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COLLEGE OF LAW AND GOVERNANCE

CENTER FOR FEDERALISM AND GOVERNANCE STUDIES

Federalism and Environmental Policy in Ethiopia: The Case Study of Batu City Administration in Oromia National Regional State.

BY:

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A Thesis submitted to Addis Ababa University, College Law and Governance Center for federalism and Governance as Partial Fulfillment of the Requirements of Masters of Art in Federalism and Governance Study.

AAU, ETHIOPIA

JUNE, 2018

Declaration

I the undersigned, declare that this thesis is my original work and has not been presented for a degree in any other university, and that all sources of materials used for this thesis have been duly acknowledged.

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Addis Ababa University

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By

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Abstract

The aim of this study is to assess the environmental policy in the federal system of Ethiopia thereby to analyze the state of devolution in the environmental matters with particular reference to Batu City administration of Oromia state. Basic research questions, including the extent of the environmental policy decentralization and effectiveness of environmental policy implementation, whether the environmental policy is consistent with socio-cultural values of local community and the challenges of managing environment in the Batu city administration of Oromia The study was carried out in Batu city administration of Oromia region. It has utilized a case study design and a mixed research approach. The instruments used to gather the required information for the study were questionnaire, key informant interview and focus group discussion (FGD) as well as personal observation. The total number of respondents who took in questionnaire and key informant interview 70 and 12 respectively; a FGD comprising eight participants was also conducted. The obtained data through questionnaire were analyzed through simple statistics while those obtained through key informant interview, focus group discussion and observation were interpreted qualitatively. The major findings of the study include: Niether the regional state nor the urban local government is empowered to effectively implement environmental policy. There are lack of compliance between environmental legal provision and socio-cultural values of the local community. Particularly, the development projects like floriculture have not implemented the extant Environmental Impact Assessment (EIA). Consequently, the lack of effective EIA has detrimental human and other biotic life in and around Batu City Administration. Hence, it is the argument of this Thesis that environmental policy making and implementation in the federation need meaningful participation of the people, devolved environmental power for both the regional and urban local government; and effective implementation of EIA by investment projects like floriculture.

Acronyms

BFALR- Batu Fish and other Aquatic life Research Center
CESCR- Covenant on Economic, Social and Cultural Rights
CSA- Central Statistical Authority
EBI- Ethiopian Biodiversity Institute
EFCCA- Environment, Forest and Climatic Change Authority
EIA- Environmental Impact Assessment
EISRs- Environmental Impact Study Reports
EPA- Environmental Protection Act
EPA- Environmental Protection Authority
EPE- Environmental Policy of Ethiopia
ESIA- Environmental and Social Impact Assessment
ESMF- Environmental and Social Management Framework
FC- Federal Confederation
FFE- Forum for Environment
FDRE- Federal Democratic Republic Ethiopia
FGD- Focus Group Discussion
GTP- Growth and Transformational Programme
IGFTs- Intergovernmental Fiscal Transfers
MoEFCC- Ministry of Environment, Forest and Climate Change
MoFED- Federal Ministry of Finance and Economic Development
MoWR- Ministry of Water Resources
NGO- Non-Governmental Organization
EFCCA- Environment, Forest and Climatic Change Authority
ONRS- Oromia National Regional State
RBUs- Regional Biodiversity Units
TERI- The Energy and Resources Institute
UN- United Nation

CHAPTER ONE

1.1. Introduction

Federal systems assign exclusive, concurrent or residual powers and responsibilities among the levels of governments. In this perspective, environment is often times the shared responsibility of national and sub-national units of government in federal and /or multilevel governance systems (Shobe and Burtraw 2012; Oates 1997). The federal constitution of Ethiopia in particular assigns legislative, executive and judicial powers to the federal and regional Governments.¹ Article 44 of the federal constitution guarantees “the right to a clean and healthy environment”² and articles 89 and 92 require national policy and government activities to be compatible with the environmental health.³ Article 89 further obliges the government to ensure sustainable development. According to article 91 the same constitution of the federal government has a duty to protect and support cultures, traditions, natural endowment, historical sites and objects⁴ that are compatible with fundamental rights, human dignity, democratic norms and ideals. In the later period, the Ethiopian government has also given attention to issue of green economy, and environmental frameworks have been put in place to meet the sustainable development.

In the Post 1991, there has been an increased determination to attract investments. Though, the growing investment is admirable, the effect of such an increased investment on the environment raises several concerns such as water pollution, disappearance of lives and the like. “The industry continues to grow physically and monetarily, however as it grows on such a large scale, there are concerns about potential environmental impacts such as water pollution from fertilizer and pesticide use” (Hatch and Wells, 2012:2).

All Ethiopian floriculture industries use chemical fertilizers. Nitrates that are produced from Nitrogen fertilizer can be wash away from the fields by rain or irrigation ultimately finding their way to water bodies and soil. The undesired impact of the sector includes; water pollution, soil and water quality degradation, human, and cattle health effects, air pollution, the risk of aquatic life, as well as water logging and sanitization, (Malefia 2009). Chemical fertilizers in floriculture industries can also cause different diseases for the workers. Methemoglobinemia, Japanese

¹ Article 51 to 56 of the FDRE Constitution.

² Article 44/1 of the FDRE Constitution.

³ Articles 89 and 92 of the FDRE Constitution.

⁴ Article 91 of the FDRE Constitution.

encephalitis (JE), cancer etc. are some of the major diseases that have been noted to the use of chemical fertilizers. When the extra nitrates remain in the soil, it can cause Methemoglobinemia. If the nitrates are mixed with drinking water it can affect human beings by interfering with oxygen-carrying capacity of the blood. Nitrates are also can cause cancer, especially stomach cancer, non-Hodgkin's lymphoma, while the proof is inconclusive, and the intensity of these risks is unknown. Excess use of urea also causes a called Japanese encephalitis (JE) human disease, which mainly affects children between the ages of four to fourteen years. The high content of chemical fertilizers also can affect cattles when they graze on exposed fields, (Atkure 2011). Richly, the amount of nitrate is increased in the impaired sites where floriculture industries were established three years ago because floriculture industries use a high amount of nitrate fertilizers in drip irrigation. In addition to this Downes and et al (2002), stated that Nitrates react directly with hemoglobin in human blood and other warm-blooded animals to produce methemoglobin. Under certain conditions high levels of nitrates (>10 mg/l) are toxic to human beings especially for infants' water with more than 1.0 mg/l of nitrate levels should not be used for feed babies (Tilahun, 2013).

Pesticides that include herbicides, fungicides, insecticides and more can contaminate organisms, soil, water, turf, and other vegetation. 99.9 percent of pesticides are mostly leaving as a pollutant in the environment, including the soil, air, and water, or on nearby vegetation. Only less than 0.1 percent of the applied pesticide reaches the target pest. The adverse effect of pesticide use includes degrading soil and water quality, the effect on non-targeted lives like human beings, cattle, insects, soil organisms, aquatic life etc. air pollution, and an increase of pesticide resistance by targeted pests, (Solomon Nigatu 2016).

Such struggle, if not accompanied with practicable environmental policy and administration system will have harmful environmental effects. Hence, in order to avoid these problems, the country needs workable and participatory environmental protection. This background serves as basis for the study which concerned with assessing the post 1991 environmental policy in Ethiopia concerning environmental protection of Oromia state in Batu city administration.

Among the members of the Ethiopian federation, the state of Oromia with its highest population and land coverage is located in a larger central stretched to the periphery of south, east and west part of Ethiopia. It shares boundaries in the north with Amhara; in the south with Kenya; in the

southwest with SNNPRS; in the northeast with Afar; in the east with Somali and in the west with Gambella regional state and Sudan. Oromia state has a number of zones and city administrations with high investment inclined region. Most of the industrial firms are concentrated in the Oromia state and its capital. Batu city administration is one among the city administrations found south of the capital city of the country about 163 kms. The city is highly investment prone areas as the plain landmark and sufficient water supply makes favorable for industrial setting up. Hence, in and around the city there are many industries such as a number of flora industries/ floricultures, castle winery, pesticide industry, Caustic Soda and the like.

The main objective of this study is, therefore, to find out whether the decentralization of governmental powers between the national and the state governments of Ethiopia is also reflected in the decentralization of functional competences concerning environment related matters. This study evaluates whether Ethiopia is environmentally federal state, and thereby analyze to what extent the powers are devolved with regard to environmental matters.

1.2. Statement of the Problem

Federalism with its self-rule feature is supposed to enhance local protection of environment through decentralized policies. As federal system complies with promoting the culture, norms and values of the society, it should take into account the culture, norms and values towards environmental protection of the nations and nationalities of the country. Ethiopia adopted federalism two decades ago. It is crucial for federal government to play a role with regard to the environmental regulation that requires assuming and freeing responsibility for those activities that have important environmental spillover effects across jurisdictional boundaries. Environmental problem in the context of Oromia regional state wherein most of the country's investments are taking place in and around this regional state is the key research area. Nowadays, Batu city administration is one of the city administrations vulnerable to severe problems because of lake Dambel which has been affected largely by chemicals, pesticides and fertilizers released from agro-industries particularly floriculture. These constituents have not only contaminated the drinking water supply to residents but affected vegetation, aquatic and other lives. This is the reason that intrigued this study to specifically focus on the case of Batu city administration. The people of the city have been complaining about the environmental problems and issues to the city administration, state and federal governments. The Batu city administration has already

reported the environmental problems to the state government, and the Oromia regional state government has sent a group of experts in order to investigate the severity of the problem but the problem remained there. Moreover, the federal government came and discussed the issue with the people of city administration though it couldn't bring solution to the environmental problem of the city. This raises the key question: Who can solve the environmental problems at local/ city level? Which tier(s) of government(s) is/ are responsible for managing environmental problems at the Batu city administration? Therefore, there is a need for investigating the management of environment in the federal/decentralized governance system. The FDRE Constitution provides the regional state the power to administer land and other natural resources⁵ in accordance with federal laws that disregard states to reflect their views in law making as they have different culture, norms and values in contrast to principles of federalism. The federal system is the governance system which acknowledges and promotes the culture, norms and values of the society. Every society has its own way of life (culture, norms and values) with natural resources like water, forest and animals in its environment. This is to mean that in Oromia, there is values, norms and other cultural elements that sacred to be enhanced regarding environmental affairs corresponding to way of conserving vegetation, using water, protecting tame and wild animals, etc. For instance, elders thought their children's never expel their urine or feces while fetching, swimming or in others activities in the water early in their childhood; it is forbidden to cut trees in their stems and also all the branches and younger and baby feeding animals couldn't be killed and so on. Federalism gives the right to self-rule that enhances the preservation of their natural resources according to regional areas it attached to cultural norms, values and traditions of the society. The federal principles more of self-rule through participating, empowering and acknowledging the societies' according to their culture, norms and values while the FDRE Constitution gives power on environment, specifically natural resources law making solely to the federal government. To avert this dilemma environmental law making especially regarding natural resources like water, forest and wild animals should devolve to state and local/urban accordingly.

The legal document primerly concern for environment is environmental policy. Environmental policy of Ethiopia was introduced in 1997. There were a number of legal frameworks such as proclamations, directives and others as well as institutes formulated and established respectively

⁵ Article 52(2d) of the FDRE Constitution.

for the protection of environment from diverse natural and man-made occurrences. However, integration of these legal frameworks and institutions with development concern were late according to EPA 2012 report and the result of growth and transformation plan that deals largely with environmental issues. In this regard, in law any development projects including floricultures are subject to waste management techniques to reduce environmental impacts. Conversely, most of the floricultures are not taking any measure instead the effluent from these industries directly liquidated in to Lake Dambel. This resulted in resource degradation and ecosystem disturbances. As many study indicate the effect of residues entered into the water are promoting growth of algae and aquatic vegetation beyond what is naturally sustainable, lake water is becoming less suitable for sanitation purposes, high level of pollution of water even admitted by all government medias, fish stocks are declining, and causing many diseases. Delays in reversing the deterioration process may result in the depletion /loss of the Lake's biodiversity among other.

Since there is no way of monitoring the national/central government, the preservation of environment may be too weak. The federal government should set only the overall frameworks (standards), the rest should be left to the states and local governments bestowing to paramount suit to it. States can better take care of the environment than the Federal government, as they are nearer to the people, land, forests, water, etc. conferring to their societies' tradition. (Shackleton and et al 2002) in their policy suppositions state that:

Most 'devolved' natural resources management reflects rhetoric more than substance, and is characterized by some continuation of substantive central government control and management over natural resources rather than a genuine shift in authority to states and local people.

This indicates that even the power of administration of the natural resource is under the full control of the central governments.

Scholar like (Saveyn and Proost 2006) for example describe a basic shortcoming of a central government in that it is insensitive to varying preferences for environmental quality among the residents of the different jurisdictions. Consequently, the right of the citizen to be secure in their own home, and not to be affected by chemical poisons in the environment that contaminates drinking water, vegetation is a forgotten research area. This study therefore dwells on how state devolution in the environmental matters affect the protection against harmful environmental factors at Batu City level in Oromia Regional State.

1.3. Objectives of the Study

1.3.1. General Objective

The overall objective of this study is to assess the environmental policy in the federal system of Ethiopia thereby to analyze the state of devolution in the environmental matters with particular reference to Batu City Administration of Oromia.

1.3.2. Specific Objectives

The research objectives specifically are:

- To examine the extent of decentralization in the environmental policy of Ethiopian.
- To analyze how environmental policy is applied around Batu city administration of Oromia.
- To examine whether the socio-cultural factors have been considered in the environmental policy making in Ethiopia in general and the case study site in particular.
- To identify the challenges of managing environment in the Batu city administration.

1.4. Research Questions

The basic research questions of the study are:

- To what extent is the environmental policy decentralized in the Ethiopian federal system?
- Is there effective environmental protection policy applied for the preservation of natural resources in and around Batu city administration of Oromia?
- Whether the socio-cultural factors are considered in the environmental policy making in Ethiopia in general and in the implementation of the same by the case study site in particular?
- What are the challenges of managing environment in the Batu city administration of Oromia?

1.5. Methods and Designs of the Study

This section dealt with approach, the research design, types of data needed, method of data collection, sampling techniques, data analysis and details of data interpretation mechanism as well as study site selection; and it gave an account for how the research participants are selected.

1.5.1. Approach of the Research

This study is a descriptive research type that describes the status of the phenomenon and to some extent an exploratory as well. The researcher has a mixed research approach. It has used both qualitative and quantitative data.

1.5.2. Data Sources and Collection Instruments

In order to achieve the objectives of the study, both primary and secondary data sources were used. For seeking primary data sources, the researcher has used key interviews, FGD and questionnaire attended by personal observation. Different existing secondary sources including environmental policy documents, proclamations, articles, journals, books and etc were used.

In-depth Interview

In the context of this study, in-depth interview is used as either formal or informal conversations that allowed the researcher to extract relevant information from interviewee(s) largely inclined to informal discussion. In so doing, the researcher has prepared a guideline to remember what he wants to raise during interview. Thus, the main purpose of the in-depth interview is to obtain relevant data from stakeholders on environment and the interviewees were purposively selected.

Key-Informant Interview

This method is quite important whereby the well informed members of the community being studied that provide the researcher with rich and detailed information on the subject of inquiry. Key informants are persons who have knowledge about the issue under study, and have access to other information of interest to the researcher (Kaufman 2005). The study also key informant interview to dig out the environmental problems at local and regional level. I interviewed a number of key officials from Oromia regional state: two experts from Environment, Forest and Climatic Change Authority and a professional from Investment Bureau; From Batu city administration i.e. two experts of Environment, Forest and Climatic Change Authority, an Expert of Mayor Office, Municipality, water supply enterprise, City Council, NGO from each and a key informant from the community as well as a senior expert from selected flora industries.

Focused Group Discussions (FGD)

Focus Group Discussions were conducted with knowledgeable sectoral experts, selected people from the society and some selected industries' managers and employees to generate qualitative data to supplement data obtained through interviews. A single FGD was held with an expert of Mayor Office, one employee of City Council, two professionals of EFCCA, an expert from municipality, an expert of investment office and a senior supervisor from floriculture in Batu City Administration. Furthermore, it is used to generate additional data concerning the existing traits of factors added to the problem of the current environmental protection and use policy.

Questionnaires

This method is a widely used technique in order to gain quantitative and qualitative data. The questionnaires were dispatched to selected people of the study area, experts of environmental protection and administrative offices, workers of water supply office, office of investment and other stakeholders. Self-administrated questionnaires which comprise close ended and open ended questions were prepared.

1.5.3. Sampling Technique and Sample Size

Cognizant of the aforementioned fact, the researcher applied both purposive and random sampling technique to select the sample units from the population. The researcher employed multi-stratifying sampling technique to select informants from the three administrative: state, city and Genda/Kebele. Questions initially prepared in English and later translated to Afan Oromo language to avoid language barrier and obtain required information from the respondents.

Since this case study is on Batu city Administration, the target of this study are all households and employees of some selected offices of the city. Accordingly, researcher purposively selected two Bureaus, six offices, Oromia Agricultural Research Institute Batu Fish and other Aquatic Life Research Center, two floriculture companies, a water supply enterprise, a non-governmental environmental sensitive organization and community elders (Abbootii Gadaa) that make up respondents' institutional affiliations. The selection is based on a multi stage purposive sampling technique in which two or more stage sampling is used for determining sectors and numbers employees participated in interviews and FGD to seek knowledgeable bureaus and sectoral experts and officials. Random sampling technique is also used for Questionnaire to avoid biasness. For example, 73 respondents were used for questionnaire. Out of which 18 are females and 55 are males that are used for questionnaire. This sample size was taken using (Yemane 1967) formula as follows: $n = N / (1 + N(e)^2)$, where n = sample size; N = total population e = error terms assumption; so $n = 269 / (1 + 269(0.1)^2) = 269 / (1 + 2.69) = 269 / (3.69) = 72.89 \approx 73$. However, 70 are responded questionnaire and the three didn't return it, in which participants are about 26% of the population. Moreover, the participants for questionnaire have been determined by systematic random sampling technique in which n^{th} sequence chosen from the list of population. According to this technique $n^{\text{th}} = N/n$ in which N = Total population; n = the sample

size. The n^{th} value is 4. Hence, respondents nominated every fourth interval from payroll of each bureau and sectors.

Table 1.1: Institutional Affiliation and Composition of Respondents

S/N	Respondents Institutional Affiliation	Population			Sample Size			
		M	F	T	Questionnaire Respondents	key-informants	FGD Participants	Total
1	Oromia EFCCA	26	10	36	9	2(monitors and compliance of environmental laws directorate and EIA expert)	-	11
2	Oromia Investment Bureau	12	6	18	3	1(expert of investment potential)	-	4
3	Batu Mayor Office	8	2	10	3	1(legal expert)	1(planning and budget coordinator)	5
4	Batu City Council Office	8	4	12	3	1(legal expert)	1(vice of city council)	5
5	Batu EFCCA	6	1	7	2	2(EIA expert and head of office)	2(planning & budget coordinator and environmental follow up expert)	6
6	Batu Municipality	36	12	48	13	1(sanitation and beautification expert)	1(urban greenery coordinator)	15
7	Batu Investment office	2	-	2	1	-	1(expert of potential investment land)	2
8	Batu Water Supply Enterprise	40	15	55	14	1(expert of water Engineer)	1(Water Laboratory technician)	16
9	Companies	-	-	-	-	1(senior expert in line manager)	1(Supervisor& Line Manager of Greenhouses)	2
10	Ganda/kebele 01	8	2	10	3	-	-	3
11	Community Elders	-	-	-	-	1(Abbaa Gadaa)	-	1
12	Batu city Court	7	4	11	3	-	-	3
13	NGOs	4	1	5	1	1(Project Officer)	-	2
14	Oromia Institute: BFALRC	45	10	55	15	-	-	15
	Total	202	67	269	70	12	8(a FGD)	90

Source: Researcher's Design, April 2018

1.5.4. Data Analysis

Data analysis in the study followed thematic approach. The data generated from the in-depth interviews, key-informant, questionnaires and focus group discussions analyzed through careful interpretation of meanings and contents; and through organizing, and summarizing in accordance with the issue under investigation. For the presentation of data, the researcher used tabulation of Likert with five ratings i.e., strongly agree, agree, undecided, disagree and strongly disagree. The researcher used SPSS to analyze quantitative data that were gathered through close ended questionnaire. To this effect, the researcher made descriptive and a bit of exploratory presentation of the data in a reflexive and narrated manner whilst keeping its original content. Nonetheless, the research is predominantly a qualitative analysis that examined the research problem from varieties of a social phenomenon at a single point in time. Finally, since this is a case study design, indepth analysis is made about the case i.e., Batu City Administration.

1.6. Significance of the Study

This study is expected to help concerned bodies like federal environmental policy makers, state environmental authorities, sectoral environmental experts and implementers to identify some of the major challenging environmental protection policy in Oromia regional state of Batu city administration. Such bodies, therefore, may use the research outcome as a reference for their further tasks. Therefore, the study is hoped to give hint to policy makers to design the necessary strategies and programs which understand and harmonize the gap between the principles of federalism and environmental politics in Ethiopia; in relation to the environmental protection and use policy in Oromia Regional state. This research made an effort to come up such problem whether policy and practice are suited to solve issues of environmental protection through showing the ways for reconciling concerns and interests of states society according to their culture, norms and values. It also intended to fill the study gap that discussed in the statement of the problem. Finally, this study is hoped to play its role by letting ways for further investigation for interested researchers.

1.7. Scope of the Study

The scope of the study delimited in terms of coverage owing to financial and time resources available. In terms of location, this study is only confined to selected city in Oromia State level, so as to make the study area more manageable and able to support it with specific case study design to study the theme of the research in depth. The study was intended to conduct in this area

due to severity of the environmental problem especially in relation to pollution of Lake Dambel, biotic lives including human beings whose life depend up on the lake. In its focus, the study is also limited to analyze the existing situation aspects related with Federalism and environmental politics in Ethiopia especially to examine environmental protection and use policy in Batu City administration Oromia National Regional State.

1.8. Limitation of the Study

As many researchers believe any research work was not free from certain constraints. So is this research paper. The following are some of the restrictions that the researcher was faced while conducting the course of the study or the constraints which reduce the quality of the research:

- Lack of logistic and time constraints to go for broader study;
- Lack of adequate relevant data on time because of the reluctance of the concerned informants and absence of documented data that the researcher wants to analyze; lack of upto date research outputs on environmental federalism;
- Since the major source of the information for this study is the opinion of the employees, societies and managers, these opinions would not provide all rounded necessary information for the study due to the fact that some employees misunderstand the questions, give less attentions and respond irrelevant answer as well as over jump some questions that may influence the precision of the study.

1.9. Structure of the Thesis

This study is divided into six chapters. Chapter one is an introduction of the study. Chapter two reviews a related literature on environmental federalism and environmental policy making and implementation. Chapter three dwells on the environmental policy Frameworks of the Ethiopia federation. And also assesses the legal institutional frameworks under the federation. Chapter four discusses environmental policy and implementation in the regional state of Oromia. This chapter analyzes the factor that determine the implementation of environmental policy of Batu city administration level. Chapter five thematically analyzes and interprets the empirical from Batu City Administarion. Chapter six and the last chapter provides conclusion and recommendation.

