

Linking National Forest Programmes and Poverty Reduction Strategies

Kenya

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Acronyms

ARD	Agriculture and Rural Development
CFA	Community Forestry Association
ERS	Economic Recovery Strategy for Wealth and Employment Creation
FAO	Food and Agriculture Organization of the United Nations
GDP	gross domestic product
KEFRI	Kenya Forest Research Institute
KFMP	Kenya Forestry Master Plan
KNBS	Kenya National Bureau of Statistics
M&E	monitoring and evaluation
MENR	Ministry of Environment and Natural Resources
MPND	Ministry of Planning and National Development
MTEF	Medium Term Expenditure Framework
NEMA	National Environment Management Authority
	Poverty and Environment Initiative
PES	payment for environmental services

Summary of key recommendations

Overview

Declining economic growth in Kenya during the 1980s and 1990s, coupled with rising inequality and unemployment, led to an increase in the number of poor people from 11 million in 1990 to 17 million in 2001. However, the annual growth rate rose from 1.2% in 2001 to 6.1% in 2006 due to the improved performance of agriculture, manufacturing, trade, transport and communications. Poverty levels declined from 56% in 2003 to 46% in 2006.

Forests cover some 1.24 million hectares or roughly 1.7% of the country's land area. They provide utility products (timber, poles, fuel wood and pulp wood); a variety of non-wood products (resin, honey, medicine); are critical for the conservation of biological diversity, water and soil; and are major habitats for wildlife. When the sawmilling industry was at its peak during the mid-nineties, the sector provided an estimated 50 000 direct and 300 000 indirect jobs. Of a population of nearly 35 million, more than 10% of households living within a radius of five kilometers from forest reserves depend on forests.

Following the election of a new government, Kenya launched a 5-year Economic Recovery Strategy for Wealth and Employment Creation (ERS) in June 2003. In anticipation of this strategy drawing to a close at the end of 2007, officials are elaborating the 2030 Vision for Kenya which is anchored on three pillars and related goals: economic – to achieve a sustained GDP growth of 10% over the next 25 years; social – to build a society where justice and equity prevail in a clear and secure environment; and political – to establish a people-centered, results-oriented and accountable democracy. The vision is divided into 5-year phases, the first covering 2008-2012.

The Kenya Forestry Master Plan (KFMP) of 1994 calls for an institutional overhaul to manage forest resources more effectively and continues to be regarded as an authoritative blueprint for the sector. Issues identified in the plan are still pertinent today and are reflected in the draft forest policy (Sessional Paper 1, 2007) and the *Forests Act 2005*.

In addition to overseeing the sustainable management and conservation of all forest resources within the country, the *Act* establishes the Kenya Forest Service (KFS) and the KFS Board to replace the Forest Department. As well, it provides a framework to address inefficient resource utilization and the adverse effects of development on the environment. The new law broadens the mandate of forest authorities; recognizes local communities and the private sector as major stakeholders in forest management; requires management plans for sustainable utilization; and regulates the charcoal and forest industries.

Since mid-2006, the Ministry of Environment and Natural Resources (MENR), the KFS Board and the Forest Reform Secretariat are laying the foundations for institutional change. With the establishment of the KFS, many Kenyans have high expectations that 2007 will be a turning point for improving forest governance.

Strengthening the linkages between forestry and poverty alleviation

Forest policy framework

The new forest policy, which will be re-tabled in Parliament in 2008, lists poverty reduction, job creation and improved livelihoods as the first of seven explicit objectives. It recognizes the importance of forest resources to economic development and, along with the *Forests Act*, accords priority to subsistence issues. Moreover, the policy seeks to increase opportunities for women and youth in forest training, education and forest management. It also identifies the challenges facing the sector in light of population growth and poverty which give rise to illegal logging, illegal charcoal production, and encroachment.

Consistent with the goal to increase forest cover to 10% over the next decade, the new policy states the government's intentions to promote farm forestry, intensify dryland forest management, encourage private sector engagement in industrial plantations and involve communities in forest management and conservation. The new policy also supports the transition from the Forest Department to KFS; places forestry squarely on the agenda of economic recovery and poverty reduction; and aims to improve synergies with other sectors.

In the absence of a coordinating mechanism for forestry to bring together sectors dealing with water, energy, mining, lands, wildlife, agriculture, and regional development, the need for Parliament to approve the new forest policy is urgent so that KFS can move with all due haste to implement section 4.1 which calls for an inter-ministerial committee.

Allocations to forestry

After a withdrawal of development assistance to forestry during the mid-nineties, overseas aid to the sector is increasing and international partners are giving priority to the reform agenda. Six ministries which share responsibility for the stewardship of the environment and natural resources form the Agriculture and Rural Development (ARD) Sector Group for the purpose of negotiating budgets within the Medium-Term Expenditure Framework. Together they receive less than 10% of the government budget even though natural resources contribute nearly 40% to GDP. Of this allocation, the Ministry of Agriculture is given roughly half. Of the portion that MENR received in 2005/06, it assigned about 47% to the Forest Department, mainly to cover staffing costs. The Kenya Forest Research Institute (KEFRI) and the National Environment Management Authority (NEMA) received around 15%. In terms of the total 2005/06 government budget, the Forest Department, as the main policy maker and implementation agency for the sector, was allocated 0.5%.

Support from government and development partners to launch the KFS is vital until it can operate with the revenue it generates, attract a larger share of public funding, and strengthen its representation in policy debates. In light of the fast pace of reforms, the international community and the KFS must work in close partnership to raise the \$75-80 million it will need over the next 5 years to make the transition. Recent efforts to better coordinate external funding to support programmes within the KFS is a step in the right direction.

Integration of the environment into development processes

Recognizing the need to integrate environmental considerations into development, the Government of Kenya formulated the Poverty and Environment Initiative (PEI) which is a key entry point for forestry to engage with finance and planning ministries to secure resources. The initiative also provides an opportunity to collaborate with line ministries responsible for policies and programmes that have poverty-environment linkages. Despite a strong link to MENR, the participation of KFS and KEFRI in the PEI has been marginal and, as a result, forestry authorities lack a sense of ownership in the process.

