



International Environmental  
Law Research Centre

# **LAND TENURE, LAND USE AND SUSTAINABILITY IN KENYA: TOWARDS INNOVATIVE USE OF PROPERTY RIGHTS IN WILDLIFE MANAGEMENT**

Dr Patricia Kameri-Mbote

**IELRC WORKING PAPER**  
**2005 - 4**

*This paper can be downloaded in PDF format from IELRC's website at  
<http://www.ielrc.org/content/w0504.pdf>*

## Table of Content

---

<b>I. INTRODUCTION</b>	<b>1</b>
<b>II. BACKGROUND</b>	<b>1</b>
A. Population	1
B. Value of Wildlife Resources in Kenya	2
C. Relationship Between Property Rights and Wildlife Conservation	2
<b>III. LAWS AND POLICIES RELEVANT TO WILDLIFE MANAGEMENT</b>	<b>3</b>
A. Environment Management and Coordination Act	3
B. Land Tenure	4
C. Land Use Planning and Zoning Laws	5
D. Wildlife Laws and Policies	6
<b>IV. PROPERTY RIGHTS AND SUSTAINABLE WILDLIFE MANAGEMENT: A CRITIQUE</b>	<b>9</b>
A. Conceptual and Legal Problems	9
B. Ecological Problems of Protected Areas	12
C. Institutional Problems	13
<b>V. RETHINKING PROPERTY RIGHTS FOR WILDLIFE MANAGEMENT IN KENYA</b>	<b>14</b>
A. Creating new Incentives for Wildlife Management Through law and Policy	15
<b>VI. WORKING AROUND THE LIMITS OF PROPERTY RIGHTS: INNOVATIVE USE OF PROPERTY RIGHTS SUSTAINABLE WILDLIFE MANAGEMENT</b>	<b>18</b>
A. Beyond Private Property Rights' Boundaries	18
B. Servitudes	18
C. Transferable Development Rights	19

## I. INTRODUCTION

The sustainable management of biological diversity is a major concern of the international community which now realises that this diversity is being eroded at an alarming rate due to consumptive uses of species as well as the excessive alteration of habitats owing to human activities such as cultivation, pastoralism and urbanisation.<sup>1</sup> The increase in human population around the world also accelerates species extinction as such population exerts more pressure on available resources.<sup>2</sup>

Private property rights regimes are believed to create incentives for the management of resources. They could however, also encourage the erosion of the resources.<sup>3</sup> In evaluating the role of property rights in wildlife management, it is imperative to critically examine the laws that have been put in place for the protection of biodiversity and the rights impacting on management activities. Our argument here is that private property rights and current wildlife conservation and management laws and policies in Kenya fail to provide the solution to wildlife biodiversity erosion partly because of their preoccupation with a monolithic system of property ownership favouring the state and individuals and neglecting communities and/or groups.

## II. BACKGROUND

Kenya has great faunal and floral diversity including forests, woodlands, and swamps, grasslands of many different varieties and 7,800 plant and animal species.<sup>4</sup> Of all the varieties of plants, 25% comprise of shrubs and trees of which 5% are considered endangered while about 8% are rare. Kenya's forests, covering no more than 2% of the land area, also host many endangered and endemic plant and animal species.<sup>5</sup> There are fifty-seven prominent mammal species in Kenya, including thirty-three species of horned animals, twelve large carnivores and others such as rhinos, elephants, and giraffes.<sup>6</sup> The Kenya Wildlife Service (KWS) manages wildlife on behalf of the state through a system of protected areas.

Kenya lacks major exploitable mineral resources and arable land is scarce. The main economic activities are based on the primary sector, predominantly agriculture<sup>7</sup> which is both a source of food as well as a revenue earner. The agricultural sector employs over 70 % of the country's population and in the 1990s, agricultural products have accounted for as much as 25% of the Gross Domestic Product (GDP) compared to manufacturing which contributed 14%.<sup>8</sup> The country can be divided broadly into three land categories based on agricultural production and the amount of rainfall received.<sup>9</sup> These are the high, medium and low potential areas. Over 75% of the human population live in the high potential area to the south and west.

### A. Population

The total population is currently estimated to be 30 million people. This is expected to double by the year 2025. Only 25.2% of this population live in urban areas, the rest living in the rural areas and consequently depending directly on land for a living.<sup>10</sup> The rural population depends mainly on biological resources as a basis for both subsistence and economic activities.<sup>11</sup> The growth in population has outstripped the agricultural capacity of the land in well watered areas and resulted in migration to drier low agricultural potential areas designated in official policy as arid and semi-arid areas (ASALs). This has had profound impacts on wildlife management since 5% of KWS's protected areas are in the ASALs where wildlife and pastoralists compete for range resources. ASALs comprise 88% of Kenya's total land area and carry over 20% of the total human population and more than 50% of the total livestock in the country.<sup>12</sup> Traditional pastoral systems of land use still prevail in these areas and temporary out-migration is common due to climate and insecurity. Pastoralists are however, increasingly settling permanently due to interventionist activities of the government, donors and non-governmental organisations which develop means of communications and permanent water sources.<sup>13</sup>

## **B. Value of Wildlife Resources in Kenya**

Different biodiversity value judgements were discernible in colonial wildlife conservation policies. While for the native Kenyans, these included direct values associated with the provision of food, clothing and the promotion of culture, the settler community was concerned with the preservation of wildlife to avoid extinction and thus ensure that wild animal numbers were maintained at such levels as could sustain sport hunting expeditions and wildlife-based tourism. The settler community concerns for preservation were given most prominence in wildlife conservation laws and policies while utilisation by the native Kenyans to meet their basic needs was proscribed by law. The economic value of wildlife conservation, realised primarily through wildlife-based tourism, remains the primary justification for wildlife conservation in Kenya to date with emphasis currently placed on popularising wildlife conservation and management as a profitable land use form.<sup>14</sup>

## **C. Relationship Between Property Rights and Wildlife Conservation**

Relevant property rights regimes in wildlife conservation comprise private property where wildlife is found on private lands, common property where wildlife is found on communal property or property owned by a group and government ownership where the government owns wildlife and wildlife protection areas. Open access situations also obtain where wildlife is found on no one's land or where common property support structures have disintegrated. Wildlife raises special problems of ownership since it is a fugitive resource which in its in situ condition cannot be associated with a particular user as its owner.<sup>15</sup> Moreover, wildlife does not recognise property boundaries and its movement cannot be restricted to national parks and reserves. Thus wildlife invariably avails itself of the space and forage available on private and group land since ecosystem boundaries do not follow the property ones. Species are also often found at the boundaries of different parcels of property, which may be no one's land, and seasonal migration necessitates the availability of corridors between different parcels of land.<sup>16</sup>

The definition of open access resources as those that can be depleted, are fugitive and characterised by rivalry in exploitation aptly fits wildlife in a state of nature since it is subject to use by any person who has the capability and desire to capture and /or harvest it. However, where an individual or group has defined rights over an area in which wildlife is found, such wildlife should be the property of that individual or group and it is incumbent upon the group members to regulate the use of the wildlife to ensure that the rates of use do not threaten the existence of the resource by rendering it incapable of reproducing itself.<sup>17</sup> With regard to groups, all the members have simultaneous ex ante claims on any unit of the resource and consequently, the harvest of the resource by any one member has to take into account the needs of other members of the community.

Wildlife resources, wherever found are, however, state property. In general, individual and community land owners have no ownership or use rights over the in situ wildlife resources. Consequently, resources that may have been previously available to all on whose land it appeared are state property. The vesting of the rights thereto in the state as has happened in many African countries is tantamount to the appropriation of the rights of the persons or groups upon whose land wildlife resides. The fugitive nature of wildlife resources makes them amenable to capture by non-owners thus making wildlife management a difficult task for the state.

Wildlife management in protected areas influences and is influenced by adjacent land uses and social values.<sup>18</sup> The refusal of the state to acknowledge the subsidies that individuals and groups provide in sharing their land with wildlife amounts to a taking of the rights of such individuals or groups who, as property owners, have to forego benefits such as cultivation, urban development and livestock keeping and deal with wildlife depredations and transmission of diseases to their livestock. The property rights to wildlife in this case are framed at the wrong level, namely the state which becomes the sole recipient of economic returns accruing from wildlife.

The emphasis on state ownership of wildlife ignores the interaction of different land uses in ecosystems and habitats. The areas that are good for wildlife, namely those that have permanent water and dry-season grazing coincide with the areas that the people in the drier parts of Kenya use for their livestock and personal needs. This is the case in Maasai land in Kenya which hosts many of the national parks and reserves. Consequently, the vesting of property rights to wildlife and the areas they occupy exclusively in the state is likely to impact

significantly, for instance, on the Maasai way of life.<sup>19</sup> Where multiple land uses are permitted as is the case in Amboseli, the challenge is how to guarantee local people's interests in areas that constitute the Park but which they need and previously had unlimited access to and also ensure that wildlife is sustainably managed.

Exclusive state ownership of wildlife also fails to take into account the fact that most wildlife resides on private lands and that reserves and game parks alone cannot ensure the survival of species. Protected areas can easily become islands and suffer massive degradation owing to the concentration of animals in small areas and the pressure from land users surrounding them. Further, the conversion of public goods into state property for conservation purposes without safeguards to ensure equal access for all may aggravate the situation of communities and individuals that have been subordinated for long and result in greater poverty and exploitation without the achievement of conservation or equity.<sup>20</sup>

### **III. LAWS AND POLICIES RELEVANT TO WILDLIFE MANAGEMENT**

Kenya's wildlife policy is found in sessional papers, ministerial statements and development plans. Apart from laws dealing specifically with wildlife, land use and land tenure laws, local government laws and zoning laws are also relevant. The laws on forests and agriculture also impact on wildlife management as do the development plans that provide the template upon which the government implements national development policies. Moreover, the Constitution as the supreme law of the land provides the legal context within which wildlife resources are managed. We will critically look at these laws with a view to assessing their efficacy in wildlife management in Kenya.

While the Constitution of Kenya contains no direct wildlife protection provisions, Section 71 of the Constitution which deals with the right to life has been interpreted by some to include the right to a clean and healthy environment. The draft Constitution (2004) contains more explicit environment protection provisions and also establishes a National Environment Commission to, among other things, conduct research on the environment and natural resources and examine and regulate resource use patterns and practices. These normative and institutional provisions have implications for wildlife management in Kenya at the macro level. The draft Constitution's provisions on devolution also have direct implications for the management of wildlife resources. Two objectives of devolution are to recognize the right of local communities to manage their own local affairs, form networks and associations and ensure equitable sharing of national and local resources. These will impact on the management of areas that provide wildlife habitat as will the loci for management of devolved local government namely, district, region and senate.

