
Review Article

The Veer from Frontier Economics to Eco-development Paradigm: Approaches, Policies and Strategies of Sustainable Development - The Case of Environmental Governance in Ethiopia

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Abstract: Ethiopia is one of the richest countries in natural resource endowment. Nevertheless, due to pressures from socioeconomic changes coupled with improper governance practices the country has been threatened by prolonged resource degradation with subsequent results. This paper was sought to assess paradigms, approaches, and strategies for sustainable development in case of environmental governance in Ethiopia. To achieve this objective, published and unpublished professional literature including important policy documents were reviewed. The institutional based environmental governance for sustainable use of natural resources in Ethiopia was started at the late of 19th C while Minilik II established central Government. The natural resource laws during Italian occupation (1936-41) focused on selection of economic forest and use-oriented paradigm. As a result natural resources were exploited in destructive way under a condition where there was no ownership. The environmental governance thinking/paradigm/ during the Haile Silassie regime was almost similar to previous one; frontier economics, rather than being ecological oriented. The misperception to natural resources; misguided intervention and irrational land distribution and tenure insecurity have led intensive natural degradation. After the Derg regime took the power, all natural resources were nationalized and governed through application of centralized frontier economics based on socialism ideology. Frequent redistribution of land, resettlement and villagization; involuntary participation of community weakened the effects of natural resource management practices applied during Derg regime. Political instability and civil war had its own sizable challenge on environmental governance. The environmental governance ideology, during EPRDF has been veered from pure frontier economics to Eco-development. Environmental issues have been handled by independent institutions through decentralized and local-community based approaches. Additionally, different bylaws and sustainable development strategies have been adopted by current government to handle environmental issues and have environmentally sustainable and green economic growth. However, still now, environmental governance is not successful and faces challenges from institutional instability; inadequate capacity and political commitment, feeble policy implementation & geophysical variables. Thus, all responsible bodies and key actors must work jointly to overcome challenges of environmental governance and realize environmentally sustainable development.

Keywords: Environmental Governance, Approach, Paradigm and Sustainable Development

1. Introduction

Environmental sustainability and governance have been increasingly become contested issues and taken the central

part in development policy making processes and agendas throughout the world. This is because majority of environmental resources have been highly degraded and deteriorated in many countries around the world [1]. Their carrying capacity and services have been declining from in

continuous manner, due to the increasing the magnitude and strength of both natural and anthropogenic drivers [2, 42].

Environmental problems are more intensive and critical in developing and tropical countries, due to continuous pressures from ever increasing population growth coupled with the expansion of ill defined investments, exhaustive extraction of important resource bases and weak environmental legal frameworks to manage and govern the natural status-quo and exploitation of natural resources [3, 4]. The world population, especially, people of developing countries highly rely on natural resources (land, forest, water wetland, Biodiversity...) to generate most of their livelihoods and survival strategies (Gross Domestic Product and income through crop production, livestock rearing, forestry and mining etc.) all of which are aggravating the problem extensively [5, 6].

Literature have pointed out that environmental management through legal and bylaw instruments is a global issue [7] and thus taking priority due to steady increase in industrialization, urbanization and enormous population growth [8]. As a result of intensification and widespread of the problems of global environmental change, mankind faces severe challenges especially in developing countries [9, 10]. For example, the World Bank report estimates that by 2000 up to 1 billion people in the world and 256 million people in developing countries were affected by soil erosion and land degradation which resulted from deforestation, overgrazing, and inappropriate agricultural practices. The effect on the human and animal health has always been rife; for instance, up to one-fifth of the total burden of disease in the developing world and up to 30 percent in sub-Saharan Africa may be associated with environmental depletion and pollution [11]. There has been now a considerable public concern to health of the environment in almost all over the world due to increasing of the impacts of environmental changes on human being and its means of survival [10]. As a consequence, the adoptions of different environmental policies at local and international scale that enable to dwindling and/or offsetting damages to the environment are becoming important constituent for sustainable economic growth and healthy life. Environmental protection legislations are therefore, becoming increasingly stringent in most countries to avert environmental problems and make natural resources sustainable for continuing socioeconomic development [8].

