

Planning of Sustainable Land Management: User Needs and Possibilities

Experiences from Kenya

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1. Abstract

Kenya is an agricultural country. Good land management is critical for the welfare of the citizens and success of the national economy. The need for sustainable land management has become imperative in Kenya in the face of a rapidly increasing population. Over the years, population pressure has continued to exert immense pressure on land resources.

Until the 1960's, Kenya's population was concentrated in the high potential areas that occupy about 20 per cent of the nation's land area. After independence, regulations that previously restricted movement of indigenous populations were lifted. Due to the rapid population increase, people have been moving from high potential areas into urban areas and to the arid and semi-arid regions of the country. Many of the people moving from the high potential areas into the low potential areas are moving with technologies that are least adapted to ecologically fragile areas. Introduction of farming systems suited to high potential areas in the arid and semi-arid regions is contributing to environmental degradation. Migration of people accustomed to sedentary crop farming into areas suited to pastoralism has created conflicts between pastoralists and the new migrants. The wetlands which new migrants are using to grow crops are usually the strategic pasturelands for pastoralists during the dry period. Wildlife has also been affected. Wildlife migration routes have been interfered with following the establishment of settlements along wildlife migration corridors. Land use conflicts are thus the main threats to sustainable land management in rural areas.

Migration into urban centers without commensurate expansion of basic infrastructure has contributed to a lowering of the quality of urban services. Urban land management is concerned with making serviced land available to those who need sites for development projects at prices they can afford. Public land reserves in urban areas are fast dwindling and are almost exhausted in the main urban centers. Available public land in towns is often not planned and has no basic infrastructure. This has been a major impediment in increasing the housing stock in urban areas. Privately owned land is often beyond the reach of the majority of citizens. Expansion of urban developments into agricultural land on the urban fringe is making it difficult for planners to achieve sustainable land management in urban centers. This paper reviews Government policy and practice in sustainable land use management. The paper examines the extent to which various land management instruments especially land planning laws have created an enabling environment for sustainable land management and the extent to which user needs are taken into account in formulating land management instruments.

2. Introduction

Kenya is an agricultural country. Policies and practices that ensure that land based resources are used on a sustained basis are crucial for the success of the national economy. Only 12 per cent of the land area is suitable for rainfed agriculture. While the total land area is 569,252 km²., approximately 72 per cent of that land area receives less than 500mm; 13 per cent receives between 500 and 750mm., 12 per cent receives between 750 and 1250mm. This is the part of the country where rainfed agriculture is practiced. A further 3 per cent receives more than 1250 mm.

Kenya's population has been growing rapidly since 1948 when the first comprehensive population census was taken. At that time, the population stood at 5,405,966 persons. By 1962, the population had risen to 8,636,263 reflecting an annual growth rate of 2.5 per cent. By 1969, the population stood at 10,942,705 persons indicating that the population had increased at the rate of 3.0 percent per annum between 1962 and 1969, By 1979, the population stood at 15,327,000 persons reflecting an annual increase of 3.8 per cent between 1969 and 1979. By 1989, the population stood at 21,397,000 persons indicating an annual increase of 3.9 per cent per annum. In 1995, Kenya's population was estimated to be 27,500,000 implying that between 1979 and 1989, the population increased at the rate of 2.85 per cent per annum. This drop is likely to be due to adoption of family planning by a growing number of Kenyans.

A majority of Kenyans are settled in the part of the country where rainfed agriculture is practiced. This part of the country covers about 68,000 km². Since this land has remained constant over the years, the pressure on the land as the population increases.

3. Planning and Management of Land Resources.

Land plays three important roles. It is a source of food that enables man and other living creatures to survive. Its proper use and management ensures that households have sufficient food. Land is also a source of minerals that also contribute to national wealth. Land also provides the foundation on which infrastructure is built. Land is a finite resource. The natural resources that land supports can vary over time and according to management conditions and uses (UNCED, 1992). Chapter 10 of Agenda 21 states that the broad objective of integrated planning and management of land resources is to facilitate allocation of land to uses that provide the greatest sustainable benefits and to promote the transition to a sustainable and integrated management of land resources.

