



# FOREST LANDSCAPE RESTORATION

## Kenya Country Report

ANALYSIS OF EXISTING INITIATIVES  
AND POLICY AND LEGAL FRAMEWORK IN KENYA

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## ACRONYMS

FLR	Forest Landscape Restoration
KWS	Kenya Wildlife Service
WWF	World Wide Fund for Nature
IUCN	The World Conservation Union
FD	Forest Department
ASALS	Arid and Semi-Arid Lands
KIFCON	Kenya Indigenous Forests Conservation Project
MENR	Ministry of Environment and Natural Resources
NARL	National Agricultural Research Laboratory
KANU	Kenya African National Union
NEAP	National Environment Action Plan
NBSAP	National Biodiversity Strategy and Action Plan
COMIFOR	Conservation and Management of Indigenous Forests
FINNIDA	Finnish International Development Agency
ODA	Overseas Development Administration
EU	European Union
DANIDA	Danish International Development Agency
JICA	Japanese International Co-operation Agency
SIDA	Swedish International Development Agency
EAC	East African Community
KARI	Kenya Agricultural Research Institute
KEFRI	Kenya Forestry Research Institute
PEAP	Poverty Eradication Action Plan
PRSP	Poverty Reduction Strategy Programme
ICRAF	International Centre for Research in Agroforestry
NRC	Non-Resident Cultivation
NEMA	National Environmental Management Authority
NGO	Non-Governmental Organisation
CBO	Community Based Organisation
DFRD	District Focus for Rural Development
DDC	District Development Committee
NRM	Natural Resource Management

# 1. INTRODUCTION

Forest Landscape Restoration (FLR) is a joint initiative of WWF-International and IUCN-The World Conservation Union. FLR is a planned process that aims to regain ecological integrity and enhance human well being in deforested or degraded forest landscapes. Key aspects of FRL that make it unique are that: it focuses on restoring forest functions as opposed to simply increasing tree cover with a particular emphasis on the relationship between various functions within different areas of the Landscape. It also requires informed consensus by stakeholders, resulting in an acceptable balance between increased ecological integrity and enhanced human well being. FLR is still a recent concept that has been successfully initiated in parts of Asia and Europe. Based on success and benefits elsewhere, IUCN and WWF would like to contribute to the conservation in East Africa by initiating the concept and practice of FLR in the region.

## 2. THE STUDY

In order to identify instruments for successful adoption of FLR in the region, WWF and IUCN are undertaking an East African study, through four National Consultancies in Ethiopia, Uganda, Tanzania and Kenya, and an overview of regional consultancy.

### 2.1 Justification for the Review

IUCN and WWF wish to contribute to development and conservation in East Africa by initiating a process of dialogue about the opportunities inherent in adopting the FLR approach. As the underlying idea behind FLR is to build assets for people and nature, it is important to gain a strong understanding of current restoration/reforestation policies and practice within the region in light of the core FLR principles. Although they have rarely been combined into the one approach in the way that FLR proposes, many of the principles of FLR are not new. It is important to recognise that in some countries, policies are quite advanced, and in many cases are already very supportive of many of the FLR principles. In addition, there are existing initiatives that apply one or more of the FLR principles on the ground, and have valuable lessons upon which future FLR initiatives can be built. Recognition of the progress that has already been made in the region is the logical first stage of introducing a new approach.

It is also equally important to gain a sound understanding of the aspects of the FLR approach that do not yet have policy support within the countries under review. With such an understanding, the most effective strategies for promoting FLR can be developed. Areas of synergy can be best exploited, and potential hurdles tackled more effectively. This review is therefore an important first step in the bid to share the idea of the FLR approach with countries of East Africa.

### 2.2 Scope of the Review

This regional review is the first of a two-phase process of developing a strategy for supporting FLR in East Africa. This first phase is the production of a regional overview of the current policy environment, and existing initiatives within the four countries. This review will then provide material for the development of the second phase, which will focus on the implementation of the FLR approach in the region.

This review is not a comprehensive study of the level to which policy and existing initiatives support FLR within the four countries of Kenya, Tanzania, Uganda and Ethiopia. It is the first step in a broader development process, and is primarily intended as a starting point to enhance general understanding, and promote dialogue within the region. Time limitations have restricted the national consultants to basing their study primarily on the review of literature – including grey literature. Very limited field visits have been made to verify data on existing initiatives, and to investigate more thoroughly the level to which they support the principles of FLR. Therefore, conclusions and recommendations emanating from this review are not definitive, and are presented merely as the basis for further discussion and investigation.

## 2.3 Purpose and Objectives

This review has been guided by the following objectives.

***Goals, purpose and objectives of the  
East Africa Review on Forest Landscape Restoration***

**Goal:**

Acceptance and development of FLR as an approach which addresses national priorities, through promoting the integration of ecological integrity and human well-being.

**Purpose:**

Production and wide distribution of an instrumental document that gives an overview of the approach, identifies the value, opportunities and constraints of introducing FLR into the region.

**Specific objectives:**

- Identify and analyse the relationships and linkages of the FLR concept with national priorities (PRSP, PEAP, etc)
- Analysis of the strengths and weaknesses of wide policy (govt, agencies, etc) / legal framework, and areas in which it does and does not support FLR;
- Analysis of strengths, weaknesses and lessons learned from existing initiatives, with specific relation to the key principles of FLR;
- Identify ways in which national reality can enrich and fine tune FLR as a concept – and in particular as a concept which is appropriate for the region;
- Based on national experience, provide strong arguments for the importance of, need for and relevance of FLR for the region.

## 2.5 The Stages of the Review

### *The review team*

The review was undertaken by a team of five consultants, one from each of the four countries under review, and one to provide guidance, and prepare a regional synthesis of the national reports. These consultants were supported by WWF and IUCN in Gland, with more specific assistance provided by their regional offices in Kenya and Tanzania.

### *Inception workshop*

In April 2001, the review was initiated through an inception workshop, attended by all the consultants and a core group of IUCN and WWF staff from Switzerland and the region. The objectives of the workshop were to:

- Create a common understanding of the concepts and underlying principles of FLR;
- Identify the objectives, outputs and process for the regional study; and
- Clarify the roles and responsibilities, expectations, logistics and technical support required.

### *The national studies and the regional synthesis*

Using the guidelines developed at the inception workshop, the national consultants developed national level reviews.

In order to offer an overview for the region, a compilation of the information from the national reviews has been prepared. The regional synthesis is necessarily broad, offering a synopsis of the current policy environment, experiences, opportunities, constraints and recommendations emanating from the national studies.

### *Up-dating workshop*

Mid-way through the review, an up-dating workshop was held, attended by the national consultants and several IUCN and WWF regional staff. This workshop focused on enabling the consultants to update one another on progress, finalising the table of contents for the national reviews and agreeing on the approach for data analysis. Problems and constraints were discussed, and solutions identified. The process for compiling the national studies and regional synthesis was agreed upon and work programmes drawn up.

### *Regional workshop*

The national reviews and the regional synthesis constitute the material for discussion at a regional planning workshop, to be held in November, 2001. This workshop will bring together decision-makers and key stakeholders to discuss the importance of FLR in the four countries, and the region in general, and to consider the key elements of a short and long-term strategic plan for future FLR initiatives.

## **2.6 Methodology**

### ***Analytical framework***

During the inception workshop, an analytical framework was developed, to guide the national consultants in the review of both policy and practice, and enable a systematic regional synthesis to be undertaken.

An analytical framework in this context simply refers to the use of an agreed set of parameters by which to assess each policy and initiative reviewed. The outcome is a series of matrices, which can be analysed in a country-specific context, or combined to give a regional overview. They also provide a basis for systematic analysis of opportunities and challenges, and from which concrete and focused conclusions can be drawn.

The main principles of the FLR approach were used as the framework parameters. Each policy and initiative was consequently reviewed in direct relation to the FLR approach. Conclusions could then be drawn regarding the level of support of particular policies and initiatives to the FLR approach.

### 3. KENYA NATIONAL OVERVIEW

#### 3.1 National Profile

Kenya has an area of 582,646 km<sup>2</sup> with altitudes ranging from sea level to 5,200 meters at Mt. Kenya. The country is characterised by a wide diversity of ecosystems, flora and fauna. One of the most significant geological features is the Great Rift Valley, which runs the length of the country, from Lake Turkana in the north, to Lake Magadi on the Tanzanian border. Within the Rift Valley there are volcanic hills such as Silali, Menengai, Longonot, Suswa and Shombole and lakes, such as Lake Naivasha, Nakuru, Elementaita and Turkana.

The Kenyan highlands are divided into two parts by the Rift Valley, forming the Western and Eastern Highlands. The Eastern Highlands comprise of Mount Kenya, Aberdares, Nyambene Ranges and Machakos Hills. The Western Highlands comprise the Cherangani Hills, Mau ranges, Mount Elgon and Kisii Highlands, among others.

The Western Highlands slopes towards Lake Victoria forming the Lake Basin. The Lake Basin varies in altitude and contains several volcanic hills such as Gwasi, Gembe-Ruri, Homa hills and Maragoli Hills as well as a low-lying swampy area; the Yala and Nzoia river deltas. The Nyika plateau occupies northern Kenya and lies between the coastal region and the Western highlands. Within the plateau are some volcanic hills such as Mount Marsabit. Within the Rift Valley are several lakes including Lake Naivasha, Nakuru, Elementaita, Baringo, Bogoria and Turkana. Kenya has 6% of Lake Victoria. The coastal region is marked by mountains and hills such as Taita Hills and Chyulu range. The variability in altitudes within Kenya influences changes in climate, natural vegetation and wildlife.

Kenya is dominated by semi arid and arid land, which comprise about 73% of the total area. These areas support a wide diversity of wildlife and most of the country's protected areas.

The table below gives a summary of the area of Kenya covered by different types of forest resources and land use types.

*Table I: Vegetation and Land-Use Cover*

Type of Vegetation	% of total area of Kenya
Indigenous Forests	2.1%
Plantation	0.3%
Woodland	3.7%
Bushland	42.9%
Wooded Grassland	18.5%
Mangrove	0.1%
Grassland	2.1%
Desert	13.7%
Farmland and Urban Development	16.5%
<b>Total</b>	<b>100%</b>

Source: Wass, 1995

The country has three types of land tenure systems, namely; government, Trust and private land. The table below gives the area under each of the tenure categories, as of 1996.

**Table II: Land Classification**

Land Classification	area in km <sup>2</sup>	approx. % of Total Area
Trust Land	457,449 km <sup>2</sup>	78.5 %
Government Land		
Forest Reserves	9,116km <sup>2</sup>	
Other GoK reserves	1,970km <sup>2</sup>	
Township alienated	2,831km <sup>2</sup>	
unalienated	38,546km <sup>2</sup>	
National parks	28,598km <sup>2</sup>	
Open water	24,067km <sup>2</sup>	
Total Government Land	10,960km <sup>2</sup>	20.0%
Private Land	116,088 km <sup>2</sup>	1.5%
<b>Total area</b>	<b>582,646 km<sup>2</sup></b>	<b>100%</b>

Source: Central Bureau of Statistics, 1996

### 3.2 STATUS OF FORESTS

Kenya's closed canopy forests were estimated by the Kenya Indigenous Forest Conservation Programme (KIFCON) of 1991-1994 to cover 1.24 million ha. This is just about 2% of the country's land area.

Estimates indicate that the vast areas of Arid and Semi-Arid lands (ASALS) contain 30% woody biomass higher than that found in both the indigenous closed canopy forests and industrial plantations combined (Ndaberi, 2000). According to O'Keefe et. al. (1984 as cited in Mugo 1999), seventy percent of the tree resources in Kenya are found in the semi-arid lands.

Mangrove forests are found around the Indian Ocean coastal belt, both to the north and south coast. Mangroves are estimated to cover 0.1% of Kenya's land area.

Plantation forest were estimated to cover 160,000 ha. (Wass, 1995).

The total area of forest cover in Kenya has been a subject of debate over the recent past. This is because no recent survey has been conducted to determine the exact hectareage of forests. Further, there is no consensus on the proper definition that the country should adopt for a forest. At the same time, there are areas that are included as forests, yet these are not forested. For example, while most of the area of Forest Reserves (64%) is covered by indigenous forests. A significant 25% of the area in Forest Reserves is covered by non-forest vegetation while 9% is plantation forests (Wass, 1995).

**Table III: Historical Trends in the Legal Status of Forests**

Year	Legislation/ Action	Purpose
Prior to 1890	All forest blocks under customary management	Traditional institutions used to regulate access to and control use of forest resources
1891	First forest legislation	To protect mangrove forests at Vanga-Coast
1897	Ukamba woods and forest regulation	Established a strip marking two miles each side of Uganda railway. Strip was effectively placed under the control of District Forest Officers (DFOs) and the railway Administrator.
1900	Extension of 1891 and 1897 regulations	To cover all forests in the coastal region and all those along the railway line
1902	Establishment of post of conservator of forests	The post was created to oversee the management of regulated forests at the national level
1902	Introduction of the <i>Shamba</i> System	This was a system where communities assisted the FD in the establishment of forest plantations by inter-cropping young trees with food crops till the trees became established.
1902	East African Forest Regulations	Allowed for the gazetting/degazetting of forests and control of forest exploitation through a system of licences and fines

1908	Major gazettement of forest blocks, boundary surveying and marking	To bring the majority of forest blocks under the control of the government
1932	Declaration of remaining expansive forests as gazetted	To bring most the forests in the high potential areas under the control of the government
1932	First draft of the Forests Act	To outline circumstances under which various activities were to be carried out by various stakeholders
1942	First Forests Act	The Act had the objective of providing for the establishment, control and regulation of Central forests, Nairobi area and on unalienated government land.
1947	First revision of Forests Act	Focused on including forest protective aspects
1957	First policy paper on forestry	Outlined the governments plans in respect to forestry development
1967	First Sessional paper on forestry, first forest policy	Outlined for debate in more concrete terms intentions of the government in the forestry sector. Policy paper was accepted as the official government policy for the forestry sector
1982	Second version of the Forest Act	Same as for 1947
1986	establishment of Nyayo Tea Zone Development Co-operation (NTZDC) through a Legal Notice	To create a physical buffer zone between agricultural land and forests. The tea zones were designated for protection of forests and the provision of an alternative source of income and employment
1987	Ban on the <i>Shamba</i> System	To resettle communities outside gazetted forest areas
1994	Draft of revised forest policy	To incorporate contemporary ideas about forest management and increase community involvement
1996	Forest Policy approved by Cabinet	Despite cabinet approval, a Sessional paper on the policy is yet to be developed for debate and approval by Parliament.
1996/7	Revision of forest technical orders and notes	To include recent research findings and reflect the evolving requirements of effective forest management.
2000	Revision of the Forest Policy	The Policy has been revised several times, with the latest version being that of 2000, even after being approved by Cabinet.

Source: (Wass, 1995; Logie et. Al., 1962; KFMP, 1994; Hutchins, 1909; Castro, 1988)

### 3.3 FOREST FUNCTIONS

Apart from their production functions, forests and other woody vegetation have very important climatic, environmental and ecological conservation and improvement functions that are difficult to quantify in economic terms. Forests are crucial in providing livelihoods for poor and rural people, and in the creation of revenue for public institutions. Forests have a number of important functions or “values” that are difficult to quantify in economic terms. The usual valuation of forests lies solely in terms of their commercial timber values and ignores the importance of other forest uses such as the extraction of non-timber forest products, the role of forests as a water catchment and value in power generation and for irrigation including products to local communities which have potential as commercial commodities. This has encouraged logging options over the often more sustainable extraction of non-timber forest products (Emerton in Crafter (1997). Further, the pressure for agricultural land from growing populations often means that land under forests is often viewed as being “wasted” with political pressure to convert it to farmland.

#### 3.3.1 Macro/National Functions of forests

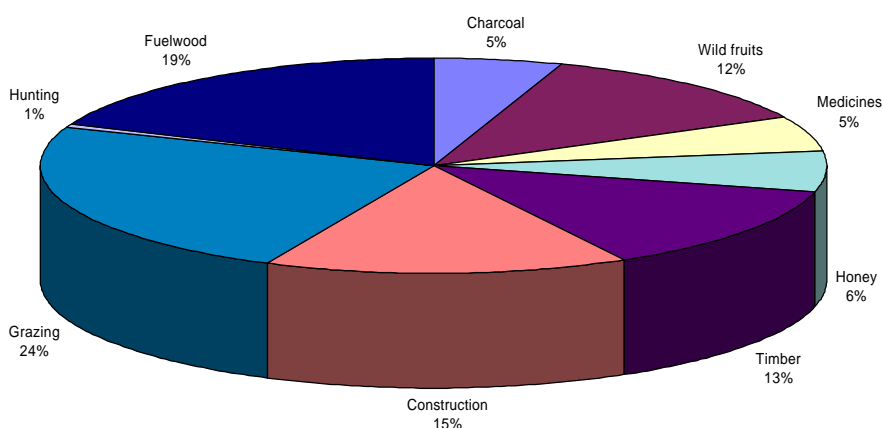
The contribution of the forestry sector to Kenya’s economy is based on the formal market-based transactions. The value of non-marketed forest goods and services are therefore not accounted for. This means that at the national level, the contribution of forestry to the overall GDP is undervalued. Primary forests contribute about 1.2% of the GDP of which 0.5% is in non-monetary sector and 0.7% in the monetary sector (per. Comm. with Kahuki, Forest Department).

### 3.3.2 Subsistence Functions

The stream of benefits to local communities arising from forest conservation is substantial, including use and non-use benefits. The majority of these benefits in most cases are not traded in the contemporary formal market systems and/or market prices are non-existent for them. Some of the use benefits include foods, medicines, fuelwood, fibres and construction materials among others. Non-use benefits include cultural, heritage, bequest and aesthetic values.

It is estimated that 530,000 forest-adjacent household which amount to 2.9 million people living 5 km around forests derive direct benefits from indigenous closed forests, this amounts to 10% of Kenya's population (Wass, 1995). The figure below gives the perceived value of forest products in households surrounding (5km) Mount Kenya forest.

Figure I: Perceived Value of Forest Products in Households Surrounding Mt. Kenya Forest (Emerton, 1997)



#### **Energy**

About 71% of the total energy consumed in the country comes from wood. Rural dependence on fuelwood for domestic needs is almost 100% and approximately 80% of the urban population relies on charcoal to meet its domestic energy requirements (MENR, 1994). Out of the 20 million cubic meters of fuelwood consumed annually, 95% of it is collected from forests and rangelands.

#### **Cash Income**

Estimates indicate that in some areas, the forestry sector contributes about 70% of the forest adjacent households' cash-income (Wass, 1995). As a source of subsistence, households' economic benefits from forest based activities around Aberdare Ranges have been estimated at US\$306 per annum (IUCN, 1998).

#### **Medicinal Plants Use**

At the local level and especially in rural areas, the rising cost of western medicines is contributing to the increased use of traditional medicines. It is estimated that in the East and Southern Africa region approximately 80% of the people rely on traditional medicines for their health needs.

The number of medicinal plant species used in Kenya is very large, and the species used vary considerably between regions, such as western, eastern and coastal regions. A survey by TRAFFIC compiled a list of 27 commonly traded species (Marshall, 1998)

#### **Honey**

Honey is used by traditional communities and forest dwellers such as Okiek, as food, for the production of traditional brews and as medicine. As much as 75% of honey produced is utilised within the respective districts and the rest sold to nearby markets (Kareko et. al. 2000).

### ***Gum Arabic and resins***

In dryland parts of Kenya, gum arabic supplements local communities' existing dietary sources and is also used for medicinal purposes. Gum myrrh is among the most valuable gum resins. It is used for medicinal purposes among many communities in Kenya. Other than being widely used as a chewing gum and as incense, frankincense has an important medicinal value traditionally.

### ***Cultural and religious use***

Many forests are traditionally important for cultural ceremonies and as sacred sites to local communities. Examples of trees that were considered sacred include the *mugumu* among the Luhya (KIFCON, 1994) and the Kikuyu tribes (FAN, 1996). Additionally, certain forested areas were considered as sacred groves with the felling of trees and the collection of forest products prohibited or strictly regulated, such as *Kayas*, among the Coastal Mijikenda tribes and the *Mukurwe wa Nygathanga* among the Kikuyu tribe (FAN, 1996). Specific sites within forests were used for ceremonies, such among the Tiriki where male circumcision was carried at certain sacred sites (*Kavunyonje*) within the Kakamega forest. Certain species of trees were planted to honour deceased ancestors such as the *Mugumu (Ficus thonningi)* among the Luhyas (KIFCON, 1994) and Coconut trees among the Coastal tribes and the Baobab among the Kamba tribe. Among the Luo tribe, branches of the *Kigelia africana* were buried as a substitute for members of the community who drowned in the Lake Victoria. The felling of these trees was taboo.

### ***Other Functions***

Barks of trees are traditionally used for weaving, basketry and bee hive covers. Forests are also used for subsistence hunting and trapping of medium sized mammals. In addition, trees are also used for domestic implements and tools as well as construction poles and timber.

### ***3.3.3 Commercial Functions***

#### ***Timber extraction***

Since 1982, there has been a Presidential ban on the felling of indigenous trees in natural forests. However, the illegal felling of indigenous trees has continued both for the local and export markets. Before the ban, indigenous hardwoods accounted for about 20% of the wood intake.

The overall volume of indigenous hardwoods harvested from natural forests each year is hard to estimate since its mostly illegal. However, Marshall and Jenkins (1994) estimate that the overall volume of indigenous hardwoods harvested per year is 50,000 cubic meters, which may well be considerably less than the actual amount coming out of the natural forests.

#### ***Sawnwood***

There are about 450 sawmills in Kenya, which produced about 200,000 m<sup>3</sup> of sawnwood in 1990. The sawmilling industry employs about 14,000 people, including those involved in logging and associated activities (MENR, 1994).

Estimates given by Gathaara (2000) indicate that the saw milling industries were at one time providing direct employment to 35,000 people. At an estimate of 5 persons per household, this number of employees would in turn be supporting 175,000 people.

#### ***Plywood***

Plywood production in Kenya started in the early 1980s. There are three plywood mills with annual capacities ranging from 8,000 to 25,000 m<sup>3</sup> (MENR, 1994).