Natural resources in Ethiopia are the mainstay of economic development, food security, poverty alleviation, livelihood diversification and other necessities for ever increasing both rural and urban population [3, 10, 12, 13]. The heavy natural resource dependent economic, agriculture, coupled with population growth and weak and fragmented management and governance are exacerbating the rate of environmental degradation and problems. Due to this presently, natural resource and ecology deterioration in Ethiopia have long been severe threats and tribulations that range from very severe in rural areas to severe in urban areas [12], it can be the major challenge facing the country on striving for sustainable socio economic development [14, 15]. Land degradation, loss of biodiversity and woodland destruction, wetland degradation,

disappearance of cultivars and destruction of rangelands are the common current environmental problems throughout the country, especially in the highland areas; above 1500m above sea level [3, 13, 16]. Even though there are multifaceted drivers and causes behind, the strong linkage between economic activities and natural resources can be considered as the core driver of several environmental problems [9, 17]. Furthermore, many recent studies confirmed that in different parts of the country; expansion agricultural land; uncontrolled deforestation for fuel wood and construction materials; overgrazing; increasing number of cattle; seasonal fire; establishment of new settlements into forested land, ill defined investment policies, and lack of effective implementation of environmental policies are the important causes of environmental disturbance and degradation [12, 14, 18, 19]. Likewise, [20] in his dissertation strongly argued that climate change, in Ethiopia is one of the environmental problems and causing to loss of livelihood assets, social institutions, human life and countless properties. Apart from the socioeconomic impacts it has also its own sizable contribution to all environmental problems and extinction of flora and fauna in the country [21].

These widespread and disastrous environmental problems need urgent legal responses in addition to the local management systems and communities' initiatives [22]. The 1970s serious natural resource degradation and extreme drought and its effects were considered as the main reasons to make more environmental issues, the political agenda and the issue to be addressed through bylaw instruments because leaders and policy makers have conceived that drought was caused by environmental degradation and mismanagement of the resources namely forest and soil. There was institutional based environmental management activities in Ethiopia like the establishment of Semen National Park, Awash National Park and other wildlife protections before 1970s even though fragmented and misdirected [23].

Generally, environmental governance through legal environmental policies, strategies and proclamations in Ethiopia is not only closely tied to sustain and rehabilitation of natural resources but also socio-economic development and to leave out from both cyclic and transitory food insecurity and poverty trap [13, 22, 24]. Even though environmental conservation effort made though legal frameworks has long history in Ethiopia still it has been difficult to bring satisfactory result. Thus, this paper was designed to assess the environmental governance approaches, ideologies and strategies applied in Ethiopia specially starting from the imperial period up to the current government (EPRDF regime). It also attempted to find out the challenges to environmental governance in the country.

2. Methods of the Study

As stated above, this study was confined to explore the approaches, frameworks and strategies of environmental governance-applied in Ethiopia by different regimes. To meet the stated objectives, pertinent data secondary data were

generated through review and synthesis of different literatures: Professional books, articles, proceedings, different theses, environmental policies, strategies, guidelines and proclamations. The data were analyzed qualitatively through descriptive or narration approach. Based on the analysis conclusions were drawn and recommendations also forwarded that to be essential input to make sound on environmental governance and sustainable use of natural resources hereafter.

3. Result and Discussion

3.1. Environmental Governance Approaches and Strategies in Ethiopia

As many scientific literatures reveal, Ethiopia is one of the countries endowed with ample natural resources but environmental degradation, mainly due to population growth, destructive utilization and very weak management, holdbacks its citizens from harnessing the benefits they would benefit from the natural resources [10, 25, 26, 27, 28]. As a result of traditional subsistence economic system, weak natural resource management culture and population growth with high dependency ration, even though, it is not uniform throughout the country, environmental problems like, soil erosion, deforestation, biodiversity degradation and water pollution are extensive and have long history in Ethiopia [3]. These widespread environmental problems and their resultant effects have increasingly made necessary to give political solutions through formulation and implementation of environmental policies, laws and principles in Ethiopia [13, 23, 24, 29].

Some evidences have shown that environmental management has been taking place over many years in Ethiopia with handful result [9, 22]. In the early time, most of the ideologies were economic use oriented or 'frontier economics' [22]; which primarily focuses on using natural resources for their economic values at the expense of the ecological services and sustainability of the resources. A few adopted management practices were not inclusive; they are significantly confined with the conservation of land and soil resource. Evidences revealed that most of those management policies and strategies were unsustainable and also unsuccessful particularly because of with government instability, rapidly changing political economy and non-participatory, top-down development approaches [24]. Similarly, [30] argued that policy discrepancy with traditional conservation mechanisms, institutional incapability; lack of policy integration with local economic activities and landscape; lack of adequate budget, experts, facilities and weak political commitment were also responsible for the failure of environmental conservation strategies and actions in Ethiopia.

