. Ethiopia cannot afford the current erroneous way of PA governance which has never seen any change from that of the Imperial era. Thus, it requires a clear PA governance policy which spells out the need to bring different interest groups in to the governance platform where the local people are given a lion share role to conserve the resources and share the benefits in a controlled and sustainable way. There should also be legal framework that provides for benefit sharing arrangement. Likewise, improvement in the governance system of the environment requires policy decisions and legal frameworks that prescribe the conformity of EEG indicators by all stakeholders. In order to improve effectiveness of EG, there should be planned interventions that are directed towards improving the effects of the seven determinants of EEG, as per the findings of the binary logit model.

The last but not the least, this study has made an attempt to explore the area which has seldom been studied in Ethiopian context. The study, however, did not fully and adequately address the complex policy and governance issues due to its limitations in terms of scope, methodology, and time. Since one of its obvious limitations is that the survey data was collected only from rural areas and lacks the urban perspective in terms of quantitative evidences, further studies can bridge this gap by conducting a wide scale survey inclusive of urban households.

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Appendices

Appendix I. Key Informant Interview Checklist

School of Graduate Studies

College of Development Studies

Center for Environment and Development

Introduction and consent

The main objective of this study is to generate relevant data for a PhD research entitled ***'The political Economy of Environmental governance in Ethiopia: Trends, actors and drivers'***, which will be used to fulfill an academic requirement for the degree of Doctor of Philosophy in Environment and Development. Hence, besides its importance for the attainment of the academic purpose of the researcher, the information you provide will be helpful to identify problems related to environmental policy implementation and governance in Ethiopia and to draw valid conclusions, which will be used for improved governance of environmental affairs both at policy making and implementing grounds. Therefore, your kind cooperation and active participation with genuine responses during the discussions will be vital for the overall success of the study. Results and any other details will not be used for un-intended purpose. To this end, anonymity of the respondents and confidentiality of their responses is highly guaranteed unless and otherwise under mutual consent between the researcher and the respondent.

(KII checklist for Federal and regional officials)

1. What was the main Trends of environmental policy and governance in each era and why so?
2. How was environment understood in each era?
3. What were the policies and laws related to environment? And how were they enacted, implemented?
4. What were the driving factors both internal and external? Which environment and development discourse drove the era?
5. What institutions and actors were involved in EP and EG in each era? What was their role? What were the challenges?
6. What were the changes in institutional architecture, what caused them, why?
7. How institutional mandates were allocated, what were the effects by then and today?

8. How do you weigh the current EG performance with respect to different indicators such as accountability, compliance, participation of stakeholders in decision making, environmental awareness, role of actors and institutions, and others? What are the major problems of EG, and why?
9. What were the major success and challenges of EP implementation in Ethiopia in urban and rural settings?
10. What are the mandates of the current environment related institutions and how these mandates align?
11. How the national and subnational bodies related and how do they discharge their respective roles?
12. What are the major strengths and drawbacks of the current institutional setup of EG in Ethiopia?
13. Who are the major actors in policy formulation and governance, what characterizes them? How do they discharge their respective roles?
14. What is the role of external actors (donors) and how their influence is demonstrated?
15. What was the cumulative outcome of the each era's environmentalism?
16. How do you compare the successes and failures of each era?
17. What do you suggest for effective EG in Ethiopia

(KII checklist for officials, experts, and community leaders of Dawro, Fentale, Asagirt and Addis Ababa city)

1. How do you perceive the current environmental problems in your area?
2. How do you explain the status of the current environmental degradation in your area?
3. Can you describe the problems of degradation and their effect on the livelihoods of your communities?
4. Have you any mechanism of informing the community and others that the environment is changing? If yes, how effective is the effort?
5. Can you explain the prevailing environmental degradation problems, their magnitude, cause and effects of those degradation problems?
6. Who are the major actors in curbing environmental problems? Who does what?
7. Who makes environmental decisions, how and when?

8. What formal rules, laws and regulations are there to protect environmental degradation (pollution/deforestation/depletion/emission)? How are these instruments being implemented? What problems are there and why?
9. How decisions related to resource use and environmental conservation are made? Who makes them, and what is the extent of community decision-making in environmental protection and conservation?
10. If there is a designated/protected area, is there any benefit sharing mechanism? How satisfactory is the arrangement? If not, what are the problems?
11. How do you explain the status of current practice in governance of environmental resources/quality?
12. What do you suggest for further improvement in environmental governance?

