

Research Article

**The Challenges of Environmental Security in IGAD Region a case study of Ethiopia and Kenya**

Abyew Teshome

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<sup>1</sup>Lecturer at Bule Hora University Department of Civics and Ethical Studies MA in Peace and Security Studies from Addis Ababa University, Institute for Peace and Security Studies  
Email: abyewteshome0@gmail.com Cell phone:+251927715398  
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### **Abstract**

This study explains in detail about the main challenges of environmental security in IGAD member states a case study of Ethiopia and Kenya. To deeply investigate the root causes of the problem, the researcher has employed a qualitative approach, which is followed by document analysis as instrument of data collections. The issue of environmental security is a hot issue which catches the eye of many academicians, experts and the global population as a whole. A number of agreements were held in different countries regarding on the issue of securing the environment from harm. Still there are countries which are not changing these agreements in to practice. The impact of environmental security is affects the glob as a whole rather than confined in a particular area. The severity of the problem of course varies from area to area. Now a day environmental issues are the nucleus of human security. In the absence of healthy environment attaining human security specifically in the 21<sup>th</sup> century is unthinkable. Drought occurs here and there in IGAD members, because of the degradation of the environment by so many factors. Ethiopia and Kenya are the victims of environmental insecurity in the region in a sever way. The rapid growth of population, inappropriate agricultural practice, too much dependency on the use of fuel wood for house hold energy and deforestation as well as overgrazing of lands are the most serious factors which threaten the environment in Ethiopia and Kenya. Consequently, many individuals are lead a miserable life and some others are migrating to outside world in search of better income and healthy environment. the researcher recommend that the Ethiopian Green Economy concept should be consolidated and developed to create sustainable development which goes hand to hand with the environment. Like the Ethiopian Green Economy concept the Kenyan Green Belt Movement should be consolidated to create a healthy environment. Moreover, using substituted energy source is important like solar energy rather than always relying on fuel wood.

**Key words:** Challenges, Environmental security, Ethiopia, Kenya

## **1. Introduction**

### **1.1. The back ground and establishment of IGAD**

IGAD was founded in 1986 as the Inter-Governmental Authority on Drought and Development (IGADD) in fighting desertification and promoting efforts to mitigate the effects of drought.

A Summit held on 18th April 1995, the Heads of State and Government decided to expand its task to cover political as well as economic issues. Accordingly, the Authority was re-named the Inter-Governmental Authority on Development in 1996. IGAD faces a numerous of sustainable development challenges to realize its objectives. The sustainable management of natural resources and environmental protection, the very foundation upon which the socioeconomic development of the region depends is one challenge. The IGAD region has a plenty of natural resources with the potential to drive economic growth and social development. However, the full environmental and natural resources potential is not being realized for a number of reasons including: a fast rate of growth of a largely rural, peasant and heavily natural resource dependant population; natural disasters; and institutional weaknesses. The primary objective of the IGAD Environment and Natural Resources Strategy is to enhance the integration of environmental and natural resources concerns into development frameworks for environmentally sustainable economic development in the region (IGAD Environment and Natural Resources Strategy April 2007). Ethiopia and Kenya are some of them which are the victims of environmental insecurity. Droughts were occurred here and there in Ethiopia and Kenya. Ethiopia and Kenya are faced by

a lot of problems. The increment of population and misuse of natural resources are the main factors which prone to environmental degradation. So, as a peace and security expert I want to discuss the main challenges of environmental security deeply which faces the two countries; and finally I will forward my recommendation what will be done to reduce environmental challenges in Ethiopia and Kenya.

## 1.2. The concept of Environmental Security and Insecurity

One of the components of human security is environmental security, which focus on threats inflicted by the degradation of local eco system and also that of the global system, mainly global warming (UNDP, 1994).

The post-cold-war era brought new security challenges to the globe. The traditional state-centric and military-based approach to national security was no longer adequate because not only had it become redundant, albeit temporarily, but also it could not address emerging national, regional and international security threats. New global conditions like increasing population, industrialization, and globalization spurring greater economic, social and political interaction between and among nations and, thereby, inducing new transnational threats such as environmental degradation, droughts, floods, diseases, ethnic violence, have given rise to the need to redefine security (Mathews, 1989). As far as the concept of security is concerned, it is a central issue of nation state to be free from external threats. However, in the 21st century threats have become too complex, because of the force of globalization and these threats are affecting all people. Moreover, state can fail or inefficient or incapable in achieving these security obligations and beside, at times the state itself is causes of insecurity. So, the focus of security is then shifting from the state to people (CHS, 2003). The concept of security, therefore change from an exclusive stress on state (territorial security) to a much greater stress on people's security (UNDP, 1994).

Though, human security included new issues as far as security is concerned. Furthermore, it is a pre condition for the consolidation of human development and it is essential for its continuity.