#### ***Fiberboards and Particleboards***

There is one fiberboard mill and two particleboard mills. The fiberwood mill was established in early 1970 and has an annual capacity of 7000 t. It uses plywood and sawmill residues as well as eucalypt roundwood. The particleboard industry was started in the early 1980s. It had an output of about 6000 m<sup>3</sup> in 1990 and its capacity has remained low (MENR, 1994).

#### ***Poles and posts***

Indigenous and plantation forests have been a source of poles and posts for building and fencing purposes. Poles from mangroves from the coast have for a long time been used for wall and roof construction for Swahili style houses and as props/temporary support in concrete buildings.

Harvested mangrove poles from the coast are used locally, others are exported to Middle East countries. The total number of mangrove poles sold in Mombasa ranges from 6,500 score (bad year) to 14,000 scores (good year). Approximately half of these poles come from Lamu (Wells et. al., 2000). Wass (1995) estimated a total of 3,262,000 poles (equivalent to a volume of 24,262 m<sup>3</sup>) to be consumed annually in house building. More recently demand has grown for poles in the hotel industry. Hotels and Villas consume larger sizes of poles than traditional house construction.

#### *Pulp and Paper industry*

Paper and paperboard consumption in Kenya in 1990 was 130,000 t. About three-quarters of this (93,600 t) was supplied from domestic production. The paper and paperboard industry comprises six mills. Kenya's pulp and paperboard industry is one of the biggest in Africa and the most important among the Preferential Trade Area (PTA) countries, with the biggest company being the Pan African Paper Mills (MENR, 1994).

#### *Construction, furniture and joinery industries*

The construction industry to a larger extent has switched from hardwoods to plantation grown softwoods such as *Cypressus sp.* and *Pinus sp.* (KWS, 1997). The industry has also a preference for Camphor (*Ocotea usambarensis*) which is largely got from local sources and Mahogany (*Khayas sp.*) imported from Uganda.

The furniture and joinery industry is specialized in its demand for timber species (KWS, 1997), relying on Camphor, Mahogany, and to a very limited extent Mvule (*Milicia excelsa* – largely imported) and Meru Oak (*Vitex keniensis*) – now increasingly difficult to obtain.

The furniture and joinery industry consists of thousands of small-scale entrepreneurs both in the rural and urban areas, mainly in the informal “*Jua Kali*” sector. About 60% of the furniture market is controlled by the *Jua Kali* artisans. There are also two prefabricated house plants. The traditional raw materials of the furniture and joinery industry were indigenous hardwoods. The ban on their exploitation has forced a shift to plantation-grown softwoods. However, particularly in areas with good access to indigenous forests, there are still considerable volumes of indigenous timber used.

The parquet flooring, requiring durability and hardness makes use of a number of hardwoods. According to Wass (1995), this industry originally preferred species was Cedar. The industry now uses Camphor, Mahogany and other local and non-local hardwoods.

#### *Medicinal plants trade*

According to Marshall (1998) a survey of the use of medicinal plants and animals conducted in 1996 by TRAFFIC revealed that the trade in medicinal plants in Kenya at both the local and international level is growing.

International trade in medicinal plants is dominated by *Prunus africana* exports to France, with records by the National Agricultural Research Laboratory (NARL) indicating that some 800tonnes were exported between 1990-1995 while CITES export certificate indicate a further 300tonnes in 1996 (Marshall, 1998). The global trade in *Prunus africana* is estimated to be worth \$ 220 million per year. The demand is expected to increase as the population in the North ages.

According to NARL records, other species exported include; *Centella asiatica*, which is a naturalised species of Asian origin, some of which was exported to France and the remainder to unrecorded destinations. *Jatropha multifida* and *J. Podagraca*, which are introduced American plants to Kuwait and the Netherlands. The dry roots and leaves of the native vine *Cissus rotundifolia* to France. The native orchid *Ansellia africana* to the U.K. and the native tree *Dracaena fragrans* to an unrecorded destination.

The illegal exportation of *Aloe* has continued despite the existence of a 1986 presidential decree banning the commercial harvesting and export of aloes. In 1993, 1500kg of Kenyan aloe extract was confiscated in the USA as it was without appropriate accompanying documentation. The two species of *Aloe secundiflora* and occasionally *A. turkanensis* were reported to have been exported (Oldfield (1993) as cited in Marshall, 1998).

*Catha edulis*, otherwise known as *miraa* or *qat* is an important cash crop for Kenya with exports to Somalia on a daily basis. Unconfirmed reports also indicate that exports of *C. edulis* to the U.K. are on the increase.

### Honey

In 1998, estimates by the Ministry of Agriculture and Rural Development indicate that honey production in Kenya totalled about 4,538,498 kg with a monetary value of Ksh. 46,555,012. The corresponding values for beeswax were 273,899 kg and Ksh. 1,766,600, respectively. Non-reporting of the figures by some districts meant that this was an under-estimation of the national honey production.

### Tannin

There were two factories in Kenya that extract tannin from the wattle *Acacia mearnsii*: the Kenya Tannin Extractors Co. Ltd (KTE) in Thika and the East Africa Tannin Extraction Co. Ltd. (EATEC) in Eldoret. Following the expiry of its 99 year lease around 1998, EATEC sold its 24,000 acre farm to individuals (Daily Nation, 2000). Presently, there is massive clearing of the wattle plantations, which are being made into charcoal by the new owners to make way for farms.

### Resin

In Kenya, Oleo-resin is tapped from exotic tropical or subtropical pines, *Pinus patula*, *P. caribaea*, *P. elliotii* and *P. radiata*. The only consumer of resin in the country is Rosin Kenya Ltd. in Nakuru, with an annual intake of 360t (MENR, 1994).

### Gum Arabic

Gum arabic is produced from *Acacia senegal* trees. Kenya is rated as one of the emerging important sources of gum arabic although the amount produced is still low and of poorer quality than that of Sudan (Kareko et. al. 2000). Kenya's contribution of gum arabic to the international market reached its epitome in 1994 when approximately 243 tonnes were exported. Thereafter, the country's contribution has plummeted significantly and as by 1998, only 13 tonnes of gum arabic were exported (Mogaka et. al. undated).

### Wood carving

The Kenyan woodcarving industry uses over 50,000 trees, equivalent to almost 8,000 m<sup>3</sup> of wood annually. This is equivalent to ten trees being felled per hectare of natural closed canopy forest in Kenya annually. Until recently, the Kenyan woodcarving industry relied to about 90% on three preferred tree species, mahogany (*Brachylaena huillensis*), ebony (*Dalbergia melanoxylon*), and olive (*Olea europaea spp. Africana*) (UNESCO, 2000).

In total, by 1987, the industry earned about Ksh. 1.5 billion in the local and export markets. There are approximately 80,000 woodcarvers with an estimated 500,000 dependents (UNESCO, 2000).

### **Box I: Certification "Good Woods" For Wood Carving in Kenya**

Concern for the depletion of hardwoods from natural forests has brought about an alliance of wood carvers, community development organizations, conservation groups, concerned citizens, the forestry sector and traders in Kenya to try and ensure that wood for carving comes from sustainable sources. Good woods have characteristics of being good to carve, producing good carvings, coming from farmlands, are fast growing and generally exotic species in Kenya. So far four species are being used including Neem (*Azadirachta indica*), Jacaranda (*Jacaranda mimosifolia*), Grevillea (*Grevillea robusta*), and Mango (*Mangifera indica*).

There are moves to certify such "good woods" in Kenya, but this is complex and expensive, and normally requires large land units to justify the costs. Such units help offset the costs of certification with an increased price paid for certified wood products. "Good Woods" can be found in sizeable units, if for example one looked at all the neem tree owners along the coast of Kenya. They could become a large enough production unit to defray the costs of certification, through, for example an association. Steps to certify Kenya "Good woods" will include

- Training a manager to train participants, and plan and oversee the use of wood carving raw materials;
- A biological assessment to establish the quantities available, combined with a socio-economic assessment to understand the consequences of resource use;
- A pool of suppliers of the raw material being identified;
- A management plan which includes resource harvesting, replanting and supplier benefits;
- The suppliers being trained in the principles of certification and on their sustainability; and
- A tracking system that ensures no mixture of products from outside the system, and product control must be designed and implemented which includes monitoring at all stages of the process.

These conditions will form the basis for certification, and if approved, the certifier will make a contract and issue a label. In Kenya, Neem certification along the coast is being developed, and this may spread to Jacaranda certification in the Nairobi area. With such certification of "good woods", it is likely that pressures on the valuable indigenous hardwood will reduce significantly.

Source - (WWF, UNESCO et al. 2000)

#### *Woodfuel*

Figures on charcoal production are difficult to obtain because of the largely illegal nature of the industry. While it is legal to produce charcoal on private land or on Trust lands, it is illegal to produce it in government Forest Reserves. There are substantial amounts of charcoal coming from forest reserves and from Trust land. The charcoal industry supports a long chain of people starting with the producer, the forester, administration and regular police, the transporter, the wholesaler and the retailer.

Mangrove wood is traded as woodfuel by licensed traders to Kenya Calcium Products on the South Coast, tile factories and bakeries in Mombasa due to its high calorific value (Wass, 1995).

#### *Tourism*

Tourism is the country's largest foreign revenue earner. Many of Kenya's tourists visit National parks and Reserves where indigenous forest form a major part of the overall environment. Wass (1995) estimated the total national value of forest tourists to be a minimum of Kshs. 80 million.

#### *Research and education*

Many pure and applied research studies are carried out in indigenous forests yielding local, regional and sometimes global benefits as well as being valuable to the researchers themselves. Forests offer teaching grounds for schools, colleges and universities.

### **3.3.4 Environmental Functions**

The environmental services provided by forest areas relate to the climatic effects of forest cover and to the protective role of forest vegetation in watersheds.

#### *Catchment protection*

Forests play a critical role in water catchment for the country. For example, Kenya's five main "water towers" provide most of the nation's water. These include the Mount Kenya forests, the Aberdares, the Mau Complex, Mount Elgon and Cherangani/Marakwet and Kaptagat complex (Gathaara, 2000 and Wass, 1995).

According to a survey carried out by Forest department the value of indigenous forests on water catchments is approximately Kshs. 2,050 per hectare per year (MENR, 1994). This is despite the fact that some forests are more valued catchments than others. For example, Kakamega and Arabuko Sokoke forests are regarded as having low water values while Southwest Mau and Mt. Kenya forests have higher value because they provide hydropower from the main rivers that flow from the catchments.

The Tana, with its catchment being Mt. Kenya, supplies water to numerous hydro-power stations, as well as the major irrigation schemes in Kenya such as Mwea Rice Scheme, Bura Settlement Scheme and Tana Delta irrigation Scheme (Nkako, 1999).

#### *Power Generation*

Three-quarters of Kenya's electricity is derived from hydropower. To date, this is the cheapest form of electricity, especially compared to thermal and geothermal power. It is acknowledged that forests contribute to the availability of water for electrical power generation, especially because of their role in providing water catchments and in reducing siltation of hydroelectric dams.

#### *Irrigation*

Availability of water for irrigation is closely tied to the conservation of forests in catchment areas. The five main drainage areas with actual or potential for irrigation are;

- *Lake Victoria Basin* – Nzoia; Yala; Nyando; Sondu; Kuja; Mara; Malaba and Sio.
- *Athi River Basin and Coast* – Athi.
- *Tana River Basin* – Tana.
- *Rift Valley Basin* – Turkwel; Kerio; Ewaso Ngiro; Suguta; and Milewa.
- *Ewaso Ngiro and North* – Ewaso Ngiro

### *Forests as Centres of Biodiversity*

A large percentage of the country's biodiversity occurs in forests. Closed canopy forest harbour 40% of large mammals (of over 500g); 30% of the birds; and about 35% of the butterflies occur in forest habitat. There are three times as many threatened large mammals' species in forests as in savanna. In the case of threatened birds, around 50% occur in forests (Wass, 1995).

Threatened species are known to occur in over 60 inland and 65 Coastal forests. Indeed, half of Kenya's threatened woody plants occur in Coastal forests (Wass, 1995). These Coastal forests, combined with Taita Hills complex and the mountains east of the Rift Valley, account for almost all the rare forest biodiversity in Kenya, with a few other rare species scattered across the large blocks of montane forests. Overall, of the forest-dependent and nationally threatened species in Kenya's forests, about 50% of the plants, 60% of the birds and 65% of the mammals are found in the Coastal forests, which show the importance of this region despite its relatively small forest cover. Wass (1995) identified forest groups that are central to the long-term conservation of Kenya's forest biodiversity. These are Coastal forests (Shimba hills and Arabuko Sokoke forest), Montane forests (Mt. Kenya, Aberdares/Kikuyu escarpment and Mau), Western forests (Kakamega), dry zone forest outliers (Taita Hills, Tana river, Mathews range and Marsabit forests).

### **3.3.5 Political Function of Forests**

In Kenya, forests can be said to have a political value. This involves the irregular allocation of public lands to well-connected individuals and corporate entities. Much recent forest loss has resulted from government approved, politically motivated, and dubiously legal excisions of forest land from protected areas, reserves and plantations.

#### *Beneficiaries*

Official and *de facto* excisions of gazetted forests have benefited a wide range of individuals and institutions. This phenomenon is believed to increase during election periods, according to a report published by the World Resources Institute (WRI). The report considers land excisions as "the result of an increased use of land for political patronage in the context of increased electoral competition" (Seymour and Dubash, 2000)

Political reasons, especially because of the upcoming general elections of 2002, are believed to be behind the most recent official announcement of the intention to de-gazette a total of 67,184.6 ha. (166,016.6 acres) contained in gazette notices 889-902 dated 30<sup>th</sup> January 2001 and published in the Kenya Gazette of February 16<sup>th</sup> 2001. Despite public protests and court cases challenging these excisions, the government confirmed its intention to proceed with these excisions, through a gazette notice dated October 19<sup>th</sup> 2001. In addition, the government intends to de-gazette a further 15,032 hectares (37,500 acres) from another 10 forests in different parts of the country.

#### **Box II: The Impacts of Politics on Forests**

During the 1992 and 1997 tribal clashes that were politically instigated, a lot of people were rendered landless. These were settled in forest reserves mostly in the Rift Valley forests including Mau. In a quite a number of cases, a number of politically correct individuals were allocated land during this time.

The Mau complex straddles five heavily politicised districts of Nakuru, Kericho, Buret, Bomet and Narok. It is generally believed that the on-going destruction and uncoordinated settlements are politically motivated (Ndun'gu, 2000).

Between 1991 - 1994, about 40,000 ha. of Mau forest was set aside for settlement of members of the Ogiek communities who traditionally lived in Mau forest. However, this settlement was highly abused by the local administration by settling other communities from other districts far from Mau including Baringo District.

In 1998, the public came to learn that almost half of Karura Forest had been subdivided and given to influential public figures that supported the KANU party during the 1997 elections.

In Ololua Forest, stopping of the destructive forest quarrying was made difficult because of political influence. Most licensed quarry miners were supporters of key politicians.

In 1995, there were proposals to degazette 5,000ha. of forest land in Arabuko Sokoke forest for settlement of "squatters". This was being campaigned for by local councilors who had wanted to benefit under the pretext that the land was being given to squatters.

### **3.4 Policy and Legal Status**

Within Kenya' policy and legal framework are numerous provisions that can be used to support an FLR approach to forests. However, these provisions are scattered among various sectoral policies and laws. Many of these sectoral laws and policies are out-dated and are currently being reviewed to make them more responsive to existing realities and to the need for a holistic approach to forest conservation.

Below are the laws with relevance to forest conservation.

#### **3.4.1 Policies and Legislation on Natural Resources**

- The National Environment Action Plan (NEAP) of 1994
- National Biodiversity Strategy and Action Plan (NBSAP) of 1998
- Sessional Paper No. 6 on 1999 on Environment and Development
- The Environmental Management and Co-ordination Act, 1999
- The Kenya Forestry Master Plan of 1994
- Forest policy of 1957, revised in 1968
- New Forest Policy

There is a new Forest Policy that received Cabinet approval in 1996. However, this policy is yet to become operational because a Sessional Paper is yet to be prepared and passed by Parliament. Since 1995, the new Forest Policy has undergone several revisions with the latest draft being dated 2000.

- Forest Act of 1962 (revised in 1962, 1982 and 1992)
- A draft Forest Bill, 2000  
This Draft Bill has been prepared and is currently awaiting the publication of a Bill to be presented and debated in Parliament.
- The Wildlife Policy: contained in the Statement on Future Wildlife Management Policy in Kenya (Sessional Paper No. 3 of 1975) and the Policy Framework and Development Programme 1991-1996 ("the Zebra Book") of 1990.
- The Wildlife (Conservation and Management) Act
- The Wildlife Act, of 1976 (amended 1989)
- Agriculture Policy
- Agriculture of 1980 (revised in 1986)
- Water Policy, 1999
- Water Act of 1951 (revised 1972)
- Timber Act of 1972

#### **3.4.2 Presidential Decrees and Directives**

The forestry sector is characterised by the existence of numerous Presidential Decrees and Directives. These include a decree banning the felling of indigenous trees that was made in the 1980s and a Directive restricting the production of charcoal in forest reserves, on Trust land and on private land. There has been other Presidential pronouncements authorising the forest department to allocate specific forests in different parts of the country for the settlement of squatters. Such decrees and directives are usually made at political rallies.

#### **3.4.3 Policies and Legislation on Land Tenure**

Policies and laws on land tenure have direct and indirect impacts on forest regeneration. Key among these policies and laws are the Constitution of Kenya, the Trust Lands Act, Land (Group Representatives) Act, the Registered Lands Act, the Government Lands Act and the Local Authorities Act.

### **4.4 Donor Policies**

Donor policies have played a key role in the direction that Kenya's policies on forests have taken. In addition to the policies of donor agencies, financial resources from these agencies have been provided to advance their policies. Donor policies have also undergone several changes, from the promotion of exotic plantation to more community based conservation that takes into consideration the other functions of forest and not merely commercial timber production. The examples below illustrate the activities of some key donors who have played a significant role in the management of forests in Kenya.

- The World Bank provided support to the Forest Department for industrial plantations from 1970-1988 for the establishment of about 120,000 ha. of plantation forests with about US 47 million in loans or credits (Ryan, 1996).

- In 1997 the World Bank commissioned a study of the forestry sector in Kenya with a special focus on plantations, which was undertaken by Price Waterhouse. This study recommended the separation of the management of plantations from that of indigenous forests. (Price Waterhouse, 1997).
- The Kenya Indigenous Forest Conservation Programme of the British Overseas Development Administration (ODA) was undertaken between 1990-1994 with a focus on indigenous forests. This programme was prematurely terminated due to disagreements between ODA and the Kenya government. The programme had started by compiling data on biodiversity and the diverse range of uses forest resources are put to by communities. At Kakamega forest, a zoning of the forest had been done, with the aim of accommodating different user groups in the sustainable management of the forest.

Some of the donor policies with regard to forestry are evident through the types of projects and programmes they have supported. Other donors who have been involved in the forest sector include the following;

- The European Union initiated a project in 1995 on the Conservation and Management of Indigenous Forests (COMIFOR) around Mt. Kenya and on the Coast. This project also was faced with management problems and further funding was stopped. The EU also provides support to the Arabuko Sokoke Forest Conservation and Management Project through Birdlife International.
- The Finnish Development Agency (FINNIDA) financed the Kenya Forestry Master Plan, which was finalized in 1995. They also funded the “Miti Mingi Mashabani” (“More Trees on Farms”) project.
- The Danish International Development Agency (DANIDA) funded farm forestry in Western Kenya.
- The Japanese International Cooperation Agency (JICA) funded social forestry in several semi-arid districts.
- The German Development Agency (GTZ) and JICA funded forest research projects. GTZ also supported forestry education at the Kenya Forestry College for several years with some input from FDP.
- The Swedish Development Agency (SIDA) provided financial support for farm forestry through the Ministry of Agriculture.
- The World Food Program started a five year programme covering support through food aid for forestry extension and industrial forestry.
- The African Development Bank funded the Nyayo Tea Zones Project.
- The Royal Netherlands Government provides support to the Mt. Elgon Forest Conservation and Development Project.

### **4.3 International and Regional Conventions and Treaties**

Kenya is a signatory to a number of international conventions and protocols with relevance to the conservation of biodiversity. These include the Convention on Biodiversity, the Convention on Desertification, the Climate Change Convention and the Persistent Organic Pesticides Convention.

#### **4.3.1 The East African Community Co-operation**

Kenya is a member of the East African Community, which addresses issues of shared biological resources. The East African Community treaty was signed in 1999 and came into force in 2000. Chapter 19 of the Treaty is entitled “Co-operation in Environment and Natural Resources Management”.

### **3.5 Institutional Set-up**

The management of forests falls under several government agencies. The key agencies include the Forest Department under the Ministry of Environment and Natural Resources and the Kenya Wildlife Service, which is a parastatal under the Office of the President. Within the Ministry of Environment and Natural Resources are several Departments with roles that have relevance to the management of forest resources. These include the Departments of Water, Fisheries and Mines.

The Permanent Presidential Commission on Soil Conservation and Re-afforestation is within the Ministry of Agriculture and Rural Development. The Kenya Forestry Research Institute (KEFRI) was established in 1986 to conduct research on forestry. It is under the Ministry of Science and Technology. The Kenya Agricultural Research Institutes (KARI) was established in 1979 for agricultural research and technology transfer. KARI is under the Ministry of Agriculture and Rural Development.

In addition, there are numerous international and national non-governmental organisations (NGOs) working on environmental issues with direct relevance to forest regeneration. These include the IUCN and WWF, the East African Wildlife Society, Friends of Conservation, the African Conservation Centre, the Forest Action Network, Nature Kenya, Birdlife International, and the International Centre for Research in Agroforestry (ICRAF).