KII checklist for officials, experts, community leaders and park managers of Dawro zone, Esera and Tocha *wereda-(for objective four only)*

1. How are environmental resources governed and conserved in your locality?
2. How do communities participate in SWC? Similarly, what is their role in PA conservation? Why?
3. How park was designated (whose decision, how and why), and what was the reaction from local people and how was it handled/resolved?
4. How do the local people use resources from the park area?
5. What benefits accrued from park, what harms were there and why?
6. What regulatory issues are there for benefit sharing?
7. What is the role of community, local government (*kebeles* and *wereda)*, upper tiers of government (Zone or region), and others in resource governance? Who has more power and why?
8. Has there been any conflict between local bodies and upper tiers in relation to resource governance, if so, why? How was this handled?
9. What are the contradictions among local, micro and meso level policies of resource governance?
10. What is the current condition of resources in and around the park? And why?

11. What is the level of conservation outcome between non park and park based resource conservation, why?
12. What are the major challenges prevailing in terms of policy implementation and governance?
13. What should be done in the future?

Appendix II. FGD Guidelines

Introduction and consent

The main objective of this study is to generate relevant data for a PhD research entitled ***'The political Economy of Environmental governance in Ethiopia: Trends, actors and drivers'***, which will be used to fulfill an academic requirement for the degree of Doctor of Philosophy in Environment and Development. Hence, besides its importance for the attainment of the academic purpose of the researcher, the information you provide will be helpful to identify problems related to environmental policy implementation and governance in Ethiopia and to draw valid conclusions, which will be used for improved governance of environmental affairs both at policy making and implementing grounds. Therefore, your kind cooperation and active participation with genuine responses during the discussions will be vital for the overall success of the study. Results and any other details will not be used for un-intended purpose. To this end, anonymity of the respondents and confidentiality of their responses is highly guaranteed unless and otherwise under mutual consent between the researcher and the respondent.

(FGD guidelines for Dawro, Fentale, Asagirt and Addis Ababa communities)

1. How do you perceive the current environmental problems in your area?
2. Has there been any mechanism of knowing how and why the environment is changing, who did what?
3. What are the causes of environmental degradation/pollution and who are the prime agents? How are they made accountable?
4. What are the roles of different actors in taking care of environmental resources and quality?

5. What formal rules, laws and regulations do you know are there to protect environmental degradation/pollution? How are these instruments being implemented? What problems are there and why?
6. What indigenous practices/ knowledge of environmental protection/conservation are there, and how are they used in practice?
7. How decisions related to resource use and environmental conservation are made? Who makes them?
8. Is there any transparent and viable dispute resolution mechanism?
9. Apart from your individually owned plot of land, what resources are available to your community? Are the resources accessible to you? If not, why?
10. If there is a designated/protected area, is there any benefit sharing mechanism? How satisfactory is the arrangement? If not, what are the problems?
11. Do you have you access to use those available resources in your locality? If not, what are the challenges? And, who uses it most? Why?
12. Explain role of different actors, and institutional performances in curbing environmental problems, level of accountability, and achieving compl*iance.*
13. What do you suggest for further improvement in environmental governance?

(FGD guideline for Dawro community FGDs only- for objective four)

1. How do you conserve environmental resources in your locality?
2. How do you participate in SWC? Similarly, what is your role in PA conservation? Why?
3. What are the local institutions, and practices used for SWC or natural forest conservation?
4. How park was designated (whose decision, how and why), and what was the community reaction and how was it handled/resolved?
5. How park is managed/conserved, who does what and why? Was it bad or good?
6. How do you feel the effects of park before and after its designation?(benefits and harms, if any)
7. Is there any mechanism of using resources from the park, if there is, what regulatory tools are there for benefit sharing?

8. What is the role of community, local government (kebeles and *wereda*), upper tiers of government (Zone or region), and others in resource governance? Who has more power and why?
9. What is the current condition of resources in and around the park? And why?
10. What is the level of conservation outcome between non park and park based resource conservation, why?
11. How do you compare the success of conservation between community based SWC versus protected area (Park), why?
12. How environmental laws and regulations are implemented, do you think the environmental governance is effective? How?
13. What should be done in the future?

Appendix III. Expert Interview checklist

Introduction and consent

The main objective of this study is to generate relevant data for a PhD research entitled ***'The political Economy of Environmental governance in Ethiopia: Trends, actors and drivers'***, which will be used to fulfill an academic requirement for the degree of Doctor of Philosophy in Environment and Development. Hence, besides its importance for the attainment of the academic purpose of the researcher, the information you provide will be helpful to identify problems related to environmental policy implementation and governance in Ethiopia and to draw valid conclusions, which will be used for improved governance of environmental affairs both at policy making and implementing grounds. Therefore, your kind cooperation and active participation with genuine responses during the **Expert Interview** will be vital for the overall success of the study. Results and any other details will not be used for un-intended purpose. To this end, anonymity of the respondents and confidentiality of their responses is highly guaranteed unless and otherwise under mutual consent between the researcher and the respondent.