Therefore, the link between environmental issues and human (in) security is especially close, as much of the environmental problems are directly affected by human activity and yet, their security is bound to the access to natural recourses and their vulnerability to environmental change.

The notion of environmental security should be understood from two angles. On the one hand, it placing emphasis upon the environmental dimension, security means maintaining an ecological balance, at least to the extent necessary to sustain resource supplies and life-support systems. On the other hand, it emphasizing the dimension of security in the traditional sense, the term refers to the prevention and management of conflicts precipitated by environmental decline. Environmental security has also been defined as the process of peacefully reducing human vulnerability to human-induced environmental degradation by addressing the root causes of environmental degradation and human insecurity (Kariuki Muigua, 2015).

Environmental security once again refers to the freedom from environmental destruction and resource scarcity. Institute for Environmental Security has defined environmental security as: the current and future availability of life-supporting ecosystem services and goods for human

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needs and natural processes. Environmental security can generally define as a state in which an ecosystem is able to support the healthy pursuit of livelihoods by the people living in that system. It refers to the rational and sustainable use of natural resources, safe disposal of wastes, as well as protection from pollution and abuse, and conservation of biological diversity (Westing, 1991 cited by Eric de Giessen, 2011). Environmental insecurity logically means the opposite of the concept environmental security. Some environmental conditions are naturally insecure, due to innate biophysical characteristics (like inherently acidic soils). Many others are insecure as a result of human activity, such as deforestation. Natural and human-made causes interact, for example, when natural flooding is aggravated by deforestation in watersheds (Blaikie and Brookfield 1987 cited Eric de Giessen, 2011).

### **1.3.Environmental security in Ethiopia and Kenya**

#### **1.3.1. Environmental Security in the case of Ethiopia**

Ethiopia is located in the Horn of Africa comprising an area of about 1.1 million sq. Kms. Bounded by five countries; Eritrea is on the North, Djibouti and Somalia on the East, Kenya on the South and the Sudan on the West (Carla Bielli, et al, 2001).

Ethiopia has been established the concept of Green economy in order to create conducive environment. The Climate Resilient Green Economy development path is designed to be well assimilated with the national development goals and objectives namely the Growth and Transformation Plan II. The basic reason for why the country opted for such developmental path is associated with the fact that the country has already experienced the adverse effects of climate change: increased temperature and a change in rainfall pattern; and furthermore climate change presents the obligation and opportunity to shift to a new sustainable development model. The document stressed that the country should follow a sustainable developmental path against the conventional developmental path.

The green economy plan is based on four pillars: enhancing crop and livestock productivity while reducing emissions, development of forest resources for economic and ecosystem purposes as carbon stock, tapping electricity generation from renewable sources and promoting energy efficient technologies in transport, industry and buildings. Ethiopia is regularly threatened on a massive scale by environmental problems such as soil erosion (with associated land degradation), drought, deforestation, and floods. The country loses up to 2-6 percent of annual crop production due to climate uncertainties, with drought being the main national environmental challenge. Ethiopia has a high country risk index of 7.38, one of the highest in Eastern Africa, which underlies a high level of potential risk for conflict, both within the country as well as in the region (Andualem, nd).

To mitigate environmental insecurities the country has introduced various documents including in its constitution and in the Growth and Transformation Plan. Article 44 of the FDRE Constitution addresses the protection of the environment and declares citizen's right to a clean and healthy environment. Since 1994, the country has taken important steps through the enactment of environmental rights under the constitution, the adoption of the Environmental Policy and Conservation Strategy of Ethiopia, the ratification of multilateral environmental conventions, and the establishment of the Environmental Protection Authority (EPA, 2004).

For instance, Article 92 of the 1995 FDRE constitution stated that;

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

2. The design and implementation of programs and project of development shall not damage or destroy the environment.
3. People have the right to full consultation and to the expression of views in the planning and implementations of environmental policies and project that affect them directly.
4. Government and citizens shall have the duty to protect the environment (1995 FDRE constitution).

But Ethiopia is faced environmental insecurity day and night; because of this drought occur in different corners of the country and food insecurity also happened. What the constitution said and what happen in the ground is contrary.

### 1.3.2. Environmental Security in the case of Kenya

The Green Belt Movement (GBM) was founded by Prof. Wangari Mathai in 1977 under the support of the National Council of Women of Kenya. Started mainly as a grassroots women's social movement, GBM promotes a bottom up, holistic approach to environmental conservation and development, a process that addresses basic needs and problems that communities identify as their priorities. Using tree planting as the entry point, GBM mobilizes communities to take action for their immediate environment. Kenya's Green Belt Movement became internationally famous in 2004 when its founder, Wangari Maathai, was awarded the Nobel Peace Prize. Since 1977, in Kenya and other parts of Africa, the movement has planted millions of trees in an effort to restore ecosystems, promote sustainable livelihoods, empower women, and promote democracy (Taylor, 2013).