## **4. ANALYSIS OF POLICY AND LEGAL FRAMEWORK RELATED TO FOREST REGENERATION**

### **4.1 Relevance of FLR with National Priorities, Policies and Strategies**

One of the country's priorities is the reduction of poverty, which the government has declared a national crisis in the Poverty Eradication Action Plan (PEAP) for 1999-2015. The government has recognised that poverty eradication is not necessarily achieved by national level economic growth. There is need to address the disparity between the rich and the poor, otherwise there are negative and worrying consequences for the security and economic well-being of those who are rich. Therefore there is need to enhance the economic well-being of low income sections of the population on their farms and in their enterprises. Forests have the potential to contribute to poverty reduction and to provide goods and services to meet subsistence needs of the poorer sections of the public. Therefore, FLR approaches can be promoted as one way to address poverty of the largely rural based (estimated at 80%) Kenyan population.

The government has acknowledged the cyclical linkage between environmental degradation and poverty. According to the PEAP, the interaction of the poor and the environment has resulted in undesirable consequences, which have contributed to the worsened poverty situation in the country. Therefore, there is need to address poverty and environmental concerns simultaneously.

The government of Kenya completed its Poverty Reduction Strategy Programme (PRSP) process in May 2001 for the period between 2001-2003, after a series of nation-wide consultations with communities to identify some of the causes of poverty and strategies communities used to address poverty at the local level. Future development aid will be strongly linked to an evaluation of how it will contribute to poverty reduction. By promoting the FLR approach as one strategy that can be used to address poverty, the chances of attracting financial support for FLR initiatives will be enhanced. All the FLR principles can be shown to be consistent with the government's priority of addressing poverty.

### **4.2 Natural Resources Policies**

Most of the country's natural resource policies and laws were developed before independence or soon after. Many of these policies and laws are under review to make them more responsive to current realities and thinking with regard to the management of natural resources. Policies that have been developed in the more recent past have tended to embrace more of the FLR principles than the older ones. However, even within the old policies and laws, some of the FLR principles are captured.

#### **4.2.1 Support for Forest Regeneration**

Many of the old sectoral laws were more concerned with the protection and regulation of use of natural resources than with regeneration. However, even within these laws, there were provisions for re-afforestation and afforestation, such as in the Chief's Authority Act and the Agriculture Act.

The Forest Act is concerned with regulating the use of forest products within gazetted forest reserves and on unalienated government land. The Act lays down the guidelines for the issuance of licences for timber and non-timber forest products and the fines and penalties for non-compliance.

As part of its forest regeneration efforts, the Forest Department used the *Shamba* System that was introduced in 1902. This system was used for re-planting of exotic plantations after they were clear felled. Members of local communities were allowed to settle inside forest reserves and intersperse young trees with food crops. The communities were allowed to occupy specific areas of forest for re-planting until the trees reached specified heights, when they would be moved to another area. The resident cultivation system was banned in the 1980s because of wide-spread abuse whereby the communities living in the forest were engaged in timber extraction and charcoal burning, usually with the collusion of forest officers. Later on, this system was replaced with the Non-Resident Cultivation (NRC) System, whereby community labour was used to regenerate plantations, but the communities would not reside in the forest. However, this system has also faced problems resulting in an accumulation of planting backlogs, estimated in 2000 to be at 40,000 ha. Failure by the Forest Department to adhere to the laid down rules for the NRC system and corruption have contributed to these backlogs.

The Water Act is concerned with the protection of water catchment areas but does not address itself to forest regeneration. The Wildlife Act deals with issues of the gazettement of areas of biodiversity significance for the sake of conserving wildlife. The Act does not address itself to regeneration, although through protection, natural regeneration occurs.

Another statute with provisions relevant to regeneration includes the Chief's Authority Act. Chiefs are empowered to order the execution of works or services for the conservation of natural resources (s. 13). This may include re-afforestation efforts. According to the Agriculture Act, the Minister may require afforestation or re-afforestation of agricultural land with the aim of controlling soil erosion.

Newer policies and laws address issues of forest regeneration more directly. The Water Policy of 1999 proposes the identification and protection of water catchment areas. This protection aims at reducing pressure to allow for natural regeneration. The Environmental Management and Co-ordination Act of 1999 specifically addresses forest regeneration by proposing for the re-afforestation and forestation of hilltops, hillsides and mountainous areas that will be identified by respective District Environment Committees. Additionally, the Act states that even when the land that has been identified as being under threat of soil erosion is privately owned, the owners shall be required to implement soil conservation measures, such as planting trees and other vegetation on the land.

The Forest Policy states that the government will promote tree planting and land rehabilitation by natural regeneration for wood production as well as for the protection of soil and water resources.

Within older policies and laws there are provisions for forest regeneration, especially to promote and enhance the achievement of sectoral mandates, such as the Agriculture Act and the need to maintain soil fertility and the Water Act and the need to ensure continued supply of water resources. Prohibition of the harvesting of forest products is used as another way to attain forest regeneration, especially by the wildlife Act and the forest Act.

#### **4.2.2 Landscape approach**

None of the existing policies and laws address themselves directly to the need for a landscape approach to natural resources. In some policies this is implied, such as the new Forest policy which highlights the need to sustainably manage both indigenous and plantation forests both on government land and on farms. The newly enacted Environmental Management and Co-ordination Act, 1999 stipulates that the National Environmental Management Authority (NEMA) shall issue guidelines on how land shall be managed and used. These guidelines shall include appropriate farming methods, carrying capacities of livestock, soil erosion measures, protection of some sections from human settlement, protection of catchment areas and the protection of fragile ecosystems. This is the only Act that addresses itself to the different elements that make up a landscape approach.

For a long time, the National Development plans have stated that there was a need for a national land-use policy, which would address the management of land resources in the country, given the diverse ecological zones. A Land Use Commission, that would co-ordinate land use activities has been proposed. However, neither the policy, nor the commission have been set up.

Currently, land use planning is meant to be done by the Physical Planning Department in the Ministry of Lands and Settlement. The Department has planning units from the district, provincial to the national level. Before land can be allocated by the Commissioner of Lands, including forest land, the Department of Physical planning is required to give its recommendations. This Department is guided by the Physical Planning Act, which was amended in 1996. However, this department has in the past been mainly concerned with urban planning.

#### **4.2.3 Forest functions**

As noted above, most of the older policies and laws have provisions for restoring forest functions directly related to their different mandates, such as water and agriculture. The Forest Act, however, was mainly concerned with regulating the harvesting of forest products from exotic and indigenous forests. The law did not address the issue of restoring forest functions from indigenous forests but the Forest Department has been involved in replanting clear-felled exotic plantations. The department produces tree seedlings for distribution to its different field offices and also to members of the public interested in planting trees on their farms.

In the Forest Department and the Kenya Forestry Research Institute (KEFRI) have concentrated on exotic tree species. Therefore, there are still many knowledge gaps on the propagation and regeneration of indigenous species, which provide a wide range of forest functions, such as medicines, wood carving and bark, twigs and timber for basketry and household implements. For example, A survey conducted by Traffic East/Southern

Africa on the use of medicinal plants and animal species in 17 countries in East and Southern Africa revealed that there are numerous species used for medicinal purposes in the region. However, this survey revealed that the propagation techniques of only one-third of the 37 identified priority species had been determined (TRAFFIC East/Southern Africa, 1998). KEFRI, in a bid to address some of these information gaps now includes natural forests, dry land woodlands forestry and farm forestry among its programmes.

The new Forest Policy proposes to promote the restoration of forest functions through tree planting and natural regeneration, urban forestry and the management of indigenous vegetation for tourism, aesthetics and cultural purposes. The Environmental Act recognises the different forest functions and will seek to protect them. The fact that environmental planning will be done by cross-sectoral committees that include members of the local communities from the District, Provincial to the national level suggests that there are possibilities to include forest function trade-offs within the landscape.

#### ***4.2.4 Two filters: Human well-being and Ecological Integrity***

Some of the policies and laws recognise the role forest functions play in supporting human well-being. For example, within the subsidiary legislation of the Forest Act there are rules for specific forest reserves that allow local communities living around the forest to collect forest products for their subsistence use at no charge or at a minimal charge. The forest products include fuel wood, building materials, ochre and wild honey. In addition, communities are allowed to graze their livestock and place honey boxes within Forest Reserves at no charge. However, these rules have been abused, both by forest officers by not adhering to the rules and by communities who sometimes collect forest products for commercial purposes. Local communities are often not aware of the provisions of the Act and are therefore dependent on the forest officers' interpretation and use of the provisions.

The Water Policy of 1999 has as its main objective the supply and distribution of water resources throughout the country in a sustainable, rational and economical manner. The Environmental Act lists the environmental functions that all Kenyans are entitled to as including a clean and healthy environment for recreational, educational, health, spiritual and cultural purposes. However, the Act does not include subsistence and economic purposes.

The Wildlife Policy recognises that long-term protection and sustainable conservation must address the social and economic needs of the people living near parks. However, the Wildlife Act and the practices of the Kenya Wildlife Service prohibit all consumptive utilization of wildlife and other resources, including forest products, within national parks. Access into parks is restricted to paying tourists. There are few exceptions to this practice, such as through negotiations between communities that live next to specific parks, who are allowed to pass through the park with their livestock and in some cases access water resources within the park, such as Amboseli National Park. The wildlife sector has been criticised for being more concerned about the well-being of wildlife than that of human-beings.

#### ***4.2.5 Devolving decision-making and Consensus building***

Most of the old policies and laws on natural resources are characterised by heavy government control with minimal opportunities for other stakeholders to participate in the management of natural resources. Within these laws, key natural resources were vested in the government, for example, forest reserves, water and wildlife. The decision-making authority is placed within the government agencies mandated with the implementation of the Act, such as the forest and water departments and the Kenya Wildlife Service.

Newer policies and laws have attempted to share key decision-making authority with other stakeholders, for example, the Water Policy allows for the involvement of the private sector and local communities in water projects. The Environmental Act establishes environment committees at the district, provincial and national levels that will include local communities, NGOs and CBOs. The Forest Policy and draft forest Bill proposes that local communities will be able to form associations and enter into management agreements for specific forests with the forest department. However, the Draft Bill still proposes that all forests, excluding those on private land, will continue to be vested in the State. There is a danger that this continued vesting of forests in the State would be used to deny other stakeholders decision-making powers in the management of forests. When resources are vested in the State, the government of the day can use the common law doctrine of eminent domain to deny other stakeholders their rights to these resources. This has been one of the criticism of the current forest Act which allows the Minister to de-gazette forest reserves, since they are vested in the government. The fact that the government is yet to pass the new forest policy and law also raises questions about its commitment to devolve decision-making in the management of forests to other stakeholders.

As with devolving decision making and authority to other stakeholders, most older policies and laws were not designed with the aim of building informed and genuine consensus. Later policies aimed at decentralisation, such as the District Focus for Rural Development (DFRD) attempted to create consensus among different government agencies with sectoral mandates. The membership of District Development Committees, which are meant to be the key planning institutions at the district level, includes the different sectors, such as forests, agriculture, lands and settlement, physical planning, environment and local authorities. Members of NGOs and women's representatives are also included in the DDCs. However, the extent to which DDCs have been able to contribute to genuine consensus building has been hampered by political interference and the lack of financial resources to implement identified development priorities.

Newer policies, such as the new forest policy and draft forest Bill propose to allow for consensus building through a consultative body composed of government and non-government stakeholders. The creation of district, provincial and national environment committees, within the Environment Act, composed of the different sectoral government agencies and representatives of the local communities has the potential of enhancing genuine consensus building and creating strategic partnerships across different sectors.

#### ***4.2.6 Halting Pressure***

All natural resource laws, including the older ones, addressed the issue of halting pressure. Through provisions allowing for the gazettement of resources and restriction of use, these laws allowed the relevant government agencies to halt pressure on forest resources. However, the extent to which these agencies have been successful in actually halting pressure varies. The KWS has effectively ensured that communities do not enter national parks to harvest forest products, through its purely protectionist approach to the management of parks. The forest department, on the other hand, has been unable to control the extraction of forest products and massive destruction of forest reserves has been witnessed in many of these reserves. Limited institutional capacity, lack of financial resources and equipment and corruption have all contributed to the department's inability to halt pressure, and indeed to control the wanton destruction of forest reserves especially through timber extraction and charcoal production. The Water department has also been ineffective in the management of water resources, with wastage and unsustainable practices that destroy catchment areas being a common feature of many water projects.

Presidential decrees are usually made in response to threat to specific resources, such as indigenous trees. The implementation of these directives is usually difficult due to the non-consultative manner in which they are made and the failure to consider the necessary conditions for their implementation. There are debates about whether these directives are really legal or whether they should be ignored since they normally do not have any legal backing, for example, they are usually not gazetted. Presidential Directives have been ineffective in halting pressure on specific forest functions and have tended to promote corruption as some activities that were legal, such as timber production, have been made illegal without any alternatives being offered.

#### ***4.2.7 Innovation***

Most of the older policies and laws did not encourage innovation. In fact, one of the major shortcomings of the policies and practices within the forestry sector has been its outdated focus and emphasis on timber production through the promotion of exotic plantations to the detriment of the forest functions offered by indigenous forests. The wildlife sector has also failed to respond to the changing realities and thinking with regard to the management of resources within protected areas.

Newer policies have attempted to include more innovative ideas and approaches to the management of forest resources, such as the new forest policy and the wildlife policy. However, the extent to which these policies have been able to implement innovative ideas has been constrained by the lack of supportive laws and guidelines on how to implement these new ideas. The Environment Act has the greatest potential to address the inclusion of innovation in the management of the environment, since it provides for mechanisms and institutions that can support this. However, there is need for these institutions established by the Environmental Act to develop guidelines and standards within which to implement innovative ideas.

#### ***4.2.8 Multi-sectoral linkage***

New policies and laws have attempted to address the weakness of old policies and laws, most of which were designed in a sector specific manner with limited multi-sectoral linkages. Most natural resource policies and laws remain quite sector specific, since these new policies and laws are yet to be enacted. Once again, the only law that provides for mechanisms for implementing multi-sectoral linkages is the Environmental Act.

#### **4.2.9 Policies and Laws on Land Tenure**

The current policies and laws on land tenure create an atmosphere wherein the majority of the population fall under land categories with minimal security of tenure. Only a small minority of people have title deeds to their land (private land is currently estimated at 2-3% of the total land area). Communities that hold communal tenure to land through registered Group Ranches have been negatively impacted by the subdivision of these Ranches, sometimes in an irregular manner. Trust lands, which form the bulk of land in Kenya, are vested in Local Authorities for the benefit of the communities resident on these lands. However, some County Councils have interpreted “holding in trust” to mean that the land belongs to the Councils. These Councils sometimes bow to pressure from powerful interests groups within the local and central government, in the allocation of land. Government land, which includes forest reserves, is sometimes allocated to individuals, sometimes at the expense of communities who live around specific forests and who benefit from products from the forests. The poor management of government forests, coupled with the restrictions placed on communities to use and/or manage these forests leads to apathy towards conservation and promotes exploitative and unsustainable practices, such as charcoal burning and timber harvesting. The current land tenure policies, laws and practices make it difficult to promote the different FLR principles and approaches.

#### **4.3 International and Regional Conventions**

Many of the international conventions specifically address the different parameters of FLR. However, in addition to being a signatory to these conventions, every country is meant to enact country-level legislation to facilitate their implementation. In Kenya, there has been a lag between the signing of the conventions and the enactment of national level legislation. The few policies that have been formulated in response to international conventions, such as the National Environment Action Plan and the National Biodiversity Strategy and Action Plans are yet to be fully operational.

#### **4.4 Donor Policies**

There is a wide range of donors funding initiatives relevant to forests. The activities they support range from small, site specific, single issue projects to larger, cross-sectoral projects. Therefore, there is potential to promote FLR with support from existing donors and also to negotiate with these donors for the inclusion of more FLR principles within the projects they are currently funding.

## **5. ANALYSIS OF EXISTING INITIATIVES**

### **5.1 Overview of Existing Initiatives**

There is a wide variety of initiatives whose objective is the conservation of forests and the development of communities living around these forests. In Kenya, the most documented and therefore easily accessible information is on initiatives around protected areas. These initiatives usually start with the aim of reducing pressure on the protected areas by providing alternatives for surrounding communities.

There are few examples of private sector initiatives in the forestry sector. The main one is by the Kakuzi Company, which has a plantation forest. The other private sector initiative was the East African Tanning Company, which had extensive wattle tree plantations for use in extracting tanning and in providing charcoal to factories within Eldoret town. However, this company recently sold its 24,000 acre farm after the expiry of its 99 year lease. Individuals who bought this land have cleared the trees to turn the land to farms.

Agro-forestry efforts have been undertaken by several NGOs. The Green Belt movement promoted tree nurseries and on-farm forestry through women’s groups in different parts of the country, especially in Central province. The Movement was quite active in the 1980s and managed to promote the planting of *Grevillea robusta* on farms.

The International Centre for Research in Agroforestry (ICRAF) and the Kenya Forestry Research Institute (KEFRI) have also been active in promoting on-farm forestry, especially in the high potential areas. The Agro-forestry Research and Development in Semi-Arid Areas of Kenya (ARIDSAK) is a project based in Kibwezi. The Japanese International Development Agency (JICA) has also been promoting social forestry in the Ukambani area.

### **5.2 Conformity of Initiatives to FLR Principles**

The extent to which the different initiatives reviewed conform to FLR principles varies (see analytical frameworks in the annex)

### **5.2.1 Landscape approach**

Few of the projects have the stated objective of using a landscape approach to forest regeneration. The only project that specifically claims to use a landscape approach is the WWF project around Lake Nakuru. Therefore, although the other initiatives may have aspects of a landscape approach, such as scale and the concept of interactions within the landscape, it is not explicitly stated that that is the approach that is planned for. Therefore, most of the reviewed initiatives score neutral to quite supportive of a landscape approach. In addition, although the Lake Nakuru project explicitly states its use of a landscape approach, the extent to which it has been able to actually achieve this is limited, due to the large area and complexity of issues within the landscape. Lake Nakuru's catchment area includes some key forests that are under threat due to the current political atmosphere, which encourages the use of forests for political patronage.

### **5.2.2 Forest functionality**

Most of the initiatives have been able to only address a few of the forest functions, in a bid to reduce pressure on the forests. Due to the diversity of forest functions offered by existing forests, a protectionist approach to the forests, and the limited resources and expertise in promoting these functions on-farm, these initiatives have been limited in the extent to which they have been able to provide a wide range of forest functions. For example, in some of these forests, communities have continued using some products and services, sometimes in a destructive way, due to the failure of the initiatives to provide a system for controlling the use of these forest resources as opposed to putting a blanket prohibition on their use. In Arabuko Sokoke, reports indicate that some forest officers have been colluding with sawmillers to extract timber from the forest illegally. Charcoal production and timber extraction is still a problem in some parts of Mount Elgon and Kakamega forests.

### **5.2.3 Balancing the Trade-offs**

All these initiatives attempt to balance the trade-offs between human well-being and ecological integrity. However, most of them lean more towards biodiversity conservation since they are promoted by conservation organisations. There is therefore a tendency for most of the initiatives around protected areas to put prohibitive limits on the extent to which communities can harvest forest products. In many cases, these initiatives aim at reducing and eventually halting the consumptive utilisation of forest products by communities. However, in the long-run, this exclusion of communities from protected areas has been shown not to work. Initial efforts at regulating both consumptive and non-consumptive utilization of forest resources that had been done through zoning by KIFCON of the Kakamega Forest have not been fully implementing due to various constraints, such as limited institutional capacities of organisations implementing activities around the forest.

### **5.2.4 Consensus building**

All the initiatives reviewed have attempted to build consensus. This has been mainly done through consultations with communities. However, the level to which genuine consensus can be developed is limited due to the limited information provided by the development agencies of their objectives and the resources available to them. There is therefore a tendency for communities to see projects as sources of financial and material resources without necessarily understanding the reasons why the organisations are interested in particular forests. This issue has been a constraint to the Mount Elgon project whereby both communities and representatives of government agencies have wanted to be provided with resources to facilitate their activities even when there was no clear linkage with the conservation of the forest. The availability of external resources usually contributes to opportunistic tendencies among communities, which then brings to question whether genuine consensus is being built.

Due to the presence of some individuals involved in illegal activities, such as saw milling, illegal hunting and livestock grazing within the forests, projects usually find it difficult to build genuine consensus on the management of resources. The people engaged in illegal activities are usually well-connected and politically influential and they use this influence to scuttle projects' attempts at consensus building.

The existence of a wide range of stakeholders with different levels of dependence on forest resources for their livelihoods undermines the extent to which consensus building can be achieved. For example, the Ngong Road Trust includes relatively wealthy members of the surrounding community and those who are poor and are more dependent on the forest for subsistence needs, such as firewood. The interests of the more powerful usually prevail with those of the weaker being of less priority to the initiative.

### **5.2.5 Package of implementation tools**

All initiatives have attempted to use a package of implementation tools and approaches. However, by refusing to consider some approaches, these initiatives are constrained. For example, consumptive utilization of forest resources is still an area that many initiatives refuse to consider.

### ***5.2.6 Strategic partnerships***

The partnerships created by the reviewed initiatives are more often than not skewed. The fact that some partners are more financially endowed than others, even among different government agencies, such as the KWS and the Forest Department, make for unequal partnerships. Usually, communities, who are most directly dependent on forest resources are the weakest partners and vulnerable to decisions made by the more influential partners. These initiatives have made limited attempts to create strategic partnerships with private sector organisations, which would create more balanced partnerships and assist in increasing the influence of vulnerable groups, especially poor local communities.

### ***5.2.7 Long-term timeframe***

Most of the initiatives start as short-term projects that may, or may not get extended depending on funding from external agencies. The initiatives that can be said to have a long-term timeframe are those linked to an influential government agency, such as the KWS or an international NGO, such as WWF. The creation of a Trust to manage the Ngong Road Sanctuary enhances the prospects of the initiative being long term. Some of the other initiatives, such as the Mount Elgon, Kakamega and Arabuko Sokoke forests are dependent on short-term funding which is unpredictable. The uncertainties that go with donor funding limits the extent to which these initiatives can develop long term plans.

