

Policy imperatives to enhance climate change adaptation in Northern Kenya

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NEMA is leading a team of researchers conducting a research titled “Enhancing adaptive capacity of pastoralists to climate change induced vulnerability in Northern Kenya”. The project is funded by International Development Research Centre (IDRC) and Department for International Development (DFID) under the Climate Change Adaptation in Africa (CCAA) Programme. The project is implemented by a team of researchers drawn from 5 institutions namely NEMA, Kenyatta University, Maseno University, Practical Action and Foodlink Resources. The project is guided by 5 objectives and each institution is spearheading a particular aspect of the project.



Pastoralism and pursuit of alternative livelihoods need not to impact negatively on the environment. For instance, if more and more people engage in Aloe farming, it will conflict with pastoralism and pose new challenges to environmental management e.g. soil erosion, deforestation, sedentality, etc. Thus there is need for appropriate policies to direct all these developments.

NEMA is steering the objective titled “Identify and analyse institutional barriers to and opportunities for incorporating climate change adaptation measures into national development policies”. To unravel this objective, this research has undertaken several activities. This includes literature search, gathering community perspectives using an interview and focus group discussions, workshops with local institutions (such as District Environment Committees and District Steering Committees). The research is ongoing and is expected to end in December 2009. This presentation provides an overview of the aspects being addressed in this component of the project with particular emphasis on Northern Kenya.

Outlook on policy

The word policy is often difficult to define to satisfy different interests. A policy is regarded as a set of coherent decisions with a common long-term purpose(s). Policies are rules governing the interaction between human beliefs, values and ideas, and the physical environment.

Africa has had two policy making and governance regimes, the precolonial and the postcolonial regimes. During precolonial regime, traditional practices provided guidelines to community members to respond to diverse issues. Traditional African environmental policy was generally not scientific, and was based on taboos, social

sanctions, and religious beliefs. Policy formulation was limited to those who set taboo rules, but practice within the policy had very wide support and the public felt it owned the environmental policy formulated. These policies were not documented on paper but were passed across generations through language and culture.

When colonialists came to Africa, they introduced formal systems of policies and laws which were documented and which were applied in making decisions at all levels. The laws even defined offences and penalties for offenders. However, instead of integrating science within the strongly supported environmental practices, colonial and post-colonial African Governments had the view that the environment had to be protected from "primitive" decision making.

They therefore introduced a new governance structure, a system that intended to bring harmony to all communities in the country. This system is the contemporary system mainly in use currently.

There is need therefore to consider environmental policies in Africa as a mirror image of the region's people and their different cultures and the way countries have evolved prior to colonialism and after attainment of independence.

Problems with the mix of two policy regimes

A shift from traditional to contemporary policy making and governance system has caused some problems. These include lack of adequate consultation with the local people and hence the policies fail to address the local challenges comprehensively. Lack of adequate

consultation also fails to harness the already established and decades old internalized and living policies of the communities. The literacy levels of the local communities are low and the contemporary policies are not availed to them in a way that they can understand and apply. Hence the contemporary policies are more elitist in nature and are in most cases not known by the local communities. Consequently, much of the public especially in the rural areas of northern Kenya have little interest in using environmental resources within any specific rules of a formal policy.