#### **A. Environment Management and Coordination Act**

The Environment Management and Coordination Act (EMCA) provides for the establishment of an appropriate legal and institutional framework for the management of the environment. It, among other things, establishes guidelines on cross-sectoral issues such as wildlife conservation. It is expected that all sectoral environmental laws will be revised and harmonised with the provisions of this framework law. This includes the wildlife law. The requirement for environmental impact assessment (EIA) will impact on wildlife management activities in Kenya. The establishment of protected areas requires an (EIA). Under EMCA, the Kenya Wildlife Service is mandated to be the lead agency in the country for matters relating to wildlife. The Act also creates the National Environmental Management Authority (NEMA) which is the oversight body for all environmental management matters in the country. At section 6, the Act makes provision for the creation of environmental easements which are not linked to land ownership for the grantor. These can serve as effective mechanisms for enlisting the support of land owners for wildlife management by KWS.

## B. Land Tenure

The land tenure systems operative in Kenya have been characterised as private/modern, communal/customary, public/state and open access.<sup>21</sup> These systems overlap in some cases, especially where the tenure reform process is incomplete, as is the case in the trust land awaiting registration where individuals have rights over land legally vested in local county councils as trustees. Privately owned land comprised 6% of the total land area in 1990 while government land (formerly crown lands) was about 20% and included national parks, forest land, alienated and unalienated land. The most extensive tenure type however, is trust land (formerly native areas), awaiting small holder registration that will effectively bring them under the private/modern tenure system. They comprised 64% of total land area in 1990.

Land in Kenya is owned by four different kinds of entities, namely the government, county councils, individuals and groups. Different legal instruments govern different categories of land and owners thereof. Further, there are two different systems of registration of land in Kenya namely, document registration and title registration.<sup>22</sup> The RLA was intended to be the overall land law commitment to the private/modern tenure system. The objective of bringing all land in Kenya under this Act has not as yet been achieved. Consequently, we still have a plethora of statutes applying to land. This makes land tenure law in Kenya very complex and in turn impacts on land uses such as wildlife management.

The RLA and the Transfer of Property Act govern individual ownership of land in Kenya. Both statutes confer upon an owner a fee-simple estate to the land in question. The RLA applies to the land formerly held under customary law, namely native reserves and trust land, which has been registered. The content of property rights one gets under it is absolute and can only be circumscribed, in theory, in exercise of the state's right of compulsory acquisition of land for public purposes after the due process outlined at Sections 75 and 118 of the Constitution have been followed. Sections 27 and 28 of the RLA define the quantum of rights that the registered proprietor gets upon registration as absolute ownership of land together with all rights and privileges belonging or appurtenant thereto and not liable to be defeated except as provided for in Section 30 of the Act. Section 30 lists rights capable of overriding the rights of an absolute proprietor. These do not include wildlife conservation. Given the wide latitude given to an owner of land under this statute, the capacity of the state to effectively police all wildlife in Kenya, especially wildlife on private land, is doubtful.

The Transfer of Property Act governs land in settler and formerly settler occupied areas, designated during the colonial period as the white highlands, because the aim of bringing all land under the RLA has not yet materialised. The bundle of rights one gets under it is the same as what one gets under the RLA and the Agriculture Act provisions also apply to land held under it.

With regard to government ownership, the taking up of land by the colonial government and the assumption of title to all land in the Crown gave the government the power to assume rights over land and vest them in other holders as it deemed. The precursor to the Government Lands Act, the Crown Lands Ordinance Chapter 280 of the Laws of Kenya, was originally passed to make provision for regulating the leasing and other disposal of crown lands. Upon independence, the Crown Lands Ordinance became the Government Lands Act, Chapter 280 of the Laws of Kenya under which national parks are governed.

As far as groups are concerned, trust land and group ranches are the relevant institutions. Trust land consists of areas that were occupied by the natives during the colonial period and which have not been consolidated, adjudicated and registered in individuals' or group names and native land that has not been taken over by the government. It is governed by the Trust Lands Act and is vested in local authorities designated as councils. Councils manage all the resources within the trust land under their jurisdiction and control the development of that land. The occupiers of the unregistered land have rights, which are in limbo and awaiting confirmation through registration. These rights are in some cases guaranteed under some form of customary tenure. Conservation responsibilities of the Councils include the protection of trees and forest produce on land which does not fall within a forest area as defined in the Forests Act, Chapter 385 of the Laws of Kenya (forest areas are government land).

It is notable that tenure to trust land is increasingly changing from the trust status to ownership by individuals, legally constituted groups and the state. The implications of this change are significant. The application of customary law is ousted and the land is removed from the ambit of Council control for conservation and development purposes. In some instances, access thereto for communities previously occupying the land is curtailed significantly and this impacts negatively on the management of wildlife resources within those areas.<sup>23</sup>

Group ranches, defined as “demarcated area(s) of rangeland to which a group of pastoralists, who graze their individually owned herds on it, have official land rights”. The operative statute in this regard is the Land (Group Representatives Act). A group for the purposes of the Act is a “tribe, clan, family or other group of persons, whose land under recognised customary law belongs communally to the persons who are for the time being the members of the group, together with any person of whose land the group is determined to be the owner” where such person has, under recognised customary law exercised rights in or over land which should be recognised as ownership.<sup>24</sup>

Most group ranches are in the areas occupied by pastoral communities in Kenya which coincide with the game reserves. These include Narok, Amboseli and Samburu. The composition of group ranches was an attempt at formalising traditional community structures. The principle idea behind them was to create a land unit smaller than the traditional section but larger than the individual. Group ranches have not worked as well as was hoped for a variety of reasons. Firstly, while the system was meant to capitalise on traditional institutions to institutionalise sustainable resource management, the group representatives lack the authority of traditional leaders.<sup>25</sup> Secondly, government policy has tended to emphasise individual rights and there is a prevalent view that the group rights would eventually mature into individual ones. Further, despite the fact that 37 % of Kenyan land is used for pastoralism as compared to the 9 % used for agriculture; the latter has received greater attention in policy making. Like in many other parts of the world, pastoralism in Kenya has not been fully recognised as an important land use system.<sup>26</sup>

### **C. Land Use Planning and Zoning Laws**

Land use planning and zoning laws are important in wildlife management since they direct the manner in which important areas are to be utilised and thus have the potential to ensure that resources are sustainably managed. General land use planning laws in Kenya fall into two categories, namely those dealing with urban land and those dealing with agricultural land. In addition to these we have laws on wildlife and forest conservation, which prescribe rules specifically for these areas.

The Agriculture Act and the Forests Act are relevant in wildlife conservation and management since wildlife found on agricultural land and forests is under the control of the Agriculture and Forests departments respectively. The Forests Act Cap. 385 provides the legal framework for the conservation of forests. Under it, the Minister responsible for natural resources is empowered to declare any forest area a nature reserve for the purposes of preserving the natural amenities thereof and the flora and fauna therein. The killing of wild animals in a nature reserve is prohibited. The proposed Forests Bill 2004 seeks to amend the Forests Act. It contains provisions that will impact on the management of wildlife in forest areas such as the requirement for formulation of management plans which requires that an inventory of the forest be taken with a view to determining the true nature of the forest. Such an inventory will include the wildlife resources in the forest and will determine the conditions upon which a management agreement is entered into between the Forests Service or local authorities and other parties. The Bill also allows for the formation of community forest associations to participate in the conservation and management of a state forest or local authority forest. The presence of such associations will impact on the management of wildlife in the forest and there is need to synchronise the wildlife management functions to avoid conflicting mandates.

Legal regulation of agricultural land use has always been an important facet of Kenya’s resource management policies. The basic legislative instrument for that purpose has been the Agriculture Act. Its objectives are, inter alia, to provide for the preservation of the soil and its fertility and to promote and maintain the development of agricultural land in accordance with rules of good husbandry. This legislation covers most of the activities that have contributed to massive land degradation in certain parts of the country. These activities have how-

ever, continued in spite of statutory regulation. The command and control posture of the law ensures that even private property rights owners have very little latitude within which to utilise their rights for the conservation and management of natural resources. The use of criminal law sanctions also creates problems because of the necessity of sufficient policing to detect offenders, which is currently lacking. The holders of private property aim at maximising the use to which their land can be put and the capacity of the government machinery to police the use of land is limited by the high costs and lack of funds.

This Physical Planning Act, for its part, makes provision for the preparation and implementation of physical development plans. Development for the purposes of the Act is defined to include the making of any material change in the use or density of any land. It makes the preparation of a physical development plan, complying with the requirements of the physical planning liaison committee, a prerequisite for any land development. Two kinds of plans are provided for, namely, regional and local physical development plans. Among the purposes of regional and local physical development plans is securing suitable provision for the use of land. There is room in these regulations for requirements to be made for sustainable resource management as part of the conditions for land development. It could, for instance be made a condition that development of land in a wildlife range area result in no more than the minimal and unavoidable number of deaths of the wildlife and that attempts be made to reconcile the imperatives of wildlife conservation with land use. It is surprising that this Act was passed as recently as 1996 but it does not address the issue of sustainable biological diversity conservation and management which has been of concern for some years now. Further, the Act uses existing local authorities, which are based on political as opposed to ecological considerations as units for management. Consequently, the law does not define new parameters for zoning the country based on sustainable resource management imperatives. Moreover, the Act goes short of providing for area plans based on compatibility of land uses.

#### **D. Wildlife Laws and Policies**

The first attempt at a comprehensive policy on wildlife management in Kenya is contained in Sessional paper No. 3 of 1975. This policy was a radical departure from the preservationist policies preceding it. It recognised the value of wildlife both within and outside protected areas. This document identified the primary goal of wildlife conservation as the optimisation of returns from wildlife defined broadly to include aesthetic, cultural, scientific and economic gains, taking into account the income from other land uses. Economic gains were specified to derive from both tourism and consumptive uses of wildlife. The need to identify compatible land uses was also cited as an integral part of the policy along with the implementation of such uses and fair distribution of benefits derived therefrom. The need to minimise depredations by wildlife on agricultural land and the need to support tourism were also underscored.

The Policy also recognised that wildlife needed space outside the protected areas if it was to flourish without intensive management and ecological impoverishment. It envisioned that additional space for wildlife management would be secured from landowners willing to accommodate wildlife.<sup>27</sup> Under the Policy, wildlife authorities were to be facilitators, advisors and assessors working with landowners and residents in wildlife range areas in the country, and not policemen. The government also undertook the general responsibility of assisting with problem animal control in instances of wildlife impinging adversely on human life and property, within the limits of available resources.

The operative Wildlife (Conservation and Management) Act<sup>28</sup> established the legal provisions for the 1975 Policy.<sup>29</sup> It consolidated the wildlife protection and national parks laws in Kenya and merged the National Parks Organisation with the Game department. The Act established the Wildlife Conservation and Management Department (WCMD) under the Ministry of Tourism and Wildlife to replace the National Parks Board of Trustees. This department became the overall wildlife management authority for wild animals on state land, trustland and private land. In particular, it was the responsibility of the department to ensure that wildlife resources gave the best possible returns to individuals and the nation in terms of cultural, aesthetic and economic gains. In 1990, KWS was formed to replace the WCMD. It has been noted that that the word “service” was deliberately used in designating this new body to convey the expectation that this body was to contribute to the welfare of local communities. The new body was charged with the task of ensuring that wildlife resources were sustainably used for national economic development and for the benefit of people living in wildlife areas.<sup>30</sup>

It was charged with the task of managing Kenya's 56 conservation units (26 National Parks and 30 National Reserves) and also wildlife outside protected areas.