## 6. SYNTHESIS

### 6.1 The Relevance of FLR to National Priorities

Forest Landscape Restoration approaches are directly relevant to national priorities, especially those of poverty reduction and the more equitable distribution of the benefits of economic growth. The escalation in urban poverty, which is largely due to uncontrolled rural-urban migration, has caused the government concerns, especially as the level of insecurity in urban centers has risen. Therefore initiatives that could enhance the livelihoods of rural communities while contributing to preserving the ecological integrity of these areas are relevant to the national priority of poverty reduction.

### 6.2 Opportunities and Constraints to Implementing FLR approach

#### 6.2.1 Constraints to introducing and implementing FLR approach

##### *Institutional weaknesses*

One of the constraints to introducing and implementing FLR approaches in Kenya is the low institutional capacities of institutions mandated with the management of forestry resources. These include the Forest Department, Local Authorities and local level institutions such as the District Development Committees. The weaknesses of these institutions makes them prone to political coercion and corruption. For example, according to the Daily Nation (October 25<sup>th</sup> 2001), in the last year, 80 forest officers have been sacked by the Permanent Secretary in the Ministry of Environment and Natural Resources for abetting forest destruction in their respective areas of jurisdiction. The poor public image of the Forest Department and of Local Authorities due to their corruption makes it difficult to work with them and also to involve communities in such initiatives due to negative past experiences with these institutions. However, since these are the legally mandated institutions for the management of land and forestry resources, any FLR initiative would have to work with them.

##### *Land Tenure*

The existing land tenure system in Kenya continues to be a major constraint to the sustainable management of natural resources. Insecurity of tenure among communities limits the extent to which they can constructively participate in the management of resources. Since the FLR approach seeks to use the landscape approach it is likely to traverse several land tenure categories, including government land, Trust lands and private land. The different land tenure categories will make it difficult to implement a comprehensive FLR initiative.

##### *Limited Government Commitment to Participatory NRM*

Although the government has made several official statements indicating its willingness to work with communities in partnership for the management of natural resources, its level of commitment to participatory NRM is still questionable. New policies and laws fail to provide clear guidelines about how communities are to be involved in the management of natural resources. One of the principles of FLR is genuine consensus building, which requires genuine partnerships between the different stakeholders. However, the traditional approach to the management of forestry resources among many government officials still tends to be top-down with minimal involvement of communities. For an FLR approach to be effective, therefore, there is need to change the attitudes of government officials and communities and to build their skills in participatory and collaborative management.

##### *Slow pace of policy and legal review*

The government has acknowledged that most of the policies and laws on natural resources are out-dated and in need of review. However, the pace at which the government is reviewing these laws is slow. Therefore, although some policies and laws are supportive of the FLR principles, others continue to be against these principles. Unless comprehensive policy and legal review is achieved there is the danger that some government officials may continue to use the out-dated laws to impede FLR effort.

##### *The Politicization of Forest resources*

In 2002, Kenya will hold its Presidential and general elections. It is expected that President Moi will step down after ruling the country for 24 years. In addition, the country is currently comprehensively reviewing its constitution. There is therefore a high level of uncertainty within the political arena, especially with regard to who will succeed Moi and what the new constitution will look like. These political uncertainties and the fact that natural resources, and especially forests have been used for political patronage since the colonial era makes it difficult to introduce FLR initiatives at this time.

### *Few FLR Initiatives*

The lack of genuine FLR initiatives in Kenya is a constraint in that there are few examples of how FLR could work within the existing realities in the country. Most initiatives in the forestry sector tend to be site specific projects that focus on a few issues, such as rehabilitation of degraded areas, on-farm tree planting and the creation of alternative sources of income and forest products for communities living adjacent to protected areas.

### *Lack of institutionalization of current initiatives*

Many initiatives in the forestry sector tend to be externally initiated and supported, with minimal local ownership. Therefore, there is minimal institutionalization of such initiatives within the relevant government agencies and local communities. The limited genuine sustainability of many forestry initiatives creates an atmosphere wherein there is skepticism about new ideas and approaches. The introduction of FLR initiatives would therefore have to address the issues of how to institutionalize the approach within existing government and non-government institutions, to ensure its sustainability. New initiatives should also seek to address some of the institutional constraints that impede the effectiveness of government and non-government institutions, such as the policy and legal framework. There is also need to address issues with regard to the sustained and adequate financial support to key institutions mandated with the management of natural resources, to enable them fulfil their mandates.

### *Lack of accurate data on forest functions*

There is limited up to date and comprehensive data on the diverse range of forest products and their contribution to the economic and social well-being of Kenyans. In the past, the forestry sector has concentrated on a few exotic species and on closed canopy forests in high potential areas and ignored the rest of the woody biomass in the vast arid and semi-arid zones of the country. The lack of data and information on dry-land forests limits the extent to which government officials can be convinced of the importance of implementing FLR approaches that go beyond high potential forests. The limited attention that has been given to many non-timber forest products means that their economic potentials have not been fully explored and developed.

### *Prevailing poverty levels*

Due to the prevailing poverty in the country, many communities want initiatives with quick, tangible benefits. There is therefore a tendency for communities to lose their commitment to initiatives that provides benefits in the long-run.

## **6.2.2 Opportunities**

### *Exploiting opportunities within the existing policy and legal framework*

Despite out-dated policies and laws, there are still many opportunities within the existing policy and legal framework that can be used to promote forest landscape restoration. Examples of ways representatives of government institutions and community groups have used the existing laws to promote aspects of FLR, and are continuing to do this, can be used as a way to promote genuine policy reforms of those laws that have tended to work against sound forest management. The example below illustrates how one group is working within the existing laws to address the restoration of an urban forest.

#### **Box III: The Ngong Road Forest Sanctuary**

The Ngong Road Forest is one of the last remnant forests in Nairobi. The forest is located next to the Jamhuri Park along the Karen and Langata roads. In the forest live some 120 species of bird species, some of which are endangered, and mammals such as bushbuck, suni, duikers, two species of monkeys, bush babies and hyraxes. This is a gazetted Forest Reserve under the management of the Forest Department in collaboration with the Kenya Wildlife Service, as part of the Memorandum of Understanding between the two institutions. However, the forest was experiencing excessive extraction of indigenous trees, especially the *Muhugu (Brachylaena huluensis)*, which is used for wood carvings and the destructive harvesting of medicinal plants. In 1992 the government proposed that the Nairobi Bypass road and the Western Kenya Pipeline be constructed through the forest. Another threat to the forest came in 1997 when the government announced its intentions to de-gazette sections of the forest.

Due to the various threats facing the Ngong Road Forest, many individuals and organised groups, including government officials lobbied for the preservation and conservation of the forest. The Ngong Road Forest Trust was formed to lobby for the conservation of this forest. Some of their activities included sending delegations to the Minister of Environment and Natural resources and a media campaign to highlight the importance of the forest to Nairobi and the threats it was facing.

This long-drawn out struggle resulted in the government, through the Commissioner of Lands issuing a title deed for 530 hectares of mostly indigenous forest. The title deed is made out to the Ministry of Environment and Natural Resources, with the custodian being the Permanent Secretary. The Ngong Road Forest Trust, composed of representatives of resident associations, lobby groups and government officials from the Forest Department and the KWS, will oversee the management of the forest. The Trust proposes to manage the forest for the recreational, scientific and sustainable use of the forest by the people of Nairobi.

Activities to conserve the Ngong Road Forest Sanctuary illustrate that although currently the existing forest policy and law are limited in their support for forest landscape restoration (FLR) and community based conservation, there are still opportunities within the existing legal and policy framework for communities to be constructively involved in the management and conservation of their forest resources. By using the existing law on private property, the Registered Lands Act, the Trust was able to lobby the government to issue a title deed to a public forest, making the Ngong Road Forest the only Forest Reserve with a title deed.

Source: Loeffler (2000) & Gachanja (2000)

#### *On-going initiatives to strengthen institutions*

Due to the realisation that one of the constraints to effective NRM is the weaknesses of institutions that manage resources, there are several initiatives with the objective of strengthening these institutions. Issues of governance and accountability are also being addressed by these initiatives. An example of an initiative to strengthen government institutions is the Local Authority Reform Programme. Under this programme, the government has also set up a technical advice team to assist in developing the capacity of local authorities to manage resources within their jurisdiction. There are also several government and NGO initiatives to strengthen local community institutions. Efforts to introduce FLR initiatives should identify and establish linkages with these on-going initiatives in order to enhance their chances of success.

#### *New Policies and Laws*

Once policies and laws have been approved by Parliament, they become legally binding. However, the extent to which they are operational is dependent on a wide range of stakeholders, both within and outside government. Initiatives to promote FLR should take advantage of new policies that support FLR principles and proceed to implement them. For example the Environmental Act offers many opportunities for promoting FLR.

#### *On-going policy and legal reviews*

There are several processes being undertaken by the government to review policies and laws with relevance to natural resources. In addition to the review of sectoral policies, the government appointed a Commission of Inquiry into land issues. These on-going processes are opportunities to incorporate more of the FLR principles into the management of natural resources. The extent to which the government will proceed with their implementation will be dependent on the different stakeholders.

#### *Donor Support*

There are currently a wide range of donors supporting different projects within the forestry sector. New initiatives should seek to draw lessons from existing initiatives and work in collaboration with existing initiatives to make them embrace more FLR principles than they are already doing. By building on existing initiatives there is more likelihood for success.

#### *Kenya is a Signatory to International Conventions*

Because Kenya is a signatory to many international conventions and treaties, this is an opportunity for promoting FLR approaches since many of these international conventions embraces FLR principles.

#### *Greater efforts at developing strategic partnerships*

There are on-going efforts by KWS and FD to forge strategic partnership with local communities for the management of forest resources. For example, KWS has requested the Kenya Forests Working Group to assist it in conducting community workshops aimed at building consensus on how to manage Mount Kenya Forest. The Forest Department is involved in a process through which it will enter into partnership with communities in managing forests. The FD has developed draft guidelines for working with community based organisations which are currently being discussed and reviewed in a participatory manner. Enhanced partnerships between government, NGOs and CBOs offer a good opportunity for introducing FLR approaches.

*Development of participatory forest management plans*

There are on-going efforts to develop forest management plans for various forests. These initiatives are supported by NGOs and involve communities in the development of these plans. The lessons learned from such processes provide a good opportunity for understanding some of the strategies to use in coming up with management plans within the existing policy and legal framework. Efforts to introduce FLR should draw lessons from these on-going activities.

*Greater awareness on forest functions*

The Kenyan public has become more aware of forest functions, especially following the drought of 1998-1999 during which time the majority of them underwent power and water rationing programmes. Therefore, the concept of FLR is now easier for Kenyans to understand than before. In addition, due to the government's intention to de-gazette forests in different parts of the country and the lobbying campaigns by NGOs and the media, the level of awareness on the importance of forests has risen. It is therefore currently easier to implement FLR approaches due to this enhanced awareness.

*Enhanced capacity of communities to manage natural resources*

The different initiatives, especially by NGOs, in participatory management of natural resources has enhanced the capacity of community groups to manage resources. This enhanced capacity could greatly assist efforts at initiating FLR in the country.

## 7. CONCLUSIONS AND RECOMMENDATIONS

### *7.1 Need to involve Key stakeholders in developing strategies for introducing FLR*

Key stakeholders with potential for involvement in the introduction of FLR in the country should be identified in a participatory manner and involved right at the beginning of the process. These stakeholders will then be able to take ownership of the process and move it forward.

### *7.2 Work with existing initiatives*

Due to the great number of existing initiatives addressing forestry or natural resource management issues, there is need for efforts to promote FLR to work within the context of these existing initiatives. An introduction of FLR approaches should be done through these existing initiatives with WWF/IUCN facilitating them incorporate more of the FLR principles than they are currently doing. Linkages should be created between initiatives at different sites within an identified landscape. Such an approach stands a better chance of success than attempts to initiate completely new projects/programmes.

### *7.3 Create linkages with institutional strengthening initiatives*

Since institutional weaknesses, including of government agencies, NGOs, community groups and private sector organisations, is potentially one of the major constraints to the implementation of an FLR approach to forest regeneration, they should be addressed as one of the priorities. Efforts to introduce FLR should seek to work with existing initiatives seeking to build the capacity of government and non-government institutions as well as developing other strategies for institutional capacity building. There is need to target relevant government agencies with mandates for the management of specific natural resources and build their capacity for working in collaboration with other stakeholders.

### *7.4 Need to take into consideration existing political realities*

Politically, Kenya is undergoing some key changes that will hopefully result in a more transparent and accountable system of government. Therefore there is need for attempts to introduce FLR to take advantage of these on-going changes to start introducing FLR principles in the management of forest resources. This is an opportune time to introduce innovative ways of managing forest resources.

### *7.5 Build the capacity of stakeholders in FLR*

One of the strategies that should be used to promote FLR in Kenya is to identify stakeholders involved in existing initiatives on forestry regeneration and build their capacity to facilitate and spearhead the implementation of FLR. Key stakeholders should be identified within the government, NGOs, private sector and community groups and trained on FLR through exchange visits with initiatives in other regions and countries.

## REFERENCES

- Boboti, O.K. (1998) *Masinga Reservoir Capacity and Sedimentation*. Tana and Athi Rivers Development Authority. Vol. 1 main report, Nairobi, Kenya.
- Brown K., L. Emerton, A. Maina, H. Mogaka and E. Betser. (1999). *Enhancing the Role of Non-Wood Tree Products in Livelihood Strategies of Smallholders in Semi-arid Kenya*. a technical report to DFID Forestry Research Programme, Nairobi, Kenya.
- Crafter, S.A., J. Awimbo and A.J. Broekhoven (1997) *Non-Timber Forest Products: Value, Use and Management Issues in Africa, including examples from Latin America*. IUCN, Nairobi.
- Emerton, L. (1996). *Valuing the Environment: Case Studies from Kenya*. African Wildlife Foundation, Nairobi, Kenya.
- Emerton, L. (1999). *Economic Potential of Natural Woodlands as a Component of Dryland Farming Systems in Kibwezi Division, Makueni District, Kenya*. Working Paper No. 8. Regional Land Management Unit, SIDA. Nairobi, Kenya.
- Forest Action Network. (1996). *The Role of Culture in Environmental Conservation*. Nairobi, Kenya.
- Forest Department, Kenya Forestry Research Institute, Kenya Wildlife Service and Nyayo Tea Zone Cooperation. (2000). *Review of the Implementation and Management of Non-Resident Cultivation in Kenya*. Nairobi, Kenya.
- Gathaara, G., (undated). *Forests: Opportunities, Challenges, Constraints and the Way Ahead*. Nairobi, Kenya.
- IUCN (1996). *Forest Cover and Forest Reserves in Kenya: Policy and Practice*. IUCN-The World Conservation Union, Eastern Africa Regional Office, Nairobi, Kenya.
- Kareko, K.K., N. Ndegwa and H. Mogaka. (undated). *Status of Non-Wood Forest Products in Kenya*. a paper written for the Forestry Outlook Study for Africa (FOSA) for the Food and Agriculture Organisation (FAO) of the United Nations.
- Kenya Forestry Research Institute and Forest Department. (1996). *The State of Forest Research and Management in Kenya: Proceedings of a joint KEFRI-FD National Conference 3-5<sup>th</sup> June, 1996*. Muguga, Kenya.
- Kenya Wildlife Service. (1999) *Aerial Survey of the Destruction of Mt. Kenya, Imenti and Ngare Ndare Forest Reserves*. Nairobi, Kenya.
- KIFCON (1994) *Kakamega Forest: The Official Guide*. The Kenya Indigenous Conservation Programme, Kenya Wildlife Service and the Forestry Department, Nairobi, Kenya.
- Legge, Piesold & Uhlman and Ewbank & Partners. (1976). *Upper Reservoir Scheme: Appraisal Report*. Vol. 2: Engineering. Tana River Development Authority. Government of Kenya.
- Marshall N. T. (1998) *Searching for a Cure: Conservation of Medicinal Wildlife Resources in East and Southern Africa*. TRAFFIC East/Southern Africa.
- Marshall, N. And M. Jenkins (1994). *The Timber Trade in Kenya*. Draft Report to the Kenya Indigenous Forests Conservation Project (KIFCON), Nairobi, Kenya.
- MENR. (1994). *Kenya Forestry Master Plan: Development Programmes*. Ministry of Environment and Natural Resources: Nairobi, Kenya.
- Mogaka, H. R. (2000). *Economic Analysis of Forest Resource Values to Local Communities in Kenya: Comparative Study Cases of Kakamega and Ntugi-Kijenge Reserves*. PhD Thesis. University of Strathclyde, Glasgow, U.K.

- Mugo, F., (1999). *Charcoal Trade in Kenya*. Working Paper No. 5. Regional Land Management Unit, Sida, Nairobi, Kenya.
- Nation Correspondent (2000) *Tribal Animosity over EATEC Land*: in the Daily Nation, December 21<sup>st</sup> 2000.
- Ndaberi F. (2000). *Forests in Kenya*. a paper prepared for the Kenya Forests Working Group. Nairobi, Kenya.
- Ndung'u N. (2000) *Who Will Save the Mau Forest from the Kenya Government's Greed?* in the East African Newspaper, Nov. 13-19.
- Njuguna S.G. and V. Matiru. (2000). *Evaluation of Memoranda of Understanding between Kenya Wildlife Service and Partners with Special Reference to Monitoring*. Nairobi, Kenya.
- Njuguna, P., M. Mbegera and D. Mbithi. (1999). *Reconnaissance Survey of Forest Blocks in the West and East of the Rift Valley*. Permanent Presidential Commission on Soil Conservation and Afforestation (PPCSC&A), Nairobi, Kenya.
- Nkako, F.M. (1999). *Project Impacts Downstream and Natural Resource Use Conflicts: The Case of the Lower Tana Riverine Forests, Kenya*. a paper presented to the Regional Workshop on Conflict Management: Implication for Community Forestry. April 11<sup>th</sup> - 17<sup>th</sup>, 1999, Mombasa, Kenya.
- Price Waterhouse (1997) *Re-Organisation of the Management of Industrial Plantations and Restructuring Options for the Forest Department*, Nairobi, Kenya.
- Republic of Kenya (1999) *National Poverty Eradication Plan: 1999-2015*. Department of Development Co-ordination, Office of the President, Nairobi, Kenya.
- Seymour F.J., and N. K. Dubash. (2000) *The Right Conditions: The World Bank, Structural Adjustment, and Forest Policy Reform*. World Resources Institute, New York.
- UNESCO-WWF. (2000). *Crisis in the Kenyan Woodcarving Industry: Options for Ecological and Economic Sustainability*. Report on the Conference of the WWF-UNESCO "People and Plants Programme", 18<sup>th</sup> -19<sup>th</sup> September, 2000, Nairobi, Kenya.
- Wass, P. (Ed.) (1995). *Kenya's Indigenous Forests: Status, Management and Conservation*. IUCN and ODA, Gland, Switzerland and Cambridge, U.K.
- Wells, J., P. Siagga, I. Shao and G. Lonner (2000) *Construction Wood Market: Competing Demands for Renewable Natural Resources in the Context of Rapid Urbanisation*, Nairobi, Kenya.

# Annex: Case Studies and Analytical Framework

## **KAKAMEGA FOREST**

The Kakamega forest is a remnant of the Guineo-Congolian rainforest that is scattered across Uganda, Zaire and Kenya.

### **Objectives of the initiative:**

The sustainable management of the Kakamega forest for the benefit of biodiversity conservation and accrual of benefits to local communities adjacent to the forest.

### **Timeframe:**

The Kenya Indigenous Forest Conservation Programme of the British Overseas Development Authority started the initiative to conserve the forest and develop a system of sustainable use by zoning of the forest during 1990 to 1994 when KIFCON programme was abruptly ended. Some of the groups whose formation was facilitated by KIFCON continued activities in and around the forest, such as tree planting and ecotourism. In 1999, Nature Kenya, with funding from UNDP, began a project in the area. In addition, the International Centre for Insect Physiology and Ecology (ICIPE) is also promoting bee-keeping and ecotourism activities.

### **Key Beneficiaries**

Forest adjacent communities

### **Key Initiators/promoters/supporters**

KIFCON, Nature Kenya, UNDP and ICIPE

### **Major Outcomes to date**

The zoning of the forest into different resource use areas. The formation of community groups that engage in ecotourism, rehabilitation of degraded areas, bee-keeping and alternative farming methods, such as poultry keeping and zero grazing. A guide to the forest for visitors has been developed and an information centre established.

### **Key Constraints it has faced**

The termination of the KIFCON programme adversely affected efforts at developing strong communities groups and the promotion of sustainable utilization plans for the forest. The interests of urban-based saw millers, who have political influence, have made it difficult to develop systems for sustainably managing the forest. Cattle grazing, charcoal burning and the inappropriate collection of medicinal plants have resulted in the continued degradation of the forest.

### **Key opportunities and Key constraints**

The key opportunities include the chance to conserve this forest that has a high biodiversity (including several endemic birds and plant species) while at the same time benefiting communities living adjacent to the forest.

### **Lessons Learned**

The zoning of the forest was an attempt to apply many of the FLR principles in conserving the Kakamega forest. However, this initiative was hampered by political influences both at the local and national levels.

### **Added Value which could have been realised through adopting FLR approach**

Greater successes could have been realised if more attention had been paid to building consensus among the different stakeholders at the local and national levels. In addition, issues of building strategic partnerships should be further developed to ensure the success of this initiative. This initiative should also seek to influence the policy and legal environment at the national level to increase the chances of the success of an FLR approach.

## **THE ARABUKO SOKOKE FOREST INITIATIVE**

The Arabuko Sokoke Forest is the largest extant fragment of the forests that once covered much of the East African coast.

### **Objective of the Initiative**

The project aims at the sustainable management of the forest and to increase the benefits of the forest to the local community.

### **Timeframe**

The Arabuko Sokoke Forest Management and Conservation initiative was started in 1996. The initiative is funded for four years by the European Union.

### **Key Beneficiaries**

The beneficiaries of the initiative are the local communities living around the forest. Other beneficiaries include domestic and international tourists.

### **Key Initiators/Promoters/Supporters**

The Forest Department, the Kenya Wildlife Service and Birdlife International are implementing the project. They are being supported by the work of the Kipepeo butterfly project of the National Museums of Kenya and Nature Kenya (the Kenyan chapter of the East African Natural History Society).