Part I: Background Information

1. Date of response_____
2. Organization's name: _____
3. Type of organization: _____
4. Sex of the respondent_____
5. Level of education of the respondent_____

Part II: Questions related to Environmental Institutions in Ethiopia

1. Explain the type and level of involvement of your organization in Environmental governance.
2. How do you explain the adequacy of environmental institutions in Ethiopia (from federal to local levels) both in terms of number, regulatory performance, capacity and independence?
3. What in your opinion is the effect of changes in environmental institutional architecture over the last two decades on environmental policy implementation and governance?
4. How do explain the environmental mandate allocation in Ethiopia? Why? What is its effect on EEG?
5. What are the main successes and drawbacks of EP implementation in Ethiopia, why?
6. What do you suggest for improved environmental governance in your institution in particular and in Ethiopia in general?
7. How do you explain the EG performance in Ethiopia with respect to achieving accountability, participation, transparency, and other indicators? What are the problems in this regard and why?
8. What do you suggest for improvement?

Appendix IV. Document Review Checklist

1. The emergence, development and main focus of EP and EG over the three regimes
2. The driving factors of Environmental policy and governance (both internal and external)
3. Type and content of policies and laws related to environmental issues
4. Institutions and actors that were involved in EP &EG over the three regimes
5. Type of discourse that drove the policy thinking during each regime
6. The challenges of safeguarding the environment during each regime
7. The major outcomes (positive and negative) of each era environmentalism
8. Legal and policy basis for institutional set up and mandate allocation
9. Evolution of environmental institutions, the changes in institutional mandates, pace of those changes, and reasons behind the changes?
10. The relationship between the national and subnational bodies in discharging their respective environment related roles

11. Policy and legal basis for actor engagement
12. Roles of major actors including Government, Market, and CSO in policy formulation and EG
13. Role of the wider public in policy formulation and EG
14. Implementation and challenges of different policies and strategies including the CSE, the EP, the Forest policy, the CRGE, the GTPs, and the current NAP-ET
15. Implementation and challenges of Protected area governance
16. Implementation challenges of environmental regulations (domestic and ratified by the country).

Appendix V. Household Survey Questionnaire (HSQ)

Introduction and consent

The purpose of this **Household Survey Questionnaire (HSQ) is to explore the political economy of environmental governance in Ethiopia with a focus on historical trends, actors, institutions and drivers.** This is therefore to collect detailed information on the role of local communities in environmental resource management; the harmony between local and macro level environmental governance; indicators on the effectiveness of environmental governance; identify determinants of effective environmental governance in Ethiopia. You are selected randomly for this survey and your participation is based on your willingness to take part. Therefore, your kind cooperation with honest responses to the HSQ will be vital for the overall success of the study. It is purely for academic purpose; results and any other details will not be used for un-intended purpose. To this end, anonymity and confidentiality of our respondents are highly guaranteed unless and otherwise under mutual agreement between the concerned parties.

General instruction for the interviewer/enumerator

- ⇒ Please put the code chosen by the respondent in the space provided for some of the close-ended questions and encircle the chosen response for those which do not have space to put the codes;
- ⇒ The respondent can choose more than one response for some questions (multiple response items);
- ⇒ Skip the code to which it does not require response;
- ⇒ Skip the modules, which are not applicable to specific group;

⇒ Write down the response for open-ended questions whenever the respondent provides and necessary;

⇒ Respondent agrees to be interviewed Respondent does not agree to be interviewed

.....1 **..... 2 → END**

MODULE 1: HOUSEHOLD IDENTIFICATION [APPLICABLE TO KEREYOU AND CHEBERA CHURCHURA]

N	**Date of the enumeration:**	**Time: Start:** **Finish: _**
1.1	HH identification number:	
1.2	Region /City Administration	
1.3	Zone	
1.4	*Wereda* _____	
1.5	*Kebele*	
1.6	Agro-ecology type: 1) Highland 2) Midland 3) Lowland	
Enumerator name: _____		**Signature: _____**

MODULE 2: BASIC DEMOGRAPHIC INFORMATION OF HOUSEHOLDS [APPLICABLE TO KEREYOU AND CHEBERA CHURCHURA]

2.1 Age(in year)	2.2 Sex [code 1]	2.3 Family size	2.4 Marital status *(if age above 18) [Code 2]*	*2.5* Religious affiliation [code 3]	2.6 Occupation *[See code 4]*		*2.7* Highest level of education (completed) *for education level different from 1- 12 [Code 5]*	*2.8* Length of years in the current residence	*2.9 Responsibility in the community [code 6]*
					Main (farmer/herder	Secondary			