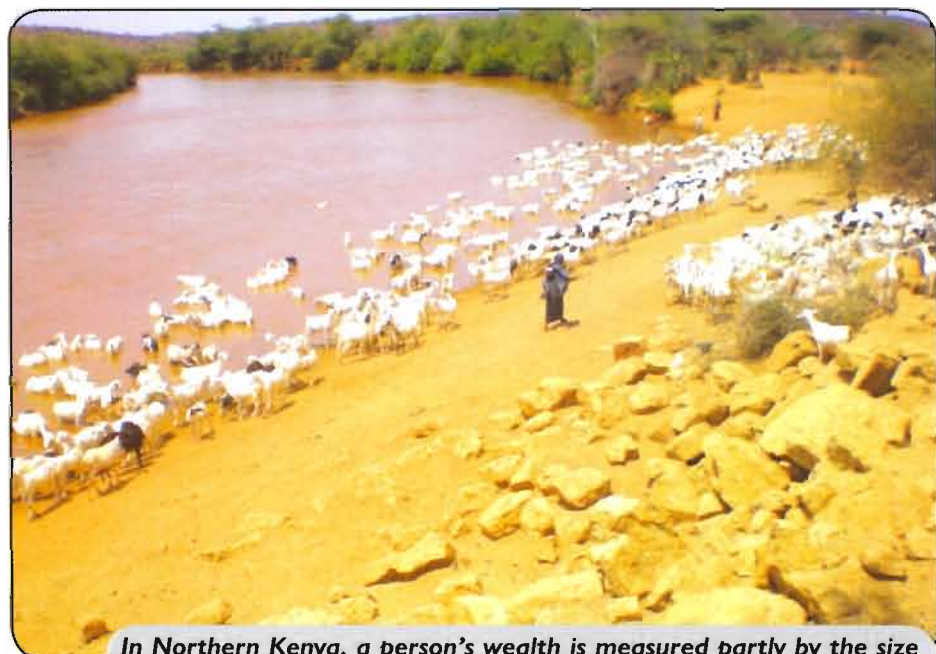
Need for climate change adaptation policies

Climate change remains a major challenge globally. In dryland Kenya the communities lead a pastoralist life of livestock keeping through migration from place to place in search of water and pasture. Natural population increase and economic forces act as indirect drivers to ecological and social change in the region and calls for every individual to aspire to own more cattle. With the challenges

of climate change characterized by reduced rainfall, high temperatures, occasional flooding and prolonged droughts, the environment cannot sustain these exponential demands. This has forced the pastoralists to seek alternative livelihoods.

Therefore, in addition to keeping livestock, the pastoral communities are also engaged in alternative livelihoods such as selling goods e.g. firewood, charcoal, farm produce, farming, etc.

Arable farming may expand into part of the range as population increases. This introduces people, groups, and institutions with different beliefs, value systems and ideas competing for the rangelands. These activities lead to competition for the dryland range resources and these may be more complex requiring more complicated policies to ensure rangeland sustainability. A more comprehensive policy for rule based behaviour for using the physical environment (i.e. rangelands) may be needed.



In Northern Kenya, a person's wealth is measured partly by the size of livestock herds. The ecology of the region has been degraded by increased herds and climate change.

Pastoralist Support Systems

Pastoralism in northern Kenya is supported by different systems which can be broadly categorized as natural, social and economic resources systems.

Natural resources system

The natural world comprises of water, air, living organisms (plants and animals) and landscapes. The world is rich in natural resources such as water, soil, minerals, plants, animals and micro-organisms and these play crucial regulatory and ecological functions. Living organisms interact with each other and with the physical surroundings forming life support systems and processes. For instance livestock feeds on grass whose growth is supported by soil, water, sunlight and air. Livestock provide milk, meat, and thus support livelihood of people. The natural environment therefore supports jobs and livelihoods

Man is however blamed for interfering with the biophysical environment through overstocking, overgrazing, deforestation, etc. resulting into problems such as pollution, loss of biodiversity, degradation of life support systems, global climate change and ozone depletion.

Social Resources

The social aspect of the environment considers people as part of the natural world and capable of developing diverse interpretive meanings of their environment through interaction with each other and the environment. All societies have an intimate attachment to the environment and identify themselves with natural resources through language, culture, mythology, art and religious beliefs. In indigenous systems, this intimacy binds the community together with respect to social systems, structures and cultural practices that shape the people's interaction with each other



Communities in Northern Kenya use firewood for cooking. Due to influx of refugees as well as natural population increase, there is an increase in trade on firewood. This activity is more rampant during severe droughts.

and with the natural environment. This intimacy also determines peoples' perceptions to resources and influences resultant activities. Socio-cultural attributes include culture, heritage, indigenous knowledge, spiritual rites and beliefs, and settlements of people.