There is an Arabuko Sokoke Forest Management Team, comprising of FD, KWS, the Kenya Forestry Research Institute and the National Museums of Kenya.

### **Major outcomes to date**

The local community produces butterfly pupae, using leaves from forest trees, for export to Europe and America. Building of an educational centre, promotion of Arabuko Sokoke Forest as a tourist destination, development of a draft management plan, reduction of forest degradation through ecotourism activities, creation of awareness among local communities.

### **Key constraints it has faced**

The high level of poverty within the area and the limited sources of income make the local community continue to lobby their politicians to allocate them the forestland for agriculture. Human wildlife conflicts, especially from crop raiding by elephants and monkeys, without any compensation continues to make the communities adjacent to the forest have a negative attitude towards the forest.

### **Key opportunities**

Key opportunities include availability of markets for the pupae, good location of the forest in one of the main tourist circuits in the country.

### **Lessons learned**

One of lessons learned from the initiative is that local communities are willing to participate in conservation initiative provided they get tangible benefits. This has contributed to conservation of the forest resources, and by extension forest functions. ,

### **Added Value which could have been realised through adopting FLR approach**

Different butterflies feed on different tree species. This initiative could therefore benefit by adopting the FLR concept through reforestation using trees preferred by the different butterflies. There is an enabling policy towards this. The only limitation may be funding of the activity.

## **MT. KENYA FOREST**

Mt. Kenya Forest is a solitary mountain of volcanic origin that consists of slightly over 200,000 hectares (ha). Its broad cone shape reaches an altitude of 5199 m with deep incised U-shaped valleys in the upper parts.

### **Objective of the Initiative**

To halt the destruction of the forest and develop a participatory management plan.

### **Timeframe**

The initiative was started in 2000 after the gazettelement of the Forest Reserve as a National Reserve under the management of the Kenya Wildlife Service. The initiative has a long time frame.

### **Key Beneficiaries**

The communities living around the forest, Kenyans and the international community.

### **Key Initiators/Promoters/Supporters**

The Kenya Wildlife Service is the key promoter of the initiative. KWS has requested for input from the Kenya Forest Working Group (KFWG) in the development of a management plan. UNESCO is funding the development of the plan.

### **Major outcomes to date**

Several community meetings have been held as initial steps towards the development of a management plan. The initiative has created a strategic partnership with the KFWG.

### **Key constraints it has faced**

Dispute between KWS and the communities about the boundaries of the National Reserve. Human-wildlife conflicts, strained relationship between KWS and the local communities, which makes it difficult to involve them in the joint management of the forest.

### **Key opportunities**

This is an important water catchment area that is rich in biodiversity. Therefore its conservation is an opportunity for the continued enjoyment of many service and goods provided by the forest.

### **Lessons learned**

The process of creating a participatory management plan is time consuming and filled with many challenges.

### **Added Value which could have been realised through adopting FLR approach**

There is still potential for the project to adopt an FLR approach since it is a relatively new initiative. By using an FLR approach, the initiative could its contribution to the conservation of the landscape, which includes privately owned farms.

## **THE MT. ELGON FOREST INTEGRATED CONSERVATION AND DEVELOPMENT PROJECT**

Mt. Elgon is a dormant volcanic mountain with an altitude of 4,320 meters above sea level that straddles the borders of Kenya and Uganda.

### **Objective of the Initiative**

Creating linkages and liaising with NGOs and other relevant development agencies to conserve the biodiversity of Mt. Elgon and develop the communities living adjacent the mountain.

### **Timeframe**

Since the late 1980s, IUCN was implementing a project on the Uganda side of the mountain. The project on the Kenya side was initiated in 1998.

### **Key Beneficiaries**

The communities living adjacent to the mountain.

### **Key Initiators/Promoters/Supporters**

IUCN with funding from the Royal Netherlands Government.

### **Major outcomes to date**

The project has initiated several on-farm activities in a bid to reduce pressure on the forest resources. These activities include bee-keeping, the production of soya beans, seed potato, onions and zero-grazing to reduce the level of grazing within the forest. The project has also engaged in rehabilitation planting within the forest in collaboration with the Forest Department.

### **Key constraints it has faced**

The project was initially designed as a 5-year project with the possibility of extending it to 10 years. However, due to changes in the objectives and priorities of the funding agency, it was reduced to 2 ½ years. Ethnic animosities among the different tribes surrounding the forest have made it difficult to create partnership with the local communities.

### **Key opportunities**

The project has been able to create some linkages with relevant development agencies, both government and NGOs, who it is hoped will continue with the IUCN initiative.

### **Lessons learned**

Community dynamics can make it difficult to organise and involve local communities in conservation and development agencies.

The illegality of the harvesting of certain products from the forest, such as timber and charcoal burning, makes it difficult to identify those individuals engaged in these activities so that strategies can be identified for addressing their needs and that way reduce their negative impacts on the resource base.

### **Added Value which could have been realised through adopting FLR approach**

By adopting an FLR approach, the project could have been able to draw lessons from the Uganda side of the forest, where there was an on-going project thereby enhancing its chances for success.

## **THE LAKE NAKURU COMMUNITY CONSERVATION PROJECT**

### **Objective of the Initiative**

To promote sustainable development based on sound conservation principles.

### **Timeframe**

WWF has been involved in conservation activities around Lake Nakuru and its catchment since 1974 when it purchased the land surrounding the Lake and presented it to the government for gazettelement. The community project was initiated in 1987.

### **Key Beneficiaries**

The communities living around the lake and in the catchment area.

### **Key Initiators/Promoters/Supporters**

WWF, KWS, the Local Authorities, the Wildlife Clubs of Kenya, Ministries of Environment and Natural Resources, KARI, the Local Administration, the Catholic Diocese and Egerton University.

### **Major outcomes to date**

Awareness creation among the local communities about the importance of conserving the lake and its catchment through the project's education programme. The project has also initiated the formation of Village Environment Committees, and facilitated the training of the members on sustainable agriculture methods.

### **Key constraints it has faced**

The lack of security of tenure of squatters occupying land belonging to absentee landlords makes them a difficult group to work with. Many of the community members living around the lake have cut down the trees on their farms due to small land holdings. The resultant soil erosion is a threat to the lake. Charcoal burning on-farms is prevalent because of communities' needs for a ready cash income.

### **Key opportunities**

The Village Environment Committees have become active and effective in monitoring and evaluating each other's initiatives on conservation, which increases the peer pressure for them to perform better. The greater capacity of community groups to work independently is an opportunity to promote a sustainable initiative.

### **Lessons learned**

There is need for the project to become more involved in lobbying and advocacy efforts on key policy and legal issues in order to create a better environment for conservation and community development.

### **Added Value which could have been realised through adopting FLR approach**

Although this initiative uses a landscape approach, it needed to have become more active in efforts to conserve the upper catchment of the Lake, especially the Mau complex, Eburu forest, Bahati and Menegai Highlands. Deforestation of the catchment, especially Eburu forest and the Mau Complex has impacted negatively on the flow of water into the lake and adversely affected communities living adjacent.

## **THE GREEN BELT MOVEMENT**

### **Objective of the Initiative**

To enhance communities awareness of the need for environmental conservation by using tree planting as its entry point.

### **Timeframe**

The Movement was started in the 1970s.

### **Key Beneficiaries**

Communities.

### **Key Initiators/Promoters/Supporters**

The initiator of the Movement was Prof. Wangari Maathai. The Movement receives financial support from various funding agencies and works in collaboration with the field offices of the Forest Department, who initially provided free seedlings before communities established their own nurseries.

### **Major outcomes to date**

By 1988, the Movement reported that it had created more than 600 tree nurseries in communities throughout the country and about seven million trees that were currently growing in Kenya were planted by Movement members.

### **Key constraints it has faced**

Many communities prefer exotic, fast growing tree species. The Movement has faced a challenge in convincing communities of the value of indigenous trees.

### **Key opportunities**

The Movement has been able to promote and harness local resources in tree planting both on-farm and on public lands.

### **Lessons learned**

With some persuasion and constant education, communities have begun to appreciate the short and long-term economic value of indigenous trees and even begin to search for these species themselves.

### **Added Value which could have been realised through adopting FLR approach**

If the Movement had used an FLR approach it would not have ignored some key land users, such as large-scale farmers, in its activities. By involving a wider range of stakeholders within a landscape, the Movement would have had more impact in restoring and maintaining the diverse range of forest functions within the landscape.

## **THE WOODLANDS TRUST**

### **Objective of the Initiative**

To create a sustainable and profitable tree products industry that contributes towards poverty alleviation, environmental conservation and increased biodiversity in semi-arid regions.

### **Timeframe**

The Woodlands Trust was established in 2000. In 2002, a pilot phase of the project was initiated in Kajiado, Machakos, Narok and Transmara.

### **Key Beneficiaries**

Land owners

### **Key Initiators/Promoters/Supporters**

Max Kinyanjui initiated the project and he's now working with Tamarind Management Limited – a hotel chain and Friends of Conservation. The Business Partnership Programme of the British Government Department of International Development (DFID) has provided a grant to the pilot project.

### **Major outcomes to date**

The Trust has been able to convince landowners in the semi-arid areas of Kitengela and Narok to plant trees on their land. The Trust's founder has a one-hectare demonstration farm where he has planted a wide variety of indigenous and exotic species to create a small forest. Landowners who visit the farm are requesting the Trust to assist them create similar multi-species 'forests' on their land. Some other landowners are preferring to plant fast growing exotics, which the Trust facilitates them get from the Forest Department's Millennium Nursery.

### **Key constraints it has faced**

Land tenure in the project area is mixed, consisting of individually titled land and communally held group ranches. The Trust has found that it is more difficult to deal with communally owned land, because of lack of clear decision-making structures within group ranches – which are necessary in convincing investment in long-term initiatives such as planting trees.

### **Key opportunities**

Interest has been generated among land owners in semi-arid areas to plant trees. By having the demonstration farm, landowners are able to see that it is possible to plant trees for a range of products and services, including food, fodder, fuel (firewood and charcoal), poles, timber, honey and medicines.

### **Lessons learned**

Poorly defined and insecure land tenure within arid and semi-arid areas remains one of the key constraints to promoting investment in forestry in these areas. Conversely, it is possible to promote land use models that can accommodate a range of agro-silvopastoral land uses within dry-lands of Kenya.

### **Added Value which could have been realised through adopting FLR approach**

The initiative could benefit by using a forest landscape approach that takes into consideration a broader catchment area. With an FLR approach, the Trust would make greater effort to address the constraints occasioned by communal land ownership systems, which would in turn result in lessons generated about how to promote land term investment within group ranches in different parts of the country.

## **THUIYA ENTERPRISES LIMITED: THE CHARCOAL PROJECT**

### **Objective of the Initiative**

To improve farmers' livelihoods by facilitating contract growing of wood for charcoal on farmers' land that would otherwise remain uncropped and idle.

### **Timeframe**

Thuiya Enterprises limited was registered as a company in 2001. It aims to have a long-term timeframe based on business principles and profit generation.

### **Key Beneficiaries**

Farmers in high to medium potential areas.

### **Key Initiators/Promoters/Supporters**

Dr. Frida Mugo started the initiative relying on her savings. In 2002, the Regional Land Management Unit (RELMA) of the Swedish International Development Agency (SIDA) gave Thuiya Enterprises Ksh. 500,000 to promote tree planting among farmers in Molo, which is a high potential area within the Rift Valley Province.

### **Major outcomes to date**

Thuiya Enterprises started its activities in August 2002 and within six months it had recruited and registered 150 farmers in Bondo District, Nyanza Province representing about 300 acres to grow trees. The Enterprise provides the farmers with the seedlings of their choice and seeds for food crops to be intercropped with the seedlings. A mixture of indigenous and exotic trees is to be planted, depending on the individual farmers' preference and on the agro-ecological zones they fall under. Thuiya Enterprise enters into contracts with the farmers that require the farmer re-pay the cost of the seedlings and the food crop seeds after they harvest their first crop. The Enterprise proposes to assist the farmers sell their crop.

### **Key constraints it has faced**

One of the key constraints has been to secure the necessary capital investment to facilitate farmers, who are usually relatively cash-poor, to initiate tree planting activities. The project's main focus is promoting tree growing for commercial fuelwood production. One constraint that can be fore seen is with regard to the current unclear policy on charcoal production and transportation, where it is considered illegal following presidential directives that aimed to reduce the level of destruction caused by charcoal. It is therefore difficult to market sustainably produced charcoal because there is no easy way to distinguish it from that which comes from government reserves or from the communally owned and fragile dry-land areas.

### **Key opportunities**

There has been substantial interest among organised community groups and individual farmers in planting trees. Therefore, with support for the production process and for marketing, farmers can be encouraged to plant trees which will contribute to poverty alleviation.

### **Lessons learned**

In many cases, farmers fail to grow trees because they do not have adequate information about the potential economic benefits they could get from them. Farmers often lack additional resources, over and above those necessary to meet their immediate needs, making them unable to invest in tree planting.

### **Added Value which could have been realised through adopting FLR approach**

This is a relatively new initiative that is using a unique in its approach based on business principles. Therefore, there is still potential for introducing and adopting an FLR approach. An FLR approach would make the initiative more effective in addressing the needs for forest products and goods within the landscape, over and above the current focus on fuelwood, and specifically on charcoal. By promoting only one product there is a danger of flooding the local market with the one product, which would in turn make the prices lower. By using an FLR approach the initiative could promote a wider range of tree species for a variety of timber and non-timber products, such as honey, resins, poles, timber, medicines and fuelwood. Currently, the initiative is mainly promoting the planting of tree species that are good for charcoal production.

## **BAMBURI NATURE TRAIL: BAMBURI CEMENT COMPANY**

### **Objective of the Initiative**

To reclaim and rehabilitate quarries after the production of cement.

### **Timeframe**

The Bamburi Cement Company started mining limestone in the 1950s. Rehabilitation efforts were initiated in the 1970s, and continue for newly excavated areas.

### **Key Beneficiaries**

The Cement Company, communities living adjacent to the company and tourists. Other initiatives, such as the Ngomongo Cultural Village, have benefited from the lessons learned by the Bamburi Company.

### **Key Initiators/Promoters/Supporters**

The Bamburi cement company has a subsidiary, the Baobab Farm, that was at the forefront of initiating and sustaining the rehabilitation exercise. In particular, Dr. R. Haller of the Baobab Farm played a key role in the rehabilitation.

### **Major outcomes to date**

There is now a thriving forest, nature trail and wetlands where there were once gaping holes in the ground. The nature trail has been stocked with indigenous and exotic plants and animals that act as a tourist attraction. The Trail is able to generate revenue from tourism to sustain its activities.

### **Key constraints it has faced**

Before the activities of Bamburi, there was little documented information on how to go about rehabilitating land that had been mined of limestone and that was located along the Coast. Lack of such information meant that a lot of experimentation had to be done, which was both expensive and time-consuming. The rehabilitation effort need a lot of investment, which would not have been possible without the support of the profit making arm of the Bamburi company.

### **Key opportunities**

The experiences of the Bamburi Cement Company present an invaluable source of inspiration and information both nationally and internationally about the possibilities and benefits of rehabilitating degraded areas.

### **Lessons learned**

Rehabilitation of degraded areas and reforestation efforts are long-term initiatives that require commitment and allocation of the necessary resources to make them successful. The benefits that accrue from restoring degraded areas are numerous.

### **Added Value which could have been realised through adopting FLR approach**

By adopting an FLR approach, Bamburi could be able to transfer the lessons it has learned to a broader area, including to local communities who live adjacent to the Cement Company.

### *Bamburi Nature Trail*

Located some 11 kilometres north of Mombasa, Bamburi Cement Company has set an example of corporate responsibility by reclaiming land that was degraded by its cement production. Bamburi Cement Company was started in the 1950s. It harvests coral limestone to make cement for the local and export market. Starting in the 1970s, the Baobab Farm, a subsidiary of Bamburi Cement Company started rehabilitating the abandoned quarries. Today, the Bamburi Nature Trail is a thriving forest and wetland where various plant and animal species co-exist in harmony with nature. It attracts many visitors throughout the year.

Source: Haller, R. & S. Baer (1994) *From Wasteland to Paradise* and *Ecoforum*, Vol 24, # 1

## **NGOMONGO CULTURAL VILLAGE**

### **Objective of the Initiative**

To reclaim and rehabilitate abandoned quarries and create a nature reserve to attract tourists.

### **Timeframe**

The rehabilitation of the quarries at the Ngomongo site was started in the early 1990s. It is now a tourist attraction at the Coast Province.

### **Key Beneficiaries**

Local and international tourists and the initiator of the project.

### **Key Initiators/Promoters/Supporters**

A Mombasa-based doctor, Dr. Gikandi, initiated the project.

### **Major outcomes to date**

The Ngomongo cultural village is currently a forested area with about 15,000 different types of exotic and indigenous plants and replicas of the homesteads of the different tribes of Kenya. The Village attracts local and international tourists from whom revenue is generated to sustain the project.

### **Key constraints it has faced**

The project has faced limited financial support from external sources, necessitating the initiator to spend his own resources.

### **Key opportunities**

The Ngomongo Village was modelled along the lines of the Bamburi Cement Nature Trail. The village therefore provides another example that others can learn from about the process of rehabilitating degraded areas and the potential benefits.

### **Lessons learned**

Many land rehabilitation initiatives require a visionary person with the necessary commitment to see the project through. The costs associated with rehabilitating degraded areas tend to be high and therefore require people with resources.

### **Added Value which could have been realised through adopting FLR approach**

By using an FLR approach, the project has the potential to involve a broader section of the adjacent community in restoring various forest functions that can benefit many people.

### *Ngomongo Village*

Ngomongo Village is the initiative of a Mombasa-based doctor, Fredrick Gikandi, and is another example of land reclamation. In the early 1990s, Ngomongo was made up of a series of abandoned quarries that had been left behind after limestone had been extracted for use as building material. Dr. Gikandi decided to follow the example of Bamburi Cement Company to reclaim the abandoned quarries. After about 13 years, the former wasteland had been turned into a forested area where the cultures of ten Kenyan tribes are represented through a reconstruction of their traditional homesteads. To date, about 15,000 new trees and plants have been planted in Ngomongo village. In 2001, Dr. Gikandi was named by UNEP to join the Global 500 Roll of Honour for Environmental Achievement, which is an award granted every year to people and organisations for outstanding achievements in the protection and improvement of the environment. Ngomongo village is now one of the tourist attractions at the Kenyan coast.

Source: *Ecoforum*

## **KAKUZI COMPANY**

### **Objective of the Initiative**

To diversify the types of products produced and hence enhance the company's profits. Kakuzi has for many years been associated with agricultural products and cattle farming. In 1992, the Company expanded into tree farming as a way to mark boundaries on its large farm, to put areas with poor soils to good use, and to diversify its product line. Although a variety of tree species are grown, eucalyptus is the main species of choice. Kakuzi produces building poles, posts and timber for the construction industry. The Company set up a charcoal production project to make efficient use of the waste off-cuts and smaller gauge logs left over from the forestry's division's main line of business – production of industrial timber. Permanent clay and metal dome kilns have been constructed to convert wood to charcoal in an efficient manner. The company is conducting trials on a machine for making charcoal briquettes, which would further reduce the waste from its timber operations.

### **Timeframe**

Kakuzi ventured into tree farming in 1992. The fact that the Company has invested in the plantations and in equipment for efficiently producing different tree products suggests its plans are long term.

### **Key Beneficiaries**

The Kakuzi Company's shareholders and consumers of its product.

### **Key Initiators/Promoters/Supporters**

The company management.

### **Major outcomes to date**

Kakuzi has been able to establish exotic plantations for the production of timber, poles and charcoal. The company has installed charcoal kilns that are more efficient in producing charcoal than the traditionally used earthen kiln. Charcoal produced from Kakuzi is marketed in the open market.

### **Key constraints it has faced**

The lack of a clear policy on charcoal has presented a constraint to Kakuzi's customers, who are often harassed by government officials when transporting charcoal from the company. The fact that there is no certification system, to assist in differentiating between charcoal that is sustainably produced from that being produced from government reserves and unsustainably from the dry-land areas of Kenya has made Kakuzi withdraw from transporting its charcoal to markets closer to the consumers – it now requires buyers themselves to transport the charcoal from the company. The market distortions that result from charcoal coming from trees that are either stolen from government Forest Reserves or from the communal trust land areas means that Kakuzi's profit margins are lower than if the true value of charcoal was reflected in the pricing structure.

### **Key opportunities**

Kakuzi has set an example of private sector involvement in plantation forests, which were largely the preserve of the government in the past.

### **Lessons learned**

There is need to review the policies and laws that impact on different forest products so that they can be in line with the current realities in Kenya and so that they can encourage the sustainable management, use and conservation of forest resources.

### **Added Value which could have been realised through adopting FLR approach**

Kakuzi could have assisted surrounding communities to initiate similar forestation projects so that they can increase the number and variety of forest products and services they can get.