The Act however, retained most of the provisions on conservation. It vests the powers of management and control of protected areas in a consolidated service of the government, KWS. The stated objective of the statute is to ensure that wildlife is managed and conserved for the benefit of the nation generally and certain areas in particular. The Minister responsible for wildlife is empowered by the Act to declare any area of land a national reserve or game park after consulting with the relevant bodies. The law provides for four types of wildlife protected areas namely, national parks, national reserves, local sanctuaries and game reserves. The first three are vested in the central government with human activities completely excluded from national parks. Various degrees of human activities are allowed within the national reserves as long as they are compatible with conservation efforts or requirements. Game reserves large conservation areas which are vested in local authorities (County Councils) who administer them under the overall guidance and control of the relevant government ministry (Ministry of Local Government). The county council (which holds it in trust for the residents of the area and both restricts the influx of new immigrants and controls the number of livestock kept on the land) owns the land in the reserves. They are an institution created by the Wild Animals Protection Ordinance of 1951. Section 18 (b) of Cap. 376 provide for the continued existence of already demarcated game reserves but changes their name to national reserves. However, game reserves managed by local authorities have been created with the support of the government. This approach is meant to facilitate local participation both in wildlife conservation measures and in the benefits that accrue from wildlife protection. Further, the law acknowledges the need to take into account-varied forms of land use and the inter-relationships between these and wildlife conservation but does not lay out the necessary framework for doing so.

Section 29 (2) of the Cap. 376 made provision for owners of private land opening their land up for hunting of game. Section 47 authorised game ranching and cropping subject to conditions set out by the Minister responsible for wildlife. However, with increased illegal taking of wildlife and the attendant threat with extinction of species such as rhinos and elephants, the Kenya government, in response to worldwide pressure, banned all game animal hunting in 1977.<sup>31</sup> It also revoked all licences to trade in wildlife products were also revoked.<sup>32</sup> This led to the closure of professional hunting companies and shops dealing with game trophies. Wildlife-based tourism was left as the only legal form of utilisation. This reduced the value of land for communities that had earned revenue through granting hunting concessions. The government thus appropriated to itself the responsibility for all wildlife in the country including that on privately owned land departing from measures taken from the late 1940s to the 1970s to enlist the participation of individual and community land owners in wildlife management. Consequently, the public expects the government to pay for wildlife conservation and management related costs.

The Act, responding to increasing human-wildlife conflicts, provides for compensation to landowners who support wildlife on their land and for properties destroyed by wildlife. Further, KWS implements a scheme for revenue sharing of park entrance fees with rural communities as a way of encouraging those communities to take part in wildlife conservation. It also makes provision for District Compensation Committees to assess compensation claims. However, these committees do not function effectively.

Cap. 376 has been widely perceived as inadequate in dealing with wildlife management problems in the light of changed circumstances and a new law is currently under preparation. Some of the factors necessitating revisions to the law are the ascendance of biodiversity to a position of prime importance internationally evidenced by the coming into force of a plethora of international instruments for its conservation and sustainable use such as the Convention on Biological Diversity<sup>33</sup> and the continued inability of government agencies to integrate, harmonise and enforce land use policies and legislation intended to conserve wildlife and other natural resources. The principles of the Convention are relevant to wildlife management and are deposited in the framework environmental law, the Environment Management and Coordination Act 2000. The initiatives taken to create positive incentives for sustainable management of wildlife outside protected areas such as community participation and the now ended pilot cropping programme are outside its purview and need to be ingrained in new wildlife legislation.

## *Attempts at Changing the Wildlife Law and Policy*

### *Community Participation in Wildlife Management*

In 1992, KWS established the Community Wildlife Service department which was charged with ensuring good management of wildlife outside protected areas for the benefit of communities who interact with wildlife, to create trust and dialogue between KWS and those communities, help communities benefit from wildlife and protect them against losses caused by wildlife and also initiate collaboration with other sectors concerned with land use. Through it, some of the financial benefits accruing from wildlife conservation are channelled to local communities through the construction of amenities like schools and hospitals, water supply and cattle dips. This is in a bid to reduce the conflict between wildlife and humans and to mobilise communities to participate in sustainable wildlife conservation and utilisation programmes for their own economic gains.

Another mechanism for enlisting land owners' support was through the granting of wildlife use rights in pilot wildlife utilisation schemes started in some areas until 2002. To obtain wildlife use rights, one had to be a private landowner or a community having rights to a piece of land, provide KWS with a wildlife management plan, a map of the ranch and results of a recent game count and indicate the quota applied for. KWS assisted individuals and groups in drawing management plans. Possible proposed uses for wildlife in the ranch include cropping, hunting for home consumption, live animal capture for translocation, bird shooting, game farming (but no sport/safari hunting which has a higher value and is a lesser damaging use). One could apply for all forms of use. Use rights were granted to individual ranches or associations of ranches that had formed a wildlife management unit. They were for an initial 5 years and could be renewed. Once an application was approved, the land was registered with the KWS - no fee was charged. During the duration of the licence, the landowner was obliged to provide KWS with quarterly reports specifying the off-take by species, numbers and sex; explain the use to which the animals taken were put and the manner in which products such as meat, skins and horns were disposed off. The pilot programme continued for ten years and was discontinued with no alternative incentives being provided to communities and land owners to manage wildlife on their properties. Besides, the operation of the pilot programme was within the context of bans on hunting and trade in wildlife products instituted in 1977. This presented problems for croppers who could not sell their trophies and other animal products besides meat.

### *Attempts at Legislative Amendment*

In an attempt to revise the Wildlife Act, KWS drafted a bill in 1998 that was never published or brought before parliament. The Preamble to the Draft Bill vested KWS, on behalf of the state, with overall wildlife management authority but also acknowledged the need for ensuring the highest and beneficial participation of local communities in wildlife management and conservation. It also pointed to the need to strike a balance between protectionism and unregulated wildlife utilisation. Thus it advocated the promotion of wildlife utilisation consistent with scientifically and internationally accepted conservation practices, maximising biodiversity protection in both protected and unprotected areas and minimising human-wildlife conflicts to ensure long-term harmonious co-existence of people and wildlife. The Bill also sought to catalyse the growth of national conservation constituencies and partnerships within the wildlife sector and to streamline community-based and regulated compensation procedures pursuant to damage caused by wildlife in a bid to create incentives for wildlife management.

The draft Bill did not go as far as to grant rights to wildlife resources to landowners, individuals and communities. It provides that the ownership of all wildlife found in Kenya whether on private, trust or public land is vested in the state which may, through KWS, grant wildlife user rights to individuals, groups or bodies corporate. The draft Bill however, pointed to the necessity to take varied forms of land use into account and the interrelationship between biodiversity conservation and management and other forms of land use so as to ensure both the compatibility of multiple land uses and the fair distribution of benefits.

More recently, a private member's bill seeking to amend the Wildlife Conservation and Management Act has been tabled before Parliament.<sup>34</sup> It seeks principally to fix the levels of compensation for damage caused by wildlife, raising it for the current figure to Kshs. 1 million. It also seeks to expand the KWS board of trustees and to provide for licences for consumptive use of wildlife.

## IV. PROPERTY RIGHTS AND SUSTAINABLE WILDLIFE MANAGEMENT: A CRITIQUE

### A. Conceptual and Legal Problems

Most of the laws and policies dealing with wildlife management and the protection of property rights have been in place for a considerable length of time during which the numbers of some species have declined. In the first instance, policy and legal documents emphasise preservation/conservation while their general objectives are geared towards sustainable management. Further, while the value of wildlife resources seems to have been recognised and realised by the government, some of the laws and policies put in place and which impact on wildlife management, are inimical to the enhancement of that value. For instance, the government has promoted the fragmentation of land that is used as dispersal and migration routes by wildlife through land tenure change.<sup>35</sup>

#### *Wildlife preservation versus wildlife management*

While Kenya's wildlife policies recognise the need for sustainable management incorporating both conservation and sustainable utilisation aspects, wildlife laws are preservationist. The preservationist era was ushered in during the colonial rule when it was sought to protect wildlife from native people. With independence, the government attempted to redress this situation by allowing landowners to sell hunting concessions on their lands and vesting the control of some wildlife areas in local authorities to hold on behalf of the local communities and utilise funds obtained from wildlife management activities to build infrastructure and amenities for the benefit of the locals. The 1975 Sessional Policy Paper was, for instance, intended to give locals more latitude in the management of wildlife resources.<sup>36</sup> These initiatives however, achieved little success owing to first, the failure of the 1976 Act to give effect to the spirit of the Policy and secondly, inadequate funding of the bodies charged with the responsibility of managing wildlife, corruption and increased poaching.

The ban on hunting put in place in 1977 and the subsequent ban on trade in wildlife products in 1978 re-introduced the previous controls on utilisation of wildlife resources. It is remarkable that the preservationist policy initiatives have not stemmed the decline of species. Indeed censuses conducted show that wildlife numbers in most districts have declined on average by a third to a half between 1977 to 1993.<sup>37</sup> The few areas where wildlife populations have held their own or increased are Amboseli, Maasai Mara, Laikipia and Machakos where utilisation programmes in one form or another bring economic benefits to landowners. The improved status of large animals in these areas underscores the need to encourage sustainable management through economic incentives as clearly spelt out in the 1975 paper.<sup>38</sup>

The need to move from preservation of wildlife to sustainable management is further underscored by the fact that the role of human activity in ecosystems is not always negative. It has, for instance, been found out that the removal of disturbance factors such as fire, pastoralism and shifting cultivation can be as negative for resource management as over-exploitation, particularly in ecosystems where the human hand has played a shaping role ecologically.<sup>39</sup> This would implement one of the recommendations of the Five Person Review Committee calling for a shift from protectionism, the institutionalisation of values that take into account local attitudes and problems and a move towards sustainable, participatory wildlife management in Kenya.<sup>40</sup>

### *Lack of sufficient incentives for sustainable wildlife management – Limited value of wildlife resources*

Kenya's policies with regard to hunting and trading in wildlife products radically changed in the 1970s. Prior to that, the relevant legislation allowed for hunting and dealing in wildlife products as long as the relevant authorities issued a valid licence. It also made provision for the development of wildlife in privately owned land. Landowners were invited to facilitate the presence of wildlife on their land as one of the forms of economic utilisation of wildlife.<sup>41</sup> The only restrictions concerned a few species. These permissive provisions nearly led to the extermination of certain species, particularly the elephant, leopard and the rhino, which were subject to both licensed hunting and poaching on a large scale. The government thus issued regulations in 1977 and 1978 under the relevant legislation effectively banning hunting and revoking dealers' licences.