CHAPTER TWO

2. Federalism and Environmental Policy Frameworks: International Context

Introduction

In this chapter, the highlight of federalism, concept of environmental federalism, the literature review of theoretical and conceptual framework of environmental federalism, environmental power and policy, factors affecting environmental federalism, environmental power sharing and degree of decentralization and degree of Socio-Cultural Diversity and Environmental federalism of the study as well as challenges and others are presented.

2.1. Meaning and Concept of Federalism

For the explanation of the concept of Federalism, Watts distinguishes the three provisions: federalism, federations and federal political systems. In his distinction, “federalism” is used essentially not as a descriptive but as a normative term and denotes to the advocacy of multi-tiered government linking elements of shared-rule and self-rule, Ronald Watts (2008:8). Federalism is a form of government which has at least two orders of foundation, through all orders of government having a range of autonomous as well as shared decision-making responsibilities (Boadway and Shah, 2008:5-8). It is based on the supposed value and validity of combining unity and diversity, i.e., of accommodating, preserving and promoting distinct identities within a larger political union. With regard to power allocation when looked at types of government that best guaranteed through constitutional stipulation of authorities’ explicitly established semiautonomous states and common government is federalism (Millimet 2013).

In federalism there are varied array of components that make the system compact in combining the competencies not only the environment issues but also other diverse affairs which even open in flexible way beyond expectation. Let alone about assigning the powers and duties to tiers of government and exercising it but also mechanisms and habits of standing alone or together that plays critical role in thorough understanding needs to be accounted. When comeback to the concerned discussion, the governance system is a multitier combined with appropriate allocation of duties and responsibilities to other levels of government. The dogma or principles of this academic outlooked help to intensify the processes of federalism proper division of powers to units of governments among other things.

Watts (2008:13) further emphasizes the terminologies as:

Federations and federal political systems are used as descriptive terms applying to certain forms of political organization. Federations are political institutions i.e. they are noticeable institutional facts which constitute the institutional and structural systems for achieving the goals of federalism. Federations are also used to describe actual systems of governments. Federal political systems refer to a broad category of political systems in which, by contrast to the single central source of political and legal authority in unitary systems, there are two (or more) levels of government consequently mingling features of shared-rule (collective partnership) through a common government and states self-rule (constituent unit autonomy) for the governments of the constituent units. This broad genus covers a whole spectrum of more specific non-unitary forms, i.e., species ranging from “quasi-federations” and “federations” to “confederacies” and beyond. As in a spectrum, the categories are not sharply delineated but shade into one another at the margins.

A federal form of government encourages decentralized decision making and, therefore, is conducive to greater freedom of choice, diversity of preferences in public services, political participation, innovation, and accountability (Boadway, 2008:6). Federations broadly conform to one of two models: dual federalism or cooperative federalism (Schapiro, 2002:4). Under dual federalism, the responsibilities of the federal and state governments are separate and distinct. Under such a system, (i) “two levels of government rule the same land and the people, (ii) each level has at least one area of action in which it is autonomous, and (iii) there is some guarantee of the autonomy of each government in its own sphere” (Boadway and Shah, 2008:6.). Under cooperative federalism, the accountabilities of numerous tiers are mostly interlaced. In both models, fiscal layers are organized at national and sub-national levels.

The competitive federalism model is a theoretical construct advanced by the fiscal federalism literature (Boadway and Shah, 2008:7) and not yet practiced anywhere in its pure form. According to this construct, all orders of government should have overlapping responsibilities, and they should compete both vertically and horizontally to establish their clientele of services (Boadway and Shah, 2008:7-8). Some analysts argue that such a competitive framework would create leaner and more efficient governments that would be more responsive and accountable to people. The role of states in National law making varies from a federation to another. For example, in Germany and South Africa, state or provincial governments have a direct voice in national institutions while in the United States and Switzerland regional and local coalitions play an important role in National law making. Moreover, in Switzerland major legislative changes require approval by referendum, both at National and Communal levels. Such direct-democracy

provisions indirectly reinforce the decentralized provisions of public services (Boadway and Shah, 2008:8). Federal countries also vary with regard to the influence of sub-national on national policy making. In all Federations there is a clear separation of national and sub-national institutions and the two orders interact through establishing an independent institutional intergovernmental relation.

For a long time, most of the discourse on federalism focused on the need and role for transfers and grants in aid for an enhanced sharing of powers and functions between the Centre and States. However, there is more to federalism than transfer and devolution from higher levels of government. In a Federal system, States are “not agents of some National government hierarchy” but have a role of their own in the government system (Agranoff 2001). It is a network of larger and smaller arenas as against higher and lower (Elazar 1998). The principle of subsidiarity is seen as one of the bases for federalism and sharing of powers amongst Centre and States (Esty 1996). The principle, from a common sense perspective, lays down that “decisions should be taken at the level closest to the ordinary citizen and that action taken by the upper echelons of the body politic should be limited” (European Commission 1992).

As Arora points out, the political process dominated by Federal coalitions and State-based parties has been more successful in making the national policy-making more participatory than cooperative federalism (Arora 2007). Different systems have dealt with environment and its domains differently depending on the structure of government and the stage of development and environmental matters.

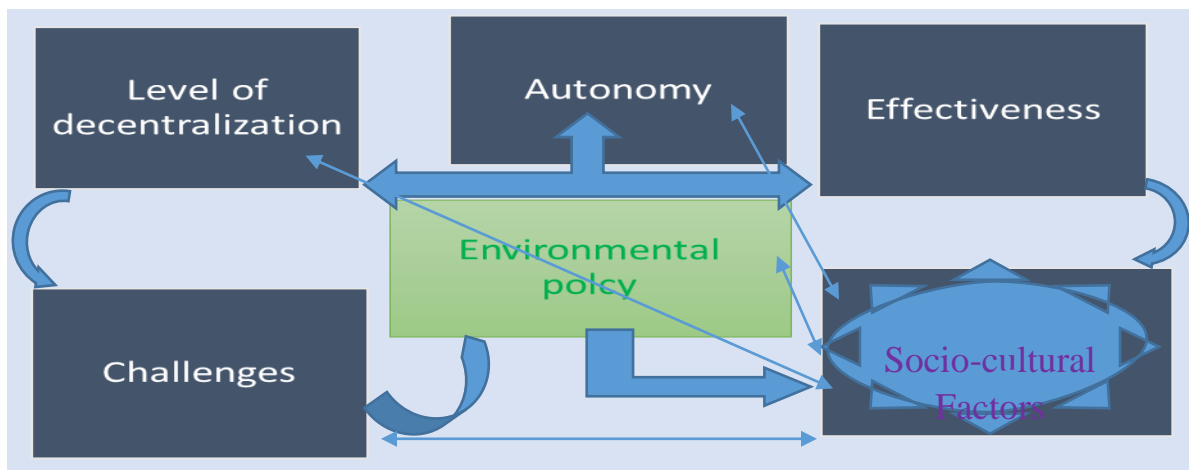
The practices of federations in allocation and decentralized competencies more helpful in federal political system. Even though these issues depends on the model of federalism the power division in one way or other better if constitutionally guaranteed with clear separation of power to each units of government. In line with degree of influencing one another, it depends on institutional installation in their voice in impacting national government. What is undenied that is practiced in most federations are powers and functions among center and units of governments transfer and grant type of authority division. Nonetheless, the affair is beyond, which encompasses real role of units of government in federal system by natural endower as they are part and parcel of the constituents.

2.1.1. Theoretical and Conceptual Framework of the Study

This study attempts to provide a foundational understanding of the role of devolution of environmental policy in the environmental federalism through an evidence-based approach. The rationale for the analysis adopted revolves around the need to improve the pace, quality and sustainability of the natural environment found in specific unit of government through appropriate assigning of powers that promotes participation and empowerment of publics at large. Accelerating structural transformation is vital to achieve these objectives, especially if enabled through sound political, socio-cultural and economic decisions. Strong institutions are required to execute concrete interventions, leading to higher equity, enhanced social cohesion and preservation of natural resources, which are taken as primary indicators of well-being for beneficiary populations. Decentralization is to be seen as a promising political pathway and process among others that could foster the strengthening of Institutions.

Environmental federalism is frequently misunderstood as referring to the role of the national government in setting environmental policy, and to the flexibility that is offered to the states in implementing and enforcing that policy. From its origins in the study of fiscal federalism, environmental federalism should be understood to refer more broadly to the study of the normative and positive consequences of the shared role of federal, states and local units of government in controlling environmental problems. The distribution of responsibilities between layers of government should focus on whether shared powers can enhance social wellbeing.

Figure 1: Conceptual Frameworks of the Study



Source: Researcher's Diagram

According to the conception of the study; Environmental federalism refers to the transfer or devolution of powers of functions and responsibilities to the other tiers of governments that can best suits in competences and in solving the problems as regard to society; it deals with different mechanism of devolving powers differently to other levels of governments rendering to corresponding principles according to states capacity and nature of environmental resources.

The term devolution in this exploration is autonomous lower-level units, such as state, city administration or district, and other local authorities that are legally constituted as separate authority bodies. The transfer of authorities to such units is often referred to as devolution which is the most common understanding of genuine decentralization. Through devolution, the central government gives up certain functions or forms new units of government that are outside its direct control.

2.1.2. Concept of Environmental Federalism

Partaking well thought-out the viewpoint and potential of federalism in common, let turn back to the initial consideration of environmental federalism. Environmental federalism conceptualized in varied way by different authors according to the nature of natural environment they encountered and other perceived situation. Hence, it could be possible to see views of different writers as much as possible to grasp their descriptions. It aslo possible to notice the appropriateness of the sharing of powers across tiers of governments which is the substance of continuous research and debate.

Whereas most of the discourse revolves around taxation and expenditure, the division of powers over the environmental decision making within the federation has also been argued, carefully considered and undergone over for decades. The mystery concerning the “optimal allocation of environmental authority across levels of government” is commonly referred to as environmental federalism (Millimet 2013:4).

Environmental federalism is the study of the “normative and positive consequences” of the shared role of national and sub-national units of government in controlling environmental problems (Shobe and Burtraw 2012:3). They further describe that normative analysis of the distribution of responsibilities between layers of government focuses on whether a given distribution of powers can enhance social welfare. In contrast to normative analysis, the positive

analysis of federalism focuses on why given distributions of authority developed as they did that is, how the interaction of economic and political forces results in the organization of authority. Setting aside for now the possible social gains from decentralization of authority, policy design will be an exercise in futility without an understanding of the institutional environment and its effect on the flow of information and incentives through layers of authority (Ostrom 2010).

In broad terms, environmental federalism relates to the proper assignment of various roles to the different tiers of government (Oates 1997). Of the expansive literature on environmental federalism, the focus has largely been on fiscal federalism or general environmental management (Farber 1997); (MacKay 2004); (Mandal and Rao 2005); (TERI 2009) and only recent studies have considered specific environmental issues in the larger domain of environmental federalism.

The basic principles of federalism provide some guidelines for the assignment of public responsibility to different levels of government. According to the principle of subsidiarity, services should be provided by the smallest jurisdiction that encompasses the geographical expanse of the benefits and costs associated with the service (Oates 1997). Additionally, the doctrine of subsidiarity provides that there is a preference for leaving governmental authority to the member states unless there is a compelling reason why the power should rest with the center (Golub 1996).

Environmental implications of specific fiscal measures and the application of fiscal instruments, such as taxes, charges and fees, to environmental problems have been extensively studied in the literature. Inter-governmental fiscal issues look at the allocation and scope of Federal, State, and Local revenues and expenditures; and the nature and scope of inter-governmental fiscal transfers, in the context of environmental management (Shobe and Burtraw 2012).

The notion of environmental federalism necessitates an examination of the suitable jurisdiction for the administration and delivery of environmental goods and services. It is essential for Federal governments to play a role with regard to the environmental regulation that requires assuming responsibility for those activities that have important environmental spillover effects across jurisdictional boundaries. State and Local governments need to engage in regulation of environmental quality and services, and design and implement programmes that meet their objectives as well as objectives that are important for sustainable development at a national and global level. Therefore, there is a need for distributed authority of the environment across tiers of

government, and Federal systems are uniquely placed for this challenge, TERI (2015). As environment is huge and its effect in some areas has spillover and a choice of live or not, the issues of environment should be given due attention. Equally, there is little reading each other between national environmental policy and specific policies, or among activities carried out at the various levels of government. Even though prioritizing according to severity might be crucial, the fact remains that there is one environment and it should not be preserved inversely from aspect to aspect, or from level to level.

The issues of environmental centralization or decentralization could be seen from dimension of futurity. Centralized control is necessary as local decisionmaking intolerant and miscarry to integrate the wellbeing of future generation especially in highly mobile modern world. They have restricted concern for quality of future local environment due to the fact that they are not sure whether they stayed at the jurisdiction or not. Hence, local residents are likely to undervalue measures that promise to protect or enhance the local environment in the more distant future. In contrast, “centralized decisions will tend to internalize such concerns for the future; they will better preserve the environment for future generations”, (Oates 2001:9). The argument underestimate by the author himself in market force aspect. The angle I want to see is that the proposition might be acceptable in mobile modern advanced nation which couldn't be consistent with developing immobile nations and stable inhabitants. So that decentralized decisions better accommodate the issues environmental under-discussion through proper assigning and taking all decisive factors into account.

Having smart environmental policy by itself is not enough. According to the scholars of environmental federalism, environmental policy is good if it fulfills rendering to the principles of environmental federalism together with all the necessary requirements and mechanisms from beginning to end meaning that from initiation to implementation, evaluation and if deviance to corrective action as well as curing infections created because of environmental deterioration. In almost similar vein author like (Pande, 2012) believed that:

Introducing new tools that take into account environmental challenges are necessary, but what is equally essential is a mechanism to evaluate the performance of such policies and gather evidence that the policies and instruments have actually worked and been effective. It is not possible to have clear evidence of worth in case of environmental policy and measures. However, some cases demonstrate a growing interaction between researchers and regulators to acquire credible evidence to check regulations.

Generally, in the field of environmental federalism, the assignment of powers among tiers of government must be balanced (to me differentiated allotting of powers). There should be a match of responsibilities with corresponding resources in capacity and availability of some decisive factors. Appropriateness in assigning of power considering the type and nature of environment, and where it is found as well as other dynamic situation is paramount important. Hence, matching and balancing environmental power distribution to each and every level of government for betterness of natural environment is the compelling view of the researcher of this thesis.

2.1.3. Theories and Practices of Environmental Federalism

The writings on environmental federalism, and fiscal federalism more generally, has long publicized the capability of societies to coordinate policy selections with specific preferences as the initial advantage of devolved policymaking.

A strong role for central government can be argued as economies of scale, standardization and consistency in addressing environmental problems that transcend state boundaries. The often convincing argument given for centralization of environmental policymaking is fear over a race-to-the-bottom in environmental standard setting (Engel 1997). Whereas, Inger Weibust examines the various arguments in favour of locating environmental decision-making at sub-national levels and concludes that centralization results in more stringent environmental policies as cooperation in environmental federalism is rare (Weibust 2009:38). The merit for devolved environmental policymaking is the view that jurisdictions have fertile ground to experiment and innovate using fresh guidelines, in so doing emerging possibly new and soundly refining policy mechanisms (Shobe and Burtraw 2012).

As Millimet (2013:12) cited: Gordon (1983, p. 582) states: “One of the key advantages of decentralization is the resulting diversity of policies.”; Oates (1999, p. 1120) writes: “The hope is that state and local governments, being closer to the people, will be more responsive to the particular preferences of their constituencies...”and Adler (2005, p. 138) asserts that “localized control of environmental policy will produce environmental measures that are more likely to reflect the preferences and needs of those who will be most affected by them.”

When various views observed, there seemed two big categories of theories. The first is the betterness of centralized environmental policy due to spill over effect, economy of scale and

other reasons. The other one is decentralized environmental competencies to other tiers of government due to the fact that local preferences, better responses by nearer government and to match the diversity issues among others. However, awaring at the nature and type of environments as well as categories of environment is something overpassed and beyond the reaction made by theorists. In an elaborative way, there are many type of natural environments like air, natural resources and others. Again natural resources could have its own category and features. For instance, those which have spillover effect, crossboarder and others or not features and categories. Hence, the issues of environmental federalism needed a number of speculations and policy options.

In practice, as millimet (2013:12-13) identifies, the advantages to decentralized policymaking depend on three factors including: (i) the extent of preference heterogeneity in the population, (ii) the degree to which individuals act on such preferences to sort themselves into homogeneous communities, and (iii) the ability of local governments to better respond to community preferences than the central government.

Wide-reachingly, various models of federal structure have developed and different models have been adopted by the constitutions of different countries. “A study of federalism shows development of particularly the following four models: central, devolved, dual and interactive model of federalism (Belbase 2010:1).

These models have differencies in a number of ways and they also have similarities in few areas. Having this, the researcher discussed and showed implication. The views of central federalism are of the assumption that the federal government sould enact the necessary policy, regulation and law for the solution of environmental problems. In other dimension the proper remedy to environmental deterioration are only possible by other tiers of government than federal in views of devolved federalism. While proponents of dual argued for expilicit and different legality right for federal and units of government. Still the proponents of the interactive model footed the respective roles of formulation in environmental power by levels of government must be discharged by residual within their own jurisdiction (ibid).

The assumptions by the proponents on environmental powers to units of government believed differently, while they agreed on one or more of the levels of government should hold responsibilities to handle the environmental issues. There is still unconsidered components by

these environmental federalism proponents. Before arguing for the competencies of the environmental responsibilities and functions that should be seized by this or that government, as to a researcher it is better to differentiate types of environment, nature of environment and other determining circumstances such as socio-cultural factors in addition to already considered factors. Then taking position who should hold and why. Hence the assumption should follow identifying whether the issues have spillover effect or not, crossborder natural resources or not, affordable by single to ameliorate or need other units of government or federal, need of public participation or not and other extraconditions should be critically taken into account.

The models of federal forms obtain its identifiable strong point and dimness. Rendering to the promoters of central federalism, this type of environmental federalism is considered effective for the prevention and control of the pollution generated by two or more provinces and inter-country pollution, as well as in resolving other related problems. This uniform federal standards related to the environment offer prior certainty and clarity. Whereas, devolved federalism offers possibility and inspiration for exploring and experimenting with innovative thoughts and innovative ways for resolution of environmental problems. The supporters of devolved model claim that it offers flexibility for adjusting the local environmental problems and local conditions with the already enacted or coming laws, policies and rules. However, while the critics of central federalism criticize it for having low people's participation, lack of flexibility, innovative ideas could not found the places for resolution of environmental problems, lack of ideological diversity, as well as domination or free riders of politicians; the experts on devolved model of environmental federalism believe that it has the capacity for maintaining at least the minimum standards of human health and environmental standards. Economic or physical priority receives priority in this. Still between the provinces there is the risk of 'race to the bottom' instead of competing for the first or second positions by formulating sound and quality environmental standards in devolved environmental federalism (Belbase 2010).

In general, there is no all round standards that fit any resolution to environmental problems. It needs different mechanism as mentioned before identifying policy options according to the nature of natural environment than setting uniform standard for all. There are virtues in participation of federal, state and local governments for environmental protection as they have their own distinct advantages. Centralization needs for some circumstances. State government's

role is supported on the premise of subsidiarity, and a better access and exposure to information and local conditions, and scope for innovative localized solutions. Neither the Central nor State government is equipped to address all environmental challenges alone. Thus, it is all about striking a balance (differentiated assigning) between subsidiarity and centralist principles.

2.3. Environmental Power and Policy: Comparative overview of Selected Federations

In a country with federal structure, legislative rights over environmental resources, services and goods are shared between the federal or central, state or provincial and local government, along with subjects such as international relations, income tax, and revenue. In the constitutions of federal nations, rights are explicitly described to the extent possible.

The strongest economic argument to devolve (a part of) the competences for environmental policy to the regional levels, is the need to take into account the local circumstances, (Oates 1972) and (Ulph 1999). A basic shortcoming of a central government is its insensitivity to varying preferences for environmental quality among the residents of the different jurisdictions. If all environmental policy is decided by a central government, one expects a tendency toward uniformity in environmental programs across all jurisdictions. If each jurisdiction had its own local government, the level of environmental quality may vary across the different localities (Saveyn and Proost 2006). Hence, the optimal policy is not identical for all jurisdictions. For environmental problems with an important local component, there is at least a potential welfare gain in greater decentralization of the environmental decision-making. A decentralized form of government therefore offers the promise of increasing economic efficiency by providing a range of environmental quality that corresponds more closely to the local preferences and characteristics of the jurisdictions. A one-size-fits-all approach of the central government creates welfare losses compared to the case where all jurisdictions pursue their own optimal environmental policy; it also reduces the number of experiments with alternative policy options and generates policies that may be appropriate for some places but not for others (Anderson and Hill ND).

Wellisch (1995) develops a theoretical exception to the race-to-the-top. Small jurisdictions are, in general, highly open economies. Firms are, typically, not fully owned by the jurisdiction's residents. Hence, a part of the benefits of pollution flow as profits to the non-resident owners of

the firm. The residents bear the entire burden of the pollution, but gain only a part of the benefits (e.g. as wage or local taxes). Wellisch concludes that decentralized command-and-control regulation may lead to environmental overprotection (race-to-the-top). Kuncce and Shogren (2005) reconcile (Oates and Schwab 1988) with Wellisch (1995). They state that, even if the firms are foreign owned, there may be a race-to-the-bottom with a positive local capital tax rate.

Ethiopia provides little room for subnational finance. Joint federal and regional levying of several types of taxes is called for, but states only control small reserved sources. Regions, however, have the power of income taxes. Well into the late 1990s, no system of subnational revenue collection, monitoring, budgeting or accounting was established by or for regional governments (Cohen and Peterson, 1999: 135). In practice, the federal government has, since 1995, used a series of pass-through loans and grants, largely from the international donor community, as transfer payments to finance subnational projects and services (Henze, 1998: 48).

Rather than having an own-source tax base, as is the case with many subnational governments, the major source of revenue for autonomous governments in Belgium, Ethiopia, South Africa and Spain is through tax sharing or subventions. What makes fiscal devolution so problematic in most of these autonomous regimes? Control of the best revenue source, that is the income tax, obviously gives the center an advantage, other taxes simply yield less (Agranoff 2004).

In established federations with shared rule, it is easier and commonplace for constitutional units to simultaneously or subsequently enter the income tax arena. In many cases this was undertaken about the same time as the general government, for example, Canada, United States, Switzerland (ibid). This is not the case with devolved autonomy where center was there first and must finance itself out of the income tax, ordinarily making it difficult to cede great portions of this tax. The problem is that tax sharing and conditional grants do not meet the test of autonomous revenue or expenditure decision control, at least as defined by the Council of Europe or other tenets of self-rule. Of course, the degree that autonomous units are 'controlled' through the grant process depends in great measure on their ability to 'negotiate' favorable payments and arrangements that suit their own interests and needs. This is a game that is regularly played in such federations as the U.S. (Agranoff, 2004) and Germany (Hesse, 1987), as different forms of tax sharing and programme adjustments are made through the Congress and Parliament respectively.

