

# Kenya's National Environmental Action Plan

by Samuel K. Mutiso

**A nation's natural resources are finite. If governments are going to do more than pay lip service to environmentalists' arguments, how can they plan for economic and social development that is sustainable, and politically acceptable?**

ENVIRONMENTAL ISSUES WERE first highlighted on a global scale at the 1972 United Nations Conference on Human Environment, held in Stockholm. Since then, environmental issues have been catapulted to the top of national and international development agendas, something clearly demonstrated at 1992's United Nations Conference on Environment and Development (UNCED) in Rio de Janeiro. UNCED concluded that sustainable development rests on the integration of environmental and socio-economic issues. Every nation, therefore, needs to conserve the biosphere in order to achieve further development.

Since gaining independence in 1963, the Kenyan Government has taken a keen interest in development and environmental issues, illustrated by the launch of the National Environmental Action Plan (NEAP) in 1993. In essence, NEAP is a blueprint for integrating environmental management into development planning, thereby ensuring the effective use of natural resources, without jeopardizing the needs of future generations. One direct outcome of this process is the adoption of a National Environment Policy, which will provide the broad framework for the sound management of Kenya's resources.

Kenya is currently confronted with a series of environmental problems which include land degradation, air, and water pollution, the disposal of solid waste disposal, deforestation, threats to and loss of biodiversity, and coastal erosion. Most of these concerns are the result of a growing population's increased pressure on natural resources, together with the poor enforcement of the existing environmental laws and regulations. Environmental degradation has undermined efforts to achieve sustainable development and, indirectly, the capacity of current resources to meet the needs of future generations.

As part of NEAP, nine Taskforces were established to identify the major environmental issues influencing sustainable resource exploitation and use. The specific areas explored were:

institutional policy, legal, and economic incentives; biodiversity (wildlife, forestry, and biotechnology); water resources; pollution control; human settlement and urbanization; community participation and public awareness; desertification and drought; sustainable agriculture and food security; and national environment information systems.

## Policy, law, and incentives

Environmental impact assessments (EIA) of proposed activities, policies, programmes and development projects should be carried out early on in the project cycle; preferably at the feasibility stage. There is a need to establish a body to implement them, and to enact enforceable, effective laws and regulations based on sound social and environmental principles.

Kenya does not have a single, consolidated environmental or land law; instead provisions are scattered throughout numerous statutes, complicating the implementation process. The National Environmental Action Plan will review relevant laws in order to rationalize the framework, and to

provide a more effective means of enhancing environmental management, protection, implementation, and deterrence.

## Biodiversity

Specific issues include genes, species and ecosystems; forestry; wildlife; biotechnology; and the community. All societies, whether urban, rural, industrial, or non-industrial, draw on the biodiversity of ecosystems and genetic resources to meet their basic needs. Through environmental perception and cultural adaptation, local communities have preserved and cultivated species for centuries. Outside influence, and associated land degradation, may lead to a loss of biodiversity. It is necessary, therefore, to identify the cause of the threats to biodiversity, in order to protect genes, species, habitats, and ecosystems.

If a nation's biodiversity is to have a chance of survival, EIAs should be made of national and local agricultural, wildlife, energy, and forestry policies. Biotechnology should also be researched further in order to develop methods of hazard identification and exposure assessment. In particular, guidelines are required to minimize the risks to public safety posed by the release of genetically engineered organisms into the environment.

## Water resources

The availability of water resources depends on a number of climatologi-



*Will the National Water Master Plan be successful in tapping Kenya's potential water resources?*

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cal, meteorological, and hydro-geological factors. The rapid growth of the world's population, and the demands of the manufacturing and service industries, have created stiff competition for what is already available. This problem can be appreciated fully when one realizes that over 80 per cent of Kenya's land area falls within the arid and semi-arid zone (ASAL areas) which is characterized by low and unreliable rainfall amounts in strong seasonal concentrations, which vary considerably from season to season, and year to year. High rates of evapotranspiration reduce the amount of water stored in the few reservoirs.

It is clear, therefore, that there is a pressing need to assess the potential of all available surface and underground water resources in Kenya, in terms of both quality and quantity. This is a feature clearly addressed in the National Water Master Plan.

### Pollution control

The issues examined under this heading include: toxic emissions, and the indiscriminate disposal of liquid and solid wastes, as well as the improper management of chemicals, some of

which are hazardous to biological life. Kenya's existing policies and legislation are not comprehensive enough to control gaseous emissions, which results in inadequate enforcement.

There is a need to formulate a comprehensive and well-articulated policy on the control and management of gaseous emissions, liquid wastes, solid wastes, hazardous-waste management, and noise pollution.