The law currently does not allow for consumptive uses of game even in cases where the numbers of the particular animals are well beyond potential biological removal levels and are residing outside protected areas. Elephants, which had, for instance decreased so much in the 1980's that they were included in the list of threatened species under CITES,<sup>42</sup> are a good case in point here. The global ban on the sale of ivory has resulted in increased numbers of elephants which have moved to privately owned lands due to congestion within the protected areas.

A related problem is that of market failure. Market failures arise when the necessary or sufficient conditions for market equilibrium fail to hold.<sup>43</sup> In the case of wildlife, poorly defined property rights, markets that are not well developed for both labour and capital, endemic poverty, income constraints, imperfect competition, high levels of uncertainty all combine to limit the capacity of markets to reflect the full social benefits of wildlife and wild lands. The loss or degradation of wildlife resources and wild lands is thus subsidised and distorted.<sup>44</sup>

### *Lack of legal framework for involvement of local communities in sustainable wildlife management*

The law in Kenya lags behind major steps that have been taken to enlist the involvement of communities in sustainable wildlife management. For instance, the ban on hunting remained intact despite the initiatives taken by KWS to grant wildlife use rights to communities who live with wildlife between 1992 and 2002.

Moreover, the state owns all wildlife in Kenya and has maintained strong control over all wildlife management activities. This creates major problems for many property owners since about 70% of wildlife resources in Kenya exist outside protected areas managed by KWS. The owner of the land, though obliged to keep the wildlife on his property and bear the costs thereof, has no legal basis for claiming part of the benefits accruing from wildlife conservation and management or appropriating any value of wildlife by dint of his owning the property that forms the wildlife range.

One issue of concern to property owners has been the depredations by wildlife. Compensation for this has been inadequate and is only provided for injury to persons and loss of life but not for destruction of property. Landowners are thus averse to wildlife management activities in their neighbourhood because they devalue their property as settled agricultural, urban or pastoral land. Such benefits do not necessarily accrue to the local property owners. The fact that the treasury, a bureaucratic arm of the government, is responsible for paying compensation and not KWS also alienates the issue of compensation from that of wildlife management. The bases for and amounts of compensation are fixed in an arbitrary manner and do not reflect real cost and benefit assessments.

### *Conservation an alien concept*

The setting aside of large tracts of land for conservation coincided with the alienation of land for settler purposes and increases in the population of the natives. Conservation was conceived as a process removed from people, especially the native Kenyans. The values attached to conservation were for the most part removed from the needs and aspirations of native Kenyans for whom the whole process amounted to the both the ex-

appropriation of their property rights and the severance of their relationship with their local environment and environmental resources. Potentially beneficial projects aimed at benefiting local communities also fail because the needs of those communities are not carefully considered in the formulation of the projects. A good example of such a project is the Kenya Wildlife Management Project, which was set up in Kajiado in 1971 to develop wildlife utilisation schemes but ended up concentrating more on sport hunting than on potential benefits that local people could reap from wildlife.<sup>45</sup> A similar problem arose when KWS announced in 1997 that it supported the revocation of the ban on hunting for species that are not threatened with extinction. While the aim of this proposal as originally conceived by the Five Person Review Group was to maximise the benefits of landowners, especially local communities, from wildlife, the potential beneficiaries of such a move now appear to be mainly absentee private owners of ranches who are Kenyan British and rich Africans resident outside the wildlife areas. The issue of what benefits are to be derived from wildlife conservation remains unresolved.

The state-resource relationship introduced during colonialism which resulted in the stripping of local communities of any powers of management or control of their natural resources, particularly wildlife, also alienates people from conservation. The state has retained close control of wildlife resources and has not always been sensitive to the social and economic needs of sustainable utilisation at the local levels and for the most part follows the colonial patterns of mining natural resources to maintain state coffers and benefit the powerful individuals.

### *Lack of understanding of the nature of private property rights*

The failure of the colonialists to appreciate the nature of natives' traditional rights led to undue disregard for those rights and this has affected the conceptions of property by the natives to this day. Cronon, for instance, has argued that ownership is a complex social institution that varies widely between cultures and therefore only makes sense if the people with whom the property rights holder lives recognise that ownership and vest on that person the rights to impose sanctions against the violation of those rights by anyone else. Since different groups may permit different bundles of rights over the same object, to define property rights is to represent boundaries articulating a set of conscious ecological boundaries between people and things. This delineation of rights underlines what it is that a particular community values and distinguishes the fishermen, pastoralists and agriculturists.<sup>46</sup>

The superimposition of notions of individual property rights' holding and the inflexibility characterised by colonial authorities' contempt for the views of native Kenyans of property as belonging to a community or group and not subject to appropriation by a single individual has contributed significantly to the lack of equilibrium between people and their ecological surroundings. The dualism of notions of property introduced at colonialism continued as the nascent local bourgeoisie was co-opted into the colonial economy. Communities that had enjoyed rights to forest or wildlife resources did not fully comprehend the notion of state and/or individual ownership of those resources and thus continued to harvest the resources notwithstanding legal prohibitions. For the state to exercise property rights to those resources and the land, on which they were located, there was need to heavily police the resources. This explains the military nature of conservation operations in Kenya and other parts of Africa. The machinery of the state has in some instances been outstripped by the incidences of encroachment leading to the loss of the resources to the state and over-harvesting to the detriment of the communities themselves.

The situation is made worse by the fact that most land in Kenya is owned by local authorities as trustland awaiting registration. There have been increasing conversions of trustland to individual ownership in recent years taking more land outside the purview of the ownership of local authorities who, at least in theory, hold such land as trustees for the local community. Most of the individuals who have obtained rights to this land are not necessarily members of such communities.

### *Lack of proper planning*

Most laws and policies applicable to resource conservation in Kenya are formulated along the lines of specific sectors. Laws on property rights and land use may run counter to those on wildlife management. Notorious examples in this regard include the sub-division of land into individual holdings and the introduction of cultivation and industrial plants in areas that serve as wildlife dispersal and migration areas. Sustainable wildlife management has been adversely affected by both the failure to provide for multiple land uses and the lack of proper management of wildlife-based tourism. The failure to provide for multiple land uses also hampers sustainable wildlife management. There are no legal provisions for multiple land use areas which is evidently appropriate considering that there are overlaps between human settlements and wildlife habitat.

While it is necessary to preserve unique habitats within national park zones, it is also important to allow migration of wildlife from and into parks and permit local communities to engage in productive human activities and their traditional way of life alongside the protected areas. This is particularly crucial for communities such as the Maasai who live in the Mara area and border the Amboseli and Nairobi national parks. Moreover, the effects of land tenure change have generally not been considered in formulating policies on wildlife conservation. Land uses such as industrialisation and cultivation, encouraged by the trend towards individual ownership, have received policy sanctions even in areas where wildlife management would be a more valuable land use.<sup>47</sup> Tenure changes have resulted in irreversible changes to land uses such as pastoralism which are compatible with wildlife conservation. No attempts were made at inception to integrate land uses so as to allow viable interactions between the conservation imperatives and compatible human land uses. The absence of well-thought out land-use plans has resulted in the encroachment of humans into the protected areas, the conversion of those areas into agricultural and settlement areas and the pushing of wildlife into smaller and drier areas.<sup>48</sup>

### *Management problems*

Besides the problem of systematic encroachment on wildlife habitats by other land-use categories, the present forms of wildlife utilisation also pose serious management problems. This sector has been conceptualised as a major foreign exchange earner through tourism.<sup>49</sup> Tourism has been promoted as a source of national economic growth without the integration of local level plans with national level policy.<sup>50</sup> Overemphasis on tourism however, without considering the carrying capacity of the parks has caused marked degradation to park ecosystems due firstly, to the concentration of lodges, beach hotels and tented camps in and around the national parks. Secondly, the use of motor vehicles within the parks and driving off the road by tour drivers to facilitate wildlife viewing has caused stress to sensitive species and degraded the park ecosystem.<sup>51</sup> In the Amboseli National Park, it has been noted that the hunting success of the lion and the cheetah has been reduced by as much as 25% due to tourist pressure.<sup>52</sup> Further, the presence of off-road tracks in national parks affects grazing land within the parks and surrounding areas and militates against the regeneration of such land.<sup>53</sup> The vulnerability of the tourism sector to competition from other destinations and adverse impacts of travel advisories as a result of the 1998 and 2002 terrorist attacks has negated the capacity of the sector to yield optimum returns.

## **B. Ecological Problems of Protected Areas**

Parks can only be core of conservation and have to be taken along with surrounding ecosystems and land use. The limited size of protected areas cannot guarantee the survival of all species.<sup>54</sup> While knowledge about the interactions between wildlife and their habitats is important in planning protected area management, it is remarkable that little is known for instance, about the interaction between large herbivores and the savannah they occupy.<sup>55</sup>

Considering that up to 70% of wildlife in Kenya is found outside protected areas, it is imperative that lands outside protected areas are considered in any wildlife conservation and management plans.<sup>56</sup> The tendency to hive off parks from reserves has led to ecological isolation in areas such as Amboseli where integrated management including surrounding lands would be more beneficial to the entire ecosystem. Further, the delineation of some parks does not take into account the needs for dispersal and migration of animals. Most of such areas

are left out of the protected area, which is thus an incomplete ecosystem that does not meet all the needs of the protected species.

The situation may be exacerbated by the ownership of such areas by different nations, individuals or groups. The Serengeti national park in Tanzania, for instance, does not cover the entire ecosystem used by wildebeests in their natural migrations. The plains used by these migratory species include the Mara region in Kenya and are managed differently from the Serengeti area.<sup>57</sup> It is remarkable that Serengeti is a World Heritage national park in which no human activities are allowed while Maasai Mara is a national reserve where human activities are permitted, land is owned by different persons and parts of which have been converted to plantation farming. This is also the case in Amboseli where the Maasai group ranches surrounding the park form part of the entire range within which wildlife is found and influence significantly the management of the park. Changes in land ownership and land uses around these protected areas has made the protected areas isolated islands within ecosystems.<sup>58</sup>

Further, some protected areas are not large enough for big mammals and have little land around them to allow for expansion. The size of the Amboseli national park, for instance, is considered very small in relation to the population of wildlife, which includes large herbivores. Wildlife populations increase once they are accorded protection but they remain confined by fences and are surrounded in many cases by hostile property owners whose land uses are incompatible with conservation. While in some cases large mammals have been translocated to larger areas, one wonders whether such a strategy is sustainable in the long run given the limited availability of land and the increase in human population.