As is the case with other governing functions, autonomy has taken on broader meanings with modernization. Building on the Anglo-American tradition of analytic positivism, Clark 1984 extracts two ‘primary principles’ of local autonomy: the power of initiative, or the power of a government to act in a ‘purposeful goal oriented fashion’; and the power of immunity, or ‘the power of localities to act without fear of the oversight authority of higher tiers of the state’ (Clark 1984: 198 - 199).

Authors considered economic factors in their environmental power description for the allocation among tiers of government or not. There were a lot of convincing discourses in one dimension. Deliberation of the other influencing aspects like socio-cultural were left behind among others. The discussion of theories and perspectives raised above also showed a number of ways that can support and deny the devolution of environmental policy making powers to other tiers of government beyond federal. However, they more of revealed consistence of decentralization.

2.3.1. Developed Federations

Looking at the constitutions of some Federal systems, old and new, there seem to be four main trends of how environment has come to be treated within different Federal models: using residuary powers (Australia); interpreting environment and conservation as an offshoot of ownership over resources (Canadian); via amendments (Switzerland); and clear lists in new constitutions (Brazil and South Africa), (TERI, 2015).

2.3.1.1. Environmental Federalism in Switzerland

The federation has a specific duty to protect the environment (Art. 74 Federal Confederation [FC])⁶: “It shall legislate on the protection of the population and its natural environment against damage or nuisance” (para. 1). “The cantons shall be responsible for the execution of the related Federal regulations, except where statute reserves this duty for the federation” (para.3). By law, enactment is largely a task for the cantons (Art. 74FC para.3, Art. 46 FC, Art. 36 FC, and 41 EPA). “Statute” is a legislative act made by the Parliament and subject to the referendum (Art. 141 para. 1, Art. 164 FC).

The importance of the cantons’ role in the implementation of environmental policy can be measured by the number of related jobs in cantonal administrations “less than 10% of

⁶ Federal Constitution of the Swiss Federation of April 18, 1999

environmental employees work at the Federal level”, (Peter Knoepfel and et al 2010:44) and levels of expenditure (in 2003, 15% of environmental expenditure was made at Federal level and 85% in the cantons and municipalities) (Kriesi and Trechsel, (UD: 41)).

The Environmental Protection Act (EPA)⁷ allocates tasks in various fields of the environment policy. In certain fields, such as in air pollution control, the federation has to set national standards; it has a strategic role. Standards enforcement is carried out at the lower operational level of the cantons. Issues, such as waste disposal, are subjected to a bare minimum of Federal regulation. The procedures, planning, administration, and to some extent financing are the responsibility of the cantons. Some environmental issues are simply “big” and have to be dealt at the national or even at an international level; others are relatively minor and belong at the cantonal or municipal level.

The EPA limits itself to forming general rules, such as the rule that polluters should pay for the loss they cause, or the rule that every likely effort should be made to prevent harm to the environment. It also provides a legal outline for vital ways such as the EIA of plans for construction projects. It also orders legal remedies and offers access to courts, especially the rights of public interest groups to use legal remedies against administrative orders. Everyone everywhere should participate in the preservation of the environment. Thus, it is logical to involve all parties in the making of the environmental policy. Participation is the right and an opportunity to influence public decision-making and decisions, i.e., the procedure for making a decision and the content of that decision. Who should participate, in what decision, how and to what extent, is an important question that needs to be raised (Pfisterer ND).

Participation is a two-way process. It must be adapted to the needs of the participants and the decision-makers, usually the Parliament or a government. Participation is not a tool that the authorities use to impose discipline or to force participants to support and applaud their activities. Rather, the participants may influence the decision-maker according to their wishes, not vice-versa. Thus, the decision-maker should be open to such influences and must try to gain from the contributions made by the participants. In doing so, they are exposed to all the advantages and the disadvantages of representation (Kriesi and Trechsel, ND). In Switzerland, the various forms of participation have developed in response to practical problems and needs.

⁷ Federal Act of 7 October 1983 on the Protection of the Environment (Environmental Protection Act)

Some, such as referendums, are almost entirely regulated by law (mainly constitutions and statute). Other tools have been developed by administrative authorities in planning processes or in other administrative procedures; or they are used on a case-by-case basis.

Practical experience has taught us that the best system of participation is not to insist on the agreement of all the cantons, or all the citizens involved in all decisions at all times. Participants must choose to accept a decision made on their behalf. Such consent is highly valuable to any political community. Participants are involved in the decision-making process and are motivated to assist in solving the problem and implementing the solution. Through this process, they are also more likely to be satisfied by the result and be convinced of the fairness of the procedure. To require consent by all is usually not the best solution. Decisions that are necessarily accepted by all can ignore expertise or cost too much time and effort. The best system of participation is the maximum conceivable attainment of this ideal, without ignoring too much other virtues. Participation is optimal if it is governed by a reasonable balance of consent, competence i.e., expertise in the matter concerned and efficiency, (Dahl 1997).

Switzerland has designed and applied pollution diminution policies with determined objectives and have been met with remarkable success: very high levels of waste water infrastructure (over (SF 40 billion in the past 30 years), partly financed by federal and cantonal subsidies) and in waste management facilities. This success was achieved by means of an ambitious regulatory approach combined with rigorous enforcement, strong support from the public and a considerable financial effort (Group on Environmental Performance meeting at on June 1998)

In Swiss discharging hazardous substance is impossible without the permit from the authorized body. “The Water Protection Act (WPA) prohibits the direct or indirect discharge or drain of any substance that may pollute the waters. The cantonal authorities can grant exceptions and discharge permits based on strict statutory requirements” (Romy and Dürig 2017:3).

The WPA provides for criminal sanctions in the form of fines or imprisonment of up to three years for deliberate or negligent infringement of specific duties enumerated in the act. In addition, the Swiss Penal Code contains a provision that penalises to a custodial sentence not exceeding five years or to a monetary penalty any person who wilfully contaminates drinking water intended for people or domestic animals with substances that are damaging to health (ibid).

The lesson that could be drawn from Switzerland for Ethiopia include: participation, explicit environmental budget allocation and the legal provision for the right to access to court by public interest group. In the first place, it could be possible to infer as an experience that higher power and responsibility given to the nearest possible unit. What is conceivable from Swiss experience is also a mass participation. Participation played a great role in Switzerland through involvement in the decision-making process and are motivated to assist in solving the problem and implementing the solution. Next, in Switzerland, regarding fiscal federalism in levels of expenditure, 15% of environmental expenditure was made at Federal level and 85% in the cantons and municipalities. This shows that clear environmental expenditure which gave the greatest percentage of assignment to canton and local governments. Finally, the legality by public interest group to take environmental issues to court to use legal remedies against administrative orders. The other lesson important for Ethiopia was also the legal requirement of permit/prohibit of discharging waste substance to water body which was practiced by Switzerland.

2.3.1.2. **Canadian Environmental Federalism**

Protecting the environment was not a major concern in the nineteenth century, therefore, it is easy to understand that this topic was not expressly stated as a specific aspect in the Constitution Act, 1867. Today, in case law, the environment is considered a domain that is not totally under the authority of one or the other level of government. In the *Friends of the Oldman River*⁸ judgment, the Supreme Court of Canada determined that each level of government can legislate in environmental matters when it is acting from the basis of one of its constitutional powers.

The constitutional foundation for the role of the provinces on environmental issues is based, in particular, on provincial ownership of natural resources and the jurisdiction that ensues. This confers important power pertaining to the environment on the provinces over anything affecting the sustainable development of these resources, for example. The provinces also have jurisdiction over crown land, property and civil rights, municipal institutions, and, more generally, matters of a local or private nature. These important constitutional foundations enable the provinces to intervene with respect to certain environmental issues using global approaches. The only real limit to environmental action by the provinces, apart from the specific areas under Federal jurisdiction, is the relative difficulty in addressing the cross-border aspect of pollution.

⁸ *Friends of the Oldman River Society Canada (Minister of Transport)*, [1992] 1 SCR 3.

But, even in this regard, several practices illustrate how, in certain situations, Canadian provinces are better able to resolve crossborder problems than Federal authorities, in particular through the practice of inter-state and the enactment of the ensuing multiple agreements (Bélanger ND).

Further discussions of the environment in Canada cannot avoid jurisdictional issues. Simply put, the fathers of Confederation did not anticipate a need for environmental protection and did not include it in the Constitution. As a result, the environment is under shared domain. By virtue of their power over natural resources, local matters and municipalities, provincial governments exercise a good deal of control over environmental matters (Collins 2017).

Canadian Environmental Protection Act (CEPA) 1999 provides the authority to carry out inspections and investigations to ensure that regulations made under the Act and the Act itself are followed. Enforcement of CEPA 1999 follows the Compliance and Enforcement Policy established for the Act, which includes the guiding principles: compliance and its regulations is mandatory accompanied by polluters pay principles (CEPA 1999 Program Websites). Fair, predictable and consistent, secure use of rules, sanctions and processes are the manner strictly expected from enforcement officers. They administer the Act with an emphasis on prevention of damage to the environment; examine every suspected violation of which they have knowledge, and take action consistent with the Compliance and Enforcement Policy; and encourage Canadians to report CEPA 1999 violations to them (CEPA 1999 <http://www.ec.gc.ca/ele-ale>).

Remarkably, the experience depicted was how the power for provinces originated by virtue of provincial ownership in natural resources that enable provinces to intervene with respect to certain environmental issues. The Utmost Court of Canada determined that each level of government can legislate in environmental matters when it is acting from the basis of one of its constitutional powers. In other side emanation of ownership offers more power to provincial on natural environment and it is also a fruitful opportunity for nearest government to participate public at large. A number of performs demonstrate in what manner, in certain circumstances, the Canadian provinces are better able to resolve crossborder problems than federal authorities, in particular through the practice of inter-provincialism and the execution of the ensuing multiple agreements that should be taken as a lesson in Ethiopia. The shadow of compliance, execution and polluters pay applied by CEPA 1999 was a good guiding principles in Canadian environmental protection.

2.3.2. Emerging Federations

2.3.2.1. Nigerian Environmental Federalism

The Nigeria constitution of 1999 offers the foundation for environmental federalism. Article 20 of the Constitution explicitly provides that “the country shall protect and improve the environment and preserve the water, air and land, forest and wildlife of Nigeria”. Furthermore, in the Section on Fundamental Objectives and Directive Principle of government Policy, the constitution reinforces the policy and legal basis of sustainable development based social justice. Section 17 assigns the responsibility of preventing “the exploitation of human or natural resources in any form whatsoever” for reasons other than the “good of the community”.⁹

The Constitution shares powers and responsibilities for sustainable management of the environment among the three tiers of government i.e., the Federal government, states, and local governments. Each level of government has constitutionally guaranteed autonomy in the areas of its operation. The “Legislative Lists” in the Constitution provide for the distribution of powers “Exclusive Legislative List” assigned to the Federal government, the “Concurrent List” defining areas in which both the Federal and State governments can legislate, and an area of unspecified residual jurisdictions assigned to the states. Nigeria recognizes the need for sustainable development through green economy. Its long-term development plan recognizes the need to pursue balanced and sustainable development through effective integration of socio-economic and physical growth plans to secure spatial, environmental quality, and diversity.¹⁰

The Nigerian constitution assigns the obligation of avoiding the mistreatment of the humans and natural resources in any form at all for the reasons other than the “betterness of the community”. The good experiences of Nigerian environmental federalism are its stipulation of environmental powers lists into three tiers of government (federal, states and local) explicitly. Hence, each unit of government has a constitutional guarantee in competences environmental matters autonomously.

⁹ Federal Republic of Nigeria Constitution (1999), Lagos: Federal government Press.

¹⁰ National Planning Commission (2009). Op. cit.

2.3.2.2. South Africa Environmental Federalism

The Constitution envisages a division of powers and functions. It lists “environment” as a concurrent competency of National and Provincial governments.¹¹ There is no doubt that despite the fact that the Provincial government is forced to cede authority to National and to Local government, it retains considerable constitutional authority as a result of the provincial power to deal with “environment”. As alluded above, any development activity that triggers the need for an environmental authorization must be approved by the Provincial government in terms of National Environmental Management Act.¹² This provides the Provincial government considerable authority to discourage inappropriate developments. However, two difficulties have emerged with respect to the interplay between National Environmental Management Act and planning. Firstly, the developers and municipalities complain about the difficulties they face in distinguishing between land-use approvals and environmental authorizations. Provincial governments are accused of using their environmental authority to conduct land-use planning. Secondly, there is widespread concern about the proliferation of land-use approvals needed for one development and the delays in approvals caused by it.

Legislation may impact on functional areas of competence. Air pollution is an area of national, provincial and local government competence, the control of noxious and offensive emissions and dust control to national government, while the control of smoke pollution and vehicular emissions to local authorities. Functions relating to refuse dumps and solid waste disposal present another example. Provincial and local government have concurrent competence in these areas, to the exclusion of national government (White Paper 1997).

There is one area where the division of roles has emerged very clearly. The constitutional allocation of the “environment” competency to National and Provincial governments concurrently prompted the National government to establish an impressive legal framework with regard to the protection of environmental resources. This framework revolves around the National Environmental Management Act.¹³ This framework is a national framework overseen by Provincial governments. National government has occupied virtually all the regulatory space with regard to environmental issues with provinces playing an execution role. Most relevant to

¹¹ Schedule 4, Part A, Constitution of Republic South Africa

¹² Section 24, National Environmental Management Act (NEMA), (1998).

¹³ Act 107, National Environmental Management Act (NEMA), (1998).

the topic of this paper, National Environmental Management Act requires an environmental authorization to be granted by the Provincial government for activities that have been identified by the Minister requiring an authorization.¹⁴ This environmental function, combined with the wide scope of issues that trigger the need for such an environmental authorization, locate the Provincial governments at the center of the land use control debate.

The practice in South Africa is that “environmental issues has been promoted within the context of a strategic framework. Such a framework link policy principles to responsibilities, actions and monitoring systems at national, regional and local levels” (Rossouw and Wiseman 2004:139). This strategic outline and links are vital to promote institutional and democratic change.

The messages strained from South Africa are any development activities that triggers the need for environmental authorization must be approved by the provincial government and the constitution has a legal ground of taking any environmental disorder to the court. The other lesson learned from South Africa that is applicable to Ethiopia is that a strategic framework in environmental protection that link policy principles to duties, activities and checking systems at all tiers of government are decisive to promote institutional and democratic transformation.

2.4. Factors Affecting Environmental Federalism in Federations

Environmental issues are becoming progressively relevant as globalization processes increase the human impact on our surroundings. In a context of environmental and demographic challenges of an ever-growing world’s population, a commensurate intensification of the competition for natural resources, effective governance policies which address environmental issues are a crucial element of state administration (TERI, 2015).

Chattopadhyay (CEO of Forum of Federations, 2015) further foreworded that:

For developing countries, the challenges presented by environmental power issues are chiefly relevant. As nations transition away from customary small-scale agrarian societies to more varied economies in a process that often involves a far greater abuse of the environment and natural resources, government capacity to implement policies that manage this process in an effective fashion is crucial. In these countries, the environmental conditions and the policies that govern them often have a direct impact on the quality of life of the citizens.

¹⁴ Section 24 NEMA

In a multilevel system, the closest government possibly have the sovereignty to set environmental policies which consider specific resident circumstances. The vicinity of Local government to specific areas should permit for the implementation of local solutions to local difficulties, which are potentially more effective and efficient than comprehensive national policies. Besides, in this kind of multilevel structure environmental issues which cross state or local boundaries, and that necessitate more broadly distributed governance in order to achieve complete resolutions, can be tackled by all levels of government in a process in which the outlooks of all participants can be taken into account (ibid).

Although the intrinsic advantages that federal arrangements seem to own in enabling the development of effective environmental authority policy, accomplishing this goal rest on a range of factors. Federal systems are not the same: different federal countries have different allocations of powers, responsibilities, and authority between the various levels of government. The methods in which a centralized federal nation addresses environmental issues may therefore vary considerably from the methods utilized by a decentralized nation. The way fiscal resources are allocated to units of government along with fund raising and spending ability in design and implementation determine the environmental policy. The task of the other tiers of government, who are frequently the main performers in the proposal and application of environmental policies, and their connection to the federal level of government, also has insightful allegations for those policy documents (TERI, 2015).

The western world sees decentralization as an alternative to provide public services in a more cost-effective way. Developing countries are pursuing decentralization reforms to counter economic inefficiencies, macroeconomic instability, and ineffective governance. Post-communist transition countries are embracing decentralization as a natural step in the shift to market economies and democracy. Latin America is decentralizing as a result of political pressure to democratize. African states view decentralization as a path to national unity, (Ebel, Robert and Yilmaz 2001). It is possible to think of that there are several divergent intentions why régimes track decentralization and there are many forms and degrees that devolution can take on. Though there are various political and economic reasons why governments adopt decentralization policies, scholars and practitioners have posited about the interdependence of decentralization and size variables such as population, land area, GDP and others.

The transfer of liability for the purpose of design, direction and resource raising and sharing from the national government and its agencies to the lower level of units is said to be decentralization. It is narrowly attendant to the notion of subsidiarity, which put forward that tasks be devolved to the lowest level of social order that is capable of finishing them (Walter 2001).

There are four major forms of decentralization: devolution, delegation, deconcentration (Rondinelli 1981) and Divestment (Kodras 2012) Devolution is more of considered a form of political decentralization. As elaborated by UNDP, it refers to the full transfer of responsibility, decision-making, resources and revenue generation to a local level public authority that is autonomous and fully independent of the devolving authority. Delegation redistributes authority and responsibility to local units of government or agencies that are not always necessarily branches or local offices of the delegating authority. Deconcentration refers to the transfer of authority and responsibility from one level of the central government to another while maintaining the same hierarchical level of accountability from the local units to the central government ministry or agency, which has been decentralized. Deconcentration can be seen as the first step in a newly devolving government to improve service delivery. Divestment is the new and current approach of decentralization, Kodras who used this approach for the first time in her summary of “Restructuring the State”: familiar when planning and administrative duty or other public functions are moved from government to voluntary, private or non-governmental institutes with clear benefits to and taking part of the public. This often involves contracting out partial service delivery or administrative tasks, deregulation or full privatization (Kodras 2012).

My focus from the above descriptions is that a form of decentralizations which promotes the full transfer of functions and responsibilities to be performed autonomously as per population size and land coverage suits to academicians and practitioners’ urgings support.

Decentralized environmental control targets to rearrange power, resources and accountability to other levels of governments, in accordance with worldwide calls for decentralization to correct the inefficiencies of centralized governance mechanisms. “Failures of the centralized governance system, predominantly in the post-independence era, could be remedied by redistribution of power and authority from central to local governments most affected by the exercise of power”, (Ribot 2001:32), thereby increasing environmental sustainability. Second, bringing decision-making closer to grassroots increases participation and accountability, adopting transaction costs

as local actors make decisions based on full knowledge of the associated costs and benefits (compared to ‘outsiders’ who normally would only consider their own benefits and leave the costs to the locals) and legitimizing decisions more appropriate to local needs. Third, it enables decision makers to take advantage of specific temporal and spatial knowledge of the natural resources (Meynen and Doornbos 2004).

Moreover, devolution can address environmental concerns. It brings decision-making closer to the people and therefore yields programmes and services that better address local needs. “As per measure of the transference course, policy architects and representatives are integrating packages to deal with citizen involvement, inspire activist pools, the dimness in policy judgements, and environmental initiatives at the local level, and inspire state self-government and creativity in addressing local desires” (UNDP, 2002:4)

2.4.1. Environmental power sharing and Degree of Decentralization

There is no self-sufficiency by all round condition in environmental protection, rather it needs either allocation of powers or interdependence for appropriate preservation of natural environment rendering to capacities, ecological scopes, dynamism and other factors by government. To quote (Honadle, 2001) argues that actual devolution of any domination struggle involves shared reliance between the national government and subnational governments; again (Hedge, et al., 1989) maintain that at one level, the federal government be influenced by the state or local government to take up the responsibility of performing required activities whereas the subnational governments based on the federal government for institutional and frequently financial support to accomplish the activities, at another level, the duties containing decision making, are layered across diverse tiers of government. Federalism can make available an appreciated measurement in policy origination by posing the prospect for experimentation with divergent approaches to environmental management (Oates 1999, 2009)

For the purposes of evaluating the benefits of decentralization, empirical evidence on the extent of heterogeneous preferences over environmental issues is scant. Several papers utilize survey or voting data to examine associations between socio-economic characteristics and preferences. Elliott and et al. (1997) use data from the General Social Survey, administered by the US National Opinion Research Center, to analyze public attitudes toward environmental spending over the period 1974 to 1991 (omitting 1979 and 1981). The authors find that liberalism, lower

age, being female, being non-white, urban status, education, and income are positively associated with preferences for environmental spending. So as to the ordinary people in household at grassroots who take a risk of environmental burdens.

There are no ideal systems for financing local government and local infrastructure, but it is crucial to consider the political economy and context. Typically, a fiscal imbalance will result when transfers lag behind the decentralization of expenditure to local government. Usually there is some combination of local revenue-raising and to resolve this. Where there are significant inter-regional disparities, there is a greater need for intergovernmental fiscal transfers (IGFTs) to offset the horizontal fiscal unevenness that would otherwise occur. High levels of transfers as a proportion of local government revenue can undermine their autonomy, especially when these are conditional, although (Bird 2011) argues that IGFTs are not inherently good or bad, ‘what matters are their effects on policy outcomes such as allocative efficiency, distributional equity, and macro-economic stability’.

Agrawal and Ribot (1999) concluded that:

In contrast to administrative decentralization (deconcentration) where powers are transferred from the central ministries to regional and local branch offices located elsewhere from the government headquarters, democratic decentralization is said to occur when decision making powers are devolved to local actors who are downwardly accountable to the people in their jurisdiction. It integrates local communities in the decision making process by creating more avenues for representation and have powers to make and implement decisions based on local demands.

Centralized environmental policy making might not comply with communities’ different background. Some empirical results do not imply that centralization is necessarily optimal for all countries, only that centralized countries on average set stricter environmental policy. Strong heterogeneity among country’s jurisdictions may still tilt the balance towards decentralization. This appeals for consolidation local environmental management capacity along with extensive decentralization reform agendas comprising administrative and institutional mechanisms to handle environmental matters.

2.4.2. Socio-cultural Diversity and economic factors

The diversity of views concerning the appropriate allocation of environmental authority also plays out in practice as different federations have “resolved” the issue differently. For example, the well-known Principle of Subsidiarity emanating from the Maastricht Treaty of 1992

constitutionalizes the delegation of environmental authority by dictating that centralized action is only allowed in situations where policy objectives cannot be sufficiently achieved through decentralized action (Revesz 1997).