The Constitution of Kenya recognizes the importance of the environment and therefore calls for its respect, being the heritage of the Kenyan people, and also requires its sustenance for the benefit of future generations. The Constitution provides that every person has the right to a clean and healthy environment, which includes the right: to have the environment protected for the benefit of present and future generations through legislative and other measures, particularly those contemplated in Article 69; and to have obligations relating to the environment fulfilled under Article 70 (Muigua, 2015). Even if Kenyan established different policies and strategies still they are faced by environmental problems or environmental insecurities.

## 2. Challenges of environmental security in Ethiopia and Kenya

The major factors accelerating environmental degradation rate in both countries are man's abusive actions such as the removal of the natural vegetation cover through deforestation, over-grazing and inappropriate agricultural practices.

### 2.1. Inappropriate Agricultural sector

The livelihoods of the people in the Horn of Africa region strongly depend on agriculture, which is true in Ethiopia and Kenya. Agriculture employs about 60-80% of the population In the Horn of African states (Eric de Giessen, 2011). Ethiopia is an agrarian country and agriculture employs about 80 percent of the population (Carla Bielli, et al, 2001). Depending on the availability of rainfall, livelihoods of most people are based on farming or pastoralism. As livestock production is highly dependent on the availability of natural resources such as water and pasture, the welfare of pastoralist communities is directly related to environmental factors; scarcity of water and grazing lands pose natural threats to pastoralist livelihood systems. At least 4 out of every 5 Ethiopians depend on agriculture; pastoralists and farmers together contribute over half of the total GDP (52%). Agricultural land accounts for 31% of the total Ethiopian land

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area (20% of the land is used as grazing land, 11% is arable land). The agricultural sector covers 95% of the food demand; the other 5% is covered from imports and food aid. While the agricultural sector in Kenya is a source of livelihood for 75% of the population, it only contributes to one quarter (26%) of the total GDP. Almost half of the land (47%) is used for agricultural, mostly pastoral, activities. Harmful (traditional) agricultural practices in Kenya and Ethiopia, such as overexploitation of land, overgrazing, bush fires, and the cultivation of marginal and easily eroded lands have intensified the degradation of the soil and led to a rapid decline of land productivity. Traditional agricultural system and the use of pesticides and chemical fertilizers damage the fertility of soil. This is a major problem in the agrarian countries such as Ethiopia, Kenya. The use of agrochemicals (fertilizers, pesticides, herbicides and insecticides) tends to have a large impact on conditions of the soil and on the organisms that depend on the soil (Eric de Giessen, 2011).

### **2.2. Deforestation and forest degradation**

Extensive deforestation has been the major factor contributing to forest degradation. Deforestation and forest degradation is caused by so many factors, such as cutting wood for energy and the conversion of forest into agricultural land. Deforestation involves a quantitative decrease in the area covered by forest. Forest degradation does not involve a reduction of the forest area, but a quality decrease in its condition, related to one or a number of different forest ecosystem components (fauna, soil, etc.). Massive clearing of forests can have devastating effects on the well-being of ecosystems and people. Forests provide a habitat for many plant and animal species. Destruction of forest habitat for agricultural purposes, energy needs and commercial logging, can greatly affect biological diversity. One of the main threats to vegetation and biodiversity in IGAD member is the uncontrolled collection of firewood and production of charcoal, to cover both domestic fuel needs and for export to countries in the Arabian Gulf region. This is manifested in the Mau Forest, Kenya's largest water tower. Large parts of the forest were cut to prepare the land for cultivation. This tremendous forest degradation seriously disturbed the hydrological function of the area as a water reservoir. This heavily affected millions of people in the wider region depending on the water for farming and pastoralism. (Eric de Giessen, 2011).

Century ago, forest coverage of Ethiopia was estimated to be about 40 percent of the country. However, now-a-days such coverage is not present. Extensive agricultural activities and demand for firewood due to population increase are the major causes for deforestation. It is to be noted that it is the highland part with better rainfall which had forest cover. The lowland areas had bushes and shrubs covers, which are also decreasing fast. The population which is growing at a very rapid rate of about 3 percent annually has been clearing forests and vegetation at an alarming rate in order to meet its increasing requirements of food, fiber and energy (Carla Bielli, et al, 2001).

### **2.3. Fuel wood**

Fuel wood has become increasingly difficult to obtain in both rural and urban areas in many Sub-Saharan African countries with rapidly growing populations using much more fuel wood than in the past. Fuel wood is the main source of household energy in Sub-Saharan Africa, with 90 percent of households using them for cooking. An increase in population translates directly into an increase in demand for fuel wood. As a result, in some parts of Africa the demand for both fuel wood and agricultural land has led to deforestation and desertification. For instance in

Ethiopia more than 80% of the people live in rural areas, traditional fuels contributed a high percentage of the energy consumption, with fuel wood being the most important source (Carla Bielli, et al, 2001).