### **C. Institutional Problems**

Due to the close ties between KWS and the government, the former is caught up in some of the bureaucratic procedures of the latter making it incapable of responding swiftly to conservation problems as they arise. KWS has also not succeeded in developing a strong multi-disciplinary research team and maintains a strong-armed wing of military stature that was inherited at independence. KWS has therefore not managed to effectively collect, organise and disseminate information on conservation and this hampers the efficacy of its policies.<sup>59</sup>

The lack of public involvement in planning and implementing wildlife management projects hampers the success of these projects, which are characteristically imposed on the public.<sup>60</sup> With respect to wildlife conservation, a major hindrance to the government's attempts at conservation is poor interactions between human beings living with and neighbouring wildlife refuges and the wildlife. The roots of this mismatch can be found in the initial setting up of the refuges by the colonialists who set aside land that was previously occupied by natives for wildlife conservation purposes. The setting aside did not take into account the interests that the affected communities had in that land. With population increase and consequent need for more land, communities neighbouring wildlife refuges have encroached into the lands set aside for the animals and used them for settled agricultural activities or for rearing their livestock. In other cases, massive killing of wild animals such as elephants for ivory or rhinos for horns has taken place in the reserves and parks.<sup>61</sup>

The benefits derived from wildlife utilisation have been limited to wildlife-based tourism and minimal culling by the hotel industry which supports this tourism. Communities neighbouring wildlife refuges may not, however, perceive the trickle down of benefits as worth the constraints placed on them. They look at other African countries such as Zimbabwe and Namibia that have successful wildlife utilisation programmes.<sup>62</sup> Kenya does not have a legal framework for wildlife utilisation and communities neighbouring game parks and game reserves and there are therefore no necessary incentives to positively contribute to wildlife conservation and management.<sup>63</sup>

## V. RETHINKING PROPERTY RIGHTS FOR WILDLIFE MANAGEMENT IN KENYA

*Wildlife-human conflicts are not just a litany of specific problems, but a whole unacknowledged perspective on reality. Their solution requires a concept of sustainable wildlife management by and for people on their land, not in spite of them. This approach differs from protectionism, which tends to institutionalise conservation values that take no account of local attitudes and problems.<sup>64</sup>*

*Any grandiose plan for the conservation of wildlife without adequate provision for human interests is doomed to fail. Conservation in developing countries often has to be a compromise between scientific idealism and practical reality.<sup>65</sup>*

With the declining productivity of land uses such as livestock and cultivation in Kenya, there is need to search for alternative land use options that are economically viable. Sustainable wildlife management should be promoted as one of the alternatives given the fact that Kenya is endowed with unique wildlife resources. Current wildlife conservation policies emphasising the setting aside of land for conservation and vesting of such land in the state are not economically or ecologically efficient in the overall because they do not ensure optimal utilisation and management of land and wildlife resources.

Considering the human population's animosity to wildlife and the escalation of this trend as the human and some wildlife species' populations increase, it has become increasingly clear that if wildlife policies are to contribute to sustainable biodiversity management generally, the needs of humans and wildlife have to be taken into account in tandem in framing the policies. Further, these policies have to aim towards sustainable management practices and away from conservation of wildlife resources for conservation's sake.

For sustainable wildlife management to succeed, perceived benefits have to outweigh the benefits of building up the area, using it as pasture land or cultivating it. For rural communities, this is tied to the satisfaction of basic needs. Some ways in which conservation imperatives can be harmonised with the aspirations of rural communities is through the channelling of benefits derived from wildlife management to such communities. It could also involve the stemming of the effects of enclosure of wildlife in parks such as the degradation of park ecosystems and the promotion of wildlife as a viable economic activity for individuals as against cultivation and livestock keeping which, if uncontrolled, exhaust the soils and ecosystems around them.

In conceptual and legal terms, it is important that the values informing wildlife conservation are re-visited. In this regard, market failure, limitations of existing property rights regimes in fostering wildlife management and the failure of law and policy to provide incentives for conservation have to be tackled. On a more practical level, mechanisms should be devised for ensuring that policies are well co-ordinated and that measures that go beyond the confines of property rights are put in place to promote conservation. Property rights could be made more effective in fostering the conservation of biological diversity through involving property owners, individuals and communities, in making decisions on conservation and giving them incentives to participate in the activities.

Whether property rights are vested in individuals or in groups, there is need for security of tenure and some measure of political and economic certainty to ensure that property rights' holders can invest in sustainable resource management in the long term without fear of losing their investment.<sup>66</sup> It is difficult to promote tenure incentives in situations where there are no state recognised tenurial rights or in situations where the state does not accord the tenure holders security of that tenure.<sup>67</sup> While the private property rights institution is recognised in Kenya's laws and policies and different kinds of rights provided for, such rights to property are subject to state appropriation and in some instances such appropriation has taken place without the requisite compensation being afforded to the rights holders. Further, for property owners whose land hosts wildlife, their rights are subject to state ownership of the totality of the wildlife resources. Such owners of land have incomplete ownership since they cannot enjoy all the rights encapsulated in the grant document and consequently are in no different position from non-owners or people in open access situations in so far as the wildlife resources on their land are concerned.

## A. Creating new Incentives for Wildlife Management Through law and Policy

Central to the process of rethinking property rights regimes is the need to grant wildlife use rights to landowners be they communities or individuals.<sup>68</sup> Landowners need to have control and responsibility over wildlife resources if they are to meaningfully participate in management activities.<sup>69</sup> Tenurial security for land and wildlife resources is of the essence in enabling communities and individuals to make management decisions by themselves or as members of larger groups that include all stake-holders. It also makes the enjoyment of property rights to land more meaningful and beneficial and establishes a wildlife-land ownership nexus which is necessary in stemming the current apathy towards wildlife conservation.<sup>70</sup>

Incentives for sustainable wildlife management can be created through granting rights to land and wildlife resources to persons best placed to carry out management activities in any given area. While state and private property rights are important and can foster sustainable resource management in certain cases, it should also be appreciated that there are variations thereto which need to be taken into account in framing rights. Common property rights, for instance, can be an effective institution for resource management when purely private rights are costly to enforce.<sup>71</sup> Community-based resource management systems need to be strengthened through land tenure arrangements which accommodate the interests of people living in or around protected areas to ensure that they exercise more influence and power over wildlife and other resources than do governments.<sup>72</sup>

The state should also, as far as possible, divest itself of the rights to and control over wildlife resources. These rights should be framed at the right levels to ensure that the rights' holders are the best placed to sustainably manage the resources and have the necessary incentives to do so. In this regard, the state should devolve ownership, control and management of wildlife resources to individuals, groups and local authorities. This will increase the self-interest of property owners in managing wildlife and raise their tolerance of wildlife on their property. The role of the state as the guardian of the public interest would still subordinate the rights of communities, local authorities and individuals to the general interests of the country to sustainably manage wildlife resources and entitle the state to intervene in situations where the property owner's activities threaten the existence of the wildlife resources.

There is therefore firstly, the need for devolution of real power by states and local authorities to local communities and secondly, the need to invest in institutional supply within communities through empowerment and the removal of the need for governmental involvement in the affairs of the community. With regard to land ownership, the entities best placed to manage wildlife resources should get rights as entities and not be forced to desegregate into individuals or entities closely approximating to such. Further, land uses such as pastoralism that are potentially compatible with sustainable wildlife management and which are better served by collective rights to land should be promoted through law and policy and not perceived as inferior to cultivation and urbanisation. Within the collective entities however, concerns for the equitable sharing of resources amongst the members should be addressed to avoid a situation where some sections of the community bear the costs of conservation while others receive the benefits thus replicating the existing ineffective national policies.<sup>73</sup>

Community ownership where feasible would provide members with the necessary incentives to look after wildlife and this would in turn diffuse the acrimonious relationship between humans and wildlife. The community may in some circumstances have a greater capacity to police itself more effectively than the state and/or individuals. The members of the community should however, be well-equipped to look after the resources. Since some of the elements of community organisation necessary to sustain community wildlife management initiatives have been considerably weakened, there is need for the creation and encouragement of strong and stable local institutions to enable communities to take charge of resource management activities. In this regard, investments in training such community members would be worthwhile and most beneficial in the long term.<sup>74</sup> The training should build on indigenous systems of local knowledge, natural resource use and locally supported decision-making structures and initiatives to cut on costs and secure the confidence of the community. It should also involve the co-option of traditional institutions to police resource use with limited government intervention. The concept of community should be widened to encapsulate spatial, social, cultural and economic aspects while recognising the diversity of interests that exist within and between communities in social and economic spheres. The major unifying factor should be the sustainable management of wildlife resources for the benefit of all the members.

### *Indirect rights to wildlife and land resources*

Where the imperatives of sustainable wildlife demand that a protected area remain state-owned or be held by the local authority as custodian for the local communities and individuals, ways to benefit such local people, particularly landowners, from the management of wildlife resources should be sought. This has however, to be balanced against the need for state involvement in the management of public resources in the context of national development.<sup>75</sup> One way of channelling benefits to local communities is through revenue-sharing programmes. In this regard, the nexus between the revenue and sustainable wildlife management should be established to avoid the perception by the communities of such revenue as a windfall unrelated to sustainable management.

Further, in areas where wildlife in a protected area utilises land owned by individuals or groups, the nature and extent of the contribution of landowners to wildlife management in the entire ecosystem should be worked out so that they get proportionate returns therefrom with those actually providing or sharing pasture with migrating wildlife getting the highest shares.<sup>76</sup>

As a corollary to property ownership, land taxation laws and their impact on wildlife management should be studied and subsidies or tax credits granted to landowners who contribute towards the sustainable management of natural resources through, for instance, allowing wildlife normally resident in a protected area to reside on their land. Such a move would not only provide additional income for the landowners but also curb the pressure to expand cultivation and livestock-keeping into protected areas.<sup>77</sup> This should go along with adequate compensation for life lost and property destroyed by wildlife.<sup>78</sup>

### *Diversification of wildlife-based economic activities*

In considering the best incentives for wildlife management, it is important to consider diversifying the range of legally permissible wildlife-based economic activities. One way of dealing with the conflict between human activities and biodiversity conservation generally would be to find non-destructive ways to use biological resources.<sup>79</sup> It has for instance, been suggested that consumptive wildlife utilisation should be treated in the same way as commercial agricultural operations but that a relationship should be established between utilisation and sustainability.

In the realm of wildlife management, the notion of sustainable utilisation is increasingly gaining currency in international environmental parlance. The use of wildlife resources is seen as contributing to the regeneration of those resources and enhancing the evolutionary process within the habitats in which the resources are found. The emphasis on tourism needs to be reconsidered especially in the light of the growing wildlife and human populations and the ensuing competition for land and other resources. More specifically, culling,<sup>80</sup> game ranching and game cropping<sup>81</sup> should be considered as alternative land use systems. Local communities and landowners should be allowed to participate in these activities with the KWS playing a supervisory role to ensure that the existence of species is not threatened. Game ranching and cropping have been successfully carried out in Southern Africa on communal lands and on large privately-owned farms.<sup>82</sup>

Other possible uses of wildlife include sport hunting, traditional or subsistence hunting and bird shooting. Landowners, comprising individuals and groups in areas that are not popular tourist areas have questioned the rationale for limiting wildlife use to tourism and argued fervently for the revocation of the ban on hunting and trade in wildlife products. Such property owners are of the view that tourism and ranching do not bring in as much revenue as hunting would. They also believe that hunting is a more beneficial way of controlling wildlife populations than culling. Culling of such species as zebras, impalas, gazelles, elands, giraffes, warthogs and waterbucks is allowed in Kenya but strictly monitored by KWS. Landowners who currently have culling quotas have sought to have such transformed into hunting permits arguing that hunting is more economically rewarding than culling.