Culture, economic considerations, social systems, politics, value systems all determine the interface between people and the environment, the use of natural resources, and the values and meanings that people attach to life forms, ecological systems, physical and cultural landscapes and places. People are part of the environment and are at the center of concerns for its sustainability, (Ferreira and Lloyd ND). “In pushing for legal empowerment, environmental justice movements often challenge main systems and global insights of the environmental development balance, and systems of rights and justice. This is particularly the case in traditional and indigenous communities where cultures and ways of life are uniquely tied to the environment, and which have faced especially harsh forms of alienation and environmental dispossession for centuries,” (UN, State of the World’s Indigenous Peoples. New York 2009)

Standing as the most disempowered communities in the country, local and ethnic communities also host much of the sphere’s remaining reserves of natural resources. A central feature of ethnic and indigenous history is the process of social exclusion suffered for generations, often intimately connected to the process of exploiting the environment, as the appropriation of natural resources by nation and corporate actors are a driving force historically in the disempowerment of communities and indigenous peoples. These peoples have been affected by displacement, toxicity, and resource degradation. In many instances, their relationship with and understanding of the natural environment has meant that environmental degradation was accompanied by profound socio-cultural loss and damage. Thus, working towards synergies among global, national and local norms and the diversity of indigenous and ethnic worldviews on nature and justice will be critical for environmental justice (UNDP 2014).

Nonexistence of uniform preservation of the natural environment by different communities needs to be taken into account as to their cultures, norms, values and trend in general are varied. The way ethnic groups live with their surrounding are quite different. To cite (Cappon and Lind, 2001) said that there is often failure by policymakers and development organisations to realize that just as local physical environments are varied and heterogeneous, so societies are typified by division and diversity. Policies for improving local environment must be correspondingly

diverse. Policies which seek to impose one standard suitable practice achieve only limited success.

The livelihood of the poor and marginalized is dependent on means and occupations based on local resources, social and cultural traditions and the economic environment. In this context, legitimacy based on local social and cultural traditions as distinct from legality based on the formal law and policy becomes quite important... Bridging this gap is only possible by engaging the customary and informal norms and systems of a specific local context. Therefore, encompassing local knowledge, grassroots participation and innovative way of approach to environmental policy making is the crucial means of safeguarding the environment. As people become familiar how to stay with their surrounding better than I know for you top down.

“There has been an ongoing debate within political science on whether policy-making is a rational, linear process or a more chaotic procedure, dominated by political, practical and socio-cultural forces” (Sutton, 1999:13). One of the most vital themes discussed in sociology and political science is that of development ‘narratives’. These are stories, which simplify complex development situations, often used by policy makers to guide their decision-making. They often develop the status of conventional wisdom. Another vital theme within the political science and sociological literature is the importance of interest groups, power and authority (Sutton, 1999).

As Mulugeta (2005:13) has maintained that the result has, therefore, been that the bulk of the population in the developing world is excluded from the policymaking process. It is from this point of view that is argued the environmental policy making should take into account the societal norms, values and culture which enable the policy implementation more conducive if indigenous knowledge through participation inculcated (Mulugeta 2005).

Along with, the scholar states that policies are made regardless of the consent and contributions of the larger segment of population who would be affected by them. The scholar underscored that socio-economic reforms and ‘democratization initiatives’ that have over the past few decades been taking place in most of the developing countries did little to promote the public’s interest in the public policymaking process. In fact, many of the commendable policy goals set out in the various public policies failed either because of the absence of balance between policymaking polity and policy-receiving societal entity and/or owing to the absence of capacity

that societal forces could have marshaled to effectively countervail the overbearing power of policy elites in developing countries (Biruk 2014).

Conclusion

Although the definition of Federalism has been provided by a number of scholars in various ways, the common viable features that need to reflect are those summarized cumulatively. Federalism is used essentially as a normative term and denotes to the advocacy of multi-tiered government linking elements of shared-rule and self-rule. It is a form of government which has at least two orders of foundation. It is based on the supposed value and validity of combining unity and diversity, i.e., of accommodating, preserving and promoting distinct identities within a larger political union. What is unrefuted in federal system is that states are part and parcel of the constituent rather than think of as assigned representatives of other unconcerned part.

Power allocation is the main agenda in environmental federalism. To which tier of government what power should distribute become stongly arguable. While some authors call for decentralization as it enhances democratic public participation. enables to consider local preferences, helps for better policy innovation and it enhances public control over environmental issues at the local levels; the proponents of centralization argued that because of economy of scale and environmental spillover effect across jurisdictional boundaries centralization of the environmental standard is quite important. The researcher argues that the federal government should adequately involve other tiers of government including citizens and stakeholders while setting policies and standards at the federal level. Appropriate division power rendering to better environmental performance to adress the need of the society at large is important otherwise.

It could be possible to infer experiences from Swiss that higher power and responsibility given to the nearest possible unit. What a conceivable from Swiss experience is a mass participation. Participation played great role in Swiss through involvement in the decision-making process and are motivated to assist in solving the problem and implementing the solution. From Canadian environmental federalism the lesson need to be taken into account are varied. For instance, the Highest Court of Canada determined that each level of government can legislate in environmental matters when it is acting from the basis of eligible one of its constitutional powers. The practices of Nigerian environmental federalism are its stipulation of environmental powers lists into three tiers of government explicitly. Hence, each unit of government has a

constitutional guarantee in competences environmental matters autonomously. The messages need to be deliberated from South Africa is that, any development activity that triggers the need for an environmental authorization must be approved by the Provincial government in terms of National Environmental Management Act. As per a practice environmental standards prepared by South Africans can be used for our country as starting point in this regard.

The problem encountered by one country in terms of environmental issues is actual distinct to that of others. However, a better understanding of the environmental federalism practices of various federal countries, the circumstances in which they operate, and the policy resolutions they employ, conveys a clarity and knowledge that can eventually contribute to the development of better protection in the arena. Moreover, Sustainable development is frequently shown by means of three pillars representing the vital areas of environment, economy, and society. This shows the link between economic, social, and ecological processes. It also displays that the negotiations among community as well as private stakeholders should not occur in an isolated and one-dimensional manner, but rather they take into account the interaction between these key areas and its impact. Hence, economic and political aspects is not enough for development, rather social and environmental aspected play a critical role in sustainability and therefore it is possible to infer that environmental protection issue needs social and economic factors to ameliorate.

CHAPTER THREE

3. The Environmental Policy and Legal Frameworks of Ethiopia

Introduction

In this part, the evolution of environmental policy in Ethiopia, environmental provisions under FDRE constitutions, power of environmental protection authority, the environmental policy of Ethiopia, environmental regulations and investment laws, environmental implication of floriculture, challenges in environmental protection and others are obtainable

3.1. History of Environmental Policy in Ethiopia

Antique evidences pinpointed that the causes for century-old absence of continuable natural resource management and environmental protection practice are essentially related to the uncertainty of consecutive governments with their quickly fluctuating political economy...and non-participatory top-down development programs. Preceding to the period of Italian conquer (1936-41), while there were rules that addressed aspects of the environment in Ethiopia, formal environmental decrees were rare. 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 (Bekele, 2008).

After the restoration of emperor H/sillase (1941-1975), government's early policy focused on the development of the agricultural sector for domestic consumption and export which was against natural environment through deforestation. Eventhough after a while the principle of conservation put on 1955 Constitution with nil implementation that resulted in reduction of highland forests by almost half in early 1960's. In the Derg regime the issues of environmental management grounded in the socialist ideology. The environmental policies of the Derg regime were characterized by top-dow though incorporated extensive conservation and tree-planting initiatives, were accompanied by the disintegration of "customary institutions of natural resource management" (Ogbaharya and Tecele, 2010, pp. 495-496). All the performances during the period were without voluntary participation but by force. As a result, when the Derg government lost power in 1991, most of the conservation and development activities in the environmental sector were destroyed in protest against decades of top-down rule (Keeley and Scoones, 2003).

Subsequently a passing period of interim government, the current federal republic system, led by the Ethiopian People's Revolutionary Democratic Front (EPRDF), was introduced in 1995. The violent change in government from the Dergue regime to the current EPRDF was accompanied by a radical ideological shift in environmental management that was exhibited in the administrative structure of the government and the development of official environmental institutions (Ogbaharya and Teclé, 2010).

3.2. Environmental Provisions Under the FDRE Constitution

The FDRE constitution gives wide legislative spheres - in relation to environment- for the federal government. To this effect, the federal government has the power “to formulate and implement national policies, plans and strategies concerning the overall economic social, and developments matters.”¹⁵ Similarly, the Ethiopian Federal Government is empowered by the Constitution to “formulate and execute national policies and strategies in the financial and monetary areas, as well as for the utilization and conservation of natural resources.”¹⁶ Moreover, it is within the jurisdiction of the Federal Government to “establish and implement national standards and basic policy criteria for public health, education, science and technology as well as for the protection and preservation of cultural and historical legacies.”¹⁷

Article 92(1, 2, 3, and 4) of the FDRE Constitution provides for the environmental objectives including: “government shall endeavor to ensure that all Ethiopians live in a clean and healthy environment; design and implementation of programmes and projects of development shall not damage or destroy the environment; people have the right to full consultation and to the expression of views in the planning and implementations of environmental policies and projects that affect them directly.

The Federal Democratic Republic of Ethiopia’s 1995 Constitution holds provisions that support the enactment of EIA legislation. In this respect, it requires that the design and implementation of development programs and plans in the country should not damage or destroy the environment; and be familiar with the right of the people to be consulted and express their views on the planning and carrying out of environmental policies and projects that affect them (FDRE

¹⁵ Article 51(2) of the FDRE Constitution.

¹⁶ Article 51(4 and 5) of the FDRE constitution

¹⁷ Article 51(3) of the FDRE Constitution

constitution art. 92). Moreover, the constitution recognizes the right of citizens to live in a clean environment, (Art. 44:1) of FDRE Constitution. “These provisions arrange for an unspoiled constitutional ground for the development and putting into practice of an effective Environmental Impact Assessment process,” Mellese and Mesfin (2008:19). This indicates that whatever activities that affect the society need to be predicted through EIA and pro-actions could be taken for creating conducive environment for the society at their home.

Generally, ‘constitutional recognition of the right to a healthy environment can have a systematic effect on the exercise of discretion by legislators and public authorities, pushing countless decisions in a more sustainable direction. Hence, Government and citizens shall have the duty to protect the environment.

3.3. Environmental Protection Authority (EPA)

EPA is the lead federal environmental organ with the objective of formulating policies, strategies, laws and standards to ensure social and economic development activities in the country sustainably enhance human welfare and the safety of the environment. The regulation of Environmental Impact Assessment (EIA) is one of the key responsibilities entrusted to the EPA. In this respect, EPA is responsible for “establishing a system for undertaking EIA on public and private projects as well as on social and economic policies, strategies, laws and programs.”¹⁸ EIA means “the methodology of identifying and evaluating in advance any effect, be it positive or negative, which results from the implementation of a proposed project or public instrument.”¹⁹ Specifically, it is responsible for developing a directive that identifies categories of projects likely to have negative impact and thus require EIA, and for issuing guidelines that direct the preparation and evaluation of EIA study reports.²⁰ EPA is also responsible for “evaluating the EIA study reports on projects subject to federal licensing, execution and on projects likely to create inter-regional impacts; and for auditing and for regulating the implementation of such projects”.²¹ It is also responsible “for giving technical support pertaining to environmental management and protection to regional states and sectoral institutions.”²²

¹⁸ Article 6 of EIA Proclamation № 299/2002

¹⁹ Article 2(3) EIA Proclamation No. 299/2002.

²⁰ Article. 5 and 8 of EIA Proclamation № 299/2002

²¹ Article 14(1) of EIA Proclamation No. 299/2002.

²² Art 7, Proclamation No. 9/1995

The proclamation called Definition of Powers and Duties of the Executive Organs Proclamation No.916/ 2015 differ from Definition of Powers and Duties of the Executive Organs of the FDRE Proclamation No. 803/2013", in that it redefines the mandates of several federal government agencies including the Ministry of Environment, Forest and Climate Change. This Proclamation amends all previous laws and provides for expanded responsibility to this Ministry. One significant development was the addition of “climate change” in the naming of the Ministry thereby amplifying its mandate regarding climate change mitigation and adaptation activities.

In this later update phase, acquainted with the proclamation in provisions²³ concoct power to the ministry’s current responsibilities include, among others: formulate a mechanism that encourages social, economic and environmental justice and channel the major part of advantage obtained thereof to the affected societies to diminish secretions of greenhouse gases that would otherwise have resulted from deforestation and forest degradation; setup a system for evaluating and decision making, in accordance with the EIA Proclamation, the impacts of implementation of investment projects on environment prior to approvals of their implementation by the concerned sectoral licensing organs or the concerned regional organs; prepare programs and directives for the synergistic implementation and follow up of environmental agreements ratified by Ethiopia pertaining to the natural resources base, desertification, forests, hazardous chemicals, industrial wastes and anthropogenic environmental hazards with the objective of avoiding overlaps, wastage of resources and gaps during their implementation in all sectors and at all governance levels and formulate environmental safety policies and laws on the production and utilization of hazardous substances or wastes. The Proclamation also envisages the development of environmental cost-benefit analysis and formulates an accounting system to be integrated in any development activities.

3.3.1. Environmental Policy of Ethiopia

The Environmental Policy of Ethiopia (EPE), which was approved on April 1997, constitutes eleven-sectoral and eleven cross-sectoral policy elements. Its overall policy goal is “to improve and enhance the health and quality of life of all Ethiopians, and to promote sustainable social and economic development through the sound management and use of natural, human-made and cultural resources and the environment as a whole, so as to meet the needs of the present

²³ Article 30, FDRE Proclamation No. 916/2015

generation without compromising the ability of future generations to meet their own needs”. EPE emphasize the need for arresting land degradation. Some of the policy's section on Soil Husbandry and Sustainable Agriculture, Forest Wood Land and Tree Resource, Genetic Species and Ecosystem Biodiversity and Water Resource address the issue of combating desertification.²⁴ Some of them could be seen elaboratively as follow.

3.3.1.1. Ethiopian Water Resources Management Policy

The overall goal of the Policy is to enhance and promote all national efforts towards the efficient, equitable and optimum utilization of the available Water Resources of Ethiopia for significant socioeconomic development on sustainable basis. The Policy aims to ensure access to water for everyone fairly and in a sustainable manner, protect water resources and sources, and promote cooperation for the management of river basins. The Policy also requires water resources schemes and projects to have Environmental Impact Assessment and Evaluation.²⁵

The right to water has not been explicitly mentioned in the UN Covenant on Economic, Social and Cultural Rights (CESCR, 1966) and were subject to country reviews in 2005. CESCR, but it has been considered to be an essential element of the right to an adequate standard of living, and it is also an element of the right to health. The issues concern prevention of unsafe and toxic water conditions, protection against water contamination and pollution, avoidance of over-exploitation, maintenance of environmental conditions conducive to good water quality, and availability of procedural rights (Kristian 2012).

As per the Ethiopia ‘Guidelines for Social, Environmental and Ecological Impact Assessment and Environmental Hygiene (2004)’ states that because water bodies, including rivers, lakes and marshes, have ecological, economic, social and cultural values, they have to be appropriately protected and used. Likewise, aquatic resources, e.g. fish, papyrus, have economic, cultural and ecological uses. But they can be easily destroyed. Moreover, “the policy promotes the protection of the interface between water bodies and land (e.g. lake shores, river banks and wetlands)”.²⁶

²⁴ FDRE Environmental Policy, 1997.

²⁵Ministry of Water Resources (MoWR) (1999). Ethiopian Water Resources Management Policy,

²⁶ Article(3/2/d/11) 1997Environmental policy of FDRE

3.3.1.2. Biodiversity Conservation Policy

The Policy was approved in 1998 and it provides policy guidance towards the effective conservation, rational development and sustainable utilization of the country's biodiversity. The policy objectives “accentuate public participation in biodiversity conservation, development and utilization, and also ensure that communities share from the benefit accrued from the utilization of the genetic resources and their traditional knowledge.”²⁷ The policy consists of comprehensive provisions on the conservation and sustainable utilization of biodiversity, and it underlines the requirements for implementers to adopt during planning and operational phase of projects and for those projects engaged in biological resource utilization to follow environmental and social impact assessment (ESIA) procedures. It also encourages and supports public participation in the conservation, development and use of biological resources.

The conversion of the Ethiopian Environmental Protection Authority to the Ministry of Environment and Forestry (MoEF) in 2013, and recently, in October 2015, to the Ministry of Environment, Forest and Climate Change (MoEFCC), incorporating the Ethiopian Biodiversity Institute (EBI), could lead to changes in competencies between EBI and MoEFCC, but also open doors for close collaboration on many issues. The Regional Biodiversity Units (RBUs) plan their activities together with EBI for each given fiscal year. The quarterly, biannual and annual achievements of the plans are evaluated at a regular basis between EBI and the RBUs. (Review under the Convention on Biological Diversity, 2016: Ethiopia).

Mesay (2017:10) has, for example, summarized as:

However, environmental concerns are growing because, floriculture requires intensive use of chemical fertilizers and pesticides, disposal of waste materials, and pollution of water bodies and needs huge amounts of water than conventional farming in addition to the thoroughly monitored waste management system. The adverse effect of pesticides on the environment includes the effect on non-targeted lives, air pollution, and increased pesticide resistance by targeted pests, water, and soil quality degradation. Fertilizer runoff from farms has dire consequences on water pollution, soil and water quality degradation, human and cattle health hazards, air pollution, the risk of aquatic life, as well as waterlogging and salinization, are some of the adverse effects of fertilizers. The disposals in general are threats to the environment unless active prevention measures are put in place.

²⁷ FDRE Biodiversity Conservation Policy 1998

From this it is possible to imply that there are numerous ways of environmental pollution especially water than human expectation which harms lives in diverse way that need to be considered through all rounded participation. Also strong environmental protection, institutional structures and linkage of all stakeholders for successful is the way-out of these danger.

3.4. Environmental Regulations

The EIA Proclamation, brought into law in 2002, has the potential to legalize the manufacturing. EIA is an authorized technique that calls for industry and new expansion campaigns to be assessed for specific social, socio-economic, environmental, political, and cultural impacts before they begin (EPE, 1997). The goal of an EIA is to encourage justifiable development and a good quality of life by mitigating the undesirable facets and augmenting the optimistic effects of a development (Damtie and Bayou 2008).

Here, it is better to consider defining public participation in the EIA. According to Murrumba (2008), (Spankers and Aaron 2014), public participation is a device through which the practice of consulting and involving members of the public (the interested and affected parties) in the process of agenda setting, decision making and policy formulation concerning with environmental issues.

Moreover, based on the works of (Canter 1996) and (Zhou 2014), public participation as communication process through which environmental problems and needs examined and addressed by responsible bodies to inform the public about the impacts and ways of improvement of studies, projects, plans, programs or policy formulation or evaluation by incorporating all concerns, opinions and needs regarding resource utilization, alternative development, controlling mechanism and any other information that help for decision making (Zhou, 2013:4).

As Gemechis also comprehended that from both (Canter 1996) and (Zhou 2014) one can understand that, public participation in EIA is a mechanism through which the public involve in the process of planning, designing, and establishment of development projects, to contribute for and defend ones claim by incorporating own fears, experience and concerns, which enhance transparency of the project as well as empower stakeholder to influence decision making process during environmental impact assessment, which contributes for sustainable development and ensure democratic rights in environmental governance (Gemechis 2016).

3.4.1. Environmental Regulation at the Regional Level

Case in point, Ethiopia is a federal country, Regional States have a constitutionally guaranteed right to enact laws which will be applicable in their jurisdictions. It is the Federal Government that is empowered to enact laws for the utilization and conservation of land and other natural resources, historical sites and objects.²⁸ However, it may, when necessary, delegate to the Regional States powers and functions granted to it by Article 51 of the Constitution (Article 50/9). It is assumed that the Regional Governments are now exercising the right of enacting environmental laws by the power they got from the Federal constitution. Regional States can better take care of the environment than the Federal government if they build their capacity, as they are nearer to the people, land, forests, water, etc. (Edwards 2010).

Regional environmental authorities review Environmental Impact Study Reports (EISRs) from projects in their regions that do not have trans-regional effects and do not require federal permits or federal supervision.²⁹ Unfortunately, the regional governments are even less prepared than the federal EPA to review EISRs with strict scrutiny, or to challenge government development projects or well-connected businessmen. Some regional governments have adopted regional EIA regulations based on the federal law, although in general the regional governments lag behind the federal government in implementing environmental policies. For instance, the Oromia regional government was reviewing its first draft Environmental Impact Assessment (EIA) regulation in 2009. The last legal machinery which was made in 2012 “regarding the projects implementation, the environment, forest and climate change authority shall ensure the inclusion of public opinion, particularly of the affected community in the environmental impact assessment study and their participation while review of the environmental impact assessment report is made.”³⁰

It is possible to understand as there is regulation for public participation, even though the researcher couldn't find a strong devised mechanism set visibly. Undeniably complete lack of implementation according to the legal provision. This can be evidenced as there is no EIA conducted for the operation of floriculture in and around Batu City administration. No worthwhile consultation of the society at grassroots. For instance, the community in and around Batu city administration were not consulted during this developmental projects setting up.

²⁸ Article 51:5 1995 FDRE constitution

²⁹ Article 14/1 of the EIA proclamation No. 299/2002.

³⁰ Oromia National Regional State Environmental Impact Assessment proclamation No.176/2012

3.5. Environmental Regulation and Investment Law

So far, Ethiopia has issued many investment laws. The most recent one is Investment Proclamation, Proclamation No. 769/2012. This Proclamation is a substitute for Investment Proclamation No. 280/2002 as amended by Investment Proclamation No. 375/2003. Indeed, its predecessor, Investment Proclamation, Proclamation No. 37/1996, somewhat recognized the need to observe the environmental laws of the country, which could be interpreted to include EIA. However, Investment proclamation³¹ failed to recognize the need to ascertain the observance of environmental laws before issuing investment permit. As a result, many investment authorities were not, even after the issuance of the EIA Proclamation, requiring investors to produce environmental permit as one of the requirements to obtain investment permits. For example, “many projects were implemented without EIA in Amhara, Tigray, Oromia, SNNPRS, whereas virtually no project passes through EIA in Somali and Afar. Similarly, many projects licensed by the federal government bypass the EIA step” (Dejene 2014: 150).

Unlike Investment Proclamation No. 280/2002 as amended by Investment Proclamation No. 375/2003, the new investment proclamation, Investment Proclamation No. 679/2012, contains some provisions which are pertinent to environmental protection. When looked at Articles. 19/1, 19/2, 19/6, 30/1, 30/4, and 38 could be concluded that the new Investment Proclamation³², has revived and even created more opportunities to improve the system of EIA in Ethiopia. As a result, although the legal framework on EIA is inadequate mainly because some important instruments necessary for its effective implementation are still lacking, the recognition of the need to protect the environment in general and to use EIA in particular in the new Investment Proclamation No. 769/2012 will lessen the impact of such inadequacy.

Nevertheless, there is still one question that is worth raising and examining. That is, although the better stance of the new Investment Proclamation³³ on environmental protection in general and the use EIA in particular is now beyond doubt, it is still important to see if it has gone far enough. Here, two conceivable views could be reflected. First of all, the relevant provisions of the New Investment Proclamation could be interpreted and used to ensure the implementation of

³¹ Proclamation No. 280/2002 as amended by Investment Proclamation No. 375/2003

³² Investment Proclamation No. 769/2012

³³ *ibid*

the system of EIA. Hence, the new Investment Proclamation is an economic law, not an environmental law. As such, it is not expected to provide for more stipulations than it already has provided. On the other hand, one can contend that, without partiality to the probability of inferring its requirements to confirm the use of EIA, the new Investment Proclamation does not go far enough to contribute to the usefulness of the method of EIA in Ethiopia (Dejene 2014).