The time before World War II, was conceived as "Dark Age" of environment in Ethiopia because the environmental movement was very limited and until 1960s the emphasis given to environment conservation was almost scant. The late 1960s and early 1970s' chorionic drought and poverty forced

the government to take environmental issues as serious problem and natural resources conservation was assumed as the key strategy to increase agricultural productivity and exit out from poverty trap [22]. However, the institutional and political concern of environmental management was traced back to the 19th while MinilikII, led the country into modern state through the government administration-called "Cabinet of ministers". As stated under Article 8 and 14 of the 1893 Regulation for the establishment of ministry of agriculture, assessment of the coverage of farm lands, forests and grasslands was the responsibility of the Ministry of agriculture.

Moreover, the regulation stated that the ministry was also responsible to manage the forest resources of the country though application of different mechanisms. It was believed that, the droughts resulted from deforestation and the failure in forest management. In doing so, the ministry shall order the local community not to cut many trees without payment of taxes, not to cut small growing trees and rewards persons who grow many trees and determine the no of big trees to be cut-down by people [16]. During this time, there were afforestation and reforest programs especially eucalyptus tree plantation to overcome the shortage of firewood and reduce the burden on indigenous plants [31]. The first protected forest known as "Menagesha Forest" was established by Minilik II, roughly 30 kms west of Addis Ababa [16]

In General, before and during the Italian occupation, the concern to environment throughout the country was insufficient and the rules executed to address environmental issues were also rare and economic oriented [24]. This period was a time of political instability due the power struggle between Liji Eayasu and Teferi Mekonon (later Haile Silassie) and Italian invasion over Ethiopia. The natural resource laws during the Italian occupation (1936-41) focused on the economic potential of Ethiopia's natural resources rather than their ecological value. In other word, the environmental governance was use-oriented; it was frontier economic paradigm rather than ecology oriented or eco-development. During this period, the Italians issued over twenty forest decrees and implemented destructive forestry programs to fuel and infrastructural development [24]. They also focused on identification of the location of the economically valuable forests and plants such as Gesho (*Rhamnus pnnoides*), coffee, ... found in Harrar, Arissi, Bale, Sidamo, Illubabor and Goma Gofa. The forest was misused, wasted and not protected. Surprisingly, at that time, resources had no ownership and there were no assigned responsible institutions to conservation and fair utilization. As consequence, natural resources were significantly abused by Italians and local community [22]. It is possible to say that the period was the first time to Ethiopia to lose its natural resources especially forest extensively by predator state (Italy).

After the withdrawal of Italy from Ethiopia the imperial government' policy given concern to economic development of the country, especially the manufacturing sector and large scale commercial farms to meet objectives of the three-five years import substitution economic strategy [13, 32]. By the

time, natural resource management was significantly subjective to economic bias. For example, the management of natural resources, particularly forest and wildlife was to increase the government revenue from tourism, taxes and timber production but not for conservation and ecological values [22, 32].

As the result, many forested areas of the country converted into agricultural [especially for commercial farms] and industrial land uses [16, 24]. The 1955 Constitution of the imperial government introduced the principles of conservation and management of forest. Nevertheless, the forestry policies took extended time for designing and implementation. In history of forest management, in Ethiopia, the period of 1955-1968 is one of the most stressful time because the highland forest estimated in 1937 at nearly six million hectares was reduced by almost half to three million hectares in the early 1960s [13, 24].

During the imperial regime, the land use policy and land tenure insecurity problem not merely on agricultural production and the economy, it had also significant impact on the wellbeing of natural resources especially on forest and soil resources, and was responsible to the failures of environmental conservation measures [32]. He also stated that land use system had no scientific rationale and the distribution was made based on economic, political and religious master and that was described as one of the most complex compilation of different land use systems in Africa. The politico-administrative based classification made the farming peasants and their family the servant of the land lord. In general, the irrational land distribution and tenant-land lord relation exacerbated socio-economic and environmental problems: deforestation, Soil erosion and poverty and so that weakened the environmental protection measures and capacity [32].