Codes for 1: 1=Female 2=Male

Codes for 2: 1=Married with single spouse 2=Single 3=Divorced 4=Widowed 5= separated 6= Married with more than one spouse/ polygamous

Codes for 3: 1=Orthodox; 2=Muslim; 3=Catholic; 4=Protestant, 5=Traditional religion; 6= other (specify) _____

Codes for 4*:* 0=None, 1=Farmer/herder; 2=Farm assistant/herd assistant, 3= Salaried work; 4=Student; 5= crop production and sales; 6= Livestock production and sales; 6=Non-farm product trader; 7=Beverage (*tella, tej, areke*, etc), 8= Wage labor (local); 9=Pensioner; 10=Handicraft, 11=Mining, 12=Carpentry, 13=House help, 14= Sale of wild/bush products (including charcoal); 15=blacksmith 16=looking for work 17=other (specify) _____

Codes for 5: 0=cannot read and write; 13=10+1; 14=10+2; 15=10+3; 16=Certificate; 17=Diploma; 18=BA/BSc; 19=MA/MSc and above, 20=Non-formal education (can read and write), 21=KG (Completed)

Codes for 6: 1= none; 2=Religious leader; 3= Coordinator of community development work; 4=*Kebele* Administrator; 5= other (specify) _____2.10. Do you have access to land for agricultural use? 1=Yes; 2= No

2.11. If yes for QN # 2.10, what type of tenure system is it? 1=own 2=rented 3=others specify_____

2.12. Do you have access to grazing land? 1=Yes; 2= No

2.13. If your answer is yes to QN. 2.12, how do you use it? 1= It is shared in plots among community members on individual basis; 2=It is used only among the local community members and restricted for others out of my community 3=It is open for anybody without any restriction 4= others specify_____

2.14. Does any of your household members work in activities apart from crop production? 1=Yes 2=No

2.15. Does anyone from the family members work outside the community? 1= Yes 2=No

2.16 If yes for QN # 2.15, how many? Male _____Female_____

2.17. What is your estimated monthly income in Birr_____?

2.18. What is your estimated yearly income in Birr_____?

2.19. Are you a member of any local cooperative association/union or CBO? 1=yes 2=no

MODULE 3: QUESTIONS ON EFFECTIVENESS OF ENVIRONMENTAL GOVERNANCE [APPLICABLE TO KEREYOU AND CHEBERA CHURCHURA]

No.	Indicator questions	Response code
1.	Do you get important information related to environment or environmental resource management in your locality?	1= Yes 2= No
2.	If your answer is yes for QN # 1, who provides this information? (Multiple response is possible)	1=Government 2=NGOs 3=CBOs 4=All of them
3.	Do you have access to use forest resources (firewood,	1= Yes 2= No

	charcoal, farm implements, and others) from publicly owned forest in your locality?	
4.	If your answer is yes for QN # 3, how do you rate the extent of access to this resource? 1=Very Low 2=Low 3=Moderate 4=High 5=Very High	
5.	Do you have access for livestock pasture from publicly owned land in your locality?	1= Yes 2= No
6.	If your answer is yes for QN # 5, how do you rate the extent of access to this resource? 1=Very Low 2=Low 3=Moderate 4=High 5=Very High	
7.	Do you have access to use water for livestock from publicly owned land in your locality?	1= Yes 2= No
8.	If your answer is yes for QN # 7, how do you rate the extent of access to this resource? 1=Very Low 2=Low 3=Moderate 4=High 5=Very High	
9.	Is there any benefit sharing arrangement in practice from the protected area or natural resource in your locality? 1=Yes 2=No	
10.	If your answer is yes for QN # 9, how do you rate the extent of benefit sharing? 1=Very Low 2=Low 3=Moderate 4=High 5=Very High	

MODULE 4: INDICATORS OF EFFECTIVE ENVIRONMENTAL GOVERNANCE: [5-point Likert scale questions] [APPLICABLE TO FENTALE AND DAWRO]

Indicators (Assign your number of choice to each component indicator in the space provided)		Responses (1=strongly disagree, 2=disagree, 3=neutral, 4=agree, 5=strongly agree).
A. Accountability		
A1	Government bodies are held accountable when the local people experience any harm due to Environmental governance decisions	
A2	The local /*Wereda* government timely responds to the community demands related to resource use (pasture, water, firewood, farming land).	
A3	The roles and responsibilities of the *Wereda* , *Kebele* and local communities are clear and unambiguous in terms of environmental resource/park	
A4	Actions and decisions at all tiers of government (*Kebele*, *Wereda* , Zone and upper tires) in terms of environmental management are consistent with the needs of local people and the respective laws	
B. Participation		
B1	Local communities are involved in identification of environment governance problems	
B2	Local communities are involved in planning of environment governance measures	