Recent proposals call for the establishment of a department within MENR of senior officials to manage ministry functions relevant to the forest sector, including policy formulation and oversight; national standards and guidelines for sustainable forest management; legislation and statutory regulations; planning and co-ordination; and engagement across sectors. The move in this direction, as a matter of priority, will facilitate the sector's participation in macro-policy deliberations and increase forestry's presence and influence in national efforts to integrate the environment into development initiatives.

Organizational development and management of change

Perhaps the most promising opportunity for linking forestry to Kenya's strategies to reduce poverty is the government's commitment to address weak past governance in the sector and its insistence that the KFS be run with integrity and full accountability. As an indication of its

intent to follow through on this promise, MENR and the Office of the President negotiated a performance contract with KFS for 2007-2008 which contains targets with clear poverty dimensions. The employee performance appraisal system has also been revised to take into account new service delivery strategies on which KFS staff will be assessed, including those related to poverty reduction, rural livelihoods, energy and water supply, decentralization, food security, tourism, construction, and private investment.

If employees in the field are to perform the new functions expected of them, they must acquire the knowledge, skills and attitudes to meet the public's high expectations for service delivery and for participatory approaches to forest management which address the needs of poor people. The presence of forestry staff in 125 districts throughout the country provides an unprecedented opportunity to use the poverty situation in each area as a criterion to increase or reduce KFS interventions.

Community forestry associations

The subsidiary legislation which the KFS Board approved on community and private sector involvement in forest management now awaits gazettment. Once this process is complete, it will turn Kenya's previous policy of exclusion into one that provides for agreements with private interests and community forestry associations (CFAs). In the case of the latter group, two types of agreements with KFS will be possible: one that seeks to conserve and use forests for livelihoods, cultural or religious practices and one that allows members to engage in non-resident cultivation in adjacent forest areas. This second option allocates plots through a balloting system which gives priority to poor and vulnerable members of the community.

Because of the inherent complexities surrounding participatory forest management, the government's move in this direction is creating uncertainty with regard to where, how and if the approach can work. Genuine partnership rather than self-interest is paramount and, in this regard, KFS faces the daunting task of ensuring that mechanisms are in place to share costs and benefits with communities, as a multitude of CFAs emerge. KFS, in collaboration with the National Alliance of Community Forestry Associations, should prepare guidelines and rules on the establishment of CFAs as well as on their composition and registration. In addition, the Service should support civil society groups to assess the capacity needs of these associations and to prepare a plan to address gaps.

Watershed management

Kenya is among the top 10% water-stressed countries in the world where deforestation and weak management are threatening the main catchment areas which cover more than 1 million hectares. These areas provide water for human and livestock use, supply hydroelectric power to 3 million people in Nairobi alone, and feed irrigation systems, agriculture and industry. According to a recent study, unequal distribution is also a problem in that it can lead to conflicts and degradation of the resource.

Integrated management approaches in catchment areas are now considered the way forward in a reformed water sector and payment for environmental services (PES) is gaining popularity as a means to finance conservation. Given the global trend in this direction, Kenya and the KFS would benefit from the experiences of PES schemes in other parts of Africa and elsewhere to determine which practices, if any, could be replicated. It could then mount a pilot project to inform future decisions on expanding the concept. Moreover, KFS engagement in the planning processes of the National Water Management Authority and its regional boards would help it to harmonize and align legally mandated management plans with current water catchment strategies.

Support to farm forestry

Forestry extension services in Kenya began in 1971 with the Afforestation and Extension Scheme to bridge the increasing deficit in the supply of forest products (mainly fuelwood) by

promoting tree planting on farms. Central tree nurseries grew the seedlings which were then distributed to the public free or at subsidized prices. The programme enticed many farmers to plant trees, especially in high potential areas. The current strategy shifted from production and distribution of tree seedlings to helping farmers and rural communities to establish their own nurseries, care for seedlings and manage and conserve trees on their farms. However, resource constraints severely limit the capacity of KFS to provide such assistance.

If KFS accorded higher priority to its new extension strategy, it would support agents and service providers, including NGOs, to provide services that are competitive and demand-driven, including the transfer of information, technologies and practices that can be adapted to meet the needs of local communities.

Collaboration with agriculture

As a key priority in Kenya, goals to achieve food security offer a multitude of opportunities for KFS to collaborate with the Ministry of Agriculture, for example, to establish on each farm tree nurseries of species that mix well with crops; certify fruit trees as disease free; promote large-scale tree farming for charcoal and fuelwood; incorporate medicinal and aromatic plants into farming systems; and explore the feasibility of planting mulberry trees to produce silk.

At the international level, given the absence of a forestry component in any of the projects which the International Fund for Agricultural Development supports in Kenya, FAO should lobby the Fund to secure its inclusion in future initiatives and to promote the sector as an important player in the fight against hunger and malnutrition. FAO should also arrange with the Government of Kenya, as host of the Regional Conference for Africa (March 2008), to include on the agenda the key role of forestry in achieving food security.

Data collection for evidence-based policy formulation

As in many countries, Kenya's official statistics do not accurately reflect the extent of forest resources or their contribution to the economy. The United Nations System of National Accounts, which dates back to 1993, attributes many forestry activities to other sectors and is now being revised. The Kenya National Bureau of Statistics is participating in discussions but, for the most part, line ministries are not involved in the process. If MENR and KFS engaged in this review, they could seek improvements to the system which would better calculate the share of forestry to GDP. Working more closely with KNBS would also increase the chances of capturing more pertinent data in economic and household surveys, and of setting up a satellite account for forestry, as tourism did in other countries.

The establishment of a national forest accounting system would provide the means to assess the value of forest resources and determine their optimal potential. Although the benefits of mounting such a system would take up to 20 years to materialize, the precise contribution of forest products and services could be calculated, including their role in reducing poverty. If a pilot test was designed and tried in select communities, findings would provide the basis for fine-tuning the methodology, thereby paving the way for wider application.

The ban on timber harvesting

A ban on logging in natural forests was introduced in 1986 and another was imposed on timber harvesting in 1999. As of April 2002, the ban prohibits exploitation of timber in gazetted forests and forbids any cutting, including silvicultural thinning and pruning. As a result, many over-mature and mature industrial plantations in these forests are deteriorating and, if the ban was removed, it would take close to 6 years to commercially thin the 18 000 hectares or so of planted forest between the ages 10 and 22 years.