4. Land Policy in Kenya

Land policy in Kenya has evolved over many years stretching from the colonial period to the post independence period. The legislation that set the pace for land policy in Kenya was the East African Order in Council of 1897. That Order empowered granting of certificates for a term of 21 years, renewable for a similar period. The Ordinance also forbade the occupation of land regularly cultivated by indigenous Africans in an attempt to avoid conflict. (Shelter Forum, 1995) The White settlers did not consider this to be a sufficient inducement to attract settlers to Kenya. As a result, they began lobbying for the nullification of African rights to land by suggesting that all land in Kenya should be under the legal authority of the Crown. The 1901 Order in Council enabled settlers to acquire freehold title or long leases in the protectorate. The 1901 Order in Council proclaimed all unoccupied land in the protectorate to be Crown land. Under the Crown Land Bill of 1908, the Governor was given power to reserve, sell lease or dispose land in the

protectorate. A Crown Lands Ordinance passed in 1915 redefined Crown land to include all lands occupied by the native tribes. The Ordinance provided for the lease of town plots for 99 years and agricultural land for 999 years. The Ordinance also permitted settlers, who had 99 years agricultural land, leases to much longer terms. The conditions for managing land resources as set out in these earlier Ordinances are still pertinent in the management of land resources in Kenya today. Government-land in townships is still leased for 99 years periods. Agricultural land is owned on free hold basis post independence.

Land use policies that have guided land management in the post independence period are contained in different Acts of Parliament, Session papers and Development Plans.

In the 1964-1970 Development Plan, the cornerstone of Government policy was transfer of land from large scale European farming systems to Government assisted small scale African farmers. By 1968, 45,000 families had been settled on former European farms that the Government had purchased for African resettlement. Within the former African areas, Government land policies were aimed at the conservation of natural resources, prevention of deterioration of land through soil erosion and the restoration of lands that had been denuded. Efforts were also directed at raising land productivity.

In the 1970-1974 Development Plan, the thrust of Government land policy was directed at raising land productivity in subdivided former European farms and in traditional African farming areas. Government intervention was intended to alleviate problems experienced by African farmers who had been resettled on former European farms but who lacked machinery and infrastructure services. This was because the infrastructure that had been installed to serve fewer residents was now required to meet the needs of a much larger population especially on farms that did not fall directly under Government assisted settlement schemes.

In the 1974-1978 Development Plan period, the focus of Government Policy was on environment conservation measures. This policy drew its inspiration from the 1972 Stockholm Conference on the human environment. The Government policies were premised on the need to make choice to use the environment on a sustained yield basis. This, the Government argued was the true meaning of conservation, but as the Government noted the term also includes enhancement of the environment, as well as preservation, restoration, and reclamation. Conservation sets limits to the way the environment is used and can, therefore, be a constraint on development in the short run. In the long run, however, conservation must be seen as a means of ensuring a continuance of the sources of potential wealth. The Government had recognized that the conservation of the environment had become increasingly important as the growth of population and the impact of development and technology stretched the capacity of the environment to sustain the use being made of it. The Government was going to increase its conservation activities and, whenever possible, restore damaged environments. Initially, efforts were to be concentrated on enforcement of present conservation legislation, but, in the long run, education to create a conservation-minded population was perceived as the only lasting solution to the problem. During 1974-1978, the Government had committed itself to establish the actual and potential carrying capacities of land. Over the years, considerable knowledge about landforms, soils, precipitation, run-off, land use and erosion has been acquired. Much of this information has not been published, although it has been used in the design of various government programs. The Government was committed to making that information available to planners and decision-makers as they made land use policies.

Land use policies would be used to encourage rapid growth in agricultural productivity and employment; promote Kenyanisation of agriculture; encourage better conservation of existing land and natural resources; and bring new land into production. As part of its land use policies, the Government was going to implement several new measures. Among these was establishment of new land settlement and irrigation schemes designed to provide livelihood to the landless and unemployed. The Government was going to encourage intensive use of land among the small-scale farms. Where large-scale production was proved to be advantageous, the Government would promote the operation of large-scale farms by groups of people on co-operative basis. Most of the new settlement schemes will be of the "Shirika" type where each settler has a small holding for food production with the rest of the land farmed collectively as a large unit. The national farms operated by the Agricultural Development Corporation would continue to play an important role especially in the development and production of high quality livestock breeds. As in the 1970-1974 Plan the Government was committed to establishing a Land Use Committee to advise on the most appropriate use of land with alternative uses such as agriculture, forestry and wildlife and tourism.