In general; due to frontier economics paradigm, misperception to natural resources; unequal land distribution and land tenure insecurity coupled with disastrous drought and famine, the natural resources and biodiversity degradation reached at worsen stage and its effect became apparent. As the result, international donors and environmental activists had involved in environmental management. by the end of 1970's, the major donors began to be concerned about environment and developed environmental tools like Environmental Impact Assessment (EIA) in Ethiopia as a remedial measures to environmental damages resulted from development activities [22, 32].

As soon as the Derg regime took power in 1974 from imperial regime, it made the radical policy initiative in the country's history by nationalized natural resources including farming lands with intent to break the relationship between tenant and landlord once and for all and environmental management and conservation. Like the former regime, the Derg regime also followed frontier economics for environmental governance. However, the government tried to apply environmental conservation paradigm even though yet not adequate and centralized [22]. The environmental policies in the Derg regime (1974-1991) were designed on the line of

socialism ideology and philosophy. That is, the environmental legal frameworks derived from the socialism principles and laws; which increased the role of state and considerably discouraged the local community as owner and manager of natural resources [10, 16, 24]. The indigenous and traditional environmental management systems and strategies were also neglected.

The environmental governance was characterized by a force based top-down centralized approach and policies were heavily biased in favor of physical structures which were constructed on- or off-farm lands using food for work (FFW) as an incentive [22, 33]; which implies, the local community had no the chance to influence management tools in the preparation stages and even the involvement of communities during implementation were not based on their own interest. The involuntary community participation was one of the cases for the failure of environment conservation campaigns and policies during this regime.

In the 1970s serious environmental degradation and devastating drought and famines increased the need of environmental conservation and attracted the attentions of policy makers to make environment management to be one of the parts of economic policies and strategies [23, 32]. Even though they were not fully successful, the measures taken by the Derg government had brought encouraging results in resource conservation and halting of environmental problems. For instance, massive soil conservation and afforestation programs had been launched by the government in 1980s. These programs were undertaken by various government agencies with the assistance of international and bilateral organizations. The Community Forestry and Soil Conservation Department of the Ministry of Agriculture was the main government agency involved in the planning and execution of strategies for conservation and rehabilitations of resources throughout the country [30, 31]. In relation with environmental management, the department's responsibilities linked in to farm forestry, community forestry, and soil conservation. As the result of the campaigns, between 1976 and 1990, 71,000 ha of soil and stone bunds, 233,000 ha of hillside terraces for afforestation, 12,000 km of check dams in gullied lands, 390,000 ha of closed areas for natural regeneration, 448,000 ha of land planted with different tree species, and 526,425 ha of bench terrace interventions were made [31].

On the other side, according to [9, 10, 32, 33] the campaign had also its own serious problems that led to the failure of the Derg environmental conservation initiatives. The problems include lack of adequate incentive to farmers related to environmental conservation activities, use of farmers' land for afforestation programs with little or without any kind compensation and the soil conservation structures made some farmlands out of production and then became the cause to shortage of land particularly in the northern part of Ethiopia. Moreover, [14, 32] pinpointed that participation of the community without adequate education, trainings and forcefully without their interests was also the main gap of environmental campaigns of the Derg regime. As a result,

when the “Derg government lost power, most of the conservation and development activities and the nationalized forest resources were destroyed in protest against decades of top-down rule” [30].

In 1991 EPRDF has taken the power by overthrowing the Derg government. In the country, following the government transition, unprecedented ideological shift was made in environmental concern and ideology which have been realized in the establishment of formal environmental institutions and adoption of environmentally sustainable development policies and strategies [33]. Unlike the Derg regime, the current government has followed decentralized and integrated environmental management approaches and eco-development strategies [23, 33]. Even though, environment management and Eco-development have priority, still now the frontier economic ideology is significantly working in Ethiopia. The EPRDF’s government increasingly has involved in formulation of the necessary environmental legal frameworks and institutions since 1991 to address environmental problems and to mainstream natural resource management in development planning and decisions in legal ways.

As a result, even though it is not at the expected level, some remarkable progresses have been recorded in addressing environmental problems and towards increasing the green economy initiatives in the country. The development policies, programmes and strategies have been also designed and restructured in line with environmentally friendly and green development paradigms. For example, the 1995 federal constitution states that all development programs shall be designed and implemented without harming the environment and they mainstream natural resource management systems in their strategic plan [34]. The Growth and Transformation Plans (GTP I and II) are also critically designed and emphasized to meet sustainable development and emission free economy. The Government has also adapted a 15-year strategy to protect the country from effects of environmental degradation and build a climate-resilient green economy by 2025 [35].