The ban was responsible for the closure of more than 300 sawmills and the loss of 30 000

direct and 100 000 indirect jobs. As importantly, the ban gave rise to a lucrative black market for timber, forcing KFS to shift scant resources from priorities such as the establishment and management of planted forests to law enforcement. On the more positive side, the ban allowed KFS to assess the stock of materials available to harvest forests sustainably and gave it time to replant the areas harvested. It also made farmers aware of the benefits of investing in tree planting as industry looked to farms for the supply of logs.

Control measures, including a comprehensive database and a transparent disposal and licensing process would pave the way for lifting the ban, as would the establishment of an independent Investment Centre to oversee the development and management of planted forests. Cabinet may wish to consider phasing out the ban, initially authorizing a gradual resumption of thinning, pruning, re-spacing, coppice reduction and treatment of seed stands.

Charcoal

Presidential decrees have controlled the charcoal industry for the past 20 years. They operate under a fragmented and poorly harmonized framework which involves many institutions with overlapping roles and mandates. When the government legalizes the industry under the *Forests Act*, its annual tax revenue could be at least Kshs 5 billion. To prepare for this occurrence, KFS is elaborating a National Charcoal Development Programme which should consider the use of *Prosopis juliflora* as an energy source as well as incentives that encourage schools, hospitals and restaurants to move away from charcoal and adopt fuel efficient wood stoves.

Since biomass is expected to remain the primary source of energy for as long as it takes to transform the rural economy from subsistence to a monetized economy, the establishment of a multi-stakeholder body to oversee wood fuel production and marketing would facilitate the shift towards a sustainable charcoal industry. MENR and KFS could offer expertise in setting out simple licensing procedures in designated areas, governed by production standards and fiscal measures that support conservation.

In addition to the need to work together on charcoal issues, much scope exists for KFS and the Ministry of Energy to collaborate in other areas: developing a joint action plan to increase the domestic supply of poles for electrification rather than continue importing them at high costs; addressing the shortfalls in energy which the tea industry is facing; and elaborating a national strategy to use the oil of *Jatropha curcas* for biofuel.

Enforcement and crime prevention

Steady growth in the rural population is placing strains on forest land which many consider the only remaining land reserve in the country. The reasons for committing offences are often because of ignorance of the law and negligence. They also include poverty, unemployment, and the collection of medicinal plants for commercial purposes. Widespread bribery of forest guards and local police, shortage of equipment in the field to collect evidence of infractions, and inadequate fines or sentencing continue to hinder enforcement efforts.

Although the command and control approach of the past emphasized law enforcement rather than crime prevention, KFS understands the need to integrate compliance measures with greater efforts to involve communities in forest management. Therefore, it has established a rapid response team, strengthened field units, introduced a hotline to report illegal activities, is designing a comprehensive re-training programme for its 2 600 forest guards, and building partnerships with key government institutions to carry out these tasks. If KFS developed an enforcement strategy that focuses on community engagement and on compliance through preventative action, it would reduce conflict as well as surveillance costs. With re-training, guards could then direct part of their time to support participatory forest management.

Land tenure and resettlement

Given that 70% of Kenya's population lives on 12% of the land area classified as medium to high potential for agriculture and livestock production, any discussion on forestry inevitably reverts to issues surrounding land policy and administration.

A new land policy is being drafted and is putting forward bold proposals on redistribution, ownership by women, limits on the amount one person can own, and measures to correct historical injustices in land allocation. If the KFS Board added the Ministry of Lands to its membership, it could discuss the need to include special interventions in the new policy to protect the rights of vulnerable groups and minority communities such as hunter-gatherers, forest dwellers and pastoralists. Adding these dimensions would strengthen its usefulness as a tool to enforce the new forestry and land legislation.

A coherent KFS resettlement policy, formulated and implemented in a participatory manner, would mitigate current and future conflicts over land and customary rights, especially if it outlines a process to identify and assess the rights of affected persons, including groups residing in gazetted forests. The United Nations Human Rights Commission would be instrumental in building country capacity to deal with resettlement and human rights issues.

Other opportunities for forestry-based poverty alleviation

Monitoring and evaluation

Kenya's Integrated Monitoring and Evaluation System provides for reporting at both central and district government levels and aims to supply timely and reliable information to feed the budget process and assess the effectiveness of government programmes. The Monitoring and Evaluation Department of the Ministry of Planning and Development (MPND) uses 31 indicators to assess implementation of the Economic Recovery Strategy. It draws on data from the Kenya National Bureau of Statistics and planning units in relevant ministries.

In anticipation of the 2030 Vision for Kenya becoming the national framework for action beyond 2007, MPND is leading efforts to 1) finalize the document, along with indicators, and 2) identify flagship projects, such as a strategy for revitalizing agriculture, for implementation in the first 5-year phase. Therefore, little time is left for MENR and KFS to influence decisions on both forestry indicators and flagship projects.

Given the importance and the urgency of submitting forestry indicators and project proposals to MPND for inclusion in the 2030 Vision before it is finalized, KFS needs to work closely with the planning department of MENR without delay. If it misses this opportunity, it will have to wait another five years to mainstream the sector in the country's core strategy to achieve economic growth and prosperity.

Using the annual National Household Survey to establish credible baselines would help KFS and KNBS assess patterns and identify factors which affect the delivery of forest-related services, particularly to poor people. Along similar lines, the KFMP and the KFS Strategic Plan provide a sound basis on which MENR and KFS can develop a coherent, harmonized, and comprehensive M&E system for forestry and design a framework for implementing these plans that correspond to established goals and targets.

Civil society organizations

Civil society groups have a place in Kenyan politics and are increasingly engaging in forestry matters. In addition to community associations and conservation committees which operate at local and district levels, the Forestry Society, the Kenya Forests Working Group, the Forests Action Network, the Kenya Association of Forest Users, and the Green Belt Movement are

national in scope. The National Council of Women, although mainly concerned with environment issues, also promotes tree planting.

As Kenyans prepare to go to the polls in December 2007, the time is ideal for civil society organizations to lobby politicians to include forestry issues in their election platforms and have them publicize the sector's significant contributions to national development and poverty reduction. The Forestry Society also has much potential to champion forestry as a means to reduce poverty in the country. It is a credible group of professionals which should be more active in searching for solution to pressing issues, including ways to increase private sector involvement in forestry operations.