B3	Local communities are involved in the implementation of governance measures	
B4	Local communities are involved in setting rules for environmental protection	
B5	Local communities are involved in the enforcement of environmental protection rules and regulations	
B6	Local communities take part in monitoring and evaluation of environmental resource management activities	
B7	Local communities take part in making decisions related to environmental resource use and distribution	
B8	Local communities take part in the arrangement of benefit sharing modalities from public owned resources (e.g., park or protected area or grazing land)	
C. Environmental Awareness Raising		
C1	There are regular awareness raising practices (meetings, trainings and others) for local people on environmental resource management	
C2	Local people usually participate in trainings/meetings related to environmental resource management	
C3	People have well aware of protecting environmental resources	
C4	The trainings /meetings of awareness raising have been able to change local people's environmental	

	resource management attitudes and skills	
D. Environmental Knowledge		
D1	Our traditional knowledge of resource conservation is frequently applied for conservation of resources)	
D2	Our traditional knowledge has been recognized and backed by local level expert knowledge for environmental resource management	
D3	Local level expertise has been used for environmental resource governance more frequently than expertise from upper levels	
D4	knowledge and expertise from upper tiers (zone, regional, central) play supportive role but not imposed on local levels for environmental resource governance	
D5	There is support of knowledge and expertise from NGOs in order to improve our environmental governance performances	
D6	There is engagement of knowledge and expertise from private sector in order to improve our environmental governance performances	
E. Institutions		
E1	There are adequate EIs in the locality with clear mandate and capacity to coordinate Environmental protection)	
E2	EG decisions are carried out solely by local level institutions with adequate support from the upper tiers	

E3	Local community's traditional institutions have significant role in EG decisions	
F. Actors		
F1	Environmental protection and governance is carried out by the government bodies and local communities	
F2	Environmental protection and governance is supported by participation of civil society actors	
F3	Environmental protection and governance is facilitated by CBOs	
F4	Environmental protection and governance process engages private sector actors	
F5	Environmental resource or protected area is conserved by collaboration of communities, CBOs, NGOs, government and private business	
G. Environmental laws		
G1	There are adequate environmental resource or protected area governance rules and regulations at local level	
G2	Environmental protection laws are well known to and communicated among the local communities	
G3	Besides government laws, community bylaws have also been frequently used for environmental resource protection	
H. Transparency		
H1	The distribution and allocation of benefits from environmental resources is managed transparently	
H2	Decisions related to resource use and management are known to the local people and done openly	

H3	Local communities know what their roles and responsibilities related to environmental resource or park protection	
I. Implementation/ enforcement of laws		
I1	Environmental protection laws are implemented by participation of the local communities	
I2	The existing rules and regulations on environmental resource or park area conservation are easy for implementation.	
I3	There is an optimum level of compliance to the environmental rules and regulations at local level	
I4	People who breach environmental protection rules are punished according to the law	
J. Environmental sensitization practices		
J1	Environmental resource or protected area conservation is promoted regularly	
J2	There are incentives (e.g., economic) aimed at encouraging local people for environmental resource or protected area conservation	
J3	There are environmental club or nature club that promote the importance of environmental protection	
K. Environmental partnership		
K1	Environmental institutions in the locality have a strong partnership with the local communities	
K2	Environmental institutions in the locality have a strong partnership with other government units	
K3	EG in the locality is done in partnership with NGOs, research institutions, private business, CBOs, etc.	
L. Dispute resolution		

L1	There are adequate and clear dispute resolution mechanisms for handling conflicts that arise over environmental resources	
L2	Usually, disputes over environmental resources are resolved fairly without any delay and bias	
L3	Dispute resolution mechanisms are set by public participation and widely known to them	
M. Adaptiveness		
M1	The local people are able to or do have the capacity to respond when environmental resource constraints happen (shortage of water, pasture, firewood and others)	
M2	The local government is capable of helping the communities to withstand the problem when environmental resource constraints happen (shortage of water, pasture, firewood and others)	
M3	The local level NGOs are capable of helping the communities to withstand the problem when environmental resource constraints happen (shortage of water, pasture, firewood and others)	
M4	Local people, private business, local government and NGOs cooperate to withstand the problem when environmental resource constraints happen (shortage of water, pasture, firewood and others)	

MODULE 5: TRENDS, CAUSES AND PERCEPTIONS OF ENVIRONMENTAL RESOURCE DEGRADATION, AS WELL AS ROLES OF DIFFERENT ACTORS IN ENVIRONMENTAL GOVERNANCE

[Only applicable to Dawro community]

1. What environmental/natural resources were abundantly available in your locality in the past? 1) Forest 2) river water 3) wildlife 4) forest based spices 5) arable land 6) grazing and pasture land 7) others, specify_____(multiple response is possible)
2. How do you perceive the status of the above resources over the last ten to twenty years in your locality?