The issue as to whether or not to lift the ban on hunting is likely to continue over a period of time given the lack of consensus on the form that such hunting should take and the perceptions of property holders on what species they would like controlled. Most landowners proposing the lifting of the ban favour sport hunting. There are however, sections of the Kenyan populace that favour only subsistence or traditional hunting and would like sport hunting eliminated. At the centre of this controversy is the general feeling that sport hunting is geared towards foreigners only and smacks of colonial conservation biases.

The re-introduction of hunting for whatever purpose without a well-thought out plan could lead to the resurgence of poaching. Moreover, some property owners would like to be allowed to hunt elephants which are listed as endangered species under Appendix I of the CITES to which Kenya is a signatory. In the final analysis, the issue of diversifying economic activities based on wildlife goes beyond the purview of landowners. It is a national issue whose consideration entails questions about the overall benefits to be gained from sustainable wildlife management for Kenyans and a determination on whether the costs that Kenyans bear such as foregoing the use of their land for cultivation and livestock keeping are adequately compensated by those benefits. Thus wildlife management policies need to be informed by a broader and more comprehensive understanding of people's true values, needs and rights and not by a conservation ethos and philosophies informed by "outside" interests.

Allied to the diversification of wildlife-based economic activities is the need to develop local markets for wildlife products and services. This would ensure that the wildlife industry is not predicated on patronage from outsiders as is currently the case with tourism, but is also informed by local needs and conditions. One way of doing this is through the generation of locally marketable wildlife products such as meat, eggs, skins and trophies. Further adventure tourism and wildlife-based recreation, should be promoted as activities for local Kenyans through education.

### *Proper planning and co-ordination of policies*

To realise the true value of wildlife resources in Kenya calls for proper planning of land uses and modes of wildlife management. Land use planning and the exercise of property rights to land hosting wildlife resources by different holders should be coordinated to balance diverse interests of all stakeholders and ensure sustainable management. While there is no need to create leviathan institutions, the balance can only be achieved through the co-operation of different government departments. There should also be collaboration between different departments where the responsibilities of such departments overlap. The Memorandum of Understanding (MOU) between the Forest Department and KWS for wildlife management in forest areas is a good illustration of the benefits to be gained from collaboration.<sup>83</sup>

The proper combination of resource and land use strategies would be another avenue through which a balance between livestock-keeping, cultivation and nomadic pastoralism on the one hand and wildlife management, tourism and other economic opportunities on the other would be achieved. This would demonstrate the viability of wildlife management when considered alongside cultivation or livestock-keeping.<sup>84</sup> The integration of land tenure and wildlife management policies can be enhanced through the classification of all regions in the country into broad land use categories such as pastoralism, cultivation, forestry or nature conservation. This would be followed by formulation of land tenure policies that enhance those purposes in the areas.<sup>85</sup> Zoning is an important way through which the state can intervene to influence the role of private property rights holders in wildlife conservation.<sup>86</sup> Three things should be considered in the zoning process, namely wildlife categories, existing land use systems and the interaction between the two. Other factors to be taken into account include the permissible numbers of people and livestock, the level of cultivation and infrastructure development, changes to the physical and biological resources and uses of wildlife to be allowed within any given zone.<sup>87</sup>

## **VI. WORKING AROUND THE LIMITS OF PROPERTY RIGHTS: INNOVATIVE USE OF PROPERTY RIGHTS SUSTAINABLE WILDLIFE MANAGEMENT**

Property rights, whether vested in individuals, groups, local authorities or the state can be beneficial for sustainable wildlife management if proper incentives are provided to all parties who bear the costs of management activities.<sup>88</sup> In this regard, it is important to identify feasible forms of organisation in instances where traditional communities have broken down. These kinds of organisations can be based on the commonality of interests in sustainable management of wildlife resources. Common interests will dictate members' adherence to the rules set and stricter and more efficient detection and sanctioning of non-conformers which the state machinery is not currently able to exhaustively do.

### **A. Beyond Private Property Rights' Boundaries**

The nature of wildlife resources is such that no single property rights holder is likely to own the entire range within which they are found. Private or community holdings are likely to host the same wildlife populations at different times and this raises the need for co-operation between different property holders. The desire to enclose all rights within one parcel of land or in one property holder should be subordinated to the need to sustainably manage wildlife resources where dispersal and migration needs of wildlife demand it.<sup>89</sup> An effective way of operationalising the collaboration of property rights holders is through the establishment of co-operatives for sustainable wildlife management comprising of diverse property rights holders, including state, local authority, individuals and groups. Such co-operatives should be based on proximity to wildlife resources and the shared interest in the resource as opposed to ethnicity or mode of property holding which polarises groups and works against sustainable management imperatives.

Each landowner living in an area that hosts wildlife could, for instance, be a shareholder in a commonly held stock of wildlife which would yield annual dividends to be shared out among the members of a co-operative depending on their contribution to wildlife management.<sup>90</sup> The state as the guardian of the public interest and where applicable, local authorities that own land should also be included as members in the co-operatives. The role of the state should however, be limited to avoid the possibility of it monopolising wildlife management activities. This recognises the fugitive nature of wildlife and the big geographic range over which any given species may be distributed. In seeking to operationalised co-operatives for wildlife conservation where the state owns a protected area however, it is imperative that tenure in the sense of who owns the land be divorced from the wildlife resources on that land.<sup>91</sup> Further, co-operation could also take the form of joint land management ventures between the parks administration and group ranchers, local authorities or individuals. Such ventures can facilitate the change from negative human perceptions of wildlife to appreciation thereof and contribute to the long-term sustainability of wildlife resources.

It should be recognised that wildlife is one of the many possible land uses. The enjoyment of property rights to wildlife depends on the ability of landowners, public and private, to contract with each other and with other wildlife users to control wildlife stocks and to gain access to them.<sup>92</sup> Memoranda of understanding between different property rights holders can serve as a good basis for collaboration. Such memoranda of understanding would create an atmosphere conducive to sustainable wildlife management and establish bases for contracts between private property owners, groups, local councils and the state thus broadening the range of actors in wildlife management.

### **B. Servitudes**

Servitudes or rights that a person acquires over another person's land can be used to ensure that private property rights engender sustainable wildlife management.<sup>93</sup> Kenyan laws on property rights to land recognises three main categories of servitudes namely, easements, profits and restrictive covenants.<sup>94</sup> Easements are defined as

rights attached to a parcel of land which allows the proprietor of the parcel either to use the land of another in a particular manner or to restrict its use to a particular extent.<sup>95</sup> They include among others the right of way. For an easement to arise there must be two adjoining pieces of land owned by two different persons. The land which benefits from an easement is called the dominant tenement while the one over which the right is established is called the servient tenement. Further, the easement must be for the benefit of the dominant tenement and cannot be acquired for any other purpose. In the case of wildlife management, the land that hosts wildlife most of the time in a particular area should be designated as the dominant tenement and the land around it which forms part of the habitat necessary for sustainable management should be designated as the servient tenement. Rights of way for the wildlife should be negotiated with the owners of the servient tenements and mechanisms for compensating such owners worked out. Section 6 of EMCA provides specifically for wildlife easements which are not predicated on land ownership.

With regard to profits, they may be used to allow persons living with wildlife or neighbouring protected areas to take wildlife resources for their benefit but taking into account the need for sustainable wildlife management. Profits are rights to go onto the land of another and take a particular substance from that land, whether the soil or products of the soil. The thing to be taken in the case of wildlife management is animals naturally resident on the land. Profits can either be attached to ownership/other interest in land or exist apart from land. Profits are therefore useful in reaching out to people who are affected by wildlife management but not owning land in the area. They can also be used to ensure equitable distribution of proceeds from wildlife resources. People living around a protected area can be allowed to take wildlife from the protected area under regulated conditions that ensure sustainability.

A restrictive covenant has the effect of limiting the manner in which a landowner can use his land, such limitation being necessary for the benefit of an adjoining piece of land. It constitutes an important way for landowners to control the use of land. They do not lapse upon the transfer of the land to which they apply and bind subsequent owners who were not party to the agreement. Restrictive covenants can be used by the state to control the uses to which private or groups of land-owners may put their land where such land is part of an ecosystem comprising wildlife range.

### **C. Transferable Development Rights**

In cases where a property owner proposes a kind of development that is not compatible with sustainable wildlife management such as cultivation, building of industries or residential houses on land within an area hosting wildlife resources, the provisions of state acquisition of the property owner's land should be invoked and compensation paid. Compensation could take the form of a grant of land in an area where the proposed use by the property owner can be carried out. In instances where such land is not available, transferable development rights should be given which the landowner can use elsewhere or sell to others.