3.6. Environmental Implication of Floriculture

As Malefia (2009:13) cited, Nancy (2006), in recent decades, the global demand for cut flowers has grown considerably. This growth in market demands and its diversification value has attracted increasing numbers of developing countries to the global fresh flower trade. These reasons seem to make Ethiopia come in to the picture of this business. But some people say that Ethiopia gives attention for this sector because the European production cost skyrocketed. European cut flower growers (especially Netherlands) have been looking to other continuities for more affordable conditions as experienced other East African countries like Kenya, Tanzania and Uganda.

Though floriculture development in Ethiopia blooming in recent years, it started for commercial purpose in 1980/81 which is now few decades ago. The first fresh cut flowers production was commenced in 1981/82. The Dergue regime had established Horticulture development corporations where government was responsible both for regulation and production even for marketing of horticultural products including flowers. “During that time the production and export of cut flowers in Ethiopia was not established with well-planned and aiming of profit seeking but foreign exchange earnings” (Ethiopian Horticultural Strategy, 2007 p. 10). However, environmental consequence of floriculture encompassed the exhaustive consumption of water as well as soil, the water and air pollution because of its concentrated and poisonous chemical (pesticide and fertilizers and other chemicals) usage and discarded dumping system of the manufacturing’s is further parts of attention. There are high impacts on health of lives caused by infections of infectious environment like lake and river water pollution.

Another water related problem is water pollution that causes problem on human and animal health. Flower farms mostly use hazardous chemicals in the form of fertilizers or pesticides which can be easily washed off from the ground and enter in to water bodies. Moreover,

excessive usage of inorganic chemicals in the farms which later produce Nitrate soon after will get into water bodies by which can be washed away from the farms by rain drainage runoff or some other means can cause serious damage on people (eutrophication). On rare occasions, this nitrate will cause infants led to death. Solid wastes and toxic chemicals that contaminated water body can develop water born disease. A number of proclamations and several rules are passed considering water resource and in order to maintain environmental sustainability. However, none of them prevent from current environmental degradation and pollution (Gudeta 2012)

Water scarcity as well as pollution combined can affect environment and social sustainability. Societies who depend on rivers and lakes for their livelihood might become frustrated and may lead them to migrate to another place for a better water resource. To challenge this problem sometimes local farmers, confront with commercial farms and conflict might arise where and how to access the water. A way of resolving such kind of problem is minimal and there is no clear way of participating stakeholders how to manage the water resource (USEPA, 1996).

Due to the rapid growth of the floriculture industry, many have become concerned by the potential for adverse environmental impacts. Fertilizers and pesticides, used extensively in the industry, have been linked to negative environmental and health impacts (Getu, 2009; Gadaa, 2010). Floriculture companies often build greenhouses along lakesides to facilitate easy irrigation systems for their flowers, which threatens the availability and quality of these water resources (Jansen and Harmsen, 2011).

Moreover, at this juncture are central environmental impressions of the Ethiopian cut flower in the following paragraphs. One of the major nature of flower farm is it consumes a high amount of water. E.g. One hectare of a flower farm consumes over 900 cubic meter water per month (Organic consumers Association 2006). Some study shows that about 90% of flower is make up with water. This means that exporting flower is like exporting water. Despite the use of high level water by flower farms, they are very reluctant to use an effective way irrigation system that will led the case much worst (Ethiopian review 2010). Decreasing of water level of those lakes in which their life is dependent on made them to frustrate, instable and finally put their future livelihoods in danger.

There is a clear procedure on Ethiopian legislation bodies about how much water a single farm should use per area. However, the water level is dropping from time to time and there is no action implemented to tackle this problem. Water is central thing for survival and without it, life would be impossible (Gudeta Tilahun 2012). Water body is a fundamental constituent of World's environment, providing significant controls on the conditions and temperature beyond the use for drinking by human-beings and it had better be assumed a great attention for preservation.

3.7. Challenges in Environment Protection

Ethiopia is one of the most important biodiversity hotspots of the world, but also one of the most degraded (FFE, 2011b; Conservation International, 2007; McKee, 2007). The country faces numerous environmental challenges such as deforestation, soil erosion, loss of biodiversity, and declines in soil fertility and water quality (FFE, 2011a; Bekele, 2008; EPE, 1997)

Political, social, and economic challenges can both contribute to and be exacerbated by environmental degradation. Much of Ethiopia's population is dependent upon on the environment as their principal source of income (HoAREC, 2011; US DOS, 2011; McKee, 2007; EPE, 1997). This leads to a cycle of environmental degradation and poverty: to survive, people "are forced to disregard the long-term well-being of the environment and thus degrade it further" (MoFED, 2002, p. 121). Recurrent droughts, famines, poor infrastructure and periods of political unrest serve as additional challenges for environmental management within Ethiopia (Ogbaharya & Tecele, 2010; EPE, 1997).

Ultimately, lakes are a crucial example of a natural resource upon which humans depend, yet one that without proper policies in place becomes degraded beyond repair if proper policies are not in place and enforced, (Katie Graichen and et al 2011). Policy recommendations include standardized monitoring of lakes, a buffer zone system for zoning and development regulation, and a participative approach to lake management. Lakes in Ethiopia are often adjacent to one or more urban areas, along with farmers, industrialization and other resource users drawing their livelihoods from the lake and surrounding land (i.e. for agriculture, forestry, and fishing).

Generally, the processes that threaten lakes are clearer than the impacts of those threats. There are multiple effects of one problem, such as urbanization leading to both increased waste production and pollution of the air, water, and land. Pollution can be measured in terms of wastewater discharge from buildings and homes (Boadi & Kuitunen, 2002). Industrialization

may be occurring simultaneously, which can manifest as increased effluent discharge from industrial complexes, nutrient loads in the water, eutrophication, and biodiversity loss (Boadi and Kuitunen, 2002).

The findings from the field work indicate that in Ethiopia public participation in decisions and policy is perceived as limited. This may be due to the lack of a culture of dialogue, compromise and negotiations, perhaps due to earlier periods of centralized authority under military rule and monarchy. Another aspect is the official Government position that the civil society has no constituency to represent the poor or marginalized, (Economic Commission for Africa 2017).

Recent environmental changes in Ethiopia's lakes wetlands. These include dramatic changes in lake levels, particularly for Lake Abiyata, and the complete disappearance of Lake Haromaya. Other studies into changes in water quality are reported, e.g. Lake Dambel, where pumping for irrigated vegetable production has reduced its volume, increased its salinity and resulted in a substantial reduction in fish catches. Increased concentration of nutrients, particularly nitrogen and phosphorus, in water bodies from agricultural and industrial activities result in eutrophication and also find their way into wetland (swamps, lakes, rivers and riparian) vegetation and to the groundwater, (Colby Environmental Policy Group 2011).

Conclusion

The trend of environmental protection in Ethiopia indicated that for years, in earlier period there was no any awareness by rulers about natural environment and in later stretches there was a bit consideration even stipulation of some provisions in legal documents without practice. Anyway various reasons contributed to deterioration of natural environment which are mainly related to the instability of successive governments, their rapidly changing political economy and non-participatory top-down development programs. Following the collapse of Dergue, there are legal provisions of decentralization of environmental power on document with some shortage that need to be considered, however, the environmental policy with little implementation.

The attempts were made by FDRE constitution to ameliorate the ill environmental issues better than previous documents. The needs to encompass different mechanisms in the form of legal machinery like inculcating EIA, ESIA and others in some proclamations as well as considerations of some aspects like economic and political with their scarcities were the

observances made by the constitution. There is a decentralization motives in a number of ways, however, the exact consideration of socio-cultural values and norms are not strictly addressed in the legal provision.

EPA is accountable for launching a method for conducting EIA on any projects that likely to have adverse effects on all aspects including environment and evaluating EIA reports according to its own jurisdiction concerned. Regional environmental authorities have a powers granted by FDRE constitution to review EISRs from projects limited in their regions. In general the regional governments lag behind the federal government in implementing environmental policies. The action taken by states was too late to insert EIA regulation for environmental issues. Oromia state for instance reviewed in 2009. This is may be because of lack well organized and awared institutional mechanism in federations, centralization forces and weak concern for environmental issues. Anyhow, a bit better in latest stage ONRS EIA proclamation No. 176/2012 encompass the provision of public opinion before implementation of development projects which hinted passing through EIA regulation particularly of the affected community in the environmental impact assesement study and their participation while review of the environmental impact assesement report is made.

Law should comply one with another i.e, one couldn't undermine the other. The Investment Proclamation No. 769/2012 has revived and even created more opportunities to improve the system of EIA in Ethiopia. However, it is not that much valid without interpretation rather it has economic motive than concern for environment. Apart from partiality to the option of interpreting its provisions to ensure the use of EIA, the new Investment Proclamation does not go far enough to contribute to the effectiveness of the system of EIA in Ethiopia. In Ethiopian federal system, regional governments undertake accountability in environmental protection, endowment of drinking water and sanitation, and other municipal services. Therefore, one can observe that constitutionally it appears a dualist approach, but in practice it tends to be functional federalism, although the absence of sub-national governments participation in the federal law making process.

CHAPTER FOUR

4. The Environmental Issues and Legal Frameworks of Oromia

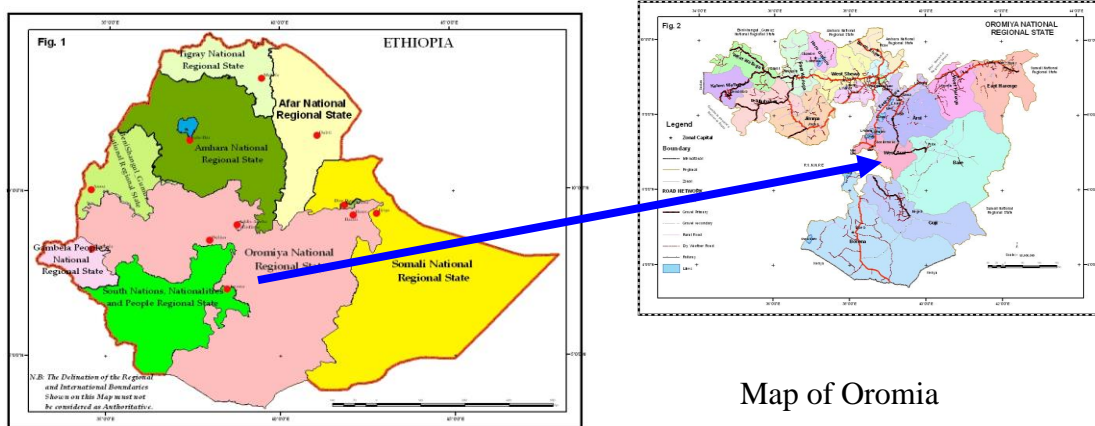
Introduction

In this section, the highlights of Oromia National Regional state (ONRS), environmental policy and institutional frameworks under ONRS, environmental protection and environmental impact assessment of ONRS, place of environmental protection of ONRS and Growth and Transformational, floriculture and environment and environmental trend in Oromia are attainable.

4.1. Location of Oromia

The Regional State of Oromia is located within 3°24'20" –10°23'26"N latitudes and 34°07'37"-42°58'51"E longitudes, extending for about eight degrees (8°) west to east and for about seven degrees (7°) north to south or vice versa (excluding Oromia Zone of Amhara Regional State). As a result, the Region has physical borderlines with all the Regional States of the Federal Democratic Republic of Ethiopia, except Tigray Regional State. The Region has also international borderlines with Sudan (66 km) to the west and Kenya (521 km) to the south. The total boundary length of the Regional State of Oromia is about 5700kms, (Oromia Regional State socio-economic profile 2008).

See Figure 2



Map of Ethiopia

Map of Oromia

Researcher's Design: April 2018

4.2. Environmental policy and Institutional Frameworks under ONRS

Under Proclamation No. 295/2002, all regional states are expected to establish their own environmental organs³⁴. Following this, regional states and city administrations have allowed to establish their respective environmental organs accordingly. Regional environmental organs are vested in, among others, the responsibility to coordinate environmental matters including the issue of administration and implementation in their respective region.

4.2.1. Environmental Policy of Oromia

The Oromia Natinal Regional State (ONRS) has its own constitutions upholding the FRDE Constitution in its entirety and constituting its regional particulars. The Oromia State Constitution³⁵ has addressed land and natural resources management and environmental protection as stated in paragraph below.

The Regional Government is entrusted to administer land and natural resources in the name of the people and deploy for the common benefit of the same; the government and all citizens of the region are responsible for the conservation of natural resources and the environment; concerned communities shall be given opportunity to express their opinions in the formulation and implementation of policies in relation to the environment³⁶.

Admittedly to federal constitution, under the Article 47 Powers and Duties of the Oromia state constitution specifies that: all state powers and functions not expressly given to the Federal State or to both Federal and Regional state by the Constitution of the Federal Democratic Republic of Ethiopia shall be assumed by the Oromia Regional State. Without prejudice to Sub-Article (1) of this Article, the Regional state shall: Formulate and implement policies, strategies and plans for economic and social development of the Region; Enact and enforce the Constitution and other laws of the Region; Administer land and other natural resources of the Region in accordance with the laws enacted by the Federal government. From above provisions it may be imaginable to deduce that the power of environmental authority like natural resources is under the fate of federal which jeopardizes the principle of self-rule through ignoring consideration of socio-cultural factors that plays great role in environmental protection and preservation.

³⁴ FDRE Environmental Organs Establishment Proclamation No. 295/2002, Addis Ababa, Ethiopia.

³⁵ Article 47 of the ONRS constitution (Revised 2001)

³⁶Oromia Forested Landscape Program: Environmental and Social Management Framework (ESMF) (Updated version of 2017)

Furthermore, as stipulated in the constitution of Article 107 Environmental Objectives express: government shall endeavor to ensure that all regional residents live in a clean and healthy environment; the design and implementation of programmes and projects of development shall not damage or destroy the environment; the people have the right to full consultation and to the expression of views in the planning and implementation of environmental policies and projects that affect them directly and government and residents of the Region shall have the duty to protect their environment.

The theory in some way may seem good, however, if what is written on the constitution, proclamations, policies, regulations, directives, rules and so on give the impression, what make difficult to implement. To save the society from problematic situation any developmental activities need critical appliance yet this hasn't done properly.

The Oromia state constitution of article 44 concerning environmental rights states all residents of the region have the right to a clean and healthy environment and again in article 43 right to development furthered with its sub-article expresses: the peoples of the region have the right to protect and develop their environment, improve their living standards and sustainable development; all the peoples of the region have the right to participate in regional development and, in particular, to be consulted in respect to policies and projects affecting their community. in particular, to be consulted in respect to policies and projects affecting their community and the aim of development policies and programmers shall be to enhance the capacity of residents of the region for development and meet their basic needs.³⁷ This look as if the provision of paper worth when think of about the in and around Batu city administration problems with its environmental problems existing know because it is long ago that people complain and still there is no any solution to the community.

Regional states have also produced their own respective regional polices;³⁸ Following the federal based decentralization of governance, natural resource management has been the responsibility of regional agricultural and rural development bureaus, which also are responsible for the preparation of plans and budgets for the forestry administration in their respective regions. The

³⁷ Proclamation No. 46/2001: A Proclamation to Enforce the ONRS constitution (Revised 2001)

³⁸ Proclamation No 130/2007: A proclamation of Rural Land Administration and Use (ONRS, 2007).

constitution³⁹ in Article 52 (2) (d) authorizes the regional states to “... administer land and other natural resources in accordance with federal laws ...” The regional states were also given the power to formulate their respective policies, raise their own revenue as well as plan and execute their own forest development activities in accordance with the framework of the overall policies of the federal government, (Mulugeta and Woldemariam 2010). Of course sometimes, bring to mind conventional to criticize the power of the center. However, not that much complexity to catch up the provisions of both federal and state constitution that there is a tie in environmental power to the central government which results in state enactment of the policy.

4.2.2. The ONRS Environmental Legislation

Since environmental pollution, disturbance of ecological balance and environmental degradation in the region is fundamentally at an alarming stage; the Oromia Environmental Office was established in 2002.⁴⁰ The aim was to establish a body responsible for the protection of nature and environment to leave to the future generation and monitoring of proper implementation government policies laws on the environment as to article 6 of the regulation. It has been provided with the new structure and nominated as the Oromia Land and Environmental Protection Bureau in 2009.⁴¹ This bureau is established to conduct certain activities. As indicated in the preamble of the Proclamation, the Bureau is setup to administer, regulate the urban and rural land and preparation of land use planning of the proclamation of the region by the executive organ, with the aim of regulating the implementation of any development activities with the knowledge of land use planning and environmental protection, and design to form an organ that organizes and manages data of land administration, use and environmental protection.⁴² The proclamation states that, the land and environmental protection Bureau is the head organ setup with the aim of framing policies and strategies pertinent to land and environmental safety.

The actions that the land and environmental protection bureau accountable pertinent to the proclamation No. 147/2009 are: reliant on situations of the state set environmental benchmarks, legalize and oversee its enactment by authorized figures. The bureau has to make conform either the development activities organize EIA prior to implementation, regulate the removal of

³⁹ FDRE Constitution

⁴⁰ Oromia Environmental protection office, proclamation No. 28/2002.

⁴¹ Oromia Land and Environmental Protection Bureau, Proclamation No. 147/2009.

⁴² Article 2(5) and 2(3) *ibid*

contaminants and waste products from companies, commence environmental appraising on the way of liquid and toxic wastes clearance management by factories and industries so that it may not hurt the environment. Hence, the unit Interconnect and launch a relation through monitoring damaging effects on habitants and various living creatures if so occurred and take remedial actions (Mandefro 2011).

4.3. Environmental protection and environmental Impact assessment of ONRS

Proclamation to Amend Proclamation No 56/2002, 70/2003, and 103/2005 of Oromia Rural Land Administration and Use Proclamation No 130/2007. This Proclamation⁴³, Oromia National Regional State (ONRS), 2007b)) in the first paragraph of its Preamble, affirms that: “proper management and utilization of land and land resources is required in which the present use doesn’t compromise the development endeavors of the coming generation”. As in many other proclamations, this Proclamation provides an environmentally sound preambular statement, which may be used during its interpretation. The Proclamation imposes some duties on land users and some of the obligations are related with environmental protection. To mention some, it provides that: private investors are obliged to plant indigenous trees on at least 2% of the given land (Article 12(2)); rural land users are obliged to refrain from performing activities that cause damage to the wetlands and springs (Article 20(1)); mismanagement and improper utilization of wetlands is prohibited (Article 20(2)). Moreover, the Proclamation includes some rules which need to be implemented by the other concerned organs of the Region. The following are some of them: The investment land shall be determined in a way that it shall protect the natural resources of the surrounding (Article 12(3)).⁴⁴ A guiding land use master plan, which takes into account soil type, landscape, weather conditions, vegetation cover and socio-economic conditions with a watershed-based approach, shall be developed and implemented by the bureau.⁴⁵

This is a long-awaited document from the Federal Government for many concerned people. If such a document comes from a Regional State, it is expected that it could solve at least part of the problem associated with its total absence in the country as a whole. The biodiversity in rural wetlands shall be conserved and utilized as necessary in accordance with a suitable land use strategy (Article 18(10)). This rule and the ones mentioned above on wetlands at boarder of lakes

⁴³ Oromia Land and Environmental Protection Bureau, Proclamation No. 130/2007.

⁴⁴ Article 12(1, 2, 3) of the Oromia Land and Environmental Protection Bureau, Proclamation No. 130/2007.

⁴⁵ Article 18(1) of the Oromia Agricultural and Rural Development Bureau.

like Hara-Danbel are good beginnings on the shift in the state of mind that considers wetlands as wastelands. The proclamation further states that: “Rural land users are obliged to refrain from performing activities that cause damage to the wetlands around lakes. Mismanagement and improper utilization of wetlands is prohibited”. (Article 20(1), (2)), as (Mellese 2008) cited in (Edwards 2010).

4.4. Place of Environmental Protection of ONRS and GTP

The Government of the Region of Oromia also has its own Growth and Transformation programme for the year 2003-2007 E.C. That being the case, one may ask if this Growth and Transformation programme recognizes the need to protect the environment as does the Federal Democratic Republic of Ethiopia Growth and Transformation programme. A cursory look at its pillar strategies reveals that, like the Federal Democratic Republic of Ethiopia Growth and Transformation programme, it does not include environmental protection. Nevertheless, this does not mean that environmental protection is not given attention in the Oromia Growth and programme. For example, one of the pillar strategies of the Oromia Growth and Transformation programme is bringing about fast and sustainable economic growth. On the other hand, it is obvious that environmental protection is an implied element in this pillar strategy as it is not possible to have sustainable economic growth without environmental protection. At this juncture, it is legitimate to closely examine this pillar strategy of the Oromia Growth and Transformation programme and question if fast and sustainable are not oxymoron (in contradiction) within the context of development. However, this issue needs explicit and strict stipulation of provision.

4.5. Floriculture and Environment

Environmental implication of floriculture involved the intensive use of water as well as soil, the water and air pollution because of its intensive and toxic chemical usage and waste disposal system of the industries. Pesticides and fertilizers used in the normal course of growing plants are the most important potential threats to groundwater. Pesticides having high leaching potentials, high surface loss potentials, or which are persistent in soil are of highest concern. One reason aldicarb was removed from the market was its large leaching potential, (Malefia 2009:8).

Oxamyl, diazinon, and demeton-s-methyl are examples of some active ingredients in commonly used pesticides with large leaching potentials. Dicofol, benomyl, endosulfan, and fluvalinate are examples of chemicals which move freely in sediment on the soil surface. Method of application,

pesticide formulation, soil type, and microbial activity in the soil are some other factors which affect how much chemical may reach the groundwater (Hengsdijk and Jansen, 2006b).

Fishermen and local citizens living on the shores of Lake Dambel in Oromia have recently made alarming announcements that the water levels of the Lake have been dropping for the past several years, fish stocks are declining and the lake is being polluted by chemicals. The blame for this situation has been put on the flower industry around the lake. Numerous large flower farms and other agro-industries, mainly producing cut flowers and other productions for the industrialized countries markets, are situated around the lake. The flower industry is using highest percentage water from the lake for irrigation purposes; Lake Dambel is the only fresh water ecosystem in the central Rift Valley with two water feeding like Katar and Meki rivers east and north-west respectively. The lake has an outlet through Bulbula River to the Abjata Lake that many Gendas' /Kebeles' in Adami Tullu-Jiddo Kombolcha District people used for their life and cattle. However, these people complain about the dried river several times to the district offices to stop the floriculture from using the lake and let the water for their daily life and their cattle.

4.6. Environmental Protection Trend in Oromia

The policy objectives accentuate public participation in natural environment conservation, development and utilization, and also ensure that communities share from the benefit accrued from the utilization of the genetic resources and their traditional knowledge.