Community based integrated natural resource management approaches have got great emphasis as a means of improving service delivery, resource allocation, regional development and meaningful participation of the people in decision-making processes [13]. The integrated participatory watershed management strategies which are being implemented throughout the country can be a good example. The strategies have been designed not only to conserve natural resources but also to improve economy of the local community and overcome the poverty and food insecurity problems at local and national scale which creates the capacity to the local community to invest on land management and to promote environmental conservation action. Furthermore, these approaches have great contribution in active participation of the local community and to make the local government responsible and accountable in environmental management. They have also sizable values to utilize the indigenous skills, knowledge and strategies [36].

For effective implementations of environmental policies,

the government has established different independent institutions: Ministry of Environment, Forest and Climate Change, institute of Biodiversity, wild life conservation authority,...). For these institutions, natural resources conservation and rehabilitations or regeneration are the key concerns, thought formulation and implementation of the policies and strategies [23]. MEFCC (formerly EPA) which established in 1995 is the primary environmental agency at the federal level and it is responsible for ensuring the realization of environmental rights, goals, objectives and basic principles stated in environmental policies of the country and to manage environmental issues through coordinating measures, establishing systems, developing programmes and mechanisms. It has also the mandates to formulate environmental policies; laws and rules; setting standards and procedures; monitoring environmental policies, implementing Environmental Impact Assessments (EIA) for proposed development activities and controlling hazardous chemicals from industries. Under MEFCC there are different environmental agencies at regional, zonal and woreda levels to develop (at regional level) & implement environmental policies, strategies & actions [37].

3.2. Environmental Legal Frameworks in Ethiopia Since 1991

The current government of Ethiopia has been designing different environmental legislations and legal frameworks to ensure the sustainability of natural resources and economic development plans and decisions to be environmentally friendly and implemented with no or minimum environmental cost. Some of the key legal frameworks are presented below.

3.2.1. The 1995 FDRE’s Constitution

In the 1995 Constitution of the Federal Democratic Republic of Ethiopia (FDRE) environmental sustainability is significantly recognized and the national economic policy and strategy (Proc. 4, 1995) considered it as a key prerequisite for long lasting success. The constitution stresses on the active participation of citizens in environmental conservation and rehabilitation programs and promotes the developments projects to integrate environmental management strategies in their business plans & make their projects environmentally sound. Regarding the environmental conservation and sustainable development, the [34] Constitution under Articles 43, 44 and 92 states the followings:

Article 43: Right to sustainable development

All Ethiopians have right to be consulted with respect to policies and projects affecting their life and to sustainable development. All development projects & international agreements are responsible to respect and ensure the sustainable development rights of the people

Article 44: Environmental Rights

All citizens shall have a right to live in a clean and healthy environment.

Article 92: Environmental Objectives

1. Government shall endeavor to ensure that all Ethiopians live in a clean and healthy environment

2. The design and implementation of programs and projects of development shall not damage or destroy the environment.
3. People have the right to full consultation and expression of views in the planning and implementation of environmental policies and projects that affect them directly.
4. Government and citizens shall have a duty to protect the environment

3.2.2. *The 1997 Environmental Policy of FDRE*

The Ethiopian government has issued an environmental policy by 1997 which is one of policies formulated in the country to ensure the sustainability of natural resources and integrate environmental issues with development projects. The policy tries to discuss the importance of mainstreaming environmental issues in development endeavor of the country. The policy has also recognized that environmental management is the mainstay and the prerequisite to improve the living standard of the people and achieve sustainable development. As pointed out by [10, 13] this policy, unlike those of previous regimes, addresses implementation principles, evaluation, and policy review, and explicitly recognizes the role of participatory management. The main aim of the policy is to improve the living standard of all Ethiopian and promote sustainable development through applications of sound natural resources management systems so as to meet the needs of the present generation without compromising the ability of future generations to meet their own needs [38]. Under the broad goal the policy has also the following specific objectives and key guiding principles.

Specific objectives

1. Ensure that essential ecological processes and life support systems to be sustained, and biological diversity is preserved
2. Ensure resources and its benefits to be sustainable
3. Mainstream and incorporate full costs and benefits of natural resource development into the planning, implementation and accounting processes
4. Improve the environment of human settlements to satisfy needs on a sustainable basis;
5. Prevent the pollution of natural resources in the most cost-effective way
6. Ensure the empowerment and participation of the people and organizations at all levels in environmental management activities;
7. Raise public awareness and promote understanding of the essential linkages between environment and development.