## Endnotes

- <sup>1</sup> See Rodger A. Sedjo & R. David Simpson, *Property Rights, Externalities and Biodiversity*, in *THE ECONOMICS AND ECOLOGY OF BIODIVERSITY DECLINE: THE FORCES DRIVING GLOBAL CHANGE* (Timothy M. Swanson, ed., 1995).
- <sup>2</sup> RICHARD J. TOBIN, *THE EXPENDABLE FUTURE :US POLITICS AND THE PROTECTION OF BIOLOGICAL DIVERSITY* (1990).
- <sup>3</sup> See, e.g., J. Martinez-Alier, *Ecology and the Poor: A Neglected Dimension of Latin American History*, *J. LATIN AM. STUD.* 23 (1991) discussing the “tragedy of the enclosure”.
- <sup>4</sup> See WORLD CONSERVATION MONITORING CENTRE, *KENYA: CONSERVATION OF BIOLOGICAL DIVERSITY AND FOREST ECOSYSTEMS* (1988) and Michael O. Odhiambo, *Liberalisation, Law and the Management of Common Property Resources in Kenya: The Case of Public Land and Forests*, (27 Mar. 1996) (mimeographed paper presented at the East African Regional Symposium on Common Property Resource Management, Kampala, 26-28 Mar. 1996, on file with the author).
- <sup>5</sup> Other estimates put the plant species at between 8,000 to 9,000 species. See Kihika Kiambi & Monica Opole, *Promoting Traditional trees and Food plants in Kenya*, in *GROWING DIVERSITY: GENETIC RESOURCES AND LOCAL FOOD SECURITY* 53 (DAVID Cooper et. al., eds., 1992).
- <sup>6</sup> See G. A. Petrides & Trustees of the Royal National Parks of Kenya, *KENYA’S WILDLIFE RESOURCE AND THE NATIONAL PARKS* (1955).
- <sup>7</sup> For the purposes of this thesis, the term “agriculture” denotes cultivation and livestock keeping. We use the terms “settled agriculture” when we discuss areas where livestock keeping is practised alongside cultivation. This distinguishes zero-grazing from nomadic pastoralism, a distinction which has significant implications for our prescriptions.
- <sup>8</sup> See REPUBLIC OF KENYA, NATIONAL DEVELOPMENT PLAN, 1997-2001(1996) [hereinafter 1997-2001 DEVELOPMENT PLAN].
- <sup>9</sup> See REPUBLIC OF KENYA, DEVELOPMENT PLAN 1994-1996 (1993) [hereinafter 1994-1996 DEVELOPMENT PLAN].
- <sup>10</sup> See 1997-2001 DEVELOPMENT PLAN, *supra* note 8.
- <sup>11</sup> See , e.g., PEOPLE AND LAND IN AFRICA SOUTH OF THE SAHARA : READINGS IN SOCIAL GEOGRAPHY (Mansel Prothero, ED., 1972) noting that most African population is rural and BIODIVERSITY SUPPORT PROGRAMME (USAID, WWF, NATURE CONSERVANCY, WRI), *AFRICAN BIODIVERSITY : FOUNDATION FOR THE FUTURE* 4 (1993) noting that Africa depends heavily on biological resources.
- <sup>12</sup> REPUBLIC OF KENYA, ENVIRONMENTAL ACTION PLAN FOR ARID AND SEMI-ARID LANDS IN KENYA (1992).
- <sup>13</sup> *Id.*
- <sup>14</sup> See, e.g., Karen A. Carlson, *The Kenya Wildlife Conservation Campaign : A Descriptive Study of Inter-Cultural Persuasion* (1969) (unpublished PhD. D dissertation, University of California at Berkeley).
- <sup>15</sup> See, e.g., S. V. CIRIACY-WANTRUP, *RESOURCE CONSERVATION : ECONOMICS AND POLICIES* (1952) for a definition of fugitive resources.
- <sup>16</sup> See, e.g., VALENTINE UDOH JAMES, *AFRICA’S ECOLOGY : SUSTAINING THE BIOLOGICAL AND ENVIRONMENTAL DIVERSITY OF A CONTINENT* 33 (1993).
- <sup>17</sup> See PARTHA DAS GUPTA & GEOFFREY M. HEAL, *ECONOMIC THEORY AND EXHAUSTIBLE RESOURCES*(1979).
- <sup>18</sup> See Darryll R. Johnson & James K. Agee, *Introduction to Ecosystem Management*, in *ECOSYSTEM MANAGEMENT FOR PARKS AND WILDERNESS* 3 (Darryll R. Johnson & James K. Agee, eds., 1988).

- <sup>19</sup> See Harvey Croze, *Wildlife Resource in Kajiado District*, in KAJIADO DISTRICT WORKSHOP REPORT ON WILDLIFE CONSERVATION AND MANAGEMENT 36(FAO & WCMD, No. 34, 1978) p.36.
- <sup>20</sup> See, e.g., Todd G. Olson, *Biodiversity and Private Property : Conflict or Opportunity*, in BIODIVERSITY AND THE LAW 67 ( William J. Snape III, ed., 1996) arguing that an economic system which emphasises regulation penalises those who protect biodiversity and noting that there is a need to enlist the co-operation of private property owners interested in protecting their economic interests. [69]
- <sup>21</sup> See e.g., Peter Ondiege, *Land Tenure and Soil Conservation*, in IN LAND WE TRUST: ENVIRONMENT, PRIVATE PROPERTY AND CONSTITUTIONAL CHANGE 117 (Calestous Juma & J. B. Ojwang, eds., 1996). [122]
- <sup>22</sup> See Government Lands Act Chapter 280 of the Laws of Kenya and the Registration of Documents Act Chapter 285 of the Laws of Kenya on document registration and Chapters 281, 282 and 300 (Land Titles Act, Registration of Titles Act and Registered Land Act respectively) of the Laws of Kenya on title registration.
- <sup>23</sup> The Narok area which hosts Maasai Mara National Reserve is a telling example.
- <sup>24</sup> Each group gets a certificate of incorporation becoming a body corporate with perpetual succession subject to any conditions, limitations or exemptions noted on the certificate. They thus have ownership of the land in question in perpetuity and can only cease to be a group by the vote of all members. Group representatives have a duty to hold the property and exercise their powers on behalf and for the collective benefit of all the group members and fully and effectively consult group members in performing their roles. The decision on whether or not a person qualifies for membership to a group is a matter to be determined by the majority of the group members.
- <sup>25</sup> See John Galaty, *The Maasai Group-Ranch: Politics and Development in an African Pastoral Society*, in WHEN NOMADS SETTLE: PROCESSES OF SEDENTARIZATION AS ADAPTATION AND RESPONSE 157 (P. Salzman, ed., 1980). See also John G. Galaty, “ Introduction : Nomadic Pastoralists and Social Change - Processes and Perspectives” in CHANGE AND DEVELOPMENT IN NOMADIC AND PASTORAL SOCIETIES 4 (John G. Galaty & Philip C. Salzman, eds., 1981) and John G. Galaty, *Land and Livestock among Kenyan Maasai: Symbolic Perspectives on Pastoral Exchange, Change and Inequality*, in CHANGE AND DEVELOPMENT IN NOMADIC AND PASTORAL SOCIETIES 68 (John G. Galaty & Philip C. Salzman, eds., 1981)
- <sup>26</sup> See, e.g., André Bourgeot, *Nomadic Pastoral Society and the Market: The Penetration of the Sahel by Commercial Relations*, in CHANGE AND DEVELOPMENT IN NOMADIC AND PASTORAL SOCIETIES 116(John G. Galaty & Philip C. Salzman, eds., 1981) and CHARLES LANE, *PASTURES LOST: Barabaig ECONOMY, RESOURCE TENURE, AND THE ALIENATION OF THEIR LAND IN TANZANIA* (1996).
- <sup>27</sup> Such accommodation would arise by dint of policies encouraging landowners to incorporate wildlife with other forms of land use and reaping the benefits through tourism, cropping for meat and trophies, game ranching, live animal capture for restocking or export and the use of value added processing of animal products. These uses were to be promoted and regulated by the wildlife authorities in the interests of making a net contribution to Kenya’s economic and social development.
- <sup>28</sup> Cap. 376, 1976 (amended in 1989).
- <sup>29</sup> See REPUBLIC OF KENYA, STATEMENT ON THE FUTURE OF WILDLIFE MANAGEMENT POLICY IN KENYA (SESSIONAL PAPER NO. 3, 1975) [hereinafter 1975 policy].
- <sup>30</sup> See § 3A of the 1989 Wildlife (Amendment).
- <sup>31</sup> See The Wildlife (Conservation and Management) (Prohibition on Hunting of Game Animals) Regulations, 30 Kenya Gazette Supplement (May 20, 1977).

- 32 See The Wildlife (Conservation and Management) (Revocation of Dealer's Licences) Act No. 5 of 1978, 35 Kenya Gazette Supplement (June 23, 1978).
- 33 United Nations Conference on Environment and Development: Convention on Biological Diversity - Done at Rio de Janeiro, June 5, 1992, *reprinted in* 31 I.L.M. 818 (1992).
- 34 The Wildlife (Conservation And Management) (Amendment) Bill 2004
- 35 See Kwame Awere-Gyekye & Kenya Wildlife Service, National Land Use Patterns and Trends (1996).
- 36 See REPUBLIC OF KENYA, STATEMENT ON THE FUTURE OF WILDLIFE MANAGEMENT POLICY IN KENYA (SESSIONAL PAPER No. 3, 1975) [hereinafter 1975 policy]. See also Cap. 376 of the Laws of Kenya (Act No. 1 of 1976, 8 Kenya Gazette Supplement, February 1976) [hereinafter Cap. 376 of the Laws of Kenya].
- 37 GOVERNMENT OF KENYA, WILDLIFE POLICY (1996) [hereinafter 1996 Wildlife Policy].
- 38 Id. at ¶ 2.7.
- 39 Id. at ¶ 2.8.
- 40 See Kenya Wildlife Service, Report of the Five-Person Review Committee on Wildlife Human Conflict, released by the Director, Kenya Wildlife Service 25 (December 1995) (On file with the author) [hereinafter Wildlife Human Conflict Report].
- 41 See § 29(2) of Cap. 376 of the Laws of Kenya.
- 42 See Convention on International Trade in Endangered Species of Wild Fauna and Flora reprinted in 12 I.L.M. 1085 (1973).
- 43 Robert Bates, Social Dilemmas and Rational Individuals - An Essay on the New Institutionalism, in ANTHROPOLOGY AND INSTITUTIONAL ECONOMICS 43 at 45 (James M. Acheson, ed., 1994).
- 44 See Timothy M. Swanson, Wildlife and Wildlands: Diversity and Development, in ECONOMICS FOR THE WILDS 1 (T. M. Swanson & E. M. Barbier, eds., 1992).
- 45 See H. Croze, WCMD, UNDP & FAO, Aerial Surveys undertaken by Kenya Wildlife Management Project - Methodologies and Results (1978).
- 46 William Cronon, Changes in the Land: Indians, Colonists, and the Ecology of New England (1992).
- 47 See KWAME-GYEKYE, *supra* note 35.
- 48 Kenya Wildlife Fund Trustees & United Nations Environment Programme, People, Parks and Wildlife in Kenya: Guidelines for Public Participation in Wildlife Conservation (Case Studies in Kenya, 1988).
- 49 See Eriksen et al, *Land Tenure and Wildlife Management*, in IN LAND WE TRUST : ENVIRONMENT, PRIVATE PROPERTY AND CONSTITUTIONAL CHANGE 199 (Calestous Juma & J. B. Ojwang, eds., 1996) noting that the utilisation of land by wildlife an important aspect of land use and that about 27% of the revenue earned by the tourism sector can be attributed directly to wildlife and 26% indirectly
- 50 See Eddie Koch, Reality or Rhetoric? Ecotourism and Rural Reconstruction in South Africa, UNRISD Discussion Paper No. 54, 29(1994).
- 51 On the effects of tourism on habitats, see generally H. Cocussis & A. Parpairis, *Tourism and the Environment : Some Observations on the Concept of Carrying Capacity*, in TOURISM AND THE ENVIRONMENT : REGIONAL, ECONOMIC AND POLICY ISSUES 23 ( H. Briassoulis & Jan Van Der Straaten, eds., 1992). See also H. Briassoulis, *Environmental Impacts of Tourism : A Framework for Analysis and Evaluation*, in TOURISM AND THE ENVIRONMENT : REGIONAL, ECONOMIC AND POLICY ISSUES 11 ( H. Briassoulis & Jan Van Der Straaten, eds., 1992).