Recently governments as well as non-governmental organizations are in the process of institutionalizing innovative community based natural resource management practices. The Afar and Borana communities could be cited as an example that does exercise the traditional community based natural resource management practices, (Kelbesa 2012:18).

Environmental policy protection and preservation in Oromia regional state in general and Batu city administration in particular could indicate in the somewhat rough way as I have understood from legal and institutional consideration. With regard to environmental policy, the Oromia regional state as to other federations of Ethiopia lacks the federal principle of environmental self-rule. The issues of local preferences with regard to natural environment protection and preservation endowed with less attention from the concerned bodies.

The environmental issue is somewhat beyond our understanding, to express a bit it is about living and non-living things and their living surrounding or areas, circumstance as well as other untouched factors which is governed by natural and unnatural components ... that need to be taken in to consideration. However, the attention given to this huge/great concern is least. For instance, great focus given to economic, political, technological and other aspects which is assumed as to me as less regard and these aspects have strong institutions linked up down and vice versa differ from environmental aspect that lack strong institution and its linkage.

Since there is no strong institutions or institutional deals which tie all environmental concerned bodies whether governmental, non-governmental, civil society or other environmental lobby group disruptions in environmental matters are occurring. The policy of environmental protection in relation to community's participation, while environmental policy formulation is something that given less focus. To be clear with the socio-cultural factors of society which is very important for the formulation and implementation lacks to be encompassed in environmental issues.

Conclusion

The State has its own constitutions keeping the country constitution in its whole and constituting its regional particulars. The Oromia Constitution has addressed natural resources management and environmental protection. The aim was to establish a body responsible for the protection of nature and environment to leave to the future generation and monitoring of proper implementation government policies laws on the environment as as per of the regulation.

The prospect is that transference of powers strengthens participatory environmental protection hereby public authorities will be reactive to local preferences and held accountable to the citizens. Let alone local urban government, even regional government couldn't be able to responded to the problem occurred regarding deterioration of natural environment in and around Batu city administration eventhough the Batu citizens and the nearby authority complained and reported respectively to Oromia regional state so many time no action taken till now. This is the fact that, local governments primarily function as extension of regional governments and regional states are overly controlled by federal government. Therefore, local governments assume many of their responsibilities in the form of delegation or deconcentration where devolution is limited to cultural or language related aspects.

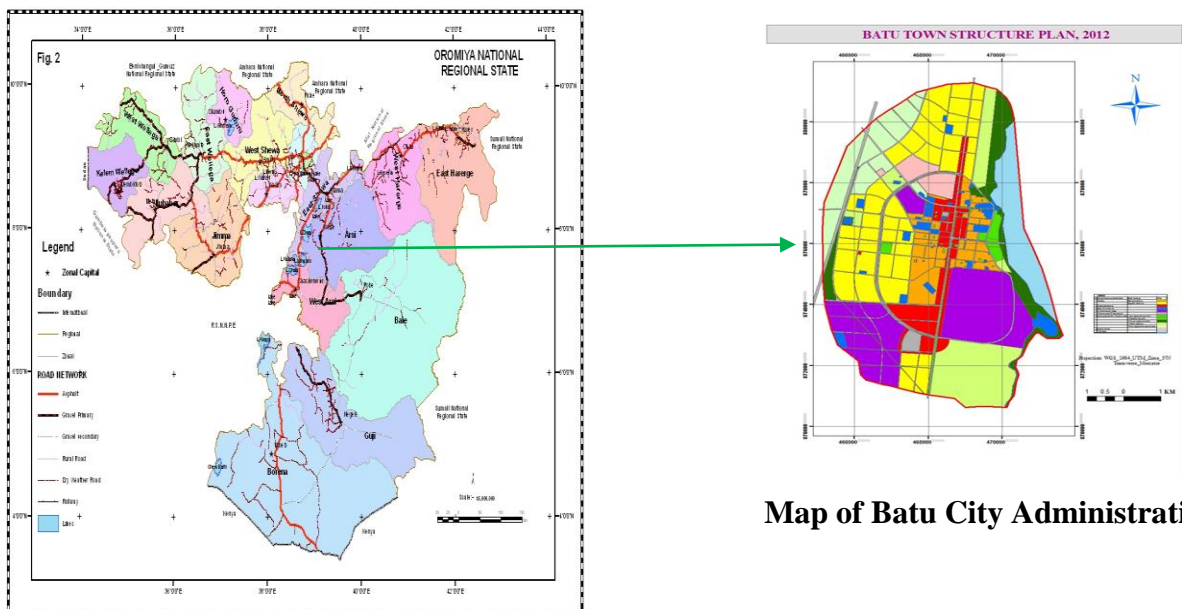
CHAPTER FIVE

5. Data Presentation and Analysis

5.1. Study Area Description

The study is conducted in Batu City Administration of Oromia State. The name ‘Batu’ derived from ancient Oromo hunters and warriors who come from the surrounding areas “ Baredu and Midhagduu” with their tired and hungry horses in search of grass land from the great ‘Hara Dambel’ to their great astonishment and delight, they found swampy fresh pasture where they feed their horses and named the place ‘Batu’ the complete meaning of the word is well known as the creator /God gave us the land that we really wanted; After maintaining its historical name Batu for every long time, it’s marvelous site ambitious lead the then feudal administrators turning it to the seat of the former ‘Hikoch and Butajira Awraja’ in the year 1956 E.C changing, the name which remained the reminder of their selfish and unfair naming. Batu shares boundary largely with Adami Tullu Jido Kombolcha District in the North, south and west and Lake Dambel in the east. Batu its name to Ziway received its first municipal service as of 1956 E.C, (Batu City Administration Official Document 2017).

Figure 3 Batu City Administration



Map of Batu City Administration

Map of Oromia State

Researcher’s Design: April 2018

The Oromia regional state in its proclamation declaration number 65/1995 clearly stated the admission for restructuring their own city administration which lead to Batu's in 1997 E.C new structural reforming declaring its growth and development to be based on industrial advancement and their by solve its socio-economic problems. At present Batu's socio-economic progress is channeled through two administrative sectors which are Batu city council and three Kebeles. Its past population census size as central statistical Authority (CSA) data of 1997 indicates; the population of Batu city was estimated to be 47,204. Out of which 24,960 are male and 22,244 are female. The recent study showed the size to a range of 38,321 males 34,992 female; total 73,313. According to socio-economic profile documents (Source in year 2009 E.C), the total area of the city is 5,306.73 hectares. Meteorological data shows that Batu city belongs to hot climatic zone a fresh air with mean annual temperature range between 21⁰c- 27⁰c (Batu soci-economic Profile).

In this section, the qualitative and quantitative data collected through various data gathering tools are presented. It is classified into two parts. The first part describes the characteristics and background of the participants; and the second part presents the analysis and interpretation of the data on federalism and environmental policy in the federal system of Ethiopia concerning the state of devolution in the environmental matters with particular reference to Batu City Administration of Oromia State.

5.2. Characteristics and Background of the Research Participants

As it is indicated in chapter one, experts from Oromia environment, forest and climatic change authority, Oromia investment Bureau experts, six offices experts in the city, in Oromia Agricultural Research Institute Batu Fish and other Aquatic Life Research Center expert, floricultures companies' professionals, experts from water supply enterprise, a non-governmental environmental sensitive organization and community elders (Abbootii Gadaa) which comprise various respondents and informants of the researcher.

Semi-structured interviews are held with 12 individuals from city Administration office, environment, forest and climatic change authority, investment office, Municipality, Ganda's/Kebele's Managers, city council, water supply enterprise, court, Beneficiaries, a non-governmental environmental sensitive organization and community elders (Abbootii Gadaa), two experts from Oromia environment, forest and climatic change authority as well as Oromia

investment Bureau expert. Focus group discussion is also held with a combination of these experts. Questionnaires were filled out by above mentioned bureaus, offices, and other beneficiaries. A total number of 70 respondents filled out questionnaire. Besides, the background information of respondents such as sex, age, work experience, occupation, position (title) and educational status were the concern of the study are expressed as follows:

Table 5.1: Characteristics of Participants by Sex, Age, Work Experience and Educational Status

Items	Category	Frequency	Percent
Sex	Male	52	74.3
	Female	18	25.7
	Total	70	100
Age in year	18-25	2	2.9
	26-35	37	52.9
	36-45	29	41.4
	>45	2	2.9
	Total	70	100.0
	<5years	7	10.1
Work experience	5-10 years	21	30.4
	11-15 years	35	50.7
	>15 years	6	8.7
	Total	69	100.0
	Government Employee	62	88.6
Occupation	NGO	5	7.1
	Others	3	4.3
	Total	70	100.0
	Head	1	1.4
Position (Title)	Vice Head	1	1.4
	Coordinator	12	17.4
	Expert	51	73.9
	Residents	4	5.8
	Total	69	100
Education Level	Diploma	2	2.9
	BA	60	85.7
	MA/MSC	8	11.4
	Total	70	100

Source: Own Survey Result (April 2018)

This table has the intention that personal characteristics could have influence on responses of the questions. For instance, the way aged respondents react to questions of environmental issues from their experience they have passed through different in that they able to connect the previous

environmental performance; environmental experts could able to respond from the knowhow facts; the reactions by persons in position were smooth while others clearly and strictly responded and level of education also helped respondents to react to questions accordingly. Even though, the sex category was presented, it was only to see representations in different offices.

As indicated by the table 5.1 of characteristics of respondents regarding the sex distribution, the majority of the respondents 52(74.3 %) were males while the remaining 18(25.7%) of the total respondents were females. This shows us that females' participation in government bureaucracy and others is weak and still need support and affirmative action.

The respondents of this study questionnaire categorized into different age groups. Accordingly, the age dissemination of the respondents as revealed by survey result were 2(2.9%) within the age range of 18-25 years, 37 (52.9%) of them within the range of 26-35 years, 29 (41.4%) within the age range of 36-45 years and 2 (2.9%) of informants range above 45 years. From this fact, it could be easily understood that the majority of respondents were found in the productive age and hence can serve in public institutions of the city for longer years.

Regarding work experience of respondents, 7(10.1%) of them served for less than 5 years, 21(30.4%) of the respondents had work experience of 5-10 years, 35(50.7%) of them served for 11-15 years, 6(8.7%) of them served above 16 years. Thus, this information enables the researcher to conclude that most of employees had appropriate work experience. Since they knew the work environment and could understand the extent of environmental issues that should be considered for further preservation of natural environment.

Most respondents of the study were government employees, that means 62 (88.6%) of them were working in the government bureaus and offices, 5 (7.1%) were working in non-governmental organization and 3(4.3%) other residents. So the information provided was very crucial for proper understanding environmental matters as they were the implementers of the policy.

Concerning the educational qualification, 2(2.9%) of them were diploma holder, 60(85.7%) of the respondents were degree holders, and 8(11.4%) of them were MA/MSC holders. This implied that around 68(97.1%) of respondents had qualified educational requisite that allow them to assess their environment and reason out critically to create conducive life place for lives and engage in environmental issues which affects natural environment from time to time effectively.

5.3. Discussion

This part deals about analysis and interpretation of data obtained through questionnaires, interviews and focus group discussions that associated to environmental policy in the federal polity of Ethiopia. Along these lines to examine the state of devolution in the environmental concerns with specific reference to Batu city administration of Oromia State nexus matters in floricultures and the position of lake Dambel. To identify these environmental issues, the responses summarized as follows. The total number of respondents are 52 males and 18 females.

5.3.1. Environmental Power Decentralization

Table 5.2: Evaluating City/Local Level Environmental Power

SN	Items	Strongly Agree		Agree		Undecided		Disagree		Strongly Disagree		Total	
		Freq uenc y	%	Freq uenc y	%	Frequ ency	%	Freq uenc y	%	Freq uenc y	%	Freq uenc y	%
1	Batu city administration has a power to implement environmental policy.	12	18.2	27	40.9	4	6.1	16	24.2	7	10.6	66	100
2	Batu city administration has been making environmental law and policy.	8	11.4	26	37.1	12	17.1	19	27.1	5	7.1	70	100
3	Batu city administration has been monitoring, and taking corrective measure regarding impact on environment.	3	4.3	17	24.3	11	15.7	30	42.9	9	12.9	70	100
4	Batu city administration has the mandate to force industrial plants to implement EIA.	5	7.2	38	55.1	5	7.2	12	17.4	9	13.0	69	100
5	There are financial constraints to protect the quality of natural environment.	8	11.4	27	38.6	10	14.3	18	25.7	7	10	70	100

Source: Own Survey Result (April 2018)

As it could be seen from the table 5.2 Batu city administration has a power to monitor the environment as 39 (59%) of respondents showed agreement in having power of administering and implementation. 30 (52.1%) respondents showed their agreement with the existence of

decentralized functions and responsibilities of environment to the city level. The informant⁴⁶ has reiterated about decentralization of environmental powers as per the constitution of FDRE. He has expressed that there is structural extension of institutions from federal to states, city administrations, and districts as well as Gendas/Kebeles. In this view, the problem is with functional aspect than structural dimension. This informant's view comply with second phase of 2017 Urban Water Supply and Sanitation Project review which stated that 'for the effective implementation of the Environmental Policy of Ethiopia, the policy encourages the creation of an organizational and institutional framework from Federal to community levels.

However, an expert⁴⁷ from Batu environment, forest and climate change authority critically criticized that the "institutions set up from state to local urban are very weak to exercise their power which resulted in deterioration of the natural environment." So the problem is not on the extension of institutional structures largely, it connects to functionality, strength and enforcement of laws. To fulfil the formality of the institutional extension only is not enough but assigning the appropriate powers, capacity building, proper implementation and follow up honestly needed.

Even though, Oromia has legal provision of authorities on environmental law making to some extent specifically on water conservation, most the respondents defended separately that the city administration has no explicitly given legal provision of authorities on environmental law making specifically on water conservation. About 39(59%) of the respondents exhibited disagreement and 11(15.7%) uncertain on Batu city administration monitoring and taking corrective action for deviance on industrial activities. With regard to whether financial constraints to protect the quality of natural environment like water and other lives, the respondents replied that 35(50%) displayed agreement, 10(14.3%) undecided and the rest 25 (35.7%) respondents revealed disagreement. This indicate that there have been financial constraints to preserve the natural environment in the area. When the budget allocation of three consecutive years⁴⁸ (2015/16, 2016/17, and 2017/18 budget years) of Batu City administration to Environment, Forest and Climate Change was detected: in the budget year of 2015/16: the total budget allotted was 348,959 and out this 343,955 was for recurrent budget while only 5,000 for

⁴⁶ Interview: Mr. Dilbo, 24/04/2018, at Oromia Environment Forest and Climate Change Authority Bureau

⁴⁷ Interview: mrs. Dechu, 17/04/2018, Batu Environment Forest and Climate Change Authority (municipality Compound)

⁴⁸ G/B/M/4: Batu City Administration Budget Allocation Official Document for Three Cosecutive Years.

capital purpose; in the budget year of 2016/17: the total budget allotted was 570,948 and out this 563948 was for recurrent budget while only 7,000 for capital purpose and in the budget year of 2017/18: the total budget allotted was 597,394 and from this 586394 was for recurrent budget while only 11,000 for capital budget. This showed that most of the budget allotted for periodic consumption which hinders the offices to move for further protection of environment from risk. Since there was shortage of capital budget important materials couldn't be bought by available financial plan. Logistics and other materials which are helpful for detecting different kinds of residue are expensive to be bought.

As responded by some of the respondents⁴⁹ from Oromia and Batu city environmental authorities stated in open ended questions that “functions and responsibilities of administration and implementation were provided legally on document to state. However, these power were not exercised properly by state.” The respondents⁵⁰ clearly replied that “monitoring and reporting were the competencies among explicitly provided to state and city administration”. Most of the respondents replied that the force of any measure we took depending on the willingness of federal government since large companies of floricultures mostly owned by federal that made our accomplishment restricted because of intervention from the center. The other issues that was also strongly defended by the informant⁵¹, that “there is financial restrictions for the further conservation in fulfilling different logistics”. Like the results from both close ended and open ended questionnaire, the professionals⁵² from Batu City Administration Environment, Forest and Climate Change and members of city council admitted that the environmental monitoring and reporting has seen decentralized. According to the researcher, there is a complexity in some areas in that some powers are decentralized, other retained and still other tied during implementation. For instance, monitoring and reporting are decentralized and other powers in the name of federal owned companies retained and at the same time some powers intervened showing tied. Hence, there a need for clear list to each and every levels of government rather than fluctuating depending on the changing circumstances. The other key informant⁵³ “underscores that the practice has been far from legal provisions of powers and it is centralized that ignored the

⁴⁹ Open ended questions: Mr. Dilbo, 12/04/2018 and Mrs. Abdella 8/04/2018 at Oromia and Batu Environment Forest and Climate Change Authority Bureau and office respectively

⁵⁰ Interview: Mr. mesfin, 21/04/2018, in Oromia Environment, Forest and Climate Change Authority Bureau

⁵¹ Interview: Mr. Mustefa, 16/04/2018, Batu Environment, Forest and Climate Change Authority Office

⁵² Discussion: ‘FGD informants’, Mr. Tinie and Mr. Gacheno, 26/04/2018, in Batu municipality

⁵³ Interview: Mrs. Amsal. 23/04/2018, Oromia environment, Forest and Climate Change Bureau

principle of self-rule completely. If this practice was based on personal rules rather than law or policy frameworks”.

In general, the decentralization process on the document and in practice is different. This was evidenced by participants of the study. In the first place, the level of devolution by itself has lack of differentiated assigning of power explicitly to all tiers of government through taking into account all factors. Otherwise, the practice of environmental protection is very weak in the study area as the natural environment much more affected in the locality. The state environmental protection experts expressed as greatly influenced by federal government and the same view is reflected by the city administration. The reality falls in the middle of them. For the protection of the environment the decentralized power if and only if there is public participation and genuine monitoring and supervision by the federal government might be enough. The absence of this aspect intensifies the issue of environmental performance weakening. The researcher also witnesses that institutional channels extended till city administration for environmental protection is weak to exercise their tasks due to the fact that they were incapacitate.

Table 5.3: Respondents Opinion on State Autonomy in Environmental Policy and Law Making

SN	Items	Strongly Agree		Agree		Undecided		Disagree		Strongly Disagree		Total	
		Frequency	%	Frequency	%	Frequency	%	Frequency	%	Frequency	%	Frequency	%
1	Oromia Regional state has clearly formulated environmental policy.	14	20	14	20	7	10	24	34.3	11	15.7	70	100
2	Oromia Regional state has been discharging its constitutional environmental responsibilities.	7	10	25	35.7	6	8.6	28	40	4	5.7	70	100
3	Implementation of environmental policy is fair in Oromia Regional state.	1	1.4	21	30	7	10	27	38.6	14	20	70	100
4	Batu water supply enterprise has the power and capacity to keep quality of water supply service for the public.	6	8.7	30	43.5	3	4.3	23	33.3	7	10.1	69	100

Source: Own Survey Result (April 2018)

Regarding Regional autonomy in the law making and environmental policy, the subsequent result was obtained from research participants as illustrated in Table 5.3.

First opinion probed whether Oromia state has the power to formulate environmental policy without any influence, 35 (50%) respondents disagreed, 7 (10%) of them hesitate and about 28 (40%) showed agreement. This revealed that the extent of state power to exercise its authority autonomously is somewhat weak. About 32 (45.7%) respondents showed agreement, 6 (8.6%) undecided and 32 (45.7%) respondents exhibited disagreement concerning Oromia state is exercising constitutional endowment responsibility in the reassuring safety environment for its people. This illustrates that there are dilemmas to decide whether the state was exercising constitutional powers or not at this juncture. In the same vein, 41(58.6%) of respondents disagreed, 7(10%) uncertain and 22(31.4%) showed agreement on implementation of environmental policy, as it freely takes place in the region and local units altogether. The firsthand data revealed that majority of respondents (68.6%) disagreed that there is a gap in implementation of environmental policy in state as well as at city. Taking people preference into account to make environmental laws, regulations and directives based on the regional policy by reshaping as their local is absent that was witnessed by majority of the respondents.

Regarding Batu city administration has a right to make environmental laws, regulations and directives based on the regional policy and by taking in to account the need of local people, 51.4% of the respondents disagreed with 22.1% denied to decide. This shows that the city administration didn't feel empowered on the matter. Similarly, the head⁵⁴ of Environment, Forest and Climate Change Authority at vicinity states:

Environmental policy outlines and environmental Decrees could be only succeed if supported by detail Regulations and Directives. In our regional state, however, there is legal frameworks put in place but coherent and detailed regulation, directive and guideline hav not been developed.

In this regard, the problem of environmental performance is with state environmental authority that hinders the implementation environmental policy.

On the subjects raised whether the city administration can take corrective measure for the mismatch between environmental principles and practice in Batu with particular impacts on

⁵⁴ Open ended question: Mr. kuwadir, 03/04/2018, Batu Environment Forest and Climate Change Authority

drinking water, vegetation and other biotic life; 36 (52.9%) respondents disagreed, 8 (11.8%) of them hesitated and 24 (34.3%) of them agreed. The degree of taking corrective action was less on the deviance of industrial activities on natural environments by local government. Beyond other, on the topic of the power to decide on financial activities on environmental matter by the city, 40 (57.2%) respondents displayed disagreement, 12 (17.1%) undecided and 18 (25.7%) agreed. Therefore, it indicated that the majority of respondents vote against the freedom of deciding on financial adjustments for the ameliorating the performance of environmental matters.

Several respondents have put forth the problem of top-down environmental policy processes. Almost the same reiterations were caught from other informants when they hint the hierarcical orientation of environmental actors wherein lower level are disempowered and couldn't perform any meaningful environmental activities without blessing from above or top level.

Remarkably, the expert⁵⁵ from Oromia Environment, Forest and Climate Change Authority notes: “with regard to autonomy, in principle regional states have adequate autonomy and self-rule. But the regional states are not that much autonomous for accomplishing their own affairs. He particularly indicated that there is a lack of capacity for the regions to perform effective implementation of environment policy”. This indicated the federal EPA didn't capacitate the states environmental protection institutions. Thus, the state institution failed to achieve implementation of environmental policy.

Generally, from the nature of Ethiopian federalism, the reality exist, some constitutional provisions and the reappearance of views of informants as well as personal experience it could be possible to express that there is centralism forces that upkeep lack of state autonomy to perform their duties. It is also possible to deduce from the practice that most of the time states are busy by federally designed programs than accomplishing the responsibilities assigned to them on legal documents. The other practicality exist in the world of literature is that tax sharing and grants do not justify the sense of independent revenue or expenditure decision control which is a symbol of adverse reflecting dependence than real autonomy as it violates the power of origination in decisive goal oriented manner and the power of freedom in localities to act without fear of the oversight authority.

⁵⁵ Interveiw: Mr. Dilbo, 24/04/2018, at Oromia Environment Forest and Climate Change Authority Bureau

5.3.2. Environmental Protection and Natural Resources

Table 5.4: Effectiveness of Environmental Protection for preserving of natural resources.