Guiding principles: The followings are some basic principles that designed for implementations of the policy and realize the above mentioned objective.

1. Every person has the right to live in a healthy environment
2. Sustainable environmental conditions and economic production systems shall be assured
3. Utilization and management of resources shall be in

sustainable way

4. Development process and economic activities shall minimize their impacts on environment
5. Environmental benefits and costs shall be integrated with development process
6. Systems of land and resource access shall promote sustainable natural resource management
7. improve people's awareness on environmental issues
8. environmental management activities shall be integrated in all development processes

3.2.3. *Environmental Impact Assessment Guideline and Proclamation*

Apart from environmental policy, Ethiopia's government has made the comprehensive environmental impact assessment guideline framework to be the road map for investors [state and private] projects in order to identify, analyze, and mitigate [avoid, minimize or compensate] the impacts of economic development projects or their parts on the environment as well as the local communities. In Ethiopia, conducting environmental impact assessment before project implementation is one of the necessary preconditions in order to get approval for running investment projects. According to the EIA guideline the primary purpose of conducting an EIA is to ensure that the environmental effects of proposed activities are adequately considered and addressed before decisions are made on projects implementation [39].

For the enforcement and effective implementation of environmental policies, especially the EIA, the government has proclaimed Environmental Impact Assessment Proclamation in proc No. 299/2002. The ultimate objective of the EIA proclamation is to provide sound methods to mitigate the impacts and harmonize the development projects with the environment so as to promote sustainable development. It is also legal requirement devised to implement the environmental rights granted by the Constitution and protects against the violation of these rights [13, 16, 40].

3.2.4. *Sectoral Environmental Policies and Proclamations*

The Government of the Federal Democratic Republic of Ethiopia (FDRE) apart from environmental sustainable economic policies and strategy frameworks; has formulated different environmental policies and strategies related with specify type of natural resources. Each of them has the objectives to conserve the resource and its sustainable utilization for socio-economic development. The Forest Conservation, Development and Utilization Proclamation (Proc. No 94/1994), the Water Resources Management Policy including the Water Sector Strategy (2001), the Federal Rural Land Administration and Land Use Proclamation (Proc. No. 456/2005), the Water Sector Programme of 2002; Ethiopia National Biodiversity strategy and action plan (2004), Ethiopian wildlife conservation policy and strategy (2011) and the Development Conservation and Utilization of Wildlife Proclamation No. 541/2007 are some of the sectoral environmental policies and legislations.

3.3. International Environmental Conventions and Agreements

In addition to the inland environmental legal frameworks, Ethiopia has also signed and ratified different international conventions, agreements & protocols which relate with environmental issues, biodiversity conservation and sustainable development. These international conventions can

indicate efforts of the country to address environmental problems and make its development environmentally sustainable. In other way, adoption and ratification of the international agreements have been considered as strong force of the country to formulate and implement different policies, laws and regulations to fulfill the responsibilities given by international community [23]. Some of the conventions signed and ratified by Ethiopia are presented below in the table.

Table 1. Some International Environmental Conventions signed by Ethiopia

Convention	Date of Signature	Date of ratification	Focal point	Implementing Institution
The Convention on Biological Diversity (CBD)	June 10 1992	Apr 5 1994	IBC	IBC
The Cartagena Protocol on Biosafety (CPB)	Jan 29, 2000	Sep. 22, 2003	EPA	MEFCC
The United Nations Convention to Combat Desertification (UNCCD)	Oct. 15 1994	June 27 1997	EPA	MEFCC
The United Nations Framework Convention on Climate Change (UNFCCC)	Jun 10, 1994	Apr 5, 1994	NMSA	NMSA
The Convention on International Trade in Endangered Species (CITES)	Apr. 5, 1989	July 4, 1989	MoARD	MoARD
The Vienna Convention and the Montreal Protocol for the Protection the Ozone Layer	–	October 11, 1994	NMSA	NMSA
The Basal Convention on the Control of Trans boundary Movements of Hazardous Wastes	March 22 1989	October 8, 2003	EPA	MEFCC
The Rotterdam Convention on the Prior Informed Consent Procedure	–	January 9, 2003	EPA	MoARD
The Stockholm Convention on Persistent Organic Pollutants	May 17 2002	January 9 2003	EPA	MEFCC