- 52 See The Wildlife Panning Unit, Ministry of Environment and Natural Resources, Amboseli National Park Management Plan (1981).
- 53 See David Western & IBRD, Road Development Plan for Amboseli National Park, based on the Criteria and Rationale for Reconciling Conservation and Recreational Use (1974).
- 54 See Peter Raven, Wildlife Conservation in Kenya, 280 SCIENCE 1510 (1998).
- 55 See P. Frost et. al., Responses of Savannahs to Stress and Disturbance, BIOLOGY INTERNATIONAL, Special issue 10 (1986); I. S. C. Parker, The Tsavo Story : An Ecological Case History, in MANAGEMENT OF LARGE MAMMALS IN AFRICAN CONSERVATION AREAS 37-49 (N. O. Owen-Smith, ed., 1983).
- 56 See David Western, *Conservation Without Parks: Wildlife in Rural Landscapes*, in CONSERVATION FOR THE TWENTY-FIRST CENTURY 158 (David Western & M. Pearl, eds., 1989).
- 57 See SERENGETI II: DYNAMICS, MANAGEMENT, AND CONSERVATION OF AN ECOSYSTEM (A.R.E. Sinclair & Peter Arcese, eds., 1995) illustrating the fallacious drawing of boundaries that divide ecosystems into parts that cannot be managed together because politically, they fall in different nation states and each state has its own rules on how to manage its natural resources. The Serengeti national park in northern Tanzania and the Maasai Mara park in southern Kenya are one ecosystem but are managed separately by the respective authorities in each country.
- 58 See, e.g., David Western, Wildlife Conservation in Kenya, 280 SCIENCE 1507 (1998).
- 59 See Evans M. Mwangi & Kenya Wildlife Service, Protected Area System Coverage (1995).
- 60 See, e.g., Olawale O. Ajai, *Integrating Biodiversity Conservation in Sectoral Laws and Policies : A Case Study of Nigeria with Considerations for Developing Countries*, in WIDENING PERSPECTIVES ON BIODIVERSITY ( Anatole F. Krattiger et al. eds., 1994).
- 61 See DHYANI J. BERGER, WILDLIFE EXTENSION: PARTICIPATORY CONSERVATION BY THE MAASAI OF KENYA 1 (1993) commenting on the negative role that communities neighbouring wildlife refuges play owing to their non-involvement in conservation activities.
- 62 THE GOVERNMENT OF ZIMBABWE, POLICY FOR WILDLIFE (1992). This community involvement is believed to have influenced the maintenance of big elephant herds in the late 1980's when their numbers in Eastern Africa significantly dwindled. It also explains the reluctance the government of Zimbabwe to ratify CITES.
- 63 Richard E. Leakey, Kenya's Policy on Wildlife Research and the Commercial Use of Wildlife, in WILDLIFE RESEARCH FOR SUSTAINABLE DEVELOPMENT (J. G. Grootenhuis et al., eds., 1991).
- 64 See Kenya Wildlife Service, Report of the Five-Person Review Committee on Wildlife Human Conflict, released by the Director, Kenya Wildlife Service 25 (December 1995) (On file with the author) [hereinafter Wildlife Human Conflict Report].
- 65 See Raman Sukumar, Ecology of the Asian Elephant and its Interaction with Man in South India (1985).
- 66 See T. Panayotou, The Economics of Environmental Degradation: Problems, Causes and Response (1989).
- 67 See Owen J. Lynch & Janis B. Alcorn, *Tenurial rights and Community-Based Conservation in NATURAL CONNECTIONS: PERSPECTIVES IN COMMUNITY-BASED CONSERVATION* 373 (DAVID Western et. al., eds., 1994).
- 68 See, e.g., Siri Eriksen et al., *Land Tenure and Wildlife Management*, in IN LAND WE TRUST 199 (Calestous Juma & J. B. Ojwang eds., 1996) arguing that where customary tenure has been replaced by modern tenure, the flexibility and complexity of rights, including community rights, which promote sustainable management as well as equity are absent.
- 69 See, *Introduction*, in VOICES FROM AFRICA - LOCAL PERSPECTIVES ON CONSERVATION 4 (World Wildlife Fund, Dale Lewis & Nick Carter, eds., 1993).

- 70 See Owen J. Lynch & Janis B. Alcorn, *Tenurial rights and Community-Based Conservation* in NATURAL CONNECTIONS: PERSPECTIVES IN COMMUNITY-BASED CONSERVATION 373 (David Western et. al., eds., 1994).
- 71 See ELINOR OSTROM, GOVERNING THE COMMONS: THE EVOLUTION OF INSTITUTIONS FOR COLLECTIVE ACTION 3 (1990). See also Glen Stevenson & Carol M. Rose *The Comedy of the Commons: Custom, Commerce, and Inherently Public Property*, 53 U. CHI. L. REV. 711 (1986).
- 72 Michael Redclift & Colin Sage, *Introduction*, in STRATEGIES FOR SUSTAINABLE DEVELOPMENT - LOCAL AGENDAS FOR THE SOUTHERN HEMISPHERE 1, 11 (Michael Redclift & Colin Sage, eds., 1994).
- 73 See KENYA GOVERNMENT, NATIONAL DEVELOPMENT PLAN (1994-1996). Gender considerations have, for instance, been identified as one such factor in many African countries with rural based economies. Thus though the rights should be framed at the level of the community, mechanisms should be put in place to ensure that women participate in decision-making within the communities.
- 74 International Institute for Environment and Development, *Whose Eden? : An Overview of Community Approaches to Wildlife Management* (1994).
- 75 D. M. Mbuvi, *The Management, Conservation and Utilisation of Wildlife Resources*, in Kajiado District Workshop Report on Wildlife Conservation and Management 34, 35 (FAO & WCMD, No. 34, 1978).
- 76 See Philip Thresher, *Landowners' Costs of and Returns from Wildlife*, in Kajiado District Workshop Report on Wildlife Conservation and Management 38, 39 (FAO & WCMD, No. 34, 1978).
- 77 See P. D. Glavovic, *An Introduction to Wildlife Law*, S. AFR. L. J. 519 (1988).
- 78 See Ackim N. Mwenya, *Redefining Conservation in African Terms*, in VOICES FROM AFRICA - LOCAL PERSPECTIVES ON CONSERVATION 193 (World Wildlife Fund, Dale Lewis & Nick Carter, eds., 1993).
- 79 See Victor M. Marroquin-Merino, *Wildlife Utilization: A New International Mechanism for the Protection of Biological Diversity*, 26 LAW & POL'Y INT'L BUS. 303 (1995). See also Barton Thompson, Jr., *Endangered Species*, PALSgrave DICTIONARY OF LAW & ECONOMICS (1998) arguing that one means of addressing over-exploitation of endangered species has been to decrease the commercial profitability of taking a species but that this also reduces the incentive to conserve the species' habitat.
- 80 The aim of culling is to allow for better management and to generate income from the sale of meat. See D. H. M. Cumming, *The Decision-making Framework with regard to Culling Large Mammals in Zimbabwe*, in MANAGEMENT OF LARGE MAMMALS IN AFRICAN CONSERVATION AREAS 173-186 (Owen-Smith, ed., 1983).
- 81 See DAVID NYEKI MUSILI, *WILDLIFE CONSERVATION AND TOURISM IN KENYA* (1993).
- 82 Garth Owen-Smith, *Wildlife Conservation in Africa: There is Another Way*, in VOICES FROM AFRICA - LOCAL PERSPECTIVES ON CONSERVATION 57, 64-65 (World Wildlife Fund, Dale Lewis & Nick Carter, eds., 1993).
- 83 Kenya Wildlife Service and Forest Department, *Memorandum of Understanding for the Joint Management of Selected Forests* (1991).
- 84 See, *Introduction*, in VOICES FROM AFRICA - LOCAL PERSPECTIVES ON CONSERVATION 6 (World Wildlife Fund, Dale Lewis & Nick Carter, eds., 1993).
- 85 See KWAME AWERE-GYEKYE & KENYA WILDLIFE SERVICE, *NATIONAL LAND USE PATTERNS AND TRENDS* (1996). See also *Wildlife Human Conflict*, *supra* note 1 and A. R. E. SINCLAIR & M. NORTON-GRIFFITHS, *SERENGETI : DYNAMICS OF AN ECOSYSTEM* (1979) illustrating the fallacious drawing of

boundaries that divide ecosystems into parts that cannot be managed together because politically, they fall in different nation states and each state has its own rules on how to manage its natural resources. The Serengeti national park in northern Tanzania and the Maasai Mara park in southern Kenya are one ecosystem but are managed separately by the respective authorities in each country.

- 86 See M. P. Simbotwe, *Perspectives on Conservation*, in VOICES FROM AFRICA - LOCAL PERSPECTIVES ON CONSERVATION 15, 20 (World Wildlife Fund, Dale Lewis & Nick Carter, eds., 1993) on the need to develop comprehensive and integrated management policies for natural resources.
- 87 J. E. Clark & R. H. V. Bell, *Wildlife Legislation*, in CONSERVATION AND WILDLIFE MANAGEMENT IN AFRICA 479 (R. H. V. Bell & E. McShane-Caluzi, eds., 1986).
- 88 See Simon Metcalfe, *The Zimbabwe Communal Areas Management Programme for Indigenous Resources (CAMPFIRE)* in NATURAL CONNECTIONS: PERSPECTIVES IN COMMUNITY-BASED CONSERVATION 187 (David Western et. al., eds., 1994).
- 89 See D. H. M. Cumming, *Conservation Issues and Problems in Africa*, in VOICES FROM AFRICA - LOCAL PERSPECTIVES ON CONSERVATION 23 (World Wildlife Fund, Dale Lewis & Nick Carter, eds., 1993). See also Barton H. Thompson, Jr., *The Endangered Species Act: A case Study in Takings and Incentives*, 49, 2 STAN. L. REV. 305 (1997) on Habitat conservation planning in the United States.
- 90 See David Western, *Ecosystem Conservation and Rural Development: The Case of Amboseli*, in NATURAL CONNECTIONS: PERSPECTIVES IN COMMUNITY-BASED CONSERVATION 50 (David Western et. al., eds., 1994) stating that even in Amboseli where Community-Based Conservation (CBC) has evolved considerably, it is important to evolve CBC schemes towards individuals but to keep the commonality which is the stock of wildlife from which benefits can be obtained by individuals and members of local communities. This is a recognition of the dynamic nature of communities and the forces that are working therein changing the lifestyles from communal to individual among the Maasai. The idea here is to deal with communities as they are and not impose upon them notions that do not apply any longer.
- 91 See H. W. O. Okoth-Ogendo, *Property Theory and Land Use Analysis - An Essay in the Political Economy of Ideas*, Discussion Paper No. 209, Institute of Development Studies, University of Nairobi Vol. 5 291-305(1974).
- 92 See Dean Lueck, *Property Rights and the economic Logic of Wildlife Institutions*, 35 NAT. RESOURCES J. 625, 628 (1995).
- 93 See KRISHNA N. JOSHI, *EASEMENTS AND LICENSES* (1931) defining a servitude as a real right vested in or annexed to a definite person or piece of land, over some object belonging to another, and limiting the enjoyment of that object by that other in a definite manner.
- 94 See §§ 94-96 of the RLA, Cap 300 of the Laws of Kenya.
- 95 See Preamble to the RLA, Cap 300 of the Laws of Kenya.