**Framework for national reviews of current initiatives in forest regeneration  
MOUNT KENYA NATIONAL RESERVE**

Name: Mount Kenya National Reserve
Type: Protected area in a forest found in a high potential area
Location: Mount Kenya
Start Date: 2000
Implementing Agency: The Kenya Wildlife Service
Collaborating and/or Funding Agencies: Forest Department, the Kenya Forest Working Group. UNESCO is providing funding

Parameter	Score	Details/comments
1 Landscape approach <i>With regard to both scale and the concept of interactions within the landscape</i>	+	In July 2000, the Mount Kenya Forest Reserve was gazetted to be under the management of the Kenya Wildlife Service. The Reserve has an area of 199,500 ha. The upper part of the mountain (715 ha.) was already under KWS as the Mt. Kenya National Park (making a total of 200,215 ha.). The forest is important as a water catchment, in biodiversity, timber and non-timber products and in its potential for tourism ventures.
2 Recognition of forest functionality <i>As opposed to just "forestry" or simply "reforestation"</i>	+	Attempts are being made by KWS to recognise a broader range of forest functionality. However, traditionally (and still to a large extent) KWS focuses mainly on biodiversity, wildlife conservation and tourism.
3 Attempt to balance forest function trade-offs within the landscape	+	KWS is attempting to balance these functions, e.g. it has requested for the Kenya Forests Working Group (an inter-agency lobby and advocacy group) to assist it in the preparation of a management plan that will take into consideration the socio-economic and biological functions of the forest.
4 Acceptable balance between the two filters Of ecological integrity and human well-being	0	It is yet to be determined whether KWS will come up with an acceptable balance between the two filters. However, due to its previous track record, KWS is likely to lean more towards biodiversity conservation than human-well being functions.
5 Consensus building – i.e. with respect to balancing the filters <i>More than just consultation.</i>	0	Consultation and consensus building is wholly at the discretion of KWS which raises questions about the type and level of consensus that will result.
6 Use of the right package implementation of tools/ approaches	0	To date KWS has used the protectionist approach at Mount Kenya (of removing all people using the forest and not allowing any kind of harvesting of timber and non-timber products). This was seen as necessary due to the extensive level of degradation that had already occurred. It is hoped that through the development of a management plan in a participatory and consultative manner this will lead to the use of a broader package of approaches.
7 Seeking out and development of strategic partnerships	+	Yes, especially through its request to the Kenya Forest Working Group. However the relationship between KWS and the Forest Department is quite strained, especially with regard to the Mount Kenya forest since it is felt that KWS "took" it away from the Forest Department. In addition, the extent to which the private sector, such as saw miller who used the forest will be involved is most likely going to be limited. Other illegal users of the forest, such as charcoal producers will most probably not be involved, at least not to continue their activities.
8 Long-term timeframe	+	This is a relatively new initiative but the development of a management plan should result in a long-term timeframe. Also due to the fact that the forest is now legally protected under the KWS, it will be a long-term initiative.

Key

++	very supportive	+	quite supportive
0	neutral	-	quite prohibitive/not supporting FLR

**Framework for national reviews of current initiatives in forest regeneration  
MOUNT ELGON**

Name: Mount Elgon Forest
Type: Mount forest
Location: at the border between Kenya and Uganda
Start Date: 1998
Implementing Agency: IUCN
Collaborating and/or Funding Agencies: KWS, FD and the local authority

Parameter	Score	Details/comments
1 Landscape approach <i>With regard to both scale and the concept of interactions within the landscape</i>	+	The initiative focuses on the Kenya side of the forest with another separate initiative on the Uganda side of the forest. There has been limited collaboration between the initiatives on the two countries.
2 Recognition of forest functionality <i>As opposed to just "forestry" or simply "reforestation"</i>	+	The project has tended to focus on creating alternative sources of key forest products, such as fuelwood by promoting on-farm tree planting and bee-keeping activities to enhance the income levels of communities living next to the forest so as to reduce pressure on the forest.
3 Attempt to balance forest function trade-offs within the landscape	+	By promoting on-farm activities that reduce pressure on the forest, the project recognises the need for trade-offs within the landscape.
4 Acceptable balance between the two filters Of ecological integrity and human well-being	+	The project tends to focus more on the human well-being side of the balance and not enough on the ecological integrity of the forest. Logging of specific species of trees in the forest (especially Elgon teak) by powerful individuals has continued to be a challenge for the project.
5 Consensus building – i.e. with respect to balancing the filters <i>More than just consultation.</i>	+	It has been difficult to build consensus among the communities living around the forest because of their high expectations for development assistance, without due consideration for the aims of the project, which include the conservation of the forest resource.
6 Use of the right package implementation of tools/ approaches	+	Some tools have been used but not others - e.g. lobbying for a more conducive policy and legal environment has not been adequately done. In addition, the project still seems to be viewed as an IUCN project with a limited sense of ownership of the project by the other stakeholders, who seem to expect material and financial benefits from the implementing agency without a requisite commitment on their side.
7 Seeking out and development of strategic partnerships	+	The partnerships that have been formed are still weak and are unlikely to continue with the initiative if IUCN was to withdraw its assistance.
8 Long-term timeframe	+?	The timeframe of the project has been significantly uncertain due to lack of a sure source of funding. Initially, the project was meant to run for ten years, which was reduced to 2 and a half years by the funding agency. The project funding has recently run-out and efforts are still on-going to raise additional funds.

Key

- ++ very supportive
- + quite supportive
- 0 neutral
- quite prohibitive/not supporting FLR

**Framework for national reviews of current initiatives in forest regeneration**

**ARABUKO SOKOKE FOREST**

Name: Arabuko Sokoke Forest
Type: Coastal forest
Location: Coast Province of Kenya
Start Date: 1996
Implementing Agency: National Museums of Kenya
Collaborating and/or Funding Agencies: KWS, FD, Nature Kenya, Birdlife International - funding agency

Parameter	Score	Details/comments
1 Landscape approach <i>With regard to both scale and the concept of interactions within the landscape</i>	0	The project focuses on the forest and the surrounding households. It does not have a landscape approach, per se.
2 Recognition of forest functionality <i>As opposed to just "forestry" or simply "reforestation"</i>	+	The project focuses on creating alternative sources of income for the surrounding communities to reduce pressure on the forest. Butterfly rearing and bee-keeping are some activities encouraged and promoted for communities.
3 Attempt to balance forest function trade-offs within the landscape	+	By attempting to increase the income-generating options of communities living around the forest while promoting the conservation of the forest through restricted exploitation of forest resources, the project attempts to balance the trade-offs.
4 Acceptable balance between the two filters Of ecological integrity and human well-being	+	See above
5 Consensus building – i.e. with respect to balancing the filters <i>More than just consultation.</i>	+	The project has attempted to involve the local communities and the key government agencies in drawing up a management plan for the forest.
6 Use of the right package implementation of tools/ approaches	+	By attempting to build consensus and greater involvement of communities and the different government agencies, the project is using a wide variety of tools and approaches. Environmental education and the promotion of eco-tourism are other approaches the project is using.
7 Seeking out and development of strategic partnerships	+	The project has attempted to build strategic partnerships between the community, NGOs and government agencies working in the area.
8 Long-term timeframe	+	The project was funded for a four-year period by the EU. However, it is yet to secure long-term funding.

**Key**

- ++ very supportive
- + quite supportive
- 0 neutral
- quite prohibitive/not supporting FLR

## Framework for national reviews of current initiatives in forest regeneration

### KAKAMEGA FOREST

Name: Kakamega Forest
Type: Rain forest
Location: Kakamega District, Western Province of Kenya
Start Date: 1990-1994 and 1998 to date
Implementing Agency: Nature Kenya
Collaborating and/or Funding Agencies: ICIPE, KWS, FD, County Council and UNDP-GEF- funding agency

Parameter	Score	Details/comments
1 Landscape approach <i>With regard to both scale and the concept of interactions within the landscape</i>	0	The project focuses on the four forest blocks that make up the Kakamega forest. These blocks include indigenous and plantation forests and areas that were cleared for tea but were never planted. It also works with communities living adjacent to the forest.
2 Recognition of forest functionality <i>As opposed to just "forestry" or simply "reforestation"</i>	+	The project builds upon the zoning that had been done by KIFCON of areas important for conservation (the Nature Reserves) and other areas where sustainable use of forest resources is implemented.
3 Attempt to balance forest function trade-offs within the landscape	+	The project attempts to provide alternative sources of income for surrounding communities to reduce the pressure on the forest and income generating activities that do not adversely affect the conservation of the forest, such as eco-tourism and bee keeping.
4 Acceptable balance between the two filters Of ecological integrity and human well-being	+	The project focuses on the two
5 Consensus building – i.e. with respect to balancing the filters <i>More than just consultation.</i>	+	The project works with communities groups that are ready to participate in sustainably managing the project. However, it has been difficult to constructively involve stakeholders engaged in unsustainable practices, such as saw milling, illegal hunting and grazing of livestock.
6 Use of the right package implementation of tools/ approaches	+	The project uses a package of approaches including support to the economic well-being of communities, education and the promotion of ecotourism ventures. It also seeks to identify and work with the different stakeholders.
7 Seeking out and development of strategic partnerships	+	Currently, the project is working with all the key government institutions and NGOs operating in and around the forest.
8 Long-term timeframe	+	Uncertainties about securing long-term funding make the project's long term prospects difficult. However, by involving the different stakeholders in sustainable activities, the project hopes to have a long-term impact that can be sustained by the stakeholders.

#### Key

- ++ very supportive
- + quite supportive
- 0 neutral
- quite prohibitive/not supporting FLR

**Framework for national reviews of current initiatives in forest regeneration  
NGONG ROAD FOREST SANCTUARY**

Name: Ngong road forest sanctuary
Type: Urban forest
Location: Nairobi
Start Date: 1990s
Implementing Agency: the Ngong Road Forest Sanctuary Trust
Collaborating and/or Funding Agencies: KWS, FD, the Kenya Forests Working Group, the Karen-Langata Residents Association

Parameter	Score	Details/comments
1 Landscape approach <i>With regard to both scale and the concept of interactions within the landscape</i>	0	The Trust is in the process of negotiating with the government for the inclusion of another section of the forest that is currently not under the direct management of the trust but was originally part of the forest block.
2 Recognition of forest functionality <i>As opposed to just "forestry" or simply "reforestation"</i>	+	The Trust hopes to manage the forest for recreational, scientific and sustainable use of the forest resources.
3 Attempt to balance forest function trade-offs within the landscape	+	The trust recognises that pressure from adjacent communities will have an impact on the forest and is therefore seeking for ways to promote the economic well-being of these communities through the provision of alternative income-generating activities.
4 Acceptable balance between the two filters Of ecological integrity and human well-being	+	This is yet to be realised since this is a relatively new initiative
5 Consensus building – i.e. with respect to balancing the filters <i>More than just consultation.</i>	+	Members of the Trust lobbied to have all key stakeholders involved in decision-making about the management of the forest. The Trust is composed of all key government institutions in addition to organised community groups and concerned individuals. The Trust is currently developing strategies on how to include all stakeholders, such as poor communities living around the forest involved in its management.
6 Use of the right package implementation of tools/ approaches	+	These approaches have included lobbying and advocacy, media campaigns to highlight the importance of the forest and the threats it was facing, community organising and fund raising.
7 Seeking out and development of strategic partnerships	+	The Trust has successfully managed to involve key government institutions that were previously involved in the degradation of the forest. In addition, the initiative is seeking to work with communities who use the forest for a wide range of functions, including subsistence. However, how to work with people who poach trees for the carving industry is still a challenge. It is not clear whether the Trust will allow the harvesting of trees for timber or for wood carving.
8 Long-term timeframe	++	The formation of the Trust is one of the strategies to ensure that this is a long-term project.

**Key**

- ++ very supportive
- + quite supportive
- 0 neutral
- quite prohibitive/not supporting FLR

**Framework for national reviews of current initiatives in forest regeneration  
LAKE NAKURU COMMUNITY CONSERVATION PROJECT**

Name: Lake Nakuru Community Conservation Project
Type: Integrated Conservation and community development project
Location: Lake Nakuru and its catchment
Start Date: WWF has been active around Lake Nakuru since 1974. The Community Development project started in 1987.
Implementing Agency: WWF
Collaborating and/or Funding Agencies: KWS, Local Authorities, Schools and private sector organisations

Parameter	Score	Details/comments
1 Landscape approach <i>With regard to both scale and the concept of interactions within the landscape</i>	+	The project uses a landscape approach but it is also expanding its mandate to include more areas of within the catchment of the Lake. The project addresses the interactions within the landscape both on-farm, the Nakuru municipality and around the lake ecosystem.
2 Recognition of forest functionality <i>As opposed to just “forestry” or simply “reforestation”</i>	+	The project promotes reforestation and conservation of existing trees as a way to enhance the conservation properties of trees both on-farm and in the catchment area.
3 Attempt to balance forest function trade-offs within the landscape	+	By working with communities to enhance their ability for sustainable agriculture and by implementing measures to curb human-wildlife conflict, the project addresses the well-being of humans while promoting the conservation of the lake and the surrounding resources.
4 Acceptable balance between the two filters Of ecological integrity and human well-being	+	See above
5 Consensus building – i.e. with respect to balancing the filters <i>More than just consultation.</i>	+	The formation of relatively autonomous Village Environment Committees has enhanced the project’s ability to create genuine consensus among communities living within its area of operation.
6 Use of the right package implementation of tools/ approaches	+	The project uses training, environmental monitoring, education, awareness creation and the provision of support for community development as some of the tools to enhance conservation and community development.
7 Seeking out and development of strategic partnerships	+	The project works with a wide range of stakeholders in a partnership to reduce pressure on the lake ecosystem and enhance the economic development of the community. The project is seeking to expand its partnership with other stakeholders in the catchment area of the lake.
8 Long-term timeframe	++	The project has been in operation for the past 10 years with good prospects for continuation.

**Key**

- ++ very supportive
- + quite supportive
- 0 neutral
- quite prohibitive/not supporting FLR

**Framework for national reviews of current initiatives in forest regeneration**  
**THE GREEN BELT MOVEMENT**

Name: The Green Belt Movement
Type: Community tree planting both on-farm and on public land, such as in schools and parks
Location: different parts of the country but mainly in high potential areas
Start Date: The project was started in the 1970s as a project of the National Council of Women of Kenya (NCWK)
Implementing Agency: The Green Belt Movement (an NGO)
Collaborating and/or Funding Agencies: Various

Parameter	Score	Details/comments
1 Landscape approach <i>With regard to both scale and the concept of interactions within the landscape</i>	0	The Movement focuses on tree planting on-farm and on public land, such as in schools and parks.
2 Recognition of forest functionality <i>As opposed to just "forestry" or simply "reforestation"</i>	+	The Movement has as one of its objective the provision of sources of fuelwood, building materials, fodder and soil conservation. It works with communities who have been experiencing scarcity of these forest products and a reduction in functions provided by trees and forests.
3 Attempt to balance forest function trade-offs within the landscape	0	
4 Acceptable balance between the two filters Of ecological integrity and human well-being	+	Trees planted serve to improve human well-being while providing ecological functions, such as soil conservation and aesthetics.
5 Consensus building – i.e. with respect to balancing the filters <i>More than just consultation.</i>	+	The main entry point of the Movement are women's groups, who establish nurseries and plant trees on their farms and in public places within the community. These groups chose the types of trees based on their needs while the Movement also tries to encourage them plant a mix of indigenous and exotic species.
6 Use of the right package implementation of tools/ approaches	+	Some of the approaches used include community mobilization and ownership of the Movement's activities. The Movement has also been very active in lobbying against government actions that destroy gazetted forests through petitions, advocacy campaigns, through the media (both nationally and internationally) and networking with NGOs working on forest issues.
7 Seeking out and development of strategic partnerships	+	The Movement works in collaboration with field offices of the Forest Department, which provides some seedlings and technical advise. The Movement is also active in NGO networks. However, the Movement acknowledged that it has not made any efforts to reach large-scale farmers in its activities.
8 Long-term timeframe	+	The fact that the communities directly implement their activities that are based on their needs, the Movement has had a long term impact. Other organisations have also initiated activities similar to those of the Movement, for example, the Maendeleo ya Wanawake and other NGOs.

**Key**

- ++ very supportive
- + quite supportive
- 0 neutral
- quite prohibitive/not supporting FLR

**Framework for national reviews of current initiatives in forest regeneration**

**THE WOODLANDS TRUST**

Name: The Woodlands Trust
Type: Partnership between a Trust, a private sector institution and a funding agency to promote tree planting in semi arid areas of Kenya
Location: The pilot phase of the project is being implemented in Kajiado, Machakos, Narok and Transmara
Start Date: The pilot phase was started in 2002
Implementing Agency: The Woodlands Trust and the Tamarind Management Limited (a private sector hotel company)
Collaborating and/or Funding Agencies: The Business Partnership Programme of the British Government Department of International Development (DFID)

Parameter	Score	Details/comments
1 Landscape approach <i>With regard to both scale and the concept of interactions within the landscape</i>	0	The project is encouraging individual land owners to plant trees.
2 Recognition of forest functionality <i>As opposed to just "forestry" or simply "reforestation"</i>	+	The project's demonstration plot showcases different types of trees (both indigenous and exotic) for different forest functions ranging from timber, fuel, honey, medicinal purposes and for regulating the local climate.
3 Attempt to balance forest function trade-offs within the landscape	+	Although the project is not directly targeting a landscape type of scale, it demonstrates that there can be forest function trade offs within a large area.
4 Acceptable balance between the two filters Of ecological integrity and human well-being	++	The project encourages the planting of trees for ecological functions as well as a source of revenue.
5 Consensus building – i.e. with respect to balancing the filters <i>More than just consultation.</i>	++	Through dialogue with the potential tree growers, the project encourages consensus building, since the farmer is expected to meet a 50% portion of the costs for planting the trees.
6 Use of the right package implementation of tools/ approaches	+	The project could a wider range of approaches, especially to encourage communally owned Group Ranches to become involved. Currently, the project is concentrating more on individually owned farms, which it has found easier to work with.
7 Seeking out and development of strategic partnerships	+	The partnership between a Trust, a private sector company, a funding agency and the farmers illustrates the building of strategic partnership.
8 Long-term timeframe	++	By requiring farmers to meet the costs of planting trees (through a loan scheme) and facilitating them choose the type of tree to plant, the project has a long-term perspective.

**Key**

- ++ very supportive
- + quite supportive
- 0 neutral
- quite prohibitive/not supporting FLR

**Framework for national reviews of current initiatives in forest regeneration**

**THUIYA ENTERPRISE**

Name: Thuiya Enterprise
Type: Business enterprise
Location: High potential areas in Nyanza and Rift Valley Province
Start Date: 2001
Implementing Agency: Thuiya Enterprises Limited
Collaborating and/or Funding Agencies: Individual savings of the initiator and the Regional Land Management Unit of the Swedish International Development Agency (SIDA)

Parameter	Score	Details/comments
1 Landscape approach <i>With regard to both scale and the concept of interactions within the landscape</i>	0	The project is targeting individual farmers who have shown an interest in planting trees
2 Recognition of forest functionality <i>As opposed to just “forestry” or simply “reforestation”</i>	-	The project is focusing on only one product, fuelwood and specifically charcoal production
3 Attempt to balance forest function trade-offs within the landscape	-	The project has not attempted to promote a wide range of forest products and services, either on the individual farms or at the landscape level.
4 Acceptable balance between the two filters Of ecological integrity and human well-being	0	By promoting the planting of trees, the project is likely to positively impact on ecological integrity – depending on the suitability of the trees for the different zones. The potential profits from the sale of the trees will enhance the human well-being component.
5 Consensus building – i.e. with respect to balancing the filters <i>More than just consultation.</i>	+	Since the project is entering into contractual agreements with consenting farmers, there is an inbuilt level of consensus building in the process it is using to encourage tree planting. However, by only promoting tree planting for fuelwood purposes, the quality of the consensus is compromised – in that if the farmers were given more information about the other products and services they could get from planting different types of trees, they might choose to plant other trees than those the project is promoting for other products and services than fuelwood.
6 Use of the right package implementation of tools/ approaches	0	The project is using a limited set of tools and approaches – those of focusing on the profit potentials of one forest product.
7 Seeking out and development of strategic partnerships	+	The partnership being developed between Thuiya Enterprises and the farmers is strategic. RELMA’s involvement in the project also suggests attempts at developing strategic partnerships.
8 Long-term timeframe	+	The project is guided by the realisation that fuelwood is going to be an important commercial commodity because of the fast rate at which existing sources are being depleted. Therefore, from a long-term perspective the project stands to benefit the participating farmers.

Key

++	very supportive	+	quite supportive
0	neutral	-	quite prohibitive/not supporting FLR

**Framework for national reviews of current initiatives in forest regeneration**  
**BAMBURI CEMENT COMPANY: NATURE TRAIL**

Name: Bamburi Cement Company: Nature Trail
Type: Private Company rehabilitation of areas degraded by its mining activities
Location: Coast Province
Start Date: The company was started in the 1950s while the rehabilitation efforts were started in the 1970s
Implementing Agency: The Baobab Farm, which is a subsidiary of the Bamburi Cement Company
Collaborating and/or Funding Agencies: the Bamburi Company

Parameter	Score	Details/comments
1 Landscape approach <i>With regard to both scale and the concept of interactions within the landscape</i>	0	Although the area that has been rehabilitated is quite large due to the extent of the company's mining activities, the initiative does not particularly target a landscape in its activities.
2 Recognition of forest functionality <i>As opposed to just "forestry" or simply "reforestation"</i>	+	The initiative promote a wide range of forest functions by the diversity of plants and animals introduced and the types of ecosystems created, such as wetlands and areas being reforested with indigenous trees.
3 Attempt to balance forest function trade-offs within the landscape	+	By introducing the different types of plants and animals, the initiative attempts to balance forest function trade-off e.g. between exotic plantations for timber and the unique ecological functions of indigenous forests.
4 Acceptable balance between the two filters Of ecological integrity and human well-being	+	The project is self-supporting through the revenue generated by tourism while at the same time it promotes ecological integrity.
5 Consensus building – i.e. with respect to balancing the filters <i>More than just consultation.</i>	0	Since the initiative was implemented by a single company the only consensus that was sought and/or needed was between the profit-making arm of the company and the people directly involved in the rehabilitation exercise.
6 Use of the right package implementation of tools/ approaches	0	Apart from the technical aspects of rehabilitation, the initiative has not needed to use a wide range of approaches, such as participatory approaches involving communities.
7 Seeking out and development of strategic partnerships	0	The initiative has been largely supported internally by the company due to the fact that the necessary financial resources and commitment were generated within the company. Currently, the project has developed some strategic partnerships with those wanting to learn from its experiences and with the international media, which has documented the experiences of Bamburi for a wider audience
8 Long-term timeframe	+	The Company expects to be mining in the area and in adjacent areas for a long time and it proposes to rehabilitate newly excavated areas in a similar manner.