#### 2.4. Overexploitation and Overgrazing

Land degradation caused by droughts can be recovered if the land is left to a period of time. Overgrazing occurs when a vegetated area is exposed to excessive grazing, without sufficient time to recover. Consequently, the vegetation will disappear mostly or entirely. The area of grazing land decrease where as the number of pastoralist is not decrease. Pastoralism is an integral element of the culture of about 25 million people in the Horn of Africa. Therefore, people are generally not easily giving up pastoralism (Eric de Giessen, 2011). In IGAD member states, the number of pastoralists is estimated at 17.3 million which makes it the largest concentration in the world. Due to the migratory nature of the pastoral lifestyle, the recorded number of pastoralists in Kenya varies widely because they have never been counted accurately. The 2004 report by the Minority Rights Group International forecasted that there were about 6 million or roughly 18% pastoralist among total population of Kenya. This figure ranks Kenya 6th in the world in terms of pastoral population size behind Sudan, Somalia and Ethiopia that are ranked 1st, 3rd and 5th, respectively. Pastoralists occupy about 72% of Kenya's land that is Arid and Semi Arid Land ( Sabala, 2013). So, these pastoralists exploit the environment.

#### 2.5. Rapid population growth

At the beginning of 20<sup>th</sup>c the population size of Ethiopia was 11.8 million with a growth rate of 0.2 percent per year. In 1950, the population size had increased to more than 19 million and its growth rate had reached 2.1 percent per year. The population growth rate of Ethiopia is slow until 1970 and accelerated then after this period of time. The rapid increase in the population size and growth rate is the result of a sharp decline in mortality which was brought about by the successful malaria and smallpox eradication programs of the 1950's and 1960's. The doubling time is shorter and the growth rate of population in Ethiopia is faster. For instance in 1994 the total population of Ethiopia had 53.5 million. It took 60 years for the population at the beginning of the 20<sup>th</sup> century to double itself but less than 27 years for the 1994 population to double itself. The level of fertility after the year 1970 is high in Ethiopia (Carla Bielli, et al, 2001). The Kenyan population also growing rapidly and has more than tripled from 10.9 million people in 1969 to 38.6 million people in 2009. Even if the total fertility rate decline from an average of 4.6 children per women in 2009 to 3.7 by 2030, the population will still grow to 65.9 million (Kenyan population data sheet 2011). When population increase the exploitation of environment also increase. Since majority of the Ethiopian and Kenyan population depend on agriculture and natural resource this led to the exploitation of natural resource.

### **Conclusion**

The issue of environmental security is the main discussion point globally. A number of agreements were held in different countries regarding on the issue of securing the environment from harm. Still there are countries which are not changing these agreements in to practice. As a result of this, the issue of environmental insecurity is accelerated from time to time. The impact of environment is not stop in a particular area; rather the problem of environment is also affect in faraway places. It is difficult to divide and tell about the boundaries of some environmental problems and their effects, they are affected regional, national and global. Air pollution, for

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instance has no regional limitation. The reduction of rainforests and the effects on the earth ecosystem and the whole ecological changes in our world are important issues which concerns all of us. Drought occurs here and there in IGAD members, because of the degradation of the environment by so many factors. Ethiopia and Kenya are the victims of environmental insecurity. Of course there are also a number of countries which are the victims of environmental insecurities. The increment of population, inappropriate agricultural practice, focusing on the use of fuel wood for house hold energy and deforestation and overgrazing of lands are the most serious factors which threaten the environment in Ethiopia and Kenya. Because of such factors the following happens;

- ❖ The quality of soil decrease
- ❖ The availability of food reduced
- ❖ The quality of fresh air decrease
- ❖ The quantity and quality of water decrease
- ❖ The quantity and quality of bio diversity decrease and so on...

### **Recommendations**

The researcher has recommends the following key points:

- The Ethiopian Green Economy concept should be consolidated and developed to create sustainable development which goes hand to hand with the environment.
- Like the Ethiopian Green Economy concept the Kenyan Green Belt Movement should be consolidated to create a healthy environment.
- Using substituted energy source is important like solar energy rather than always depending on fuel wood.
- Create awareness among the population about the dynamics of population growth, population movements, and their effects on the natural environment.
- Developing the culture of family planning is important to control the growth and doubling rate of fertility in both Ethiopia and Kenya.
- To break the vicious circle of environmental challenges, consolidating a holistic approach which requires the involvement of both governmental and nongovernmental organizations including the participation of women are play a pivotal role.
- Developing strong policies which preserve the environment like the current Norway environmental policy is important.
- Establishing a number of environmental agreements by itself is nothing, rather implementation and evaluations are important.

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