SN	Items	Strongly Agree		Agree		Undecided		Disagree		Strongly Disagree		Total	
		Freq uenc y	%	Freq uenc y	%	Freq uenc y	%	Freq uenc y	%	Freq uenc y	%	Freq uenc y	%
1	Environmental policy implementation has preserved natural resources in and around the city of Batu.	2	2.9	1	1.4	5	7.1	27	38.6	35	50	70	100
2	Effective environmental policy implementation has been applied to and manifested at lake Dambel.	1	1.4	1	1.4	2	2.9	35	50	31	44.3	70	100
3	Communities around and biotic lives in lake Dambel have benefited from environmental protection policy in and around Batu city administration.	3	4.4	4	5.9	6	8.8	34	50	21	30.9	68	100
4	The quality of aquatic lives and vegetation in and around lake Dambel are not affected because of sound environmental policy implementation in the area.	1	1.4	4	5.7	3	4.3	32	45.7	29	41.4	69	100
5	The legal provision and environmental policy is consistant with socio-cultural values of the community around lake Dambel.	3	4.3	9	12.9	8	11.4	27	38.6	22	31.4	69	100

Source: Own Survey Result (April 2018)

Table 5.4, above shows the assessment on effective environmental policy implementation to preserve natural resources in and around Batu.

Accordingly, it is reported that 62 (88.6%) of total respondents disagreed to effectiveness of environmental policy implementation to properly conserve natural resources (like lake Dambel and other lives) in and around city administration. Almost 66(94.3%) of the total respondents displayed disagreement about manifestation in preserving lake Dambel due to effective

environmental policy implementation. From the total 70 respondents, 61(87.1%) of them agreed on the quality of vegetation, aquatic and other lives in and around lake Dambel is affected because of weak environmental policy implementation in the area.

Likewise, the informant⁵⁶ argues that “the implementation of environmental policy is very low that resulted in low consideration of environmental law by companies like floriculture especially sher-Ethiopia that directly discharge pesticides, chemical and fertilizers residues as well as effluent water to lake Dambel through open passage”. This displays that how serious is the environmental policy issue and effectiveness of environmental policy implementation and the preservation of natural resources are in and around Batu City Administration.

Moreover, many professionals⁵⁷ working for government and non-government agencies alike concur that effluent water and hazardous chemical, fertilizer and pesticide residues directly discharged from floricultures and other runoffs drained in many directions to lake Dambel and affected water quality, vegetation, aquatic lives and citizens of Batu city administration resulting in imbalance in absorbing and filtering watersheds at the shores of the lake.

The above opinion of informants is also supported by academicians as follow: water pollution includes both point-source and diffuse release of multiple pollutants ranging from agricultural fertilizers and pesticides to municipal and industrial effluents. These in turn cause health impacts and a wide range of environmental harms, including eutrophication, harmful algal blooms, the creation of anoxic ‘dead zones’ in lakes. Water pollution may occur as a result of discrete catastrophic events such as accidental industrial discharges and these may have profound consequences for ecosystems, fisheries, tourism and livelihoods at local and even regional scales. Pollution of freshwater, groundwater, soil and land resources encompasses many point-source and diffuse types of infection that in some cases may be severe, but again these are generally local events. Some exceptions to these for which the evidence base is chiefly sparse include the pollution of air, water and soil by substances for which the regulatory frameworks are currently embryonic such as for nanoparticles, micro-plastics and pharmaceuticals and for which potentially prevalent pollution may now be occurring in the absence of effective environmental regulation, monitoring, with unknown consequences, (Daley 2015).

⁵⁶ Interview: Mr. Bogale, 02/04/2018, at Batu city administration environmental sensitive Organization

⁵⁷ Discussion: From FGD informants’, 26/04/2018, in Batu municipality (collection of sectors)

Some of the respondents in the open ended questions expressed that the environmental policy implementation up to recent time was a paper value which was not exercised in real terms. This indicated that the effectiveness of environmental protection policy implementation for the further preservation of natural resources in and around Batu City administration was almost null. One expert⁵⁸ among the respondents of focus group discussion showed his view as:

Natural environments in Oromia were seriously affected in areas of mega projects and agro-industries. Lake Dambel is one of the natural environments which was highly affected by these development activities especially by floricultures or green houses as effluent water, hazardous chemicals, fertilizers and pesticides used by agro-industries largely floricultures directly have been discharged and drained into the lake. The effect of lake's contamination spread to others such as aquatic lives, vegetation surrounding lake, and other lives including human being who on lake for food and water. It has a number effect on the natural resources for instance, aquatic lives encountered deficiency oxygen, change in temperature, PH changes, algae blooming, over growth of unnatural green plants over water body resulted from concentration of residues of the above mentioned constituents. Beyond aquatic lives the chemical sprayed to vegetation, if sprayed to kill the thin leaves after arrived at the watersheds surrounding lake it affected broader leaves and if it sprayed for the broad leaves its effect is vice versa.

The other expert⁵⁹ from Oromia Agricultural Research Institute has supported that “the effect of lake’s pollution caused fish species composition change, affect foods of aquatic lives and their skins severely deteriorated”.

In another resistry, a planning coordinator⁶⁰ in Mayor Office of City Administration stated that:

There are some efforts to implement; however, he denied effectiveness of policy implementation by saying it is not beyond attempting. The reason for this is a centralization of environmental powers. The City Administration couldn't take any corrective action without the knowledge of federal government. Hence, the city administration has monitoring and reporting mandates with little power to take corrective measure for resolving environmental problems.

An experts⁶¹ working in the environmental protection at state level strictly specifies that:

Decentralization with the rehotric behind party decision have been incognizant of environmental policy. Therefore, every decision waited to come from the center and this has jeopardized the participation of the public that devastated natural environments by contaminating of Lake Dambel, vegetation and other lives including human being.

⁵⁸ Discussion: From FGD informants', 26/04/2018, in Batu municipality (collection of sectors)

⁵⁹ Interview: Mr. warisa, 5/04/2018, Batu (in the research center)

⁶⁰ Interview: Mr. Samuni, 5/04/2018. Batu City administration

⁶¹ Interveivs: Mr. Mesfin, 21/04/2018; Amsal. 23/04/2018; Mr. Dilbo, 24/04/2018, at Oromia Environment Forest and Climate Change Authority Bureau

One of the respondents⁶² from Oromia agricultural research institute Batu fish and other aquatic life research center also underlined that “regulation exists for effective environmental policy implementation. But functionality of the regulation remained on paper”.

In nutshell, the legal provision of authorities for the protection of natural environment from harm is somewhat good. However, the environmental policy implementation is firmly far from hope. The practice exposes that the enactment of environmental policies and regulations of the country are at the fragile situation. Detailed and specific regulations and directives are also needed to enhance the implementation of environmental laws. In this regard, these regulations are barely found in all tiers of government. Due to this and other facts, the natural resources in the study area has been in the position of desertion. The only fresh water lake in the rift valley, Lake Dambel is under pressure not only in chemical contamination but also in high water usage of agro-industry particularly floriculture. Subsequently, the infection of this lake water severely affects the organisms living on this lake beyond its pollution. Besides, among the main environmental issues the one that floriculture is blamed for its intensive use of water which resulted dropping down of lake water critically. This is also other agenda that require due attention before desertation of lake Dambel. Even though, not the concern of the study in the view of environmental matter, the residents whose their life depend on the lake's outlet that is river Bulbula was complaining to much when the river dried most of the time. This is one case which rise conflict between the floriculture farms in and around Batu and the nearby community in its depletion of water in the surrounding.

⁶² Discussion: From FGD informants', 26/04/2018, in Batu municipality (collection of sectors)

5.3.3. Environmental Policy and Socio-cultural factors

Table 5.5: Consistency of Environmental Policy with Socio-cultural Values of the Local Community

SN	Items	Strongly Agree		Agree		Undecided		Disagree		Strongly Disagree		Total	
		Freq uenc y	%	Freq uenc y	%	Freq uenc y	%	Freq uenc y	%	Freq uenc y	%	Freq uenc y	%
1	Environmental protection policy is consistent with the socio-cultural values and norms of the society.	5	7.1	18	25.7	10	14.3	28	40	9	12.9	70	100
2	Environment policy formulation took account of the social values and environmental heritages.	7	10.1	22	31.9	6	8.7	28	40.6	6	8.7	69	100
3	The local people have a chance to comment and give suggestions before environmental protection legal machineries one endorsed.	3	4.3	16	23.2	8	11.6	32	46.4	10	14.5	69	100
4	The environmental policy reflects the communities need and aspiratsion from the environment.	5	7.4	21	30.9	6	8.8	27	39.7	9	13.2	68	100
5	The city residents are involved in the environmental policy implementation efforts.	4	5.9	21	30.9	8	11.8	23	33.8	12	17.6	68	100
6	The citizens have been engaged in enacting regulation and directives	7	10.3	14	20.6	6	8.8	24	35.3	17	25	68	100

Source: Own Survey Result (April 2018)

Table 5.5, reveals whether the socio-cultural values are taken into account by the environmental policy making and the attempt to implement the same in the case of Batu City Administration.

From the total respondents (70), 62.9% of respondents showed disagreement about consideration of culture, value and norms of the society in environmental policy during formulation. Some informants⁶³ also reaffirm that “in environmental policy document there is expression that

⁶³ Interview: Mr. Dilbo 24/04/2018 and Mr. Takle, 25/04/2018, Oromia Environment Forest, and Climatic Change Authority Bureau

touches culture and norms of the society should not be ignored during implementation while less articulation of incorporating this attribute into the design of environmental policy". So the consideration of socio-cultural factors in environmental policy formulation were under question. In equivalent disposition out 70, 42(60.9%) respondents displayed disagreement and 8 (11.6%) of them were dither regarding a chance to comment and give suggestions before environmental protection focused legal machineries ratified to see their preferences by the general public. Concerning the consideration of public heritage of the society in which in earlier times how they were protected their environment safe, healthy and clean without policy to inculcate in the policy going to be made, from 70 respondents; 6 (8.6%) exposed neutrality and 34 (48.6%) respondents showed disagreement on policy formulation. This indicated the reflection of indigenous knowledge was weak to participate people in the policy from the beginning. The empirical data presented that the visit of citizens in environmental policy implementation efforts to satisfy their need was very low as supported by 41 (60.3%) respondents' disagreement. Mostly, the majority of the respondents disagreed that the Ethiopian environmental policy passes through all expected stages to be approved and implemented.

However, respondents for the open ended questions stated that they couldn't see a single version of culture, norms and values mirrored in the policy. They additionally viewed that in the public policy domain, it should have accounted the socio-cultural values of the society. Interestingly, an informant⁶⁴ poses that "the policy is formulated by few elites and moved to the lower level. That is why the implementation became difficult and went to a level of poisoning our natural environment." This might imply that states follow the same footstep to account their preferences.

Among the respondents⁶⁵ in the open ended enquires from Oromia Environment, Forest and Climate Change authority "firmly admitted that the consideration of culture, norms and values are very important. But the federal government did not entertain the participation of grassroots while making environmental laws, policy, regulation and directives".

For issues raised as an extra opinion probing of which level of government should assume the policy making power for easily considering the socio-cultural factors among others federal, states local or municipal. The respondents decided on which level of government should assume

⁶⁴ Interview: Mr. Dilbo, 24/04/2018, at Oromia Environment Forest and Climate Change Authority

⁶⁵ Open ended questions: Mr. Mesfin, 12 /04/2018 and Mr. Kuwadir 03/04/2018 and Mrs. Abdella 8/04/2018 at Oromia and Batu Environment Forest and Climate Change Authority Bureau and office respectively.

and justified their own stand in a number of ways. Some said that a tier nearer to natural environment could perceive the environmental problem certainly rather than federal.

Other respondent⁶⁶ believes that:

The Ethiopian federal arrangement largely ethnic based and therefore if the states assume the power of environmental policy making based on state capacity, it enables them (ethnic based regions) think through their own culture, norms and values in their policy specificities.

In the same vein, other respondents like academicians, officials around Bureau and experts at locality supplemented that states should assume powers of environmental policy making completely. Because pollution taking place in the state and local areas where as full decision on issues was the mandate of federal which is far apart from each other that took long time and passed elongated hierarchical even to be heard. The burden carried people at grassroots while judgement at top which opposes the federal principles and democratic principles that recognize diversity and masses participation. Hence, at least states should undertake the powers of policy making while setting overall surveillance and frameworks retained by federal government. When seen at majority of the respondents they adhered to states though different reason for better thoughtfulness of societies cultures, norms and values as well as participation and empowerment.

Therefore, the central for any philosophical, legal, sociological, logical and federal principles were high acknowledgement of citizens' participation which is given less attention in Ethiopia policy making. The convincing one might be the environment policy were prepared in hurry or intentionally as a principle of "I know for you" as it ignores involvement of the public at large. The findings from the field work indicate that in Ethiopia public participation in decisions and policy is perceived as limited. This may be due to the lack of a culture of dialogue, compromise and negotiations, perhaps due to earlier periods of centralized authority under military rule and monarchy. Another aspect is the official government position that the civil society has no constituency to represent the poor or marginalized (Economic Commission for Africa, 2017).

Notably, socio-cultural factors to the same degree to other factors determine the interface between people and environment. Socio-cultural values and norms are owned by human being which help them perceive their environment. At the same time societies are element of the

⁶⁶ Interview: Mr. Takle, 25/04/2018, Oromia Environment Forest, and Climatic Change Authority Bureau

surroundings and at the center of concern for sustainability. This dynamics were not properly recognized and attached to legal machinery. Although, the federal environmental policy unable to inculcate the socio-cultural factors, there is no legal ground that hinder states and other local units to include their socio-cultural values and norms into their domain environmental legal documents. In this regard, there is a weakness of Oromia regional state and city to inculcate their preferences into their own environmental legal machinery. Thus, the environment is in a severely maltreatment position. Healing the wound of distracted environment is the duty of all concerned body as much as possible. The ruin of environment in one way might be due to alienation of some factors from the law already framed. The researcher thinks that every society has its own way of life with the environment that make distinct from each other. Hence, the socio-cultural values and norms shouldn't be undermined for the success of environmental preservation.

5.3.4. Challenges of Environmental Policy Implementation in Batu City dministration

Responses regarding challenges in realization of safety environment in the Batu city administration of Oromia state discovered subsequently around degenerated demands through open ended questions, interviews and focus group discussions.

Responses from some experts⁶⁷ in open ended questions explicitly forwarded that the major challenge for proper environmental policy implementation was the absence of societal participation as an input from planning to implementation. The other stated that the powers stipulated in the constitution were not appropriately cascaded down to state and at the same time to urban administration. still other professional forwarded that lack of proper monitoring and taking corrective action are the result of deteriorating the natural environment such as lake Dambel, vegetation and other lives including citizens in and around Batu city administration.

An interviewee⁶⁸ explained the following by supporting responses from questionnaire that:

Ethiopia has throughout the last years developed various policies and laws that link to improving the environment. Environmental authorities are in place and many international environmental agreements have been signed. However, there are gaps between the environmental commitments made and the actual implementation to improve environmental consequences.

⁶⁷ Open ended Questions: Mr. Bogale, 02/04/2018, at Batu city administration environmental sensitive Organization; Mrs. Abdella, 8/04/2018, Ms. Fatuma, 10/04/2018, Batu Environment, Forest and Climate Change and city council offices.

⁶⁸ Interveiw: Mr. Dilbo, 24/04/2018, at Oromia Environment Forest and Climate Change Authority

The attempt of some stakeholders such academicians, officials, environmentalists and civil societies at large not successfully realize safe and secure environmental performance.

Ijaiya and Joseph, (2014:320) have stated that:

Corruption has deep-rooted in the society to the extent that pseudo officers harass and threaten violators of environmental laws with the aim of extorting money from them, and also the allocated fund for the implementation of environmental laws are shared between officers of the agencies for their personal use.

As a result of this, people are not subjected to obey the regulations and guidelines of the environmental laws.

Responses from some professionals⁶⁹ in open ended questions explicitly forwarded that the major challenge for proper environmental policy implementation was the absence of societal participation as an input from planning to implementation. The other expert⁷⁰ stated that the powers stipulated in the constitution were not appropriately cascaded down to state and at the same time to urban administration. Still the above respondents in similar way forwarded that lack of proper monitoring and taking corrective action are the result of deteriorating the natural environment such as Lake Dambel, vegetation and other lives including citizens at the locality.

Experts⁷¹ put that “the major challenge for the deterioration of environment was the complete centralization of environmental power without differentiated assignment of cross border natural environment from within single state natural environment”. He added that participation of society from grassroots was very minimal. Economy of scale prevent pollutants to take in to the court, because households couldn’t afford costs due to the fact that they are poor, fear of investors and they are shielded by the saying of public resources that hindered to deal with.

The pressures facing the lakes, rivers and swamplands in the Central Ethiopian Rift areas demonstrate that the bases of the degradation of the environment are more indeed human activities. Having its origin in the influence of human activity on nature causes emanate from deforestation in the upper watersheds, loss of Acacia woodlands, lake shore farming and destruction of buffer zones. Another very critical threats include siltation, water abstraction, overfishing and release of pollutants by industries especially floricultures into the lake system.

⁶⁹ Open Ended Question: Mr. kuwadir and Ms. Shubure, 03/04/2018 Batu City Administration

⁷⁰ Open Ended Questions: Mr. Dilbo, 24/04/2018, from Oromia Environment Forest and Climate Change Authority

⁷¹ Discussion: ‘FGD informants’, Mr. Tinie and Mr. Gacheno, 26/04/2018, in Batu municipalty

Some authors like (Kostrzewa and Grabowski 2003:24), witnessed as follow:

The accumulation of silt complete change in the ecosystem biodiversity alteration decreases in the water holding capacity and in the worst case the collapse of the wetland itself. Introduction of non-native plants to the wetland removal of buffering vegetation and upland forest degradation are the main causes for the loss of vegetation.

Due to the abundance of natural resources many urban centers are located near wetlands. “Although wetlands are capable of absorbing pollutants from the surface water, there is a limit to their capacity to do so the primary pollutants; sediment, fertilizer, human sewage, animal waste, pesticides, heavy metals,” (Teklu and Kassahun 2017:5).

Finally, discussion with interviewees ‘who is responsible for environmental problems in the city?’ to mayor and city council offices legal experts of Batu, the responses are almost confusing which seem unfamiliar with the affair. The appropriate accountable body to protect the environment from harm is controversial according to the reaction of the the experts. The former indicated to the state, saying state has constitutional guaranteed power to protect environment to some extent and the later pointed to the sector called Batu Environment, Forest and Climate Change Authority without clearly identified justification. But, the convincing interviewee⁷² response is the one who says all levels government and all bodies live in the environment. And undeniable the degree of blame is quite different according to his expression federal government and extended institutions are more responsible for the destruction made by agro-industries to natural environment of the city. The federal government couldn’t offer legal documents like rgulations, directive and couldn’t provide capacity building programs to state and city practically. It is also responsible for development projects which are under its direct supervision. Because the coverage of federal government and by the name federal owned company, the other governments couldn’t able to perform their activities and resulted in weak performance of environment.

To sum up, a lot of encounters intensify the environmental protection difficulties. The problem starts in giving attention to participate public from initiation to implementation and appraisal as well as remedial action in environmental issue. The weak public participation in policy process is one of the main challenge. People value and devoted if they think of something their own. They

⁷² Interveiw: Mr. Dilbo, 24/04/2018, at Oromia Environment Forest and Climate Change Authority

reject if some comes to them and not believe in it. Since the environmental policy of Ethiopia formulated with less mass involvement, they were not that much familiar with its implementation effort and didn't have confidence in as it serves them rather they think as it serves the interests investors. Furthermore, there were slighter practice of participating people in the course of developmental activities putting in place. Talking to them about environment issues after something happen seem them for replicate. Commitment from the side of government to integrate regulations internally and externally and support the performance of the environment is very minimal which resulted in low implementation. The lack of proper allocation of powers is other constraints. Lacking an understanding of the measurable effects on natural resources and its transferable negative changes to the people; the national economy government ambitious for and that the environment has produced, there is no way that its efficacy can be judged. Since the end is for the satisfaction of citizens, where and what the use of dirty accumulation of wealth by floriculture if it is contrary to the citizen.

Conclusion

The major purpose of this study was to assess the environmental policy in the federal system of Ethiopia thereby to analyze the state of devolution in the environmental matters with particular reference to Batu city administration of Oromia State. This research confirms with some research outcomes undertaken earlier on how a formal administrative system, the availability of resources and informal institutions separately influence the performance of decentralized systems of environmental policy administration specifically at city level.

The environmental policy making power are constitutionally entertained to states based on the federal environmental policy. The regional state mandate however, limited to administration and implementation. The city administrations do have less explicitly enumerated environmental competencies. The local/city has power like monitoring and reporting. Autonomy in making environmental policy, regulations and directives are still inadequately decentralized for the protection of natural environment.

The effectiveness of environmental policy implementation is below one's expectation. Developmental projects like agro-industries have hardly implemented EIA. There are a number of evidences from the field that the effluent water and hazardous chemical, fertilizer and pesticide residues have been directly discharged from floricultures plants to Lake Dambel. This

has affected water quality, vegetation, aquatic lives and residents of Batu city administration. Hence, the environment policy implementation couldn't preserve natural resources in and around Batu City administration.

Several factors have been identified as a challenge for implementation of environmental policy at city level. These include: lack of compliance among environmental and other investment legal provision, inconsistency between socio-cultural values and environmental policy implementation. Specifically, lack participation of local community, ambiguous regulatory framework, lack of financial resources for environmental policy implementation, corruption and so on are important restrictions. Thus, any effort to bring about effective environmental policy implementation demands overcoming these challenges constraining environment at local level.

CHAPTER SIX

6. Conclusion and Recommendation

This section presents conclusion and recommendations grounded on the results of the study. The thesis forewards some possibilities that assis for environmental protection policy alternatives and its application at the locality.

6.1. Conclusion

Based on the theoretical framework and data collected through questionnaire, interview and observations the following conclusions are drawn:

From data analysed regarding the extent to which the environmental policy is decentralized; it can be concluded that environmental policy making power are constitutionally entertained to states based on the federal environmental policy and their role highly restricted only on administration and implamentation. In other and the same dimension, the practicability of autonomy in making environmental policy, regulations and directives are still what lag behind for further protection of natural environment but as indicated in legal machineries regional states are autonomous. To sum up, environmental policy is not adequately devolved in the federation.

The development projects like floriculture has not implemented EIA, and these projects have detrimentally impacted the human and other biotic lives. The effectiveness of environmental policy implementation and the preservation of natural resources in and around Batu City administration has been worrying. There is also fish species composition change, disturbance in foods of aquatic lives and their skins severely worsened in the lake.

The extent environmental policy and the implementation of the same has not paid the necessary attention to the socio-cultural values of the ethnic group (in this case the Oromo) to their environment. The finding supports the original claim that to gain an in-depth understanding of the functioning and performance of federal system, it is necessary to take the different variables that make the environmental performance better included in our agenda of socio-cultural factors into account, both separately and in their mutual interaction. The field work indicates that in Ethiopia public participation in decisions and policy is alleged as limited. This may be due to the lack of a culture of dialogue, compromise and negotiations, perhaps due to earlier periods of centralized authority under military rule and monarchy. To the best of researcher's knowledge,

there is no paper argued for the environmental policy making powers devolution to states and rendering to socio-cultural values and norms consideration. The empirically investigated enquiry with determinants of these components is null throughout the trial of the search.