If KFS established closer ties to the Green Belt Movement and the National Council of Women, it could draw on their networks to strengthen national tree planting efforts and to better take into account the need for women to be more involved in decisions surrounding forest access and management. Benefits of improved collaboration with these groups also include achieving optimum representation of women on forest conservancy committees.

Awareness and communications

Like in many countries, the public does not understand well the mandate and role of forestry authorities or of the economic, environmental, social and cultural value of forests and trees. Neither is the general population aware that most planted forests are established for logging purposes to relieve pressure on indigenous forests. People should understand that logging of a renewable resource is not harmful *per se* and that planted forests are important assets which, in addition to timber, provide a myriad of ecological services.

With the promulgation of the *Forests Act 2005* and expected approval of the draft forest policy to Parliament when it reconvenes, Kenyans will need to be informed of the reforms and how they affect forest management in the country. Making these documents available in user-friendly format and in local languages will promote better understanding of the changes and provide a good opportunity to describe how forests and trees on farms contribute to national development and the achievement of all Millennium Development Goals.

In collaboration with non-government organizations, KFS should consider requesting assistance from international development partners, including the National Forest Programme Facility, to produce and widely distribute both official and simpler versions of the *Act* and the policy once approved. Fact sheets on the importance of forests and trees outside forests for the range of products and services they provide would also be useful.

Improved livelihoods through planted forests

In collaboration with key partners, KFS is revisiting the shamba system (a modified version of Taungya) and elaborating a Plantation Establishment Scheme for Improved Livelihoods. The KFS Board, through the Forest Conservancy Committees and Community Forestry Associations, will provide the institutional framework to administer the programme which will target the participation of poor people.

Public support for the new scheme would increase significantly if, prior to implementation, KFS involved stakeholders in elaborating operational guidelines, objectives, and the means to monitor and evaluate impacts. A campaign to explain how the scheme will function, how it will be managed, and how it will be assessed would secure additional buy-in.

The development of a 5-year felling plan for each forest conservancy and division, which includes annual replanting targets, would ensure harvesting levels are sustainable across the country.

Dryland forestry on arid and semi-arid lands

About 80% of Kenya's land area is arid and semi-arid (ASALS) and is home to close to 10 million people or roughly 25% of the population. Many of the more than 1.5 million who are chronically food insecure and depend on emergency relief to meet basic needs are located in this region. The government's strategy to address historic marginalization, as detailed in the ASALS Policy (2006), includes a 15-year investment plan to increase services and infrastructure, a drought contingency fund to improve disaster management, a 10-year programme to fight hunger, and a programme to manage natural resources, among others.

The policy recognizes that lack of appropriate action has been a problem over the years, rather than shortage of water. Low government investment has also plagued the area where forests support important production systems. The management of dry land forests requires different interventions than other forest types yet forestry officials lack the training to address issues particular to these ecosystems. Moreover, the potential to use *Jatropha curcas* for the range of products and services it provides has not been fully considered nor has government been proactive in opening up markets or assisting farmers in the ASALS to diversify their sources of income and organize cooperatives.

If government is to respond to the requirements associated with managing dryland forests and address the special needs of people living in the ASALS who depend on these resources, it will have to increase its support to them and strengthen the capacity of officials stationed in the area. Priorities include regulating the charcoal industry, commercializing non-wood forest products (gums, resins, essential oils, honey, insects, wood carving), providing extension services, and promoting appropriate technologies for the sustainable management of dryland forests.

Energy production from biomass

The National Bio-fuels Committee which was established in 2006 is leading Kenya's efforts to formulate a bio-fuel strategy and action plan. Further, the government is considering the establishment of a bio-fuel trust fund, similar to the ones in place for tourism, water and biodiversity. It could be financed by the Agricultural Finance Corporation and micro-finance entities to provide seed and venture capital to new bio-fuel enterprises, develop business models, elaborate options for household energy consumption, support bio-fuel research and training, as well as formulate legislation and policies conducive to attracting investments.

Given that MENR is a member of the National Bio-fuels Committee, it is well placed to advance forestry, in collaboration with KFS and KEFRI, as an integral part of national bio-fuel policy processes. It is also well placed to secure the inclusion of forestry priorities – more silviculture research for example – in the bio-fuel strategy and action plan under development.

Development partner assistance

The Kenya Joint Assistance Strategy (KJAS), launched in September 2007, is the 5-year action plan of 15 development partners to support, among other initiatives, the Economic Recovery Strategy and the Millennium Development Goals. It calls for investments to support forestry reforms and interventions to make the sector more responsive to social, economic and environmental issues. Activities include improving information on forest resources and preparing plans for the development and sustainable management of planted and indigenous forests. It also intends to provide institutional support to complete reforms and help the KFS to work with the private sector to expand forest cover, maintain the ecological services of forests, and establish the country's credibility in the global carbon trading market.

If forestry institutions and international development partners who have committed support to the sector were to establish joint mechanisms to plan and finance reforms to KFS structures and systems, assistance would be better harmonized and aligned, thus more effective.

1. Introduction

As part of a wider study in African countries, FAO examined the extent to which Kenya's forest legislation and policy is linked to the *Economic Recovery Strategy for Wealth and Employment Creation* (2003-2007) and the draft *2030 Vision for Kenya*. The objectives of the study were to identify factors that fostered or hindered the establishment of effective linkages and to enhance the presence and influence of forestry in wider planning instruments with a view to strengthening financial, institutional and policy support for forestry-based poverty alleviation.

The team consisted of a forestry officer from FAO Rome, a staff member of the Kenya Forest Service, an international consultant and a national consultant. They held discussions over a 10-day period with representatives from government, the private sector, civil society and the donor community. (See annex 1 for the list of persons met.)

2. Policy processes in Kenya

2.1 Overview

Declining economic growth in Kenya during the 1980s and 1990s, coupled with rising inequality and unemployment, led to an increase in poverty from 11 million people in 1990 to 17 million in 2001. However, steady increases in the annual growth rate from 1.2% in 2001 to 6.1% in 2006 are encouraging signals of a turnaround. The sources of growth are agriculture (contributing 25% to growth in domestic product or GDP), manufacturing, wholesale and retail trade, and transport and communications (KNBS, 2007). Poverty levels have declined from 56% in 2003 to 46% in 2006.