In the 1979 Development Plan, the Government stated that the small farm family land unit would be the main instrument for farm management and rural development. Emphasis on the small farm family was derived from evidence that on the whole, small farms produce more per acre, utilize land more fully, employ labour-intensive methods of production, and are a source of subsistence as well as cash crops. The family farm as the focus for agricultural development has three implications that underlie more detailed Government policies. First, the family owns its land. Second, the family manages its land. Third, the family works on its land.

Ownership of large holdings of land that were suitable for small farming was to be discouraged. The Government also announced its commitment to discourage absentee landlordism, landlord-tenant systems of farming, and the holding of idle land for speculative purposes. To this end, the Government was considering the introduction of tax on idle land as these systems of land management denied the country opportunity to make full use of land resources. The policies that the Government was going to put in place for the management of land resources were intended to prevent such malpractice and to establish firmly the small farm as the principal decision-making unit in agricultural development. Establishing the ownership of land in compact family farm units has been the main purpose of the land adjudication and registration programs. By the end of 1977, 16.7 per cent of all registrable land in Kenya had been registered, a further 14.0 per cent had been adjudicated, and 6.6 per cent was in the process of adjudication. Hence, work was completed or underway on 37.3 per cent of all registrable land. Nevertheless, if actual registration proceeds at the average annual rate of 550,000 hectares per year it would take another 45 years to complete the task. During the planning period, the efficiency of the Land Adjudication Department was to be enhanced and the resources allocated to the program and the rate of registration substantially increased.

Once land has been registered it becomes a basis for credit, a source of funds if it is sold and an object for subdivision among heirs. The first is to be encouraged; the other two must be carefully controlled if the family farm system is to flourish. With the implementation of land adjudication and registration, the volume of land transactions among smallholders has increased. At the same time, the incidence of concentration in land ownership among the better-off small-scale farmers has increased.

As in the previous Development Plan Period, the Government once more committed itself to establishing a National Land Commission will be set up to consider all policy issues related to

land. Detailed recommendations were to be made by the Commission to ensure that land policies, land laws, and regulations met the country's future development needs.

In the 1984-1988 Development Plan, the Government reiterated that land policy is aimed at achieving optimum land utilization and equitable land distribution. This policy has been pursued with programs to transform customary land tenure to statutory freehold tenure through land consolidation and registration and, in the former scheduled areas, by transferring ownership from foreigners to landless Kenyans through settlement schemes. The Government has also made urban lands available to prospective developers for industrial, commercial and public amenity development purposes.

By 1984, about 1.5 million titles had been issued. At the same time, over 6 million hectares had been adjudicated and 5.5 million hectares surveyed for adjudication and registration. During the Plan period, the Government committed itself to provide infrastructure on government land in urban areas; accelerate land adjudication and registration of titles; expand existing Land Registries and open new-ones in various parts of the country. At the same time, the Government was going to purchase additional land for various development projects and establish a Land Bank.

There were increasing calls to the Government to recognize land subdivision that had taken place on the former European large farms especially farms that had been purchased through cooperative societies. The Government now agrees to give legal recognition to the farm subdivisions that have taken place, and to process the granting of individual freehold titles to shareholders. Registration of titles was to continue in Trustland Areas where land adjudication has been completed and in settlement schemes. In the urban areas, conversion of titles was to be done under the simple and cheaper Registered Land Act.

In the 1989-1993 Development Plan, the Government stated that in order to develop a suitable framework to address manage land effectively, the Government was going to set up an *Independent Land Use Commission* to review questions related to land and advise on optimal land use patterns for present and future generations in various agro-ecological zones.