Source: Belay, 2016

3.4. The Challenges of Environmental Governance in Ethiopia

Environmental management practices have long history in Ethiopia and different policies and strategies have been developed, as discussed above. However, still they have failed to bring sound effects on conservation of resources and making the development processes environmentally risk-free. There are enormous reasons for the failure of environmental legislations and unable to meet the objectives of environmental management [12, 30]. Lack of proper implementations of environmental legal frameworks is one of the problems [22]. The success and quality of any policy is measured based on the level of its implementation and the level at which it achieve its intended objectives. Regarding this, government has made different and many international environmental agreements. However, there are gaps between the environmental commitments made and the actual implementation to improve environmental outcomes. Most of the legislations are kept silent and failed to reach on the ground to meet the intended objectives to which they are designed [16, 23].

Institutional capacity in skilled human power, financial and material is the fundamental instrument for productive environmental governance. Starting from the past the Ethiopia's governments have made steps forward in establishment of environmental institutions and capacity buildings. However, still now capacity problem is one of the bottlenecks for enforcement of laws and implementation of designed strategies [41]. According to [10, 16, 30] lack of well trained and skilled human power in key sectors of the environment and development activities and financial problems are not uncommon problems in environmental management practices, especially at local level and implementation phases. Apart from these, frequent restructuring of institutions, tenure insecurity and lack of coordination between organizations have played pivotal role

in challenging environmental governance in the country [30].

In Ethiopia, Sometimes, other development policies and strategies act as the hindrance of the implementation of environmental policies and management plans. For example, the investment policies and strategies in Ethiopia have their own effect on proper management of natural resources [30]. The emphasis given to environment by the government and investors is not equal with the attention given to economic development. Currently, the government is trying to encourage investment to promote economic development and improve the living standard of the people. Even though the government has warned that environmental impact assessment is mandatory and projects should have healthy relationship with the ecosystem but most of them are not free from the questions of environmental degradation and pollutions [9]. Most of them also have given more emphasis to profit maximization rather than making their projects eco-friendly. However, economic oriented utilization of natural resources is unsolved challenge to environmental governance in Ethiopia [22].

The other challenge is related to socio-economic and bio-physical variables. There are many socio-economic and bio-physical constraints that hinder decisions on overcoming environmental degradation. Chronic poverty, weak economic status of community, over-population growth, unemployment, land fragmentation, land productivity reduction, climate change, recurrent drought and disastrous animal and human diseases are the known socio-economic and environmental factors in Ethiopia that hold back the implementation and practices of environmental management tools [10, 30].

4. Conclusion and Recommendation

In Ethiopia, the population growth, traditional economic activities with widespread degradation of natural resources, particularly forest, and soil have led to formulation of environmental legal frameworks. Environmental governance

has been taking place over many years in Ethiopia to protect the environment from degradation; however, most practices were economic oriented, centralized and also unsustainable. Moreover, mismanagement of resources and unsecured property rights caused to devastating destruction of natural resources.

The natural resource laws before 19670s focused on the economic use of natural resources rather than their ecological services and its sustainability. The frontier economic ideology was applied to harness the economic values of the natural resources with little conservation concerns. Therefore, natural resources, especially the forest, soil and wild animals were extensively degraded.

After the withdrawal of imperil regime, the Derg government had followed both economic and conservation oriented paradigms; but great emphasis was given to the former one. The regime adopted centralized approach of natural resource management and restricted the local communities and Governments participation merely on implementations of policies and strategies. With assumption of increasing agricultural production to halt the prolonged drought and food insecurity, the environmental management practices were emphasized on soil and forest conservation. After 1991, there has been ideological change in environmental governance from economic focused to Eco-Development and the decentralization resources management approach has been implementing by mobilizing the local communities. Additionally, the economic development and investment policies, programmes and strategies have been designed in line with environmentally friendly and green development paradigms. Even though yet not adequately implemented, various environmental governances tools also established at Federal and regional levels. Inclusion, lack of political commitment, ignorance of policy implementation, giving priority to economic growth, institutional and capacity constraints, economic and environmental problems like weak economic status, recurrent drought and climate change are the bottlenecks to environmental governance and management in Ethiopia. Therefore the government and key stakeholders are expected to put their arms in the basket of environmental governance in order to make natural resources sustainable and to map sustainable economic development path ways.

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