However, conflict of interest is common, which influence access to and use of resources, and sometimes leads to conflicts and wars. Globally, conflict of interest has resulted in investment in weapons including guns, stockpile of nuclear and other weapons with potential of massive destruction and huge military budgets

that substitute investment in social welfare. Neglect of investment in social welfare such as governance for the dry season grazing of rangelands, schools, hospitals and other social institutions leads to increased stress, conflicts, degradation of social values, crisis in democracy, power relations, denial of basic human rights such as access, discrimination, repression, exploitation of people for economic gain, oppression and displacement of people. For instance in Northern Kenya there are some dry season grazing lands that are shared among different communities e.g. between the Turkana and Pokot communities. However, some communities



A pastoralist wonders what to do next after losing his livestock.

have denied others access to these resources leading to conflicts and wars.

Economic Resources

Economic aspect of the environment deals with issues of people valuation, access to and utilization of natural and other resources for commercial, non-commercial and employment benefits. Economic aspects are geared towards improvement of livelihood of the local people and the country as a whole. Economic considerations regard nature as an emporium or a commercial warehouse where people have access to numerous resources and trade them.

Economic pursuits coupled with increased population lead to a development crisis characterized by destructive and uncontrolled resource extraction, environmental destruction, resource depletion, poverty, hunger, conflicts and social oppression. This phenomena is common in Northern Kenya whereby people take pride in large herds. It is therefore crucial to explore and address the role of population and economics with regard to pastoralism especially the cost-effect relationships between resource management, conservation, cost of environmental degradation control and economic benefits on a long term basis.

Adaptation versus Mitigation

Climate change has confronted human societies for some time as characterized by extreme weather events. If action is not taken it is

expected that these extreme events will exacerbate in scale, duration and intensity. There are two main strategies to address climate change i.e. mitigation and adaptation.

Mitigation is mainly concerned with addressing the causes of climate change. It involves finding ways to slow emissions of greenhouse gases or to store them or to absorb them in forests or other carbon sinks.

Adaptation involves coping with climate change by taking measures to reduce negative effects, or exploiting the positive ones, by making appropriate adjustments. Adaptation is mainly driven by social and market forces but relies heavily on decisions made at household and individual level. For example the pastoralists may react to changes in rainfall patterns by settling around water points or keeping less livestock.

In most cases adaptation demands that institutions both public and private plan their strategies and take action in advance. For example, to avoid the adverse impacts of flooding, dykes may need to be constructed in advance, or introduce building codes to withstand climate change. This calls for a critical continuous reflection on policies guiding adaptation to climate change so as to enable communities to sustain their livelihoods without degrading the environment. This calls for anticipatory as compared to reactive adaptation.

Adaptation options available to communities in Northern Kenya

The adaptation options available for communities in Northern Kenya can be considered at 2 levels i.e. behaviour change and technology assisted adaptation both geared at 3 adaptation options i.e. protection, retreating and accommodating to climate change. The adversities of climate change affect humans in diverse ways. Droughts lead to loss of vegetation, livestock, water and incomes. Man is blessed with the capability for meaning making and appropriate changes in behaviour to adapt to climate variability.

Climate change adaptation sometimes also calls for the use of diverse technologies. Use of these technologies also requires that appropriate policies guide the process of adaptation to enhance sustainable development.

Re-look at all Policies

Kenya has developed diverse policies and laws. Some of the key policies were developed long before the climate change mitigation and adaptation concepts were well understood. There are numerous adaptation options available for use by communities in Northern Kenya. Some of these options suggest a change in the way communities have lived as entrenched in their cultures. The science behind these innovations therefore needs to be integrated with the community age old practices. Since some of the alternatives are cross cutting across several sectors, there is need to relook at all our policies to make them responsive to climate change adaptation. Failure to put in place appropriate adaptation policies will lead to increased risk and loss of community wealth and thus increased poverty.

Adaptation options available for Northern Kenya

- Migration
- Alternative livelihoods
- Personal care and hygiene
- Irrigation
- Drought resistant crops
- Interbasin water transfers
- Insurance schemes
- Improved agricultural methods
- Rain water harvesting
- Waste water treatment
- Early warning systems
- Future technologies
- Environmental education and awareness
- Enforce environmental standards
- Development of hard structures
- Environmental restoration
- Use of indigenous options
- Establishment of setback zones
- Relocation of human activities
- Phasing out development in exposed areas
- Creating upland buffers
- Use of easements
- Emergency response
- Providing basic needs

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