In the 1994-1996 Development Plan, the Government notes that accurate and up-to date database information on land is lacking. Also lacking are large-scale urban maps on the basis of which planners, policy makers and investors can make informed investment decisions. In order to close that gap, the Government intends to develop a Land information system. At the same time, the Government was going to harmonize the existing Computer Assisted Mapping Project with Land Information Systems in order to make the two systems compatible. The Government was going to conduct land resource surveys in all the districts in order to map out and computerize land use patterns in the country. Land use surveys would entail the mapping of mineral deposits, forests, national parks and reserves, settlement areas, trading centers, high and medium potential land, arid and semi arid areas, all land parcel numbers on the ground and their ownership, all existing urban land including its use on the ground as compared to documented maps and data on hydrographical surveys of major water bodies. All this information will assist in analyzing infrastructure distribution and in deciding on priority land uses.

In the 1997-2001 Development Plan the Government is going to revive an Estate Development Fund that was suspended in 1982. Before its suspension, the Fund was used to develop infrastructure, allocate land for development and recover the costs from allottees (Republic of

Kenya, 1996:128). The Physical Planning Act of 1996 would be strictly administered in the management of land resources in the country. Local authorities will be encouraged to set aside land for the development of industrial parks in areas under their jurisdiction. Local authorities will play an important part in promoting and facilitating industrialization by providing appropriate infrastructure, urban services and land planning and development (Republic of Kenya 1996:208). On its part, the central government will establish a Land Information System as a basis for land management. The Government has observed that while success has been achieved in the area of survey and mapping, little has been achieved in the area of textual data management. This will be a concern of the Government during the current plan period.

5. Sustainable Land Management in Kenya

In the 1994-1996 Development Plan, the Government states that the future of land management in Kenya will revolve around issues of land transfer, land subdivision and development of arid and semi-arid areas. The greatest challenge will be how best to manage land subdivision. In managing land subdivision, the Government has noted that consideration will be given to farm sizes that can provide families with means of livelihood bearing in mind carrying capacity of land in different ecological zones, availability of infrastructure, cost of installing infrastructure facilities that may be needed as well as the ability of the community to utilize infrastructure installed.

How Kenyans view land will to a large extent determine the success of the land management system that the Government puts in place.

In a country, where there are a few secure means of livelihood outside the agricultural sector, land is not a mere factor in the production process. Land is life itself. Man is said to have been made from the dust of the land. After death, man returns to the land. Possibilities for radical changes in the management of land resources are relatively small in societies where a majority does not perceive land as a mere factor in the production process. Much has been achieved in liberating land from such attachments. A thriving land market has emerged in Kenya. Nevertheless, for a majority of Kenyans, land has yet to be accepted as a factor in the production process. Speaking about land, the first President of the Republic of Kenya had this to say about land in September 1964: " Our greatest asset in Kenya is our land. This is the heritage we received from our forefathers. In land lies our salvation and survival. It was in this knowledge that we fought for the freedom of our country. Our plans for the future must spring from a resolve to put to maximum production our land, however small the acreage we may possess." In the same month the late President Kenyatta had this to say to Kenyans: " I love the soil, and I love those who love the soil. You are my friends. The soil has knit us together... It is our greatest investment. By investing in the soil, one invests in lasting, long term property. Other things come and go, but well cultivated soil remains. The soil has been there from the beginning of time...Soil is the mother of wealth, development and general prosperity."

The late President correctly articulated the mind of Kenyans. In parts of the country, land related disputes have ended in the death of family members by their own kin if it was perceived that a family member was intend on disinheriting any male member of the family by denying them ownership of their father's land. Children have also killed their parents if they perceived that their parents were intent on disposing them of land either by making secret deals to sell family land or disinherit them.

6. Planning Of Sustainable Land Management

The group for Development and Environment in the Institute of Geography in the University of Bern (1995) says that the planning of sustainable use of natural resources has to incorporate

both internal and external participation. This means that all stakeholders affected by decisions made on how resource are to be used must be involved in determining the meaning of sustainability and in determining what has to be done, when and by who. Participation is thus a matter of political principle. It is not justifiable in scientific terms, since from a purely ecological point of view, changes in sustainable forms of resource use can take place even where participation plays no role at all. Nature does not demand that we take account of the social and cultural aspects of resource use in addition to the ecological aspects; this happens as a matter of principle in a particular political culture. Internal participation implies acceptance that all those who use resources at the local level are the real experts on their respective ecosystems. Their perspectives, and assessments, their experience, their activities, and the means they have at their disposal should be the starting point in decision making on resource use. The group for Development and Environment at Bern adds that determining whether or not resource use is sustainable or not should be examined from as many viewpoints as possible. This is so because environmental consequences of development activities often transcend local areas. It is therefore important to draw on and accommodate the interests of others outside the immediate project area.