### Settlements and urbanization

In urban areas, the challenge is to provide adequate social and public amenities, and transportation; and to remove liquid and solid wastes. High population-growth rates and migration have led to the development of slums and squatter settlements, with their inherent social and economic problems.

In rural areas, many of the environmental problems are associated with a lack of a comprehensive and sustainable land-use planning policy which has led to the sub-division of land into uneconomic units. In addition, different tenurial systems and land-use

conflicts have aggravated land-use planning in rural areas. Consequently, there is a need to develop a comprehensive urban and rural land use and settlement policy that takes into account socio-cultural values.

### Community participation and awareness

One of the reasons why well-intentioned environmental projects fail, is because of a lack of community participation and public awareness. When many environmental projects are first implemented, little is known about the resources, skills, environmental perceptions, and cultural barriers that exist within the community. This ignorance can lead to the failure of projects which may have received substantial donor and government funding.

Real participation will only be achieved when all sections of the community are involved at every environmental-design, implementation, and management stage. Capacity-building can be enhanced through training, educational programmes, and awareness-raising programmes. It is also important to promote and integrate indigenous knowledge and skills in environmental management.

### Desertification and drought

The arid and semi-arid areas of Kenya suffer from desertification and frequent drought. Briefly, the main environmental issues include the assessment and mapping of desertification; drought-monitoring and early warning systems; land tenure and property regimes; rangelands-resource management; socio-economic characteristics and population dynamics; popular participation; research and development; and institutional arrangement.

These issues can be addressed in three principal ways. First, the use of remote-sensing techniques, which are comparatively cost-effective, rapid, and which provide information periodically. Secondly, socio-economic data should be included in any assessment of the desertification process, as it is influenced by human activities. Thirdly, there is a need for the government to collaborate with the relevant international and regional institutions to facilitate the acquisition and development of appropriate technology in the assessment and mapping of desertification.

Droughts occur in cycles. They are difficult to predict, but their effects can be mitigated. Besides leading to food

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deficits, a reduction in water resources, and increases in poverty, drought accelerates the rate of land degradation. There is a need to strengthen and expand the early warning and monitoring systems, and the drought-preparedness and recovery programmes; and to link meteorological knowledge to the local experience and mechanisms of coping with drought.

## Sustainable agriculture and food security

Sustainable agriculture and food security present twin objectives which have to be worked towards, if environmental conservation is to be achieved. Environmental degradation is caused, in the main, by inappropriate land-use practices. Population increases, and a decline in both the availability and quality of the arable land in high- and medium-potential areas, coupled with Kenya's high proportion of ASAL areas, have reduced the country's food resources. In addition, physical and socio-economic factors, adverse climatic conditions, poor soils, land-tenure and land-use conflicts, poor agricultural infrastructure, and the lack of credit have contributed to low food production.

Sustainable agricultural production will come about through an increase in water resources, improvements in soil fertility, the development of infrastructural support services, and better processing and marketing of agricultural products. There is a need to provide adequate funds, and trained personnel and equipment to conduct research on indigenous food plants, biological pest control, organic fertilizers, agro-forestry, soil and water management, and on-farm grain storage.

## Information systems

Environmental information systems are useful as part of the decision-making process, and to aid the implementation of programmes and projects. In Kenya, environmental information is collected, stored, and used by several institutions, including government ministries, NGOs, private companies, and educational institutions. This information covers biological and physical resources; agriculture and land use; and the socio-economic and cultural dimensions of the country's resources.

Unfortunately, sometimes the information lacks appropriate analysis; there may not be a central referral system, or the information is stored on incompatible storage media. Envi-



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*Local communities' experience and coping mechanisms must be incorporated into any drought-preparedness and recovery programme.*

ronmental information should be collected and stored in a standardized medium and format. It is also important to digitize all information, and to produce computerized information systems, such as GIS (Geographic Information Systems): data collection, storage analysis, and presentation techniques for planning purposes. Information on Kenya's resource status should also be published in regular reports and bulletins to reach the planners and local people who interact with the environment on a day-to-day basis. It is important to tap indigenous environmental information which has enabled those communities to use resources sustainably.

## Earth inventory

It is evident that the NEAP is charged with the task of analysing environmental issues and of setting forth an environmental strategy to deal with identified problems and their relation-

ship to economic development. This is in line with the resolutions of the Earth Summit (now published as Agenda 21) which calls on all countries to establish a comprehensive national inventory of land resources, and to classify land resources according to their most appropriate uses.

Kenya's natural resources are finite. Certain developments and practices have led to widespread environmental degradation, and have undermined long-term economic development. The issues identified above must be addressed in order to ensure development which is sustainable, and which will not compromise the needs of future generations. ●

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