Forests cover some 1.24 million hectares or roughly 1.7% of the country's land area. They provide utility products (timber, poles, fuel wood and pulp wood); a variety of non-wood products (resin, honey, medicine); are critical for the conservation of biological diversity, water and soil; and are major habitats for wildlife. When the sawmilling industry was at its peak in the mid-nineties, forestry provided an estimated 50 000 direct and 300 000 indirect jobs.

Data published by the Kenya National Bureau of Statistics in 2007 show that forest products and services contributed about Kshs 16.4 billion, equivalent to 1.0% of GDP. Paper and softwood exports amounted to Kshs 911 million while exports of manufactured wood stood at Kshs 484 million. Other figures suggest that more than 10% of households living within a radius of five kilometers from forest reserves depend on them for their survival and well-being. They also estimate that gazetted forests provide 80% of timber, 93% of poles and posts, and 80% of fuelwood requirements. Sale of these products annually generates about Kshs 460 million to government, an amount which could increase to Kshs 2-2.5 billion under a well regulated system.

2.2 Economic Recovery Strategy for Wealth and Employment Creation and 2030 Vision for Kenya

In 1999, Kenya adopted a 15-year National Poverty Eradication Plan which was followed by the Poverty Reduction Strategy Paper two years later. In 2002, government prepared and implemented the 9th National Development Plan (2002-2008) which sought to reverse the decline in economic growth and reduce the deficit by increasing the participation of the private sector, diversifying the economic base, and implementing programmes to decrease poverty and create employment through innovative and appropriate technology.

Following the election of a new government, Kenya launched a 5-year *Economic Recovery*

Strategy for Wealth and Employment Creation (ERS) in June 2003. The ERS is centered on three pillars: boosting economic growth, enhancing equity and reducing poverty, and improving governance (MPND, 2003). Interventions of a social nature in areas such as health, education, housing, and HIV/AIDS stem from a recognition that economic growth will not necessarily bring benefits to all those who live in poverty.

In anticipation of the ERS drawing to a close at the end of 2007, government is elaborating the *2030 Vision for Kenya* which aims to make the country prosperous and competitive in world markets. The vision is anchored on three pillars and related goals: economic – to achieve a sustained GDP growth of 10% over the next 25 years; social – to build a society where justice and equity prevail in a clear and secure environment; and political – to establish a people-centered, results-oriented and accountable democracy. It will be structured in 5-year phases, with the first economic growth plan covering 2008-2012.

2.3 Forest policy frameworks

The Kenya Forestry Master Plan (KFMP), produced in 1994, is still considered the most authoritative analysis of the forest sector and relevant blueprint for the sector today. At the time, it called for an institutional overhaul to manage forest resources more effectively but, due to political inertia and weak governance, issues identified in the plan were not adequately addressed. They remain pertinent today and are reflected in the draft Forest Policy (Sessional Paper 1, 2007) and the *Forests Act 2005*.

In addition to overseeing the sustainable management and conservation of all forest resources within the country, the *Act* provides a framework through which the forest sector can address inefficient resource utilization and adverse effects of development on the environment. More specifically, the legislation:

- establishes new institutional arrangements – the Kenya Forest Service (KFS) and the KFS Board – to replace the Forest Department
- repeals the *Forests Act Cap 385* and broadens the mandate of forest authorities over forests, woodlands and trees outside gazetted forest areas, including state, local authority, and private forests
- recognizes local communities and the private sector as major stakeholders in forest management
- creates the Forest Management and Conservation Fund for the development of the sector
- calls for stiff penalties for a wide range of offences
- provides *locus standi* to the Kenyan people to seek redress on perceived violation of the law and on forest management issues
- requires that forest management be based on approved plans to ensure sustainable utilization
- regulates the charcoal and forest industries.

Since mid-2006 MENR, the KFS Board and the Forest Reform Secretariat are laying the foundations for institutional change. With the establishment of the KFS, many Kenyans have high expectations that 2007 will be a turning point for improving forest governance.

3. Linkages, benefits, constraints & opportunities

3.1 Mainstreaming

3.1.1 ERS, 2030 Vision and forestry

Like most countries, Kenya's economic growth and the well-being of its people rely on a healthy environment and the sustained provision of renewable natural resources. Indeed, the government is explicit about the importance of the environment to economic recovery and poverty reduction in both the ERS and the 9th National Development Plan which states that "in view of the high incidence of poverty in the country, the need to integrate environmental concerns in development activities should be given high priority".

The productive sectors identified in the ERS as core components of economic recovery and job creation are agriculture, tourism, trade and industry. Forestry and mining are also listed because of their importance not only in terms of consumable products but also in terms of the impact their exploitation has on the environment and the productivity of other sectors, especially agriculture. The document lists the following constraints to the development of forestry and mining: a weak policy, legal and institutional framework; inadequate community participation in the management of resources and the environment; and lack of information on inventories. With specific regard to forests, the ERS highlights the absence of cheaper energy alternatives and weak governance, both of which lead to destruction of the resource base. Priorities include expansion of forest cover; repossession of forestland that was irregularly allocated; elimination of corruption; expansion of agroforestry; and participatory approaches. Over the next 5-year planning cycle, these priorities will remain relevant, in addition to regulating charcoal production, marketing and trade; managing water catchments in forest reserve areas in an integrated manner; and re-building a robust forest industry.

Sound environmental management to prevent the degradation of natural resources is also recognized in the 2030 Vision for Kenya as the basis for economic growth. Specifically, the social pillar seeks "a just and cohesive society enjoying equitable social development in a clean and secure environment" and the economic pillar aims "to maintain a sustained economic growth of 10% per annum over the next 25 years".

3.1.2 Forest policy frameworks and poverty

The new forest policy will replace the one dating back to 1968 but it must be re-tabled in 2008 because of the dissolution of Parliament due to elections. The document lists poverty reduction, job creation and improved livelihoods as the first of seven explicit objectives. It recognizes the importance of forest resources and trees on farms to the country's economic development, to meeting subsistence needs, supplying energy, regulating water flows and providing habitat for wildlife which forms the basis of a thriving tourism sector.