Numerous challenges deteriorating the natural environment that could be seen from the field work. There are lack of compliance among environmental legal provision, socio-cultural factors and environmental policy implementation. There are also lack of devotion to implement EIA and undermining of it by other laws like investment, lack of proper institutional support updown step by step either in capacity/resources, and lack of curative act for the deviance created.

Authorizing environmental bodies represent the institutional mechanisms to translate constitutional precisions into concrete objectives and actions. These include societal norms, formal and informal rules, procedures and organizations dealing with participation, consultation, policy making, and accountability. Legislative, coordination and oversight bodies are important elements of the environmental authority. These institutions ensure that the public sector is solely focused on citizen aspirations. So in general it is possible to say that all legal documents related with environmental protection were not; not only applied as it is stated in the documents but also they have no precision regarding the power devolvement to other tiers of government.

Generally, environmental policy making powers are treated according to grand law though limit exist mainly in natural resources. Institutes have been setup at all tiers of government even if weak to improve environmental performance together with legal frameworks yet properly implemented. Policy and other regulations were not formulated with the involvement from masses, nor grounded on countrywide generated standard data. Participation of the people in the policy formulation and implementation is missing in Ethiopia that is why the socio-cultural values not accounted. Though, accounting the preferences of important aspects from ethnic groups was not well appeared in federal environmental device, there is legal ground that hamper states and local units to include their socio-cultural values and norms into their policy documents and attempting the same in their implementation of environmental policy. Besides, deficiency of commitment to enforce provisions and uncoordination of laws related to environment, weak institutional support of each other step by step either in capacity or resources, and absence of corrective action for the deviance created are appearing constraints.

6.2. Recommendation

Based on the results of the study, the following possible recommendations are forwarded:

i) There is a need for capacity building

To provide better environmental performance there is a need for capacity. Hence, putting adequate legal and institutional frameworks along with sufficient human, financial and material by all tiers of government is an urgent need. It is necessary to enhance the capacity of the EPA of Ethiopia and other accountable institutions to carry out environmental friendly practices and move towards accomplishing justifiable progress.

ii) Enforce the environmental laws and/or regulations

The regime should try as much as possible to equip its enforcement agencies on how to ensure the effective implementations of the environmental regulations in existence. All project programmes predicted to have a significant negative impact on the environment will require an effective environmental monitoring programme, especially where environmental standards have been set. Therefore, officers of the environmental agencies should be trained for effective enforcement.

iii) Provide adequate environmental policy making and implementation capacity to regional states and local units.

Environmental policy making should be devolved to other tiers of governments chiefly to the regional states in Ethiopian federation. This argument is compelled by view that if the power of policy making devolved to the states a number of socio-cultural factors could be accounted well. It helps to maintain the essential values (morals, virtues, standards, beliefs, prices ... attached to environment by society) that an ethnic group has for its environment; this in a way bridges the gap in the environmental policy in Ethiopia federation. Since there is no effective way of monitoring and a federal government has no conducive situation for oversight, the policy making power need to be a mandate of states.

Work must be done to eliminate the notion that Environmental Protection Authority is the sole entity responsible for the EIA processes. Regional environmental organs and sectoral units must be strengthened to decentralize the EIA process. There is a need to make EIA a public concern rather than the concern of few agencies like the EPA.

iv) Strengthen and realize the essential principle of good governance in environment.

Strengthening the principles such as the rule of law, transparency, public participation, self-rule and respect for socio-cultural values toward environment. Improving environmental outcomes is thus not only dependent on legal frameworks and the capacities of the environmental authorities and sector ministries, but also largely on external factors that provide the 'enabling environment.

In addition, Ethiopian environmental law should also give the local government responsibility for environmental quality and also award to units and individuals that have made outstanding achievements in protecting the natural environments in their respective jurisdiction.

States and Local Governments should have their independent supervisory and monitoring bodies that will be liable for the execution of environmental policies and awards should be given to the units and individuals that have made due successes in protecting and improving the environment.

v) Revisit EIA capacity to deal with current realities and integration of the same with other laws.

The EIA law needs to be changed and adapted to the current situation. It has to be ensured that EIA law is not undermined by any other law, rather EIA needs to be integrated into the laws. In addition implementation and follow-up of EIAs is still weak. To meet the legal requirement of EIA capacity both in terms of institutional capacity, human skills, and financial measurements needs to be strengthened. Likewise, public participation is included in the EIA proclamation but in reality public participation in EIA processes is weak mainly due to lack of clear guidelines and awareness (people seldom receive enough information regarding the process).

Equally, environmental sustainability education need to be mainstreamed in the curricula of schools and colleges while awareness creation on environmental pollution need to be given the seriousness it deserves.

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Appendix A
Addis Ababa University
College of Law and Governance
Centers for Federalism and Governance Studies
Master’s Program in Federal Studies

Dear Respondents,

The objective of this questionnaire is to assess the environmental policy in the federal system of Ethiopia thereby to analyze the state of devolution in the environmental matters with particular reference to Batu city administration of Oromia State. The information you provide would be very crucial and valuable for the study. Your participation in this study is completely voluntary and there are no risks associated with it. Hence, first of all I thank you for your contribution in relabeling my research by responding this questionnaire. Additionally, I would like to inform you that your response to this questionnaire will serve for my academic purpose only and will be strictly remained confidential.

Writing your name is not mandatory, but providing me with information on the rest is critical and I request you kindly to take some minutes in filling up the questionnaires.

Instruction: Use the sign “X” or put tick (√) in the box you choose in selection options with remark to make clear and provide answer for blank space. If the space is not enough for your opinion, *you can use on the back paper stating the number.*

Sex _____ age _____ Address _____

Work experience _____

Occupation _____

Title (position) _____

Educational level _____

I. Questionnaires a. Close ended

Evaluating City/Local Level Environmental Power.

S N	Items	Ratings				
		Strongly agree	Agree	Undecided	Disagree	Strongly disagree
1	Batu city administration has a power to implement environmental policy.					
2	Batu city administration has been making environmental law and policy.					
3	Batu city administration has been monitoring, and taking corrective measure regarding impact on environment.					
4	Batu city administration has the mandate to force industrial plants to implement EIA.					
5	There are financial constraints to protect the quality of natural environment.					

Respondents Opinion on Regional Autonomy in Environmental Policy and Law Making

S N	Items	Ratings				
		Strongly agree	Agree	Undecided	Disagree	Strongly disagree
1	Oromia Regional state has clearly formulated environmental policy.					
2	Oromia Regional state has been discharging its constitutional environmental responsibilities.					
3	Implementation of environmental policy is fair in Oromia Regional state.					
4	Batu water supply enterprise has the power and capacity to keep quality of water supply service for the public.					

Effectiveness of Environmental Protection for preserving of natural resources.

S N	Items	Ratings				
		Strongly agree	Agree	Undecided	Disagree	Strongly disagree
1	Environmental policy implementation has preserved natural resources in and around the city of Batu.					
2	Effective environmental policy implementation has been applied to and manifested at lake Dambel.					
3	Communities around and biotic lives in lake Dambel have benefited from environmental protection policy in and around Batu city administration.					
4	The quality of aquatic lives and vegetation in and around lake Dambel are not affected because of sound environmental policy implementation in the area.					
5	The legal provision and environmental policy is consistant with socio-cultural values of the community around lake Dambel.					

Consistency of Environmental Policy with Socio-cultural Values of the Local Community

S N	Items	Ratings				
		Strongly agree	Agree	Undecided	Disagree	Strongly disagree
1	Environmental protection policy is consistent with the socio-cultural values and norms of the society.					
2	Environment policy formulation took account of the social values and environmental heritages.					
3	The local people have a chance to comment and give suggestions before environmental protection legal machineries one endorsed.					
4	The environmental policy reflects the communities need and aspiratsion from the environment.					
5	The city residents are involved in the environmental policy implementation efforts.					
6	The citizens have been engaged in enacting regulation and directives					

Challenges in the realization of safety environment

- ❖ What are the challenges of environmental conservation in Batu City Administration?

a. Open ended questions

1. Would you express your opinion on whether federalism and environmental policy in Ethiopia is successfully promoting natural environment (water, vegetation and other lives of Lake Dambel) protection of Oromia regional state in Batu city administration? Is it, how? _____

2. What functions and responsibilities for environmental protection have been decentralized within the tiers of governments (state and urban local)? _____

3. Do the principles of federalism in Ethiopia facilitate for the exercise of self-rule with respect to the protection and utilization of natural environment in the regional state of Oromia?

4. At what level people participate in law making specifically in environmental law/policy with regard to natural resources such as water, vegetation and water lives related legal documents in your locality? _____

5. How societal culture, norms and values are taken into consideration while making environmental policy in Ethiopia federal polity to participate and empower the society at grassroots? _____

a) What do you think which level of government should assume the policy making power for easily considering these socio-cultural factors? Federal state Local/municipal

Why _____

6. How environmental protection (water, vegetation and other lives) policy is implemented in Batu city administration of Oromia state? _____

7. What are the social, environmental, and economic implications of the floriculture *sector* in Oromia state of Batu City Administration? _____

8. How might different levels of regulation improve the environmental outcomes of the industry in Oromia State? _____

9. Is there an institution or body mandated with environmental matters and responsible for Environmental Impact Assessment (EIA) administration clearly specified and strong?

Yes Partially No

a) If yes, which one? _____

b) If partially and no, what do you think. Why not assigned? _____

10. Is water from Lake Dambel in Batu city administration pure/quality? If yes, how? If no, how and why not? what is the evidence? _____

a. Is it due to lack of environmental policy or regulation problem or monitoring or absence of citizen engagement in all policy processes or what? _____

11. Would you mention some/ amount of the fertilizers and chemicals prohibited used by agro-industries in Batu city Administration? _____

12. Does waste water (effluent) drain from floricultures to Lake Dambel under any situation? If yes, How? _____

What is the effect on lives depend on it?

Aquatic lives _____

Vegetation/wetland/buffer zone/ surrounding Lake Dambel _____

13. Are there financial constraints to protect the quality of natural environment like water and other lives in Lake Dambel? _____

14. Are taxes on natural resources determined, administered and collected by Batu/Oromia state to preserve local environment? _____

a) If the answer for question No 14 “no” Why benefit charges for state-local services are not the power of state or urban government? _____

15. Is there institutions/institutional deal that link all environmental concerned bodies for further environmental protection? _____

Appendix B
Addis Ababa University
College of Law and Governance
Centers for Federalism and Governance Studies
Master's Program in Federal Studies

Dear Respondents,

The objective of this Interview is to assess the environmental policy in the federal system of Ethiopia thereby analyze the state of devolution in the environmental matters with particular reference to Batu city administration of Oromia state. The information you provide would be very crucial and valuable for the study. Your participation in this study is completely voluntary and there are no risks associated with it. Hence, first of all I thank you for your contribution in relabeling my research by responding this interview. Additionally, I would like to inform you that your response to this interview will serve for my academic purpose only and will be strictly remained confidential.

Specifying your name is not mandatory, but offering me with information is critical and I request you kindly to take some minutes to spend with me.

Semi-structured Interview

Oromia environmental protection bureau

1. i) Is there legal provision of authorities on environmental law making/policy formulation specifically on water pollution as a result of industrial action by other levels of government beyond federal government?
ii) How do you explain the degree of devolution of power for the implementation of environmental policy to the state or in local government?
iii) Regional state or Batu city administration can monitor, and take corrective action for deviance on industries.
2. i) Does the Oromia state have the power to formulate environmental policy without any influence?
ii) In what way the implementation of environmental policy freely takes place?

- iii) Was an implementation strategy designed; was it part of the policy formulation process or a post-decision event; by whom and when was the design of implementation strategy initiated; were roles assigned explicitly to key players and was a mechanism for coordination and compliance put in place?
3. i) Is the preservation of natural resources like water conservation is strengthened by effective environmental protection in study area?
- ii) Are companies like Floricultures used the requirement of environmental policy regulations in their actions and as a result keep environment?
4. i) Has the culture, norms and values of the society taken into consideration while making environmental policy/regulations/directives at the federal/Oromia state?
- ii) Injecting good experiences that is the way society live with the environment (water, forests, wildlife) keeping safe without modern legal system/policy/ for long period of time could be used as an indigenous knowledge innovatively is something good. How this inculcated?
- iii) To what extent the chance to comment and give suggestions before environmental protection focused legal machineries ratified to see their preferences by the people is taken into consideration?
- i) Are there any challenges in managing the natural environments to save living and non-living in the areas? What are they? How?
- ii) What are the constraints to conserve water pollution in and around Batu city administration?

Oromia Investment Bureau

1. i) Can Regional state or Batu city administration monitor and take corrective action for deviance on industries with the environmental regulation? How?
- ii) To what extent regional state/city administration have a right to impose industries to conduct Environmental Impact assessment.

3) i) Have the companies like Floricultures used the requirement of environmental policy regulations in their actions and as a result keep environment (water, lives) from danger?

i) What are the likely environmental impacts, opportunities and threats related with the development projects?

ii) Has there been litigation or complaints of any environmental nature directed against the proponent or flora industries?

Mayor /Kantiba/ office

1. i) Is there legal provision of authorities on environmental law making/policy formulation specifically on natural environment (water, vegetation, wildlife) as a result of industrial action by other levels of government beyond federal government? What is that?

ii) To what degree the power of implementation of environmental policy to city administration is decentralized?

iii) Can City Administration monitor and take corrective action for deviance on industries with environmental regulation?

2. i) Does the Batu city administration have the power to formulate environmental directives without any influence?

ii) In what way the implementation of environmental policy freely takes place?

3. i) Have the companies like Floricultures used the requirement of environmental policy regulations in their actions and as a result keep environment from danger? How?

4. i) Has the culture, norms and values of the society taken into consideration while making environmental policy/regulations/directives in the federal/state/Batu city administrations? How? Why not?

iii) To what extent the chance to comment and give suggestions before environmental protection focused legal machineries ratified to see their preferences by the people is taken into consideration?

- i) Are there any challenges in managing the natural environments like water to save lives in the areas? What are they? How?
- ii) How transparency in economy aspect (budget for environmental issues) have an impact on environmental protection activities?
- iv) Is there commitment to maintain safe, clean and healthy environment at federal/regional/city level? In what way?

Additionally, who is responsible for environmental problem in Batu?

Batu City council

1. i) Is there legal provision of authorities on environmental law making/policy formulation, regulation, directives remedial power specifically on water body by other levels of government beyond federal government? What are they? Why not?
 - ii) Can Regional state or Batu city administration regulate, monitor and take corrective action for deviance on industries with environmental guidelines?
 2. i) In what way the implementation of environmental policy freely takes place?
 3. Is the way environmental policy implemented likely to have safe environmental consequences by keeping Hara-Dambal/Lake Dambel from danger?
 4. i) Has the culture, norms and values of the society taken into consideration while making environmental policy/regulations/directives in Batu city administrations? how? Why not?
 - ii) Injecting good experiences that is the way society live with the environment (water, forests, wildlife) keeping safe without modern legal system/policy/ for long period of time could be used as an indigenous knowledge innovatively is something good. How this inculcated?
- i) Are there any contests in managing the natural environments to save living and non-living in the areas? What are they? How?

ii) How do you rate the legal provision of powers and monitoring issues impact on environmental protection in Oromia state and Batu city administration?

Additionally, who is responsible for the Environmental Problems in the Batu City?

Environmental Protection Office

1. i) Can Regional state or Batu city administration monitor, and take corrective action for deviance on industries with environmental regulation?
 2. i) In what way the implementation of environmental policy freely takes place?
 3. i) Is the preservation of natural resources like water conservation is strengthened by effective environmental protection in your locality?

ii) How implementation of environmental protection is likely to have safe environmental consequences by keeping Hara-Dambal/Lake Dambel from contamination?
 4. i) Has the culture, norms and values of the society taken into consideration while making environmental policy/regulations/directives in the /state/Batu city administrations? how? Why not?

ii) What influenced policy makers to adopt a particular course of action and what were the political, social, cultural and economic considerations taken into account? Which is more?

iii) Are the people have a role in the formulation of environment protection focused regulations, laws and directives?
- i) Are there any challenges in managing the natural environments to save lives in and around Hara-Dambal/Lake Dambel Batu city administration? What are they? How?
- ii) To what extent developmental plans and industries are regulated and monitored via power relation of federal-state-Batu city Administration?
- iii) How transparency in economy aspect (budget for environmental issues) have an impact on environmental protection activities?

iv) Is there commitment to maintain safe, clean and healthy environment at federal/regional/city level? In what way?

Investment office

1. i) Can state or Batu city administration regulate, monitor and take corrective action for deviance on industries with environmental guidelines?

3. i) Have the companies like Floricultures used the requirement of environmental policy regulations in their actions and as a result keep environment?

i) What are the likely environmental impacts, opportunities and threats related with the development projects?

ii) Has there been litigation or complaints of any environmental nature directed against the proponent or flora industries? What is main reason?

Municipality

1. i) What powers of actual environmental protection Batu urban local governments enjoy?

2. i) Does the city administration have the power to formulate environmental directives without any influence to harmonize with developmental plans?

3. i) Is the preservation of natural resources like water conservation is strengthened by effective environmental protection in your locality? What measures were taken to the adverse effects of water polluted if the problem is existing?

i) Are there any challenges in managing the natural environments (water, vegetation) to minimize the destructive effect due to pollutants? What are they? Briefly describe.

Water supply enterprise

1. i) What do you say about the quality of Batu city administration water supply?

ii) Do your enterprise have a power to investigate and take corrective actions from rehabilitation to termination for water supply service? If Yes, how? if no how and why not?

iii) Can the Batu city water supply enterprise quest the body that infested water quality in and around the city as a discretion?

2. i) Has Batu water supply enterprise endowed with the power to deliver quality water service for public independently?

3. i) Is effective environmental protection that reassures the quality of water that the enterprise offer service through only their own level of purification?

i) What are the constraints to conserve water pollution in and around Batu city administration?

ii) Is drinking water in and around Batu city administration contaminated? What is the evidence? How? What makes to keep water safe?

iii) Do agro-industries/floricultures pollute Lake Dambel through using extra fertilizers, pesticides and chemicals in Batu city?

iv) What are the Health problems caused by contaminated drinking water on human beings, animals and vegetation?

Industrial workers (supervisors, professional in the area)

3. i) How the environments (water, life's, vegetation) are protected in your company to save life?

ii) The companies like Floricultures have used the requirement of environmental policy regulations in their actions and as a result keep environment (water, lives)

i) Has there been litigation or complaints of any environmental nature directed against the proponent or flora industries?

ii) is the way pesticides, fertilizers and other chemical spray used for the production flowers effective? If Yes, How? if no, how and why not?

iii) do you think can in some way floriculture affects the natural environment (water, lives) in and around the city administration?

iii) Can you think any danger of the material used by floriculture on environment?

- iv) Does water and other wastes drain from floricultures to lake Dambel under any situation?
How? why not?
- v) Do you have any harming experience in floriculture agriculture used chemicals? Please clearly mention the incident.
- v) Would you mention major fertilizers and chemicals used by industries that have an adverse effect on the lives?

Ganda/Kebele

1. Haala sochiilee guddinnaa adda addaa kan mootummaa keessatti hirmaachisummaan hojiilee kanneen akka imaammata eegumsa naannoo baasuu hammam gadi bu'e ummataan mirkanaa'a?
2. Naanno jireenyaa keessanitti aangoon mariidhaan qulqullina eegumsa naannoo irraatti tarii gara bakka bu'ootaa ykn bulchiinsa keessaniitiin of danda'anii murteessuu akkamitti ibsitu?
3. Akkaataan imammanni eegumsi naannoo hojiirra ittiin oolaa jiru naanno jireenyaa keessan qixa-sirriitiin eegeera? Akkamitti? Maaliif?
4. i) Wayita immaammanni eegumsa naannoo hirmaachisummaan turee waan yaadatu qabduu?
ii) Beekumsi aadaan, duudhaadhaan naannoo ofii waliin mijaa'anii jiraachuu hammam eegumsa naannoo kan ammayyaa keessatti hammatameera? (namaafi naannoo isaa (bishaan, bineenladoo))wanti yaadatan jiraa? Osoo galee faayidaa akkamii qaba?

Community Elders (Abbootii Gadaa)

1. Haalla sochiilee guddinnaa adda addaa kan mootummaa keessatti hirmaachisummaan hojiilee kanneen akka imaammata eegumsa naannoo baasuu hammam gadi bu'e ummataan mirkanaa'a?
2. Naanno jireenyaa keessanitti aangoon mariidhaan qulqullina eegumsa naannoo irraatti tarii gara bakka bu'ootaa ykn bulchiinsa keessaniitiin of danda'anii murteessuu akkamitti ibsitu?
3. Akkaataan imammanni eegumsi naannoo hojiirra ittiin oolaa jiru naanno jireenyaa keessan qixa-sirriitiin eegeera? Akkamitti? Maaliif?
4. i) Wayita immaammanni eegumsa naannoo hirmaachisummaan turee waan yaadatu qabduu?
ii) Beekumsi aadaan, duudhaadhaan naannoo ofii waliin mijaa'anii jiraachuu hammam

gegumsa naannoo kan ammayyaa keessatti hammatameera? (namaafi naannoo isaa (bishaan, bineenladoo))wanti yaadatan jiraa? Osoo galee faayidaa akkamii qaba?

- i) Sochii guddinnaa kan naanna'a keessan kanaa akkamitti ilaaltan (kanneen akka guddina warshaalee adda addaa)?
- ii) Faayidaa sochiileen guddinaa kun guddina diinagdee, hawaasummaa, siyaasaafi naannoo jireenyaa keessatti qabu akkamitti ibsitu?
- iii)Dhiibbaa sochiileen guddinaa kun guddina diinagdee, hawaasummaa, siyaasaafi naannoo jireenyaa keessatti qabu yoo jiraate maal fa'a?
- iv) Warshaaleen adda addaa yoo naannoo jireenyaa keessanitti hundaa'uuf jedhan hawaasa mari'achiisuun jiraa? Yoo jiraate irratti waliigalanii raawwatame moo, osoo irratti walii hin galin raawwatame moo hafee beeka?
- v) Rakkoo qabatamaa sochii warshaaleen wal-qabatan keessaa inni ijoon isa kami? Miidhaa akkamii geese?

Interview for focus group

1. To what extent the environmental policy is decentralized in the Ethiopian federal system?
2. How the formulation and implementation of environmental policy is autonomously take place in Oromia regional state/at city level?
3. Is effective environmental protection policy is applied for the further preservation natural resources in the environment in and around Batu city administration of Oromia state?
4. What do you know about whether the socio-cultural values and norms have been considered in the environmental policy making in Ethiopia in general and case study site?
5. What are the challenges of managing environment in Batu city administration of Oromia?
6. Is drinking water in and around Batu city contaminated? How?
7. What health problems does it cause to the human beings, animals and vegetation in and around Lake Dambel?
8. Do you think that the result of this problem in this case is due to inefficient environmental policy, regulation, monitoring and other related factors?
9. Who is responsible for the Environmental Problems in the City? Tier/s of government/s?
10. What are the possible suggestions to resolve environmental problems?