Resources	Status over the last 10 to 20 years				
	Highly increased (1)	Increased (2)	No change at all (3)	Decreased (4)	Highly Decreased (5)
Forest					
River water					
Wild animals					
Forest based spices					
Arable land					
Grazing and pasture land					

3. What are the factors that have caused resource degradation in your locality?

No.	Factors	Rate of contribution				
		Very high (5)	High (4)	Moderate (3)	Low (2)	Very Low (1)
1.	Increasing household environmental resource demand					
2.	Increasing size of population					

3.	Lack of knowledge how to use it					
4.	Lack of laws and rules for environmental resource protection					
5.	Poor enforcement of laws/regulations					
6.	Limited community participation in decision-making (related to ER protection)					
7.	Misalignment between local people interest and the conservation objective of the government					
8.	Other factors (specify)					

4. What is your opinion with regard to the conservation of park resources in your locality

Indicators	Level of agreement				
	Strongly agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly disagree (1)
Forests in the park should be protected from reach of people					
Wild animals are important and should be protected in the park					
Arable land with in the park should be protected from use of the local people					
The grass land in the park should be protected from reach of cattle					
Water resources in the park should be protected from reach of animals and people					

5. Who do you think are involved in the management of natural resources in your locality?
   1=Local government (Kebeles) 2=Local government (*Wereda*) 3=Zonal government 4=Regional government 5=Federal government 6=Local CBOs 7=NGOs 8=others, specify _____ (multiple response is possible)

6. How do you rate the actors' role in relation to environmental resource management in your locality?

No.	**Actor's position/rank in resource governance**	**Very high (5)**	**High (4)**	**Moderate (3)**	**Low (2)**	**Very low (1)**
1.	Local government (Kebeles)					
2.	Local government (*Wereda*)					
3.	Zonal government					
4.	Regional and federal government					
5.	Local community based organizations (CBOs)					
6.	Non-Governmental Organizations (NGOs)					
7.	Private businessmen					
8.	Other specify					

7. How do you rate the role of different actors in the management of park (protected area) resource in your locality?

No.	Actor's role in park control and management	**Very high (5)**	**High (4)**	**Moderate (3)**	**Low (2)**	**Very low (1)**
1.	Local government (Kebeles)					
2.	Local government(*Wereda*)					
3.	Zonal government					
4.	Regional and Federal government					
5.	Local community based					

	organizations (CBOs)					
6.	NGOs					
7.	Private businesses					
8.	Other, specify					

8. What is the level of your involvement in the management and conservation of environmental resources in your locality? 5=Very high; 4=High; 3=Medium; 2= Low; 1=Very low
9. What is the level of your involvement in the management of park (protected area) resource in your locality? 5=Very high; 4=High; 3=Medium; 2= Low; 1=Very low
10. Has any pertinent body consulted you or your family members during the designation of park (protected area) in your locality? 1= Yes 2=No
11. If your answer is yes for QN # 10, how do you rate the level of consultation in the park designation process? 5=highly adequate; 4= adequate; 3=moderately adequate; 2= inadequate; 1=highly inadequate
12. If your answer is no for QN # 10, what were the reasons for being not involved in the park designation process? 1= I was not even told about it at all; 2= I was told but refused to take part by my own; 3. Others took active part but I didn't because of my personal problems; 4. It was not my job to decide on it; 5. I was not permitted to take part; 6. I refused to take part because it would hurt us; 7= other, specify _____
13. How do you rate your access to and use of resources from the park area before its designation? 5=Very high; 4=High; 3=Medium; 2= Low; 1=Very low
14. How do you rate your access to and use of resources from the park area after its designation?

5=Very high; 4=High; 3=Medium; 2= Low; 1=Very low

15. Do you think that the designation of the park or protected area has affected you or your household?

    1= Yes 2= No

16. If your answer is yes for QN # 15, what are the harms that are caused due to the park designation? (Multiple response is possible)

1=Loss of additional income from the forest resources (selling charcoal, spices, wild coffee, honey and timber)

2= I have been denied of access to forest for household utilities (construction, firewood, farm implements and equipment)