The new policy and *Forests Act* accord priority to subsistence issues, especially those associated with domestic energy, shelter and fodder. The documents also note that non-wood forest products are often the only source of nutrition for rural communities when food is scarce. Moreover, the policy undertakes to increase opportunities for women and youth in forest training, education, and forest management. It identifies the challenges of achieving sustainable forest management in light of population growth and poverty which give rise to illegal logging, illegal charcoal production, and encroachment for agriculture and settlement purposes.

Consistent with the KFMP goal to increase forest cover to 10% over the next decade, the policy states the government's intentions to promote farm forestry, intensify dryland forest management, encourage private sector engagement in industrial plantations and involve

communities in forest management and conservation. It also supports the transition from the Forest Department to KFS and seeks to improve synergies with other sectors such as land, agriculture, energy, environment, mining, wildlife and water. In addition to an environmental assessment of the *Forests Act* (World Bank, 2007a) which details priorities for reform, the policy places forestry squarely on the agenda of economic recovery and poverty reduction.

Suggested follow-up action

In the absence of a coordinating mechanism for forestry to bring together sectors dealing with water, energy, mining, lands, wildlife, agriculture, and regional development, the need to re-table the policy and secure the approval of Parliament is urgent so that KFS can move with all due haste to implement section 4.1 which calls for an inter-ministerial committee.

3.1.3 Allocations to forestry

After a withdrawal of development assistance to forestry during the mid-nineties, overseas aid to the sector has picked up. Unlike many other countries in Africa, Kenya has succeeded in attracting new financing and the donor group for forestry is giving priority to the reform agenda. Table 1 shows allocations to the Forestry Department for both recurrent and development costs from 2002 to 2007. The slight variation in recurrent items – mostly salaries and bonuses – is largely due to changes in staffing levels. Fluctuation in the development budget reflects the extent of donor support from one year to the next.

As is generally the case with environment and natural resource sectors, responsibility in Kenya for their stewardship spans many ministries – Agriculture, Livestock and Fisheries Development, Cooperative Development and Marketing, Environment and Natural Resources, Water and Irrigation, Lands and Settlement and Regional Development Authorities. These six ministries form the Agriculture and Rural Development (ARD) Sector Group to negotiate budgets under the Medium-Term Expenditure Framework. Several other agencies also are involved, including regional development authorities and parastatals such as the KFS and the Kenya Forest Research Institute.

Sectors concerned with the exploitation, management and conservation of natural resources receive less than 10% of the government budget even though they contribute nearly 40% to GDP. Of this amount, the Ministry of Agriculture is given roughly half. MENR allocated about 47% of its 2005/06 budget to the Forest Department, mainly to cover staffing costs. The other main agencies which service the sector, KEFRI and the National Environment Management Authority (NEMA), received around 15%. In terms of the country's total budget in 2005/06, the Forest Department, as the main policy maker and implementation agency for the sector, was allocated 0.5%.

Financial Year	Recurrent Allocation (US\$)	Development Allocation (US\$)	Total (US\$)
2002/2003	13,500,217	727,138	14,227,355
2003/2004	16,506,784	3,428,571	19,945,355
2004/2005	15,386,348	4,062,291	19,448,639
2005/2006	19,231,738	2,409,744	21,641,483
2006/2007	18,439,276	10,610,798	29,050,074

Based on projected profits and losses in the first five years, expectations are that KFS will be in a position to operate as a corporate entity with the revenue it generates and by attracting a larger share of public funding once the Board is firmly established. However, support from government and development partners to launch the Service is vital until it can make this transition and until it can strengthen its representation in policy debates within MENR, including the Planning Division, and as member of ARD. Resistance in some circles to de-linking KFS from MENR also must be overcome.

Suggested follow-up action

Because KFS was not successful in negotiating the budget it requires to implement its first strategic plan, it needs to seek a revised ceiling through the Budget Outlook Paper and other informal means, in collaboration with MENR. By March 2008, MENR must also prepare a memorandum to Cabinet which authorizes KFS to retain and use the revenue it collects, including any excess over annual projections.

In light of the fast pace of reforms, the international community and the KFS must work in partnership to raise \$75-80 million needed to support the new organizational set-up over the next 5 years. Recent efforts to coordinate external funding to support KFS programmes are a step in the right direction.

3.2 Creating linkages

3.2.1 Integration of the environment into development processes

Following successful efforts in Tanzania to integrate environmental considerations into development, the Government of Kenya formulated the Poverty and Environment Initiative (PEI). The Ministry of Planning and National Development (MPND) has the lead, in partnership with MENR and NEMA, with support from the United Nations Development Programme, the United Nations Environment Programme, and other development partners.

A Steering Committee, which the Permanent Secretary of MPND chairs, guides implementation by a multi-stakeholder team. Desired outputs include:

- improved understanding of poverty and environment linkages within ministries, government institutions, and other stakeholders
- economic assessment of links between environment and natural resource management and Kenya's economic growth potential
- stronger government capacity and mechanisms to deliver an environment policy which incorporates poverty dimensions
- tools for the integration of environment into development planning and budget processes
- more effective participation of stakeholders in policy, including in the formulation of the Environment and Development Sessional Paper and Kenya's Environmental Policy.

The PEI is an important entry point for forestry to engage with finance and planning ministries to secure resources. It also provides an opportunity to collaborate with key line ministries which are responsible for policies and programmes that have poverty-environment linkages. Despite a strong attachment to MENR, the participation of KFS and KEFRI in the PEI has been marginal to date and, as a result, forestry authorities lack a sense of ownership in the process.

Recent proposals call for the establishment of a department within MENR to be staffed with full-time senior officials to manage ministry functions relevant to the forest sector, including

policy formulation and oversight; national standards and guidelines for sustainable forest management; legislation and statutory regulations; planning and co-ordination; engagement across sectors; inspection and monitoring; budgeting and mobilization of funds; promotion, public information and advocacy; and international obligations.

Suggested follow-up action

The establishment of such a department as a matter of priority will facilitate the engagement of the sector in macro-policy deliberations and increase forestry's presence and influence in national efforts to integrate the environment into development initiatives, including the one underway to update the Environment Policy. Full-time forestry staff in the department would also be able to help improve monitoring and reporting systems.

