

Essay of the East and Horn of African Delegates

Roadmap to prosperity through sustainable Natural resources management in the East and Horn of Africa

Introduction

Natural resources constitute the basic support systems for life on earth. Hundreds of millions of people in both the urban and rural areas directly depend on natural resources for provision of crucial ecosystem services and livelihoods support. Water, soil, air, forests and other biodiversity play a major role in supporting life systems which are crucial for human survival. In addition, minerals and fossil fuel deposits when sustainably exploited can play a big role in human development in terms of income generation, job creation and energy provision.

The East and Horn of Africa region is characterized by favorable soils and climate for agricultural production, human settlement and quite rich biodiversity. In fact, these factors have played a crucial role in promoting the region as a major tourist destination both for recreation and game viewing. In addition the region is endowed with large deposits of minerals like gold, diamond, fluor spar, titanium, gemstones and iron ore. Coal, gas and oil deposits which were the main drivers of industrialization in many developed countries have recently been discovered in the region and people have high expectations that they will play a major role in the region's development.

However, exploitation of the available resources to the benefit of the people in the region is characterized by a myriad of problems and challenges. First and foremost, the region is categorized as a water stress region with the majority of the land mass in Kenya, Tanzania, Ethiopia, Somalia and both South Sudan and Sudan being classified as either arid or semi-arid. Many conflicts between pastoralist communities within and across borders have arisen over water and pasture for animals. Tanzania, Kenya, Uganda, Ethiopia and Sudan have experienced most of these conflicts which result in wanton destruction of property and sometimes loss of life.

Despite the region being a source of major rivers like Nile, Athi, Tana, Omo, Juba, Ewaso Nyiro, Daua and Shebelle, it is still highly dependent on rain-fed agriculture. The unpredictable nature of rainfall in terms of patterns and levels, a problem mostly associated with climate change, has negatively affected the region's food security. Many a times, the region has relied on food aid from the rest of the world when there is drought. Overreliance on traditional subsistence farming methods which leads to land degradation and under-production only exacerbates food insecurity in the region.

Although the region is endowed with mineral deposits, lack of technology and capital has left some of these resources largely unexploited, while in some cases the governments make mining concessions with sometimes unscrupulous entities which give minimal or no benefits to the locals. The aftermath is animosity and conflict between the locals, the governments and the mining companies, which in many cases leads to war, destruction of property and loss of lives and livelihoods.

Fossil fuel deposits have in the near past been discovered in the region and their exploration is still ongoing. Coal has been discovered in Kenya and Tanzania, natural gas in Tanzania, and oil in Kenya, Uganda and both Sudan and South Sudan. However, the region having had no past experience in this field and given the "oil curse" that has stricken many African countries, the residents have a keen eye trailed on their respective governments to see how they will handle mining of these resources to avoid the pitfalls that others have fallen into.

Finally, forests in the region have always played a significant role as the source of biomass energy in the region, source of food for the hunting and gathering communities and a habitat for the unique flora and fauna identified with this region. However, the forests are currently being over-exploited for timber and charcoal production while land use change for agriculture and development purposes has seen the proportion of forests in many countries in the region fall to below the 10% recommended by FAO. These changes have not only hampered the access to the services provided by the forests but have also contributed globally to the phenomenon of global warming and climate change.

Our vision, our dream...

“The problems of the world cannot possibly be solved by skeptics or cynics whose horizons are limited by the obvious realities. We need men who can dream of things that never were.” — John Keats

Motivated by the visionary words of John Keats, we believe we need to chart a visionary path that the region can adopt to sustainably exploit the natural resources riches endowed unto her. To do this, we realize we need to adopt a holistic approach which recognizes the challenges the region faces, acknowledges the historical events that have taken us where we are, internalizes successful achievements and “preach” with hopeful optimism that “...*after all, there is a way to sustainable natural resources exploitation and this is the first step*”. As pointed out earlier, the region has many problems related to natural resources exploitation. However we realize we need to be objective in our endeavor and not merely make piecemeal declarations which have for a long time characterized the natural resources discourse in Africa. We thus identify four main areas of concern that need concerted action as explained below:

1. Water and agriculture

Access to safe drinking water is central to living a life in dignity and upholding human rights. In the East and Horn of Africa region this still remains a pipe dream. Women and children are still spending a lot of time travelling long distance to fetch water, at the expense of school and other activities. The challenge of providing both the urban and rural poor with clean drinking water is proving difficult to surmount by the governments of the different countries in the region.

Water resources conflicts have also dogged the region for a long time, especially where pastoralist communities have fought over the right to access to a water source another considers their own. These conflicts are sometimes cross boundaries for example between communalities

in Ethiopia and Kenya and Kenya and Uganda. In June 2011, the Kenyan based Daily Nation carried a story on the cascading of retaliatory violence between the Kenyan Turkana and Ethiopian Daasanach (also known as Merille) that led to the deaths of at least four Ethiopians and twenty Kenyans. The conflict was attributed to the severe droughts that had added stress to a dispute between the two neighboring groups near the lake, along the border between the two nations.