**Key**

- ++ very supportive
- + quite supportive
- 0 neutral
- quite prohibitive/not supporting FLR

**Framework for national reviews of current initiatives in forest regeneration**  
**NGOMONGO CULTURAL VILLAGE**

Name: Ngomongo Cultural Village
Type: Private Individual initiative to rehabilitate abandoned quarries and develop a tourism venture
Location: Coast Province
Start Date: 1990s
Implementing Agency: An Individual Effort, Dr. Gikandi
Collaborating and/or Funding Agencies: Private resources

Parameter	Score	Details/comments
1 Landscape approach <i>With regard to both scale and the concept of interactions within the landscape</i>	0	The initiative was localised to an area with abandoned quarries that had been left behind after the extraction of building stones.
2 Recognition of forest functionality <i>As opposed to just "forestry" or simply "reforestation"</i>	+	The Village encompasses a wide range of exotic and indigenous plants supporting a variety of ecosystem types. The use of the Village as a tourism attraction has enhanced both its ecological functions and its use as a source of revenue.
3 Attempt to balance forest function trade-offs within the landscape	0	See above
4 Acceptable balance between the two filters Of ecological integrity and human well-being	++	The project attempts to restore ecological integrity while generating revenue
5 Consensus building – i.e. with respect to balancing the filters <i>More than just consultation.</i>	0	This was an individual's enterprise and therefore there has not been need to develop consensus with any other entities.
6 Use of the right package implementation of tools/ approaches	0	See above
7 Seeking out and development of strategic partnerships	0?	The initiator of the project has been appealing for support from individuals and institutions both nationally and internationally in a bid to expand the project and also to promote the concept to other areas and to local communities. However, to date, the project remains pretty much an individual's effort. The United Nations Environment Programme has recognised Dr. Gikandi's efforts by awarding him the Global 500 Roll of Honour for Environmental Achievement. This resulted in a larger audience knowing about his initiative and hopefully will generate more interest in others developing strategic partnerships with the Village.
8 Long-term timeframe	+	The fact that the Village has become a self-sustaining venture augurs well for its sustainability.

Key

++	very supportive	+	quite supportive
0	neutral	-	quite prohibitive/not supporting FLR

**Framework for national reviews of current initiatives in forest regeneration**

**KAKUZI COMPANY**

Name: Kakuzi Company
Type: Private Company
Location: Thika
Start Date: Kakuzi was established in the 1950s. The forest plantations were established in the 1980s
Implementing Agency: Kakuzi company
Collaborating and/or Funding Agencies: Kakuzi Company

Parameter	Score	Details/comments
1 Landscape approach <i>With regard to both scale and the concept of interactions within the landscape</i>	0	The company has invested in plantation forests as a means of diversifying their products and generating more revenue
2 Recognition of forest functionality <i>As opposed to just "forestry" or simply "reforestation"</i>	0	The company has focused on a limited number of forest functions i.e. timber and fuelwood
3 Attempt to balance forest function trade-offs within the landscape	0	See above
4 Acceptable balance between the two filters Of ecological integrity and human well-being	0	Although the company's main focus is profits, it promotes the ecological integrity within its farm, e.g. care is taken to ensure that the farm's indigenous tree species are not harvested for timber or charcoal.
5 Consensus building – i.e. with respect to balancing the filters <i>More than just consultation.</i>	0	The decisions to plant trees are made within the company, therefore there is no need to build consensus with anybody else but those within the company.
6 Use of the right package implementation of tools/ approaches	-	The company has not attempted to use a variety of tools or approaches, such as promoting tree planting among the surrounding farming communities.
7 Seeking out and development of strategic partnerships	-	See above
8 Long-term timeframe	0	The company may or may not continue investing in its plantations, depending on how profitable they prove to be.

**Key**

- ++ very supportive
- + quite supportive
- 0 neutral
- quite prohibitive/not supporting FLR

**Framework for national reviews of policies affecting forest regeneration  
KENYA FORESTRY DEVELOPMENT POLICY, 2000**

Name:	Kenya Forestry Development Policy, 2000
Date (timeframe):	2000
Type/belonging to, or made by who:	The Forest Department in collaboration with other stakeholders, such as NGOs, communities and the private sector.
Key beneficiaries:	The Forest Department

Parameter	Score	Additional information/discussion
1) Is it directly or indirectly related to forest regeneration	+	E.g. The government will promote tree planting and land rehabilitation by natural regeneration for wood production as well as for the protection of soil and water resources and sequestration of CO <sub>2</sub> . (p.36)
2) Landscape approach: <i>Is there reference to the importance / relevance of a landscape perspective?</i>	0	This is strongly implied. The policy highlights the need to sustainably manage and use both indigenous and plantation forests for ecological, economic, scientific, social and cultural purposes in a holistic and integrated manner (p.8 & p. 9)
3) Forest Functions: <i>Does it acknowledge/ support the idea of restoring forest functionality</i>	+	Through tree planting and natural regeneration to enhance forest functionality. The Policy states “The Government will endeavor to promote tree planting and land rehabilitation by natural regeneration for wood production as well as for positive environmental impact such as protection of soil and water resources, and sequestration of atmospheric carbon dioxide. The environmental effects of tree planting should be assessed in relation to all benefits. In addition, urban forestry and the management of indigenous vegetation that enhance the beauty and value of human habitation and settlement will be promoted. (p. 36)”
4) If so, which forest functions does it support the restoration of in particular	++	Wood production, soil and water catchment protection, sequestration of CO <sub>2</sub> , aesthetics, ecotourism - p. 36 Farm forestry, sustainable management of riverine forests, (p. 6); biodiversity of indigenous forests, and the ecological, economic, scientific, social and cultural values that have been eroded through the destruction of indigenous forests (p.8)
5) Forest Function Tradeoffs level: <i>Does it support making forest function trade-offs at the landscape level</i>	+	Forests will be managed for extractive and non-extractive uses with trade-offs being made, e.g. some indigenous forests will be managed for multi-purpose use which combines biodiversity conservation and water catchment functions with limited productive uses (p. 9).
6) Two filters: <i>Does it acknowledge the role of forest functions in support of human well-being?</i>	++	The objectives of the policy (p. 3) include to increase forest and tree cover in the country in order to ensure an increasing supply of forest products and services for meeting basic needs of present and future generation and for enhancing the role of forestry in socio-economic development; to contribute to poverty reduction, employment creation and to promote equity through community participation (p. 4).
7) Devolving decision-making: <i>Does it support/encourage devolving key decision-making to the local level</i>	++	E.g. Innovative forms of indigenous forest management should be introduced, particularly those models that empower local communities to conserve indigenous forests on state land and use them in a sustainable manner (p. 9). The Policy acknowledges that in the past it has been characterised by over centralised decision-making management, particularly in industrial wood production (P. 22). The Forest Department’s role will be policy matters and regulating and monitoring the performance of executing bodies in the forestry sector (P. 23)

8) Consensus building: <i>Is there flexibility for negotiations aimed at building informed and genuine consensus about forest restoration?</i>	+	There will be a policy review and long-term strategic planning unit within the FD (p. 24) A consultative body will be established to advise the Director of Forestry (p. 24).
9) Strategic partnerships: <i>Does it support / encourage the development of strategic partnerships for more effective environment management?</i>	+	The FD will make proposals, in consultation with other agencies and organisations on how forestry related institutions can be supported and developed (p. 25)
10) Halting Pressure: <i>Does it attempt to halt pressure that reduces functionality (or could it be making matters worse)?</i>	++	Through policy harmonisation, land use changes shall be made to promote afforestation, farm forestry and to protect forests with cultural values, biodiversity, and water catchment. Excisions of gazetted forests will be limited to cases of public utility, for which suitable inter-sectoral and local consultation procedures will be established. Environmental Impact Assessments shall be made before changes in land-use (p. 32) Awareness creation, including in schools, will be done to create the capacity of the public on forestry development (p. 36)
11) Innovation: <i>Does it support or encourage new ideas/approaches (or is it rigid and prescriptive)</i>	++	E.g. Innovative forms of indigenous forest management should be introduced (p. 9); Up-to-date and holistic development of forestry shall be promoted through research and dissemination of research findings (p. 35)
12) Multi-sectoral linkage: <i>Does it provide strong links to other sectoral goals and strategies – which ones</i>	+	The Forest Department will come up with mechanisms to ensure inter-agency co-ordination (p. 24) The FD will co-ordinate the harmonisation of various sectoral policies (p.24)

#### Key

- ++ very supportive
- + quite supportive
- 0 neutral
- quite prohibitive/not supporting FLR

#### Key Opportunities

The policy's acknowledgement of the need to address both gazetted and non-gazetted forests and other types of woody vegetation in addition to closed canopy forests, such as trees in Arid and Semi-arid areas.

#### Key Constraints

The policy is yet to be operational.

#### Institutional Considerations

The policy proposes the establishment of a Kenya Forest Service that would be similar to the Kenya Wildlife Service. This Service would be a parastatal with more autonomy and ability to seek for financial support from a diverse range of sources.

**Framework for national reviews of policies affecting forest regeneration**

**THE WATER POLICY**

Name:	Sessional Paper No. 1 of 1999 on the National Policy on Water Resources Management and Development
Date (timeframe):	April, 1999
Type/belonging to, or made by who:	The Water Department in the Ministry of Water Resources
Key beneficiaries:	The Water Department and all Kenyans

Parameter	Score	Additional information/discussion
1) Is it directly or indirectly related to forest regeneration	0	The policy is more concerned with the identification and protection of water catchment areas (section 2.2.3). It does not address itself to forest regeneration.
2) Landscape approach: <i>Is there reference to the importance / relevance of a landscape perspective?</i>	0	The policy places emphasis on the importance of water catchment areas only as they relate to the availability of water resources.
3) Forest Functions: <i>Does it acknowledge/ support the idea of restoring forest functionality</i>	+	But mainly water resources for domestic and industrial use.
4) If so, which forest functions <i>does it support the restoration of in particular</i>	+	See above
5) Forest Function Tradeoffs level: <i>Does it support making forest function trade-offs at the landscape level</i>	+	It recommends that critical water catchment areas be gazetted for protection purposes.
6) Two filters: <i>Does it acknowledge the role of forest functions in support of human well-being?</i>	+	But only as it relates to water resources
7) Devolving decision-making: <i>Does it support/encourage devolving key decision-making to the local level</i>	+	The policy recommends that community groups be given more authority to manage water projects and also the private sector to play a greater role in the management and distribution of water. I.e. reduced government control of the water sector.
8) Consensus building: <i>Is there flexibility for negotiations aimed at building informed and genuine consensus about forest restoration?</i>	0	The policy is more prescriptive than flexible to negotiations about the management of water resources.
9) Strategic partnerships: <i>Does it support / encourage the development of strategic partnerships for more effective environment management?</i>	+	Private sector, community groups and NGOs
10) Halting Pressure: <i>Does it attempt to halt pressure that reduces functionality (or could it be making matters worse)?</i>	+	Through research and the identification of water catchment areas for protection.
11) Innovation: <i>Does it support or encourage new ideas/approaches (or is it rigid and prescriptive)</i>	+	The policy is quite prescriptive.
12) Multi-sectoral linkage: <i>Does it provide strong links to other sectoral goals and strategies – which ones</i>	+	The policy acknowledges that there is need for the water sector to have linkages with other government departments dealing with natural resource management.

**Key**

- ++ very supportive
- + quite supportive
- 0 neutral
- quite prohibitive/not supporting FLR

**Key Opportunities**

The greater inclusion of other stakeholders in the water sector while previously there was heavy government control.

**Key Constraints**

The policy's key focus is in the provision of water for domestic and industrial use. It lacks clear statements on the other uses of water, such as for biodiversity, tourism and recreational purposes. Further, the policy does not situate water within its environmental context and its role in maintaining the integrity of habitats.

**Institutional Considerations**

The policy seeks to work in collaboration with other government agencies with mandates related to water resources, community groups, NGOs and the private sector.

**Framework for national reviews of policies affecting forest regeneration**  
**THE ENVIRONMENTAL MANAGEMENT AND COORDINATION ACT, 1999**

Name:	The Environmental Management And Coordination Act, 1999
Date (timeframe):	Approved by Parliament in 1999 and commenced in Jan. 2000
Type/belonging to, or made by who:	The National Environment Management Authority and the Ministry of Natural Resources
Key beneficiaries:	The people of Kenya

Parameter	Score	Additional information/discussion
1) Is it directly or indirectly related to forest regeneration	++	Section 46 of the Act provides for the re-afforestation and forestation of hilltops, hillsides and mountainous areas that will have been identified by the District Environment Committees. The DEC shall take measures to plant trees and restore the vegetation cover through encouraging voluntary self-help activities in the respective local communities.  According to Section 46 (3) if the land that has been identified as being under threat of soil erosion belongs to an individual or a community, either through leasehold, freehold or through customary land ownership, then that person or community shall be required to implement soil conservation measures, such as planting trees and other vegetation on the land.
2) Landscape approach: <i>Is there reference to the importance / relevance of a landscape perspective?</i>	++	E.g. The Authority (section 47) shall issue guidelines on how hill tops, hillsides and mountainous areas should be sustainably used. These guidelines shall include appropriate farming methods, carrying capacities of livestock, soil erosion measures, protection of some sections from human settlement, protection of catchment areas and disaster preparedness measures in areas where landslides are known to occur.
3) Forest Functions: <i>Does it acknowledge/support the idea of restoring forest functionality</i>	+	The Act recognises the different functions provided by forests, including cultural and aesthetic values and will seek to protect these.
4) If so, which forest functions does it support the restoration of in particular	+	According to Section 43 of the Environment Act, the traditional interests of local communities customarily resident within or around a lake shore, wetland, coastal zone or river bank or forest can be declared to be protected interests. Section 44 of the Environmental Act deals with the protection of forests.
5) Forest Function Tradeoffs level: <i>Does it support making forest function trade-offs at the landscape level</i>	+	
6) Two filters: <i>Does it acknowledge the role of forest functions in support of human well-being?</i>	+	The Act entitles all Kenyans to a clean and healthy environment for recreational, educational, health, spiritual and cultural purposes. The Act does not include economic and subsistence purposes.
7) Devolving decision-making: <i>Does it support/encourage devolving key decision-making to the local level</i>	++	Communities, NGOs and government institutions will have representation in the District and Provincial Environment Committees which will be the main decision making bodies for the management of the environment in their respective areas.

8) Consensus building: <i>Is there flexibility for negotiations aimed at building informed and genuine consensus about forest restoration?</i>	++	Through the inclusion of the different stakeholder groups in the decision making bodies and the ability to lodge complaints when their entitlement to a clean and healthy environment are infringed.
9) Strategic partnerships: <i>Does it support / encourage the development of strategic partnerships for more effective environment management?</i>	++	See above
10) Halting Pressure: <i>Does it attempt to halt pressure that reduces functionality (or could it be making matters worse)?</i>	++	By identifying areas under pressure, such as hill sides, and encouraging their restoration.
11) Innovation: <i>Does it support or encourage new ideas/approaches (or is it rigid and prescriptive)</i>	+	The Act is largely prescriptive but there is room for innovation in the guidelines and rules that will be developed by the Authority.
12) Multi-sectoral linkage: <i>Does it provide strong links to other sectoral goals and strategies – which ones</i>	++	The Act has as its main objective the co-ordination of environmental management in Kenya by involving the different government departments and ministries and representatives of the citizenry.

**Key**

- ++ very supportive
- + quite supportive
- 0 neutral
- quite prohibitive/not supporting FLR

**Key Opportunities**

In the past, Kenya’s environmental laws and policies were implemented by a wide range of sectoral institutions. The Act provides a key opportunity by providing a co-ordinating institutional framework.

**Key Constraints**

The slow implementation of the Act. The lack of financial resources to effectively operationalise the Act and set up the institutions established by the Act.

**Institutional considerations**

A broad and complex institutional framework that may result in bureaucratic delays in implementing activities and programmes.

## Framework for national reviews of policies affecting forest regeneration

### The Forest Act

Name:	The Forest Act
Date (timeframe):	1942; revised in 1982 and 1992
Type/belonging to, or made by who:	Forest Department
Key beneficiaries:	Forest Department

Parameter	Score	Additional information/discussion
1) Is it directly or indirectly related to forest regeneration	0	The Act is concerned with regulating existing government forests through fines and licenses. In practice, the FD has been involved in re-planting of exotic plantations and in establishing some indigenous plantations.
2) Landscape approach: <i>Is there reference to the importance / relevance of a landscape perspective?</i>	0	Forests are only addressed as sources of products
3) Forest Functions: <i>Does it acknowledge/ support the idea of restoring forest functionality</i>	0	The Act is more concerned with extractive consumption than with restoring functionality.
4) If so, which forest functions <i>does it support the restoration of in particular</i>	0	See above
5) Forest Function Tradeoffs level: <i>Does it support making forest function trade-offs at the landscape level</i>	0	See above
6) Two filters: <i>Does it acknowledge the role of forest functions in support of human well-being?</i>	+	Communities are allowed to collect forest products for subsistence use and for commercial use through licenses.
7) Devolving decision-making: <i>Does it support/encourage devolving key decision-making to the local level</i>	+	The Forest Department is the sole management and decision-making institution.
8) Consensus building: <i>Is there flexibility for negotiations aimed at building informed and genuine consensus about forest restoration?</i>	-	The Act sets out the rules and regulations to be followed.
9) Strategic partnerships: <i>Does it support / encourage the development of strategic partnerships for more effective environment management?</i>	0	See above
10) Halting Pressure: <i>Does it attempt to halt pressure that reduces functionality (or could it be making matters worse)?</i>	-	Due to its focus on extraction, the Act could make, and in some cases has made, matters worse.
11) Innovation: <i>Does it support or encourage new ideas/approaches (or is it rigid and prescriptive)</i>	0	This is not addressed by the Act, which is rigid and prescriptive
12) Multi-sectoral linkage: <i>Does it provide strong links to other sectoral goals and strategies – which ones</i>	-	The Forest Department is the only institution mandated with the management of forests in gazetted forest reserves.

#### Key

- ++ very supportive
- + quite supportive
- 0 neutral
- quite prohibitive/not supporting FLR

#### Key Opportunities

The Act allows for communities to collect forest products for subsistence use, such as firewood, medicinal herbs, thatching grass, wild berries and fruits, edible roots and creepers. The Act is not exclusively protectionist and allows for consumptive utilisation of forest resources.

**Key Constraints**

The Act also allows for the arbitrary conversion of Forest Reserves to other uses through de-gazettement.

**Institutional Considerations**

The Forest Department as the sole institution for the management of forest reserves lacks the capacity to sustainably manage these forests or control the use of resources. Corruption within the Department has adversely affected Forest Reserves.

## Framework for national reviews of policies affecting forest regeneration

### The Wildlife (Conservation and Management) Act

Name:	<b>The Wildlife (Conservation And Management) Act</b>
Date (timeframe):	
Type/belonging to, or made by who:	Kenya Wildlife Service
Key beneficiaries:	Kenya Wildlife Service

Parameter	Score	Additional information/discussion
1) Is it directly or indirectly related to forest regeneration	+	The Act allows for the setting aside of a portion of a Park to be used as a nursery for vegetation (s. 2 (i))
2) Landscape approach: <i>Is there reference to the importance / relevance of a landscape perspective?</i>	0	The Act is only concerned with gazetted parks, reserves and sanctuary.
3) Forest Functions: <i>Does it acknowledge/ support the idea of restoring forest functionality</i>	-	Only section 2 on using parks for nurseries.
4) If so, which forest functions <i>does it support the restoration of in particular</i>	0	See above
5) Forest Function Tradeoffs level: <i>Does it support making forest function trade-offs at the landscape level</i>	-	
6) Two filters: <i>Does it acknowledge the role of forest functions in support of human well-being?</i>	+	The Act allowed for hunting of animals but this was banned through a legal notice in 1977.
7) Devolving decision-making: <i>Does it support/encourage devolving key decision-making to the local level</i>	-	The government is the sole decision-maker
8) Consensus building: <i>Is there flexibility for negotiations aimed at building informed and genuine consensus about forest restoration?</i>	-	No
9) Strategic partnerships: <i>Does it support / encourage the development of strategic partnerships for more effective environment management?</i>	-	Only with local authorities for the management of national reserves
10) Halting Pressure: <i>Does it attempt to halt pressure that reduces functionality (or could it be making matters worse)?</i>	-	By focusing purely on protected areas, the Act could be increasing pressure on non-protected areas, especially when wildlife goes onto people's land while they are not allowed to use any resources within parks.
11) Innovation: <i>Does it support or encourage new ideas/approaches (or is it rigid and prescriptive)</i>	-	It is rigid and prescriptive
12) Multi-sectoral linkage: <i>Does it provide strong links to other sectoral goals and strategies – which ones</i>	-	No

#### Key

++ very supportive      + quite supportive      0 neutral      - quite prohibitive/not supporting FLR

#### Key Opportunities

The Act is being reviewed.

#### Key Constraints

The Act is only concerned with wildlife and does not address other forest functions found within parks, reserves and in other wildlife concentration areas, including on Trust land and on private land.

#### Institutional Considerations

The KWS is the sole institution responsible for implementing the Act, with minimal involvement of local authorities in the case of national reserves.