3.2.2 Organizational development and management of change

Perhaps the most promising opportunity for linking forestry to Kenya's strategies to reduce poverty is the government's commitment to address weak past governance in the sector and its insistence that the KFS be run with integrity and full accountability. As an indication of its intent to follow through on this promise, MENR and the Office of the President negotiated a performance contract with KFS for 2007-2008 which contains targets with clear poverty dimensions – the establishment of participatory management plans, nature-based enterprises, and farmer field schools, for example. The employee performance appraisal system has also been revised to take into account new service delivery strategies on which KFS staff will be assessed. The Service is also expected to participate in the implementation of national agendas, including efforts related to poverty reduction, rural livelihoods, energy and water supply, decentralization, food security, tourism, construction, and private investment.

Kenya's bold forestry reforms demand complex changes which must be carefully managed. The transition requires administration to confront major issues, including resistance from those who feel threatened. As experience has shown, the real challenge is not in launching institutions but in sustaining them in the face of political and economic forces.

The KFS will be organized along 8 forest conservancy areas, each constructed to meet pre-defined criteria, including an ecosystem-based approach, and each instructed to consider economic, social and cultural dimensions. Committees will be established in all 8 areas as an integral part of decentralized decision-making. Due to the importance of integrating forestry into district development plans, KFS will be present to varying degrees in 125 districts – up from 71 under the previous Forestry Department.

The KFS Strategic Plan (2007-2012) to guide efficient forest management and administration draws on the *Forests Act* and policies in other sectors. Priorities include improving livelihoods and promoting growth and equity through an array of programmes: plantation development, farm and dryland forestry, natural forest management, partnerships, community enterprises, education and information (KFS, 2007a).

Suggested follow-up action

If employees in the field are to perform the new functions expected of them, they must acquire the knowledge, skills and attitudes to adopt a customer-oriented focus and meet the public's high expectations for service delivery with integrity and participatory approaches which address the needs of poor people. The presence of forestry staff in 125 districts provides an unprecedented opportunity to consider the poverty situation in each area as a criterion to increase or reduce investments in the sector through the various KFS programmes.

3.2.3 Community forestry associations

The subsidiary legislation which the KFS Board approved on community and private sector

involvement in forest management now awaits gazettment. Once this process is complete, it will turn Kenya's previous policy of exclusion into one that provides for agreements with private interests and community forestry associations (CFAs), the latter of which make up 40% of each Forest Conservancy Committees and constitute a fundamental component of reforms to enhance transparency and accountability.

To respond to the needs and interests of the many stakeholder groups, Kenya's participatory forest management scheme includes a wide range of contracts and informal arrangements with companies, community groups, non-government organizations, smallholders and government. In the case of CFAs, two types of agreements with KFS are possible: one that seeks to conserve and use forests for livelihoods, cultural or religious practices and one that allows members to engage in non-resident cultivation in adjacent forest areas. This second option allocates plots to individuals through a balloting system which gives priority to poor and vulnerable members of the community.

Because of the complexities involved in participatory forest management, the government's move in this direction is creating uncertainty with regard to where, how and if the approach can work. Already, communities are expecting unconstrained access to and use of forest resources, an attitude which must be tempered through learning, mechanisms to share costs and benefits, feasibility assessments and pilot testing (World Bank, 2007b).

Suggested follow-up action

There is some urgency in getting subsidiary legislation passed so that genuine partnership rather than self-interest is at the centre of participatory forest management. In this regard, KFS faces the daunting task of ensuring that mechanisms are in place to share costs and benefits with communities, as a multitude of CFAs emerge. It must also ensure that potential investors understand that forestry, unlike agriculture, is a long term proposition.

Consistent with the spirit of the *Forests Act* to devolve certain functions to lower levels of government, KFS in collaboration with the National Alliance of Community Forestry Associations, should prepare guidelines and rules on the establishment of CFAs as well as on their composition and registration. In addition, the Service should support civil society groups to assess the capacity needs of these associations and to prepare a comprehensive plan to address shortcomings.

3.2.4 Watershed management

Kenya is among the top 10% water-stressed countries in the world and management of the scarce resource has fallen short of expectations. Increasing pressure from agriculture, manufacturing and urban areas, coupled with deforestation, are threatening Mt. Kenya, Aberdares, Mt. Elgon, the Mau escarpment and Cherangani Hills – the main catchment areas. In total, these “water towers” cover more than 1.0 million hectares and, except the Tsavo River, form the upper catchments of the main rivers of Kenya. They provide water for human and livestock use, supply hydroelectric power to 3 million people in Nairobi alone¹, and feed irrigation systems, agriculture and industry. The Mau forest complex is crucial to supplying water to Masai Mara and Serengeti National Parks (see Box 1).

According to a recent study, unequal distribution is also a problem which can and does lead to conflict and degradation of the resource. Nairobi and Central provinces have better access to

¹ Reduced hydroelectricity generation due to insufficient dam water levels, results in load shedding and can paralyse the manufacturing sector, among others, as experienced in 2000 where the economic cost of unmet electricity demand was estimated at US\$400 to \$630 million over a nine month period (World Bank, 2000).

piped water and the percentage of people living less than 15 minutes away from a water source varies from 96 in Nairobi to 22 in North Eastern Province. About 93% of the richest 20% of the population have access to water, compared to 28% of the poorest 20%. Poor people also suffer the most from water shortages and diseases and they pay more for the commodity than do rich people (KIPPRA, 2007).

Suggested follow-up action

Integrated management approaches in catchment areas are now considered the way forward in a reformed water sector and payment for environmental services (PES) is gaining popularity as a means to finance conservation, based on the principles that those who benefit pay and those who provide are compensated. Given the global trend in this direction, Kenya and the KFS would benefit from the experiences of PES schemes in other parts of Africa to determine which practices, if any, could be replicated. It could then mount pilot projects in the main catchment areas to inform decisions on expanding the concept. Studies would need to be commissioned to examine alternatives, reduce water contamination, evaluate socio-economic aspects of upstream areas where problems originate, and decide on an appropriate institutional structure for a payment mechanism.