We recognize that water availability and quality is tied to the exploitation of other resources such as forests, the main water catchment areas, as well as agricultural land. Rain water harvesting, which naturally would alleviate the water scarcity problem has been made difficult due to air pollution from toxic emissions and use of inorganic fertilizers in most of the farmlands. Some countries like Kenya have by-laws that have placed a ban on rain water harvesting in urban areas due to high level of pollution of the surrounding environment.

In the case of agriculture, the region still practices traditional rain-fed subsistence agriculture which has mostly left the region quite vulnerable in terms of food security when the rains fail. This coupled with the fact that most of the land mass in the region is classified as either arid or semi-arid means that efficiency in land use and return on investment are quite low making farming a risky and unattractive venture. The result is massive land and soil degradation further diminishing the productivity of the land and eventually leading to desertification. Though scanty portions of agricultural land have been put under mostly government initiated or donor funded irrigation schemes, we realize that more efforts need to be made to avail water for agriculture and increase the acreage of land under irrigation.

To increase agricultural productivity, the region has largely relied on the use of inorganic fertilizers which through leaching and washout by surface run-off, end up polluting the underground and surface water sources. Promotion of use of readily available organic fertilizers from animal waste and composting would go a long way in alleviating this problem.

It is our dream that the region will invest more in supply of clean water through adoption of efficient water distribution networks in both the rural and urban areas. We believe there is

enough fresh water in this region for each and every citizen's domestic needs either to individual households or community water points but what is lacking is the governments' goodwill to make it happen.

While most areas in the region are water scarce, we cannot fail to notice the destruction arising from floods once the rains come. Damming the flood water and rain water harvesting in water pans and tanks would provide a ready source of water for agriculture and animals during the dry season. Investment in irrigated agriculture using available water bodies would go a long way in addressing the problem of food insecurity in the region. Protection and rehabilitation of water catchment areas through tree planting and gazettement them as ecologically sensitive areas where agricultural and infrastructural development activities are prohibited or controlled will ensure continuous water supply into our water bodies.

The farmers should shift to organic farming which not only will guarantee high yields but is also environmentally friendly and cheap compared to inorganic fertilizers. This shift will also reduce carbon emission associated with the use of fossils in the manufacture and use of inorganic fertilizers and avoid contamination of our surface and ground water sources.

2. Conflicts over natural resources

The late Nobel peace Laureate, Prof. Wangari Maathai on receiving the news of being awarded the Nobel Peace Prize in 2004 said, *"It is evident that many wars are fought over resources which are now becoming increasing. If we conserved our resources better, fighting over them would not then occur... so, protecting the global environment is directly related to securing peace... those of us who understand the complex concept of the environment have the burden to act. We must not tire, we must not give up, and we must persist."*

In the Horn and East African region, there are many conflicts over natural resources at community, sub-national, national and even regional levels. Many inter-community conflicts arise from inadequate water and pasture for livestock. However, these conflicts have at times taken a cross-border dimension with pastoralist communities in Kenya and Uganda and Kenya,

Ethiopia crashing over pasture and water. Tanzania and Malawi are also locked into a bitter dispute over Lake Nyasa to an extent of threatening military action due to oil and gas deposits

Minerals and fossil fuel deposits have been another source of conflict, this time not between communities, but between the mining companies and the local communities. Most of these conflicts arise from a lack of or inadequate compensation to the people who are displaced by the mining activities. A good example is the titanium and coal mining in Kenya, where the companies have proposed to compensate the affected people with meager financial packages. In Tanzania, gold mining activities have been polluting community water sources due to a lack of or improper drainage systems from the plants resulting into community – investors conflicts.

Fossil fuels have been a source of conflict all over Africa, to the extent that oil discovery is seen as a “curse” rather than a blessing. This is not far from the truth in the region with two good examples in Somalia and Sudan. It is suspected that most of the conflicts in Somalia are by clan lords positioning themselves to benefit from the vast oil resources speculated to be in the country. Lack of an agreement on how to share the oil reserves in Abyei has led to protracted arguments and fighting between the North and South Sudan destabilizing the peace between the two neighboring countries. With recent discoveries of fossil fuels deposits in Kenya, Uganda and Tanzania, people are waiting to see how the respective governments will handle the mining and revenue sharing process to avoid conflicts.

We believe the conflicts between communities due to pasture and water resources can be adequately addressed by addressing the water and agricultural challenges as stated above. However, the conflicts between mining companies need a proper legal and policy framework to ensure that no citizen is disadvantaged by the discovery and mining of any minerals. The affected people should be involved (from the earliest stages and during the implementation process) as key stakeholders in forums where decisions are made on relocation, compensation, revenue sharing and rehabilitation of the land after the mining activities. The respective governments should also come up with clear guidelines on how the process of land acquisition and compensation should be handled, the percentage share of the local community in the mining

proceeds and also set up affordable legal channels for redress in case some people are dissatisfied.