Until the 1960's, Kenya's population was concentrated in the high potential areas that occupy about a third of the nation's land area. After independence, regulations that previously restricted movement of indigenous populations were lifted. Kenyans of all races could settle wherever they wished. Due to rapid population increase in the high potential areas, people have been moving from high potential areas into the arid and semi-arid regions of the country. Many of the people moving from the high potential areas into the low potential areas are moving with technologies that are least adapted to ecologically fragile areas. Introduction of farming systems suited to high potential areas in the arid and semi-arid regions is contributing to environmental degradation. Migration of people accustomed to sedentary crop farming into areas suited to pastoralism has created conflicts between pastoralists and the new migrants. The wetlands, which are taken up for crop cultivation by agriculturists, are often the strategic pasturelands for pastoralists during the dry period.

This trend makes pastoralists and their livestock vulnerable to famine. It is not just the pastoralists who are affected by the migration of people from the high potential areas to the arid and semi-arid regions. Wildlife has also been affected. Wildlife migration routes have been interfered with following the establishment of settlements along wildlife migration corridors. Land use conflicts are thus the main threats to sustainable land management in the arid and semi-arid regions in Kenya.

Within the high potential areas, the main challenge is how to raise land productivity in order to meet the needs of a growing national population while at the same time guarding the ecological integrity of these areas. Many of the peasant farmers who live in these areas are using inappropriate technologies. The result has been degradation of the environment. Manifestations of inappropriate land management practices include soil erosion, falling agricultural productivity, deforestation and destruction of water catchment areas.

In the context of planning of sustainable land management, this means that determination of land use policies must be a joint venture between local actors. For instance: those actors who directly use resources such as land at the farm level and the deciding actors. The latter may be those who devise instruments such as laws that regulate access to as well as the use of resources. In formulating legislation that establishes what resources may be used, who may use them and when, there has been very limited consultation between local actors such as

individual resource users as well as local communities and those who are charged with enforcement of laws. Prior to the establishment of central resource management systems as embodied by the Central Government, local communities had their own institutions and mechanisms that regulated access to and use of resources. Under the modern legal systems in Kenya, there is no provision for consultation between local and deciding actors before decisions on resource use are made. " Experts", who are agents of the Central Government are believed to know everything including what local communities need. The Government has authorized councils of elders to arbitrate on land matters in the rural areas. In this way, local communities knowledge is brought to bear on decisions on land use at the local level. Land management in the urban areas is still the responsibility of the Central Government.

7. Conclusions

A number of observations can be made. The decision on what infrastructure was to be installed in an area as well as the siting of that infrastructure was not based on discussions between the people and the Government even though the people through their representatives in parliament participated in the allocation of public resources for infrastructure development. More often than not the decision as to what infrastructure was installed in an area was more or less determined on the basis of political patronage. The presence of land information system is unlikely to change that. Nevertheless, such information could be used by other development agencies. With the retreat of the Government from the front line of direct project development and with the expected increased participation of the private sector in the development process such databases would be important resources in decision making.

The issue of land subdivision is tied to the culture of the indigenous people of Kenya, as well as the fact that the Government has noted that land is a sensitive issue. Therefore, the creation of land use databases is unlikely to have much impact on land use and family land management until alternative secure means of providing livelihood for those who may not be supported by uneconomical land holdings are introduced. It is also important to note that no Government wishes to rock the base of its political support. The only secure means of guaranteeing livelihood for a family. Employment in the public and private sector is not secure means of guaranteeing family survival. Until a welfare benefit system is introduced, land will continue to be the surest means of survival for a majority of Kenyans. The promise of land if European farmers were driven out of former "white" highlands in Kenya was the fuel that motivated Africans to fight during the Mau Mau uprising. Any drastic changes in land management in Kenya without alternative means of survival can spark economic and political upheaval. Any changes in the existing land use practices will have to be done in full consultation with those who depend on land for their survival.

8. References

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