3=I have been denied of access to grazing land and water for livestock

4= I was evicted from my original place and disrupted my life

5=I have been denied of wildlife resources for meat and other use

6= I have been denied of access to sacred places

7=It has populated wild animals that attack our crops and animals

8=others specify_____

17. Do you think that the designation of the park or protected area has benefited you or your household?

1= Yes 2= No

18. If your answer is yes for no. 17, what are the benefits that you have got due to the park designation?

(Multiple responses is possible) 1=It has contributed for improved soil fertility 2=It has contributed for the restoration of water resources 3=It has increased the number of wild animals for tourism and recreation 4=It has created other livelihood opportunities (sell of artifacts and agricultural products) following the coming of the tourists 5=It has caused an improvement in the local infrastructure 6= I am benefited from the benefit sharing arrangement from the park income to the local community 7=others specify_____

19. How do you rate the harms or losses due to the park designation in your locality? 5=Very High 4=High 3=Medium 2=Low 1=Very low

20. How do you rate the benefits that you obtained from the park designation in your locality?

1=Very small 2=Small 3=Medium; 4=High; 5=Very high

21. Which one do you think outweighs the other (i.e., the losses you experienced or the benefits you obtained from the designation of park) in the locality? 1=the loss is higher than the benefits 2=the benefit is higher than the loss 3=No difference at all 4=I do not know

22. After designation of the park, what alternative strategies were put in place for you or your household members? 1= Arrangement for benefit sharing from park resources 2=provided with support for other off-farm livelihood options 3=provided with support for other on-farm livelihood options 4=Compensated for the eviction from the park area in cash 5=Compensated for the eviction

from the park area in kind (proportionate land replacement) 6= Not provided with any alternative solution 7=Others specify_____

23. Is there any benefit sharing mechanism from protected area resource in your locality 1=Yes 2= No

24. If your answer is yes for QN #25, what is the benefit sharing mechanism? 1= Paid in cash regularly from income generated from park resources 2= Paid in kind regularly from income generated from park resources 3= Paid both in cash and kind regularly from income generated from park resources 3=Access to sustainable and selective use of park resources 4=Improvement in local infrastructure from income earned from park resources 5= others specify_____

25. If your answer is yes for QN #25, how do you rate the benefit sharing arrangement in your locality?

5=Very satisfactory 4=Satisfactory 3=Medium 2=Poor 1=Very poor

26. Do you apply your indigenous knowledge and practices for resource conservation? 1=Yes 2=No

27. Are the local practices and indigenous knowledge acknowledged by the government bodies for resource conservation? 1= Yes 2=No

28. If your answer is yes for QN #27, what supports have been provided to build on them?

1= training and capacity development 2= assistance in organizing the local community 3= integrating local knowledge and practice with formal and institutional way of management 4= no support was given so far.

29. What are the environmental conservation activities being undertaken in your locality?

1= soil and water conservation 2= afforestation/ reforestation 3= area closure and protecting existing forests 4= others, specify _____

30. How conservation activities are organized and facilitated in your locality?

No	Options applicable for facilitation of conservation activities	1= Yes 2= No	If your response is yes, rate the scale of applicability of each option				
			Very high	High	Medium	Low	Very low
1	By coercion from the upper tiers of government (*wereda* , zone, region)						
2	By fear of punishment /sanctions from kebeles administration						
3	By coercion from the community leaders which could result in social sanctions						
4	By incentives and rewards from government						
5	By incentives and rewards from non-government organizations						
6	By our interest and community decision						

Codes: 5= very high; 4= high; 3= medium; 2 = low; 1= very low

31. Distribution of governance roles between government and community

No.	Governance activity	1=Exclusively done by government bodies	2=Mostly done by government bodies	3=exclusively done by local community	4=Mostly done by local community	5=Done in collaboration of both	6= I don't know
1	Identification of environmental problems						
2	Planning of conservation measures						
3	Allocation of inputs and						

	resources for conservation activities						
4	Implementation of conservation activities						
5	Setting rules for implementation						
6	Enforcement of rules and regulations						
7	Evaluation of plan implementation						
8	Punishment and/or reward						