3. Unsustainable exploitation of forests

The region is characterized by unsustainable exploitation of forest resources for timber, charcoal and even conversion of forest land to agricultural land. This has pushed the forest cover in the region to below the minimum 10% threshold recommended by FAO. Data from FAO indicates that the annual rate of deforestation in Africa was 0.7 percent between 1990 and 1995, with the highest rates being recorded in the moist western parts of the continent. The data also indicate that the rate of afforestation is far less than that of deforestation.

With biomass (firewood in the rural areas and charcoal in the urban areas) being the predominant energy source in the region, the dry forests arid and semiarid lands are being fast depleted to meet the rising energy needs of the ever growing population. Interestingly, Somalia is one of the major charcoal exporters to the Middle East, even though there is little evidence of sustainable production practices. The harsh climatic conditions have hampered natural regeneration of these forests while the governments have done little to intervene in rehabilitation of these fast degraded forest lands. This has in turn led to massive degradation culminating to desertification in the region.

The fact that these forests are a habitat to the unique flora and fauna associated with this region means that their degradation and deforestation will not only result in desertification and lack of capacity to provide important ecosystem services to the people, but also endanger the existence of its rich biodiversity. This will inadvertently affect the tourism industry which is a major foreign income earner for some of the countries.

To ease the pressure for energy on forests, we dream of a future where major investments will be made in alternative sources of energy like biogas, solar, hydropower, and wind which have to date remained relatively untapped. Promotion of agro-forestry to the rural communities to meet their domestic energy and timber needs will help conserve the existing forests. Trade in forest products both at local, regional and international markets will need certification to prove the source and sustainability in the production and processing process.

Forests rehabilitation and new afforestation drives spearheaded by the governments and other stakeholders will enable the region to reach the 10% minimum forest threshold. Awareness campaigns on importance of conserving our forests and biodiversity in learning institutions, public forums and mass media will ensure support of the conservation drives by the communities at large.

4. Use of fossil fuels

The discourse that has dominated the climate change discussions has been that all developed countries are where they are because they used fossil fuels without any constraints to drive forward their industrialization agenda; therefore developing countries cannot be barred from doing the same. However, there is consensus that the biggest cause of global warming is carbon emissions from energy related use of fossil fuels. The contentious issue has therefore been, how can developing countries realize development without treading down the same path followed by others?

While we accept that development of the region cannot be put on the back seat, we dream of a development path less or not reliant on the use of fossil fuels. Investment in clean alternative sources of energy, such as biogas, wind, solar and hydro through deliberate government effort should be encouraged. The region should also design an efficient transport system, one that provides minimal or zero environmental pollution. This will include railways and large capacity buses for mass movement of people, goods and services as opposed to small capacity cars and lorries. Moreover, decongesting the urban areas will reduce the ever present traffic jams which have been shown to lead to higher fuel consumption and consequently GHG emission levels.

Addendum

“Sometimes we get through adversity only by imagining what the world might be like if our dreams should ever come true.” — Arthur Golden, *Memoirs of a Geisha*

We have many challenges facing exploitation of our natural resources, some scalable through innovative and technological approaches and other requiring sacrifice and a major paradigm shift. As such, concerted efforts of the residents, leaders, and the international community will be required to make our dream come true.

Pro-activeness among the citizens of the region to address the myriads of challenges they face is the most important thing. However, with the low literacy and environmental awareness levels, this might prove a daunting task. The realization of this dream will therefore largely lie in creating awareness to the people on how they can play both the watch-dog and custodian role of their natural resources. Important interventions will range from introduction of environmental education into the school syllabus, engaging the media in educating the masses on their rights to a safe environment and equitable sharing of resources, and engaging the civil society in conducting civic education on the importance of sustainable natural resources exploitation and how to play their role as watch-dogs and custodians of the resources.

Traditional knowledge has been used at the local level by communities in Africa as the basis for decision-making pertaining to food security, human and animal health, education, natural resource management, and other vital activities. For example in Ethiopia: the Agew people's natural resource management system, the Armachiho indigenous society forest resource use, the Fogera plain society water resource use and management are unique indigenous knowledge. Such indigenous knowledge should be harnessed and promoted to play an active role in sustainable natural resources management since they are already known and acceptable to the people.

Finally, the respective governments need to come up with a policy and legal framework that ensure protection of all the citizens' rights to a fair share of their natural resources, rights to adequate compensation in case of being affected by resource exploitation activities and protection of our environment. The framework should also establish affordable and accessible legal institutions where affected people can seek redress in case they feel aggrieved by any aspect of a resource exploitation and use.

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