## Framework for national reviews of policies affecting forest regeneration

### Wildlife Policy

Name:	Sessional Paper No. 3 of 1975: Statement on Future Wildlife Policy in Kenya
Date (timeframe):	From 1975 to date
Type/belonging to, or made by who:	Kenya Wildlife Service
Key beneficiaries:	KWS

Parameter	Score	Additional information/discussion
1) Is it directly or indirectly related to forest regeneration	0	The policy did not make reference to forest regeneration. However, due to its focus on the establishment and management of protected areas, natural regeneration of areas that were gazetted as protected areas occurred.
2) Landscape approach: <i>Is there reference to the importance / relevance of a landscape perspective?</i>	0	The spirit of this policy was one of management of wildlife through a system of protected areas. Although all wildlife is vested in the government, the policy does not address itself to the management of resources outside protected areas.
3) Forest Functions: <i>Does it acknowledge/ support the idea of restoring forest functionality</i>	-	The policy did not allow for the use of forest resources within protected areas, apart from wildlife resources, which could be done by acquiring hunting licences.
4) If so, which forest functions <i>does it support the restoration of in particular</i>	-	See above
5) Forest Function Tradeoffs level: <i>Does it support making forest function trade-offs at the landscape level</i>	-	The policy's main focus is wildlife with little reference to other forest functions.
6) Two filters: <i>Does it acknowledge the role of forest functions in support of human well-being?</i>	-	Consumptive utilization was allowed by the policy through sport hunting. However, hunting was banned in 1977. Therefore, the policy does not support the role of forest functions for human well-being. Revenue collected from parks is collected by KWS with limited benefits for communities living around parks.
7) Devolving decision-making: <i>Does it support/encourage devolving key decision-making to the local level</i>	-	The government is the main and sole decision-maker.
8) Consensus building: <i>Is there flexibility for negotiations aimed at building informed and genuine consensus about forest restoration?</i>	-	See above
9) Strategic partnerships: <i>Does it support / encourage the development of strategic partnerships for more effective environment management?</i>	-	See above
10) Halting Pressure: <i>Does it attempt to halt pressure that reduces functionality (or could it be making matters worse)?</i>	+	By establishing protected areas, the policy has been effective in halting pressure. However, by completely denying the use of resources within parks by communities, the restoration of forest functions have not benefited communities much.
11) Innovation: <i>Does it support or encourage new ideas/approaches (or is it rigid and prescriptive)</i>	-	On consumptive forms of wildlife utilization, the 1975 policy (Section V) states that the government is willing to explore possibilities for inducing the establishment of and regulation of consumptive forms of wildlife utilization, wherever these uses would make a net contribution to the country's economic and social development. However, in practice, wildlife hunting was banned in 1977 and only very restricted consumptive utilization of wildlife is allowed. Efforts at promoting community wildlife enterprises have occurred from the 1990s to date.

12) Multi-sectoral linkage: <i>Does it provide strong links to other sectoral goals and strategies – which ones</i>	-	The policy treats wildlife as a separate sector with few attempts at cross-sectoral linkages.
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**Key**

- ++ very supportive
- + quite supportive
- 0 neutral
- quite prohibitive/not supporting FLR

**Key Opportunities**

The policy is under review.

**Key Constraints**

The policy is prohibitive, sector focused and provides for limited options for the management of the ecosystems that support wildlife, such as forests, woodlands, grasslands and water bodies.

**Institutional Considerations**

The Kenya Wildlife Service is relatively efficient in the fulfillment of its mandate. The institutional capacity of KWS has meant that parks are one of the few ecosystems in the country that have not been degraded. However, weak institutional consideration for the management of wildlife outside protected areas has resulted in the reduction of wildlife in some areas, through poaching both within and outside parks.

**Framework for national reviews of policies affecting forest regeneration**  
Kenya Wildlife Service: Policy Framework and Development Programme (1991-1996)

Name:	Policy Framework and Development Programme (1991-1996): The Zebra Book.
Date (timeframe):	1991-1996
Type/belonging to, or made by who:	Kenya Wildlife Service
Key beneficiaries:	KWS and communities living in areas with wildlife, especially adjacent protected areas.

Parameter	Score	Additional information/discussion
1) Is it directly or indirectly related to forest regeneration	0	The policy merely states one of its goals as “to conserve the natural resources of Kenya and its fauna and flora”
2) Landscape approach: <i>Is there reference to the importance / relevance of a landscape perspective?</i>	0	The policy acknowledges that “the future of wildlife and protected areas in Kenya is critically linked to the fate of communities near protected areas”. It notes that increasing human pressures along the borders of parks and in marginal areas results in direct competition between people, livestock and wildlife.” However, the policy does not address itself to specific land use systems, such as agriculture, and the resultant habitat changes that occur due to human activities.
3) Forest Functions: <i>Does it acknowledge/ support the idea of restoring forest functionality</i>	-	The policy still only addresses the issue of wildlife conservation and does not address other forest functions.
4) If so, which forest functions does it support the restoration of in particular	-	See above.
5) Forest Function Tradeoffs level: <i>Does it support making forest function trade-offs at the landscape level</i>	-	The policy’s main focus is the conservation of wildlife with limited mention of other functions and how there can be trade offs.
6) Two filters: <i>Does it acknowledge the role of forest functions in support of human well-being?</i>	0	One of the goals of the policy is “to use wildlife resources of Kenya for sustainable economic development”. The policy acknowledges that that “long-term protection and sustainable conservation must address the social and economic needs of people living near parks” Once again, the policy is only concerned with parks and wildlife and not other forest functions.
7) Devolving decision-making: <i>Does it support/encourage devolving key decision-making to the local level</i>	0	It is stated that “the KWS plan must incorporate people and communities as partners in its efforts to protect Kenya’s biological resources”
8) Consensus building: <i>Is there flexibility for negotiations aimed at building informed and genuine consensus about forest restoration?</i>	0	KWS remains the main decision-making body with communities being involved at the discretion of KWS. Therefore, this policy statement does not really provide mechanisms for consensus building.
9) Strategic partnerships: <i>Does it support / encourage the development of strategic partnerships for more effective environment management?</i>	0	The role of other strategic partners, such as the private sector, NGOs and CBOs is not clearly spelt out.
10) Halting Pressure: <i>Does it attempt to halt pressure that reduces functionality (or could it be making matters worse)?</i>	+	One of the reasons KWS developed this policy was in response to the increased loss of wildlife and habitats, especially outside parks that was having a negative impact on the conservation of wildlife in the country. Therefore the main objective of the policy statement is to halt pressure on wildlife resources, especially outside parks.
11) Innovation: <i>Does it support or encourage new ideas/approaches (or is it rigid and prescriptive)</i>	0	The policy is rigid and prescriptive. The only addition to the previous wildlife policy is to support initiatives that can generate social and economic benefits for people participating in the protection of wildlife.

12) Multi-sectoral linkage: <i>Does it provide strong links to other sectoral goals and strategies – which ones</i>	0	The policy does not address itself adequately to the need for a multi-sectoral approach to wildlife conservation.
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**Key**

- ++ very supportive
- + quite supportive
- 0 neutral
- quite prohibitive/not supporting FLR

**Key Opportunities**

The policy statement makes provisions for the inclusion of communities in the management of wildlife. In the past, there was limited community participation in wildlife conservation.

**Key Constraints**

This policy statement was developed by KWS for the period between 1991-1996. Therefore, its term has expired. Without a clear policy, KWS’ policy direction has been determined by the priorities and strategies of key senior management at KWS. Therefore, when the leadership has changed, so has the policy direction. The lack of a clearly understood policy for KWS results in confusion among various stakeholders, such as community groups and the private sector, who are uncertain about the new direction KWS will take and are therefore limited in the extent to which they can invest in the sector.

**Institutional Considerations**

Due to its historical leaning towards a protectionist approach to wildlife conservation, KWS has a limited institutional capacity in designing and implementing participatory, community based conservation initiatives. KWS is yet to form genuine partnerships with other stakeholders in the sector, such as NGOs, the private sector and community groups. There are challenges as KWS attempts to balance its many roles, including that of guarding against poaching, problem animal control, revenue collection and involving communities in wildlife enterprises. The prevalence of human-wildlife conflicts makes communities in certain areas hostile towards wildlife, especially when they do not accrue tangible benefits from conservation.

## Framework for national reviews of policies affecting forest regeneration

### Trust Lands

Name:	*The Constitution of Kenya, the Trust Lands Act and the Local Government Act
Date (timeframe):	The Constitution of Kenya, Revised Edition of 1998; The Trust Lands Act, Cap. 288 (revised 1984) and the Local Government Act, Cap. 265 (revised 1986)
Type/belonging to, or made by who:	The Republic of Kenya, Local Authorities and local communities.
Key beneficiaries:	The people of Kenya, Local Authorities and local communities.

Parameter	Score	Additional information/discussion
1) Is it directly or indirectly related to forest regeneration	+	<p>Certain sections of the Constitution can be (and have been) used for purposes of forest regeneration. Chapter IX of the Constitution deals with Trust Land. Section 118 allows the government to set aside portions of Trust Land for different purposes. This is the section that allows the government to set aside Forest Reserves from Trust Land. Currently 20% of gazetted Forest Reserves are found on Trust Land. In addition, Section 75 of the Constitution allows the government to compulsorily acquire privately owned land so as to promote the “public benefit”. When land is compulsorily acquired, compensation is supposed to be paid.</p> <p>The Local Authorities Act, Cap. 265 empowers county councils to control the cutting of timber and the destruction of trees and shrubs, to prohibit the wasteful destruction of trees and shrubs, and to require the planting of trees (s. 147 (d)).</p> <p>The Trust Lands Act gives provisions for general conservation, protection and controlled utilization of trees and other forest products on Trust land, other than gazetted forest Reserves.</p>
2) Landscape approach: <i>Is there reference to the importance / relevance of a landscape perspective?</i>	+	<p>The provisions in the Trust Lands Act that allow it to promote the conservation, protection and controlled utilization of trees and other forest products on land that is not gazetted as Forest Reserves can be used to incorporate a landscape perspective.</p>
3) Forest Functions: <i>Does it acknowledge/ support the idea of restoring forest functionality</i>	0	<p>The Constitution does not address itself to the wide range of forest functions or restoring them.</p> <p>The Local Authorities Act, Cap. 265 empowers county councils to control the cutting of timber and the destruction of trees and shrubs, to prohibit the wasteful destruction of trees and shrubs, and to require the planting of trees (s. 147 (d)).</p>
4) If so, which forest functions <i>does it support the restoration of in particular</i>	0	See above
5) Forest Function Tradeoffs level: <i>Does it support making forest function trade-offs at the landscape level</i>	0	No reference is made to forest function trade-offs within the landscape. However, some of the provisions (see above) can be used to do this.

6) Two filters: <i>Does it acknowledge the role of forest functions in support of human well-being?</i>	0	The Trust Lands Act empowers local authorities to issue licences for the removal of timber or forest products and common minerals. The Act includes subsidiary legislation including the Trust Land (Removal of Forest Produce) Rules. These Rules deal with the issuing of licences by the District Commissioner, or any other person designated by the council for the removal of wide range of forest products including, timber, posts, poles, bamboo, withies, firewood, gum copal, flotite and rubber.
7) Devolving decision-making: <i>Does it support/encourage devolving key decision-making to the local level</i>	+	<p>Section 115 vests all Trust Land in the respective local authorities for the benefit of the people ordinarily resident on the land. Local authorities, which are composed of elected councilors and central government officers, have decision-making power. Local authorities are empowered to collect revenue, regulate the use of resources within their jurisdiction and control the occupation of Trust land.</p> <p>Section 202 of the Local Government Act, Cap. 265 empowers local Authorities to make by-laws “for the maintenance of the health, safety and well-being of the inhabitants or for good rule and government or for the prevention and suppression of nuisances”. Local Authorities are therefore vested with decision-making authority to decide on the issues that need by-laws.</p> <p>Section 65 of the Trust Lands Act concerns forests and forest produce. This section stipulates that the Minister of Local Government may, with the approval of the relevant council, make rules for the protection of trees and forest products on land not gazetted as Forest Reserves and for the regulation of the felling or removal of trees or forest products.</p> <p>The key decision-making institutions are therefore the Minister of Local Government and the respective local authorities. There is limited devolution of decision-making authority to other stakeholders, such as local communities.</p>
8) Consensus building: <i>Is there flexibility for negotiations aimed at building informed and genuine consensus about forest restoration?</i>	0	No provisions include aspects of consensus building. According to section 202 of the Local Government Act, once a local authority makes by-laws it is meant to seek the approval of the Minister and to ensure that the communities resident in the area are informed of these by-laws.
9) Strategic partnerships: <i>Does it support / encourage the development of strategic partnerships for more effective environment management?</i>	0	In the management of Trust Lands, the only partnership is between the local authorities and the central government.
10) Halting Pressure: <i>Does it attempt to halt pressure that reduces functionality (or could it be making matters worse)?</i>	+	Local authorities are empowered to control the utilization of forest resources within their jurisdiction, through a system of licences, taxes and entry fees. These provisions can be used to halt pressure that reduces forest functionality.
11) Innovation: <i>Does it support or encourage new ideas/approaches (or is it rigid and prescriptive)</i>	0	There is no mention of or provisions that could promote innovation.
12) Multi-sectoral linkage: <i>Does it provide strong links to other sectoral goals and strategies – which ones</i>	+	Local Authorities are meant to consult the relevant government ministries and agencies that deal with sectoral issues, in the management of Trust lands. These include the Forest Department, the Ministry of Agriculture, the Water Department and Department of Physical Planning.

\* The three laws have provisions with relevance to Trust Lands, that is why they have been analysed together.

**Key**

- ++ very supportive
- + quite supportive
- 0 neutral
- quite prohibitive/not supporting FLR

**Key Opportunities**

Most of the land in Kenya is still held as Trust Land. This is land that has not been registered as private, individual land. The holding of a large percentage of land in Kenya communally provides an opportunity for promoting an FLR approach in the Country.

Currently, the government is implementing a Local Authorities Reform programme in a bid to enhance the institutional capacity of local authorities and to make them more accountable to communities.

**Key Constraints**

In the past, conservation of forest resources has not been a priority of local authorities. The exploitation of forest resources with Trust Land for the benefit of a few individuals has promoted apathy among communities.

**Institutional Considerations**

The institutional capacities of local authorities in the management of resources within their jurisdiction have been weak. The Local Authority Reform Programme is attempting to address existing institutional weaknesses within local authorities. In addition, the review of the Local Authorities Act has been recommended.

## Framework for national reviews of policies affecting forest regeneration

National Poverty Eradication Plan: 1999-2015

Name:	National Poverty Eradication Plan: 1999-2015
Date (timeframe):	1999-2015
Type/belonging to, or made by who:	Department of Development Co-ordination, Office of the President
Key beneficiaries:	The poor in Kenya

Parameter	Score	Additional information/discussion
1) Is it directly or indirectly related to forest regeneration	0	The PEAP does not specifically address issues of forest regeneration although it is implied in certain sections (See below).
2) Landscape approach: <i>Is there reference to the importance / relevance of a landscape perspective?</i>	0	
3) Forest Functions: <i>Does it acknowledge/ support the idea of restoring forest functionality</i>	+	<p>The PEAP mentions a number of specific forest functions and highlights its intention to restore these functions;</p> <p>p. xiv mentions that one of the specific goals of the PEAP is to “reduce the time spent by women on fuelwood and water collection”</p> <p>p.66 “Poverty in Arid lands is widespread. Development strategies are needed to reduce risk and uncertainty arising from resource degradation and climatic variation.”</p> <p>p. 67 “Another major support to poor rural households has traditionally come from their access to common property natural resources. Continued use of forested areas for fuelwood, materials for construction, and wood for small business manufactures, of grasslands for grazing and of water bodies for fishing is important to them. Government will ensure that their continued access to, and sustainable use of, these traditionally common property resources is maintained.”</p> <p>p. 67 “The “<i>Jua Kali</i>” (informal) private sector is predominantly a rural phenomenon; 78% of all Medium and Small-Scale enterprises (MSE) operations and employment in the country are rural. ... the sector mostly uses the natural resource base of crops, hides and forest products”. The government will support these rural-based MSEs such as by providing food-processing facilities for products such as honey, including “conservation honey from nearby forests”.</p> <p>p. 70 “target research and extension at resource-poor farmers to raise their on-farm production and ensure that 40% of all extension messages are relevant to the very poor”</p>
4) If so, which forest functions <i>does it support the restoration of in particular</i>	+	See examples above.
5) Forest Function Tradeoffs level: <i>Does it support making forest function trade-offs at the landscape level</i>	0	
6) Two filters: <i>Does it acknowledge the role of forest functions in support of human well-being?</i>	+	See above.
7) Devolving decision-making: <i>Does it support/encourage devolving key decision-making to the local level</i>	0	The key decision-makers in the implementation of the PEAP are the relevant government ministries.

8) Consensus building: <i>Is there flexibility for negotiations aimed at building informed and genuine consensus about forest restoration?</i>	0	This is not addressed by the PEAP
9) Strategic partnerships: <i>Does it support / encourage the development of strategic partnerships for more effective environment management?</i>	+	Local communities, the poor, NGOs and the private sectors are mentioned as being key partners in the implementation of the Plan.
10) Halting Pressure: <i>Does it attempt to halt pressure that reduces functionality (or could it be making matters worse)?</i>		By reducing poverty, the PEAP proposes to halt pressure on natural resources due to the linkage between poverty and environmental degradation p. 15 “As a result of poverty, the poor engage in activities such as poor farming practices, burning of trees to make charcoal... These activities have negatively affected the environment and reduced the land potential especially in the Arid and Semi Arid Areas, making the struggle for survival hard and leading to over exploitation of land and water resources.... Poverty and environmental concerns are intertwined and need to be addressed simultaneously.”  p. 35 private sector organisations will be encouraged to develop social responsibility guidelines.
11) Innovation: <i>Does it support or encourage new ideas/approaches (or is it rigid and prescriptive)</i>	+	The Plan is open to innovative ideas to address poverty.
12) Multi-sectoral linkage: <i>Does it provide strong links to other sectoral goals and strategies – which ones</i>	+	Poverty reduction is recognised as being a multi-sectoral issue.

#### Key

- ++ very supportive
- + quite supportive
- 0 neutral
- quite prohibitive/not supporting FLR

#### Key Opportunities

The government’s acknowledgement that poverty and environmental degradation are interlinked and need to be addressed simultaneously. The government’s admission that it needs to collaborate with a broad range of actors in order to address poverty in the country.

#### Key Constraints

The government is yet to implement the Plan.

#### Institutional Considerations

The PEAP proposed for the establishment of a Commission for Poverty Eradication, which has not yet been done.

## Framework for national reviews of policies affecting forest regeneration

Sessional Paper No. 6 of 1999 on Environment and Development

Name:	Sessional Paper No. 6 of 1999 on Environment and Development
Date (timeframe):	1999
Type/belonging to, or made by who:	Ministry of Environmental Conservation
Key beneficiaries:	The people of Kenya

Parameter	Score	Additional information/discussion
1) Is it directly or indirectly related to forest regeneration	+	One of the objectives of the policy (p.14) is to “promote environmental conservation with regard to soil fertility, soil conservation, biodiversity, and to foster afforestation activities”. One of the environmental challenges is (p. 32) the need to increase forest area by replanting trees in gazetted forest land and by encouraging agro-forestry programmes”.
2) Landscape approach: <i>Is there reference to the importance / relevance of a landscape perspective?</i>	0	There is no mention of a landscape approach. Instead the policy addresses the different sectors in separate sections. The mentioned sectors include; biodiversity, land and land-based resources, water, fisheries and marine resources, energy and atmospheric resources.
3) Forest Functions: <i>Does it acknowledge/ support the idea of restoring forest functionality</i>	+	<p>The policy acknowledges that (p.30) “The destruction of forests is threatening ecological functions”. These functions include prevention of soil erosion, protection of water catchments, wildlife habitat and conservation of valuable gene pools of fauna and flora.</p> <p>Forest loss has negative impacts on agriculture and the tourism industry... It also endangers the nation’s water supplies for a large proportion of the population and causes severe siltation problems for the major hydro-electric and irrigation schemes. Excessive deforestation also upsets the carbon dioxide balance in the atmosphere, which results in adverse climatic changes such as global warming. The total effect of all these is loss of biodiversity and productive potential of the land.”</p> <p>According to page 34, the government will endeavor to “promote and manage forest plantations of both exotic and indigenous species in order to increase supply of forest-based products and services. Strengthen campaigns to plant trees, including indigenous ones, at private farm level to ensure availability of fuelwood and building materials, and also establish peri-urban forests.”</p>
4) If so, which forest functions <i>does it support the restoration of in particular</i>	+	See above
5) Forest Function Tradeoffs level: <i>Does it support making forest function trade-offs at the landscape level</i>	+	The policy recommends the development of a comprehensive land use policy for the country, the establishment of a land use commission and the review of existing land use and land tenure laws. A comprehensive land use policy would take into consideration the need to make forest function trade-offs at the landscape level.
6) Two filters: <i>Does it acknowledge the role of forest functions in support of human well-being?</i>	+	The policy mentions a wide range of functions provided by forests for human well-being. See some above.
7) Devolving decision-making: <i>Does it support/encourage devolving key decision-making to the local level</i>	0	One of the policy’s principles is that of public participation in environmental management.

8) Consensus building: <i>Is there flexibility for negotiations aimed at building informed and genuine consensus about forest restoration?</i>	0	The policy proposes to create an enabling environment for broad participation in environmental management. However, it does not mention what some of the features of this environment will be.
9) Strategic partnerships: <i>Does it support / encourage the development of strategic partnerships for more effective environment management?</i>	+	On page 110 it states “the Government, NGOs, private sector, and local communities will act as partners in promoting environmental planning, utilization, conservation, and protection. The government will encourage and create an enabling environment for all, to this end.”
10) Halting Pressure: <i>Does it attempt to halt pressure that reduces functionality (or could it be making matters worse)?</i>	+	Through out the policy, the need to reduce pressure on different forest resources is highlighted.
11) Innovation: <i>Does it support or encourage new ideas/approaches (or is it rigid and prescriptive)</i>	0	Specific strategies the government will use to promote environmental conservation include (p.15) “to apply market forces, taxation, and other economic instruments including incentives and sanctions to protect the environment and influence attitudes and behaviour towards the environment”. The government will also make better use of research. By using such strategies innovative approaches could be developed.
12) Multi-sectoral linkage: <i>Does it provide strong links to other sectoral goals and strategies – which ones</i>	+	The policy is for environmental management, which is multi-sectoral in nature. The policy recommended the establishment of the National Environment Management Authority, to co-ordinate the different sectors.

**Key**

- ++ very supportive
- + quite supportive
- 0 neutral
- quite prohibitive/not supporting FLR

**Key Opportunities**

This policy creates a framework within which a co-ordinating environmental agency is to be established and also highlights the need to review sectoral policies and laws.

**Key Constraints**

The policy makes broad statements on some of the key issues that need to be addressed are. However, there is no timeframe set for when these issues should be addressed, such as the review of sectoral policies and laws.

**Institutional Considerations**

The lead ministry to implement this policy is the Ministry of Environment and Natural Resources. However, this ministry has limited financial and human resources to effectively undertake the tasks set out in the policy. This ministry’s capacity has been further eroded by the civil service retrenchment programme.