32. What are the main problems of governance in relation to natural resource conservation?

33. What are the main problems of governance in relation to park?

34. What do you suggest for improvement?

Appendix VI. Computed value of the composite index

Index	Freq.	Percent	Cum.
0.113208	2	0.5	0.5
0.132076	2	0.5	1
0.150943	4	1	1.99
0.169811	6	1.49	3.48
0.188679	4	1	4.48
0.207547	6	1.49	5.97
0.226415	10	2.49	8.46
0.245283	12	2.99	11.44
0.264151	11	2.74	14.18
0.283019	14	3.48	17.66
0.283019	2	0.5	18.16
0.301887	19	4.73	22.89
0.320755	23	5.72	28.61
0.320755	1	0.25	28.86
0.339623	23	5.72	34.58
0.358491	19	4.73	39.3
0.358491	2	0.5	39.8
0.377359	16	3.98	43.78
0.396226	18	4.48	48.26
0.415094	19	4.73	**52.99**
0.433962	18	4.48	57.46
0.45283	16	3.98	61.44
0.471698	16	3.98	65.42
0.490566	26	6.47	71.89
0.509434	22	5.47	77.36
0.528302	19	4.73	82.09
0.54717	7	1.74	83.83
0.566038	5	1.24	85.07
0.566038	1	0.25	85.32
0.584906	12	2.99	88.31
0.603774	8	1.99	90.3
0.622642	6	1.49	91.79
0.641509	5	1.24	93.03
0.660377	7	1.74	94.78
0.679245	6	1.49	96.27
0.698113	4	1	97.26
0.716981	1	0.25	97.51
0.735849	4	1	98.51
0.754717	1	0.25	98.76
0.773585	1	0.25	99

0.792453	3	0.75	99.75
0.811321	1	0.25	**100**
Total	402	100	

Appendix VII. Descriptive statistics of the modeled variables

Variable	Mean	Std. Dev.	Min	Max
Sex of respondents	.8059701	.3959448	0	1
Marital status	.7462687	.4356879	0	1
Main occupation	.6666667	.4719919	0	1
Education	.5373134	.4992271	0	1
Community role	.7089552	.4548101	0	1
Agroecology	.6840796	.4654607	0	1
Years lived in the area	31.4801	14.50035	1	75
Land tenure type	.7810945	.4140196	0	1
Family size	6.937811	2.744046	2	14
Benefit sharing	.4353234	.4964171	0	1
Cash income total	7970.07	12750.11	0	120000
Access to use of forest	.4850746	.5004	0	1
engagement in non-farm activities	.1890547	.39204	0	1
Membership to local union/CBO	.6691542	.471104	0	1

Appendix VIII. List of Key Informants and FGDs

A. Coded list of Key Informants (KIIs were coded to maintain anonymity)

s.n	Representation	Status	Code
1.	Federal institution	Ex-minister	KIF/01
2.	Federal institution	Ex-minister	KIF/02
3.	Federal institution	Minister	KIF/03
4.	Federal institution	state minister	KIF/04
5.	Federal institution	Minister, advisor	KIF/05
6.	Federal institution	Senior expert	KIF/06
7.	Federal institution	Senior expert	KIF/07
8.	Federal institution	Department head	KIF/08
9.	Federal institution	Department head	KIF/09
10.	Research institution	Senior researcher	KIF/10
11.	Regional EPA	Head	KIR/01
12.	Regional EPA	Head	KIR/02
13.	Regional EPA	Head	KIR/03
14.	Regional BoA	Department head	KIR/04
15.	Regional Culture &Tourism Bureau	Deputy head	KIR/05
16.	Zonal Agriculture Department	Department head	KIZ/01
17.	Zonal Agric. Dept	Head	KIZ/02
18.	Zonal land and pastoral office	Head	KIZ/03
19.	Wereda level KII	Expert	KIW/01
20.	Sub city level KII	Head	KIW/02
21.	Wereda level KII	EPA head	KIW/03
22.	Wereda level KII	EPA head	KIW/04
23.	Wereda level KII	BoA deputy head	KIW/05
24.	Wereda level KII	BoA head	KIW/06
25.	Wereda level KII	BoA&PD representative	KIW/07
26.	Wereda level KII	EPA, expert(city)	KIW/08
27.	Wereda level KII	EPA, expert(city)	KIW/09
28.	Industry KII	Expert	KIPS/01
29.	Industry KII	Expert	KIPS/02
30.	Industry KII	Expert	KIPS/03
31.	Federal institution	Expert	KIFE/01
32.	Federal institution	Expert	kIFE/02
33.	Kebele level	Council member	KIK/01
34.	Kebele	Manager	KIK/02
35.	Kebele	Administrator	KIK/03
36.	Kebele	Administrator	KIK/04
37.	Kebele	Administrator	KIK/05
38.	Kebele	Development agent	KIK/06
39.	Kebele	Development agent	KIK/07
40.	National park	Park official	KIPA/01

B. List of EGDs contacted during field data collection

s.n	Wereda/sub-city	Region/city	No. of FGDs conducted	No. of participants		
				Male	Female	Total
1	Asagirt wereda	Amhara	2	18	13	31
2	Fentale wereda	Oromia	5	49	35	84
3	Esera wereda	SNNPR	2	20	11	31
4	Tocha wereda	SNNPR	3	43	17	60
5	Akaki Kaliti	Addis Ababa	2	17	16	33
6	Kolfe Keranio	Addis Ababa	2	19	16	35
Total			16	166	108	274