Moreover, KFS engagement in the planning processes of the National Water Management Authority and its regional boards would help it to harmonize and align legally mandated management plans with current water catchment strategies.

Box 1. The cost and benefits of forest and water conservation in Aberdares

The Aberdare range stretches over 125 kilometres from Nyahururu in the North to Limuru in the South. It is the third highest mountain in Kenya and its two main peaks reach altitudes of 4 000 and 3 900 meters. The area has two rainy seasons and various vegetation zones, including closed-canopy forests, bamboo, sub-alpine and alpine.

A large part of the range is gazetted forest reserves, some of which fall within the Aberdare National Park. The forest belt has a high diversity of forest types because of the wide variation in altitudes (from 1 800 to 3 600 meters) and climatic differences between the slopes. The Aberdares, as a forested water catchment area, provide the following benefits, among others:

- One in three Kenyans depends upon the rainfall, rivers, forest and wildlife of the Aberdares for their livelihood.
- Five out of Kenya's seven largest rivers flow north, west, east and south, providing hydro power and water to millions of farmers and seven of twelve major towns.
- Nairobi's population of about 3 million depends entirely on water from the Aberdares.
- More than 30% of the nation's tea and 70% of its coffee are grown on the foothills and high slopes.
- More than four million farmers living on the lower slopes depend upon its rich soils and rainfall.
- Its profuse wildlife includes several thousand elephants, buffalo, leopards, forest antelope, rare giant forest hogs, bongos and more than 270 species of birds.
- The park averages 53 000 visitors per year and collected about Kshs 3.8 million in 2005.

Source: Kariuki, P., Mukolwe, M., and Sato, Y., 2004

3.2.5 Service delivery to support farm forestry

Forestry extension services in Kenya began in 1971 with the Afforestation and Extension Scheme to bridge the supply deficit of forest products (mainly fuelwood) by promoting tree planting on farms to supplement what was produced in gazetted forests. Central tree nurseries grew the seedlings which were then distributed to the public free or at subsidized prices.

Development partners supported these efforts until the early 1990s and the programme enticed many farmers to plant trees, especially in high potential areas such as the ASALS where one pilot study revealed that 91% of a farmer's income came from tree seedlings and fruit (Kariuki, P. *et al*, 2004). The scheme eventually gave rise to a full fledged Forestry Extension and Partnerships Division of the Forest Department which administered the Farm Forestry Programme and the Extension and Dryland Forestry Programme.

KFS's current draft extension strategy outlines various approaches to disseminate information to the public, some of which are in collaboration with other ministries as part of an integrated package to address issues at the farm or community level (KFS, 2007b). Building on the successful farmer field schools, KFS can create incentives for the management of environmentally sensitive land by supporting projects that promote alternate livelihoods and generate income (see Box 2). The new strategy shifts from production and distribution of tree seedlings to assisting farmers and rural communities to establish their own nurseries, care for seedlings and manage and conserve trees on their farms. As a public service, extension helps farmers to add value to non-wood forest products through processing; practice agroforestry; diversify into high value crops; establish networks to access market information and market outlets; and raise livestock such as ostrich, guinea fowls, and camel to respond to emerging demand. However, resource constraints severely curtail this type of assistance.

Suggested follow-up action

If KFS accorded higher priority to its new extension strategy, it would support agents and service providers, including NGOs, to provide services that are demand-driven and competitive, including the transfer of information, technologies and practices that can be adapted to meet the needs of local communities.

3.2.6 Opportunities for collaboration with agriculture

As a key priority in Kenya, food security goals offer a multitude of opportunities for forestry officials to work better with staff in the Ministry of Agriculture who expressed interest in forging closer partnerships. Moreover, the absence of a forestry component in any of the projects that the International Fund for Agricultural Development supports in Kenya shows the need for FAO to lobby for its inclusion and to promote the sector as an important player in the fight against hunger and malnutrition.

Suggested follow-up action

There is much scope for KFS to collaborate with the Ministry of Agriculture's extension services and agroforestry unit to establish on each farm tree nurseries of species that mix well with crops; certify fruit trees as disease free; promote large-scale tree farming for charcoal and fuelwood; incorporate medicinal and aromatic plants into farming systems; and explore the feasibility of planting mulberry trees to produce silk.

At the international level, FAO should seek the commitment of the International Fund for Agricultural Development to involve it in designing country proposals so that a forestry component is built in from the onset. FAO should also arrange with the Government of Kenya, as host of the FAO Regional Conference for Africa (March 2008), to include the key role of forestry in achieving food security on the agenda.

Box 2. Expanding the farmer field school approach

Farmer field schools are places of learning without walls, where farmer groups collectively develop technologies for tree growing and other activities on their farms. Capacity building and empowerment are the hallmarks of this approach – two key factors which have significant potential to reduce poverty.

The Government of Kenya and the Government of Japan are jointly supporting the Intensified Social Forestry Project to build the capacity of farmers for farm forestry. By the end of the project in March 2009, more than 4 000 households are expected to benefit. Recipients are mainly rural poor people, women, and youth who may not venture to start enterprises on their own. In semi arid areas, these groups are particularly vulnerable due to limited livelihood opportunities as a result of low productivity, friable soils, unreliable rainfall, in addition to poor access to market information, limited value addition, and lack of investment capital.

3.3 Constraints to establishing linkages

3.3.1 Gaps in evidence-based policy

As in many countries, Kenya's official statistics do not accurately reflect the extent of forest resources or their contribution to the economy. These gaps fuel the perception that forestry meets subsistence needs only and is therefore not important. Data for the period 1999-2005 indicate little change in forest cover yet known excisions suggest the figure for gazetted forests should be lower. Conversely, extensive tree planting which took place under the Afforestation and Extension Scheme on private land, in state forests, and in some forests managed by local authorities should show higher forest cover in these areas.

The United Nations System of National Accounts dates back to 1993 and attributes many forestry activities to other sectors. For example, wood carvers use an estimated 15 000 cubic meters of wood per year – less than 1% of Kenya's annual wood harvest (FAO 2005) – yet generate export earnings of around Kshs 1.6 billion per year and financially support close to 400 000 people. Distortions also arise from illegal charcoal production – estimated to employ 200,000 directly and another 300,000 in transport and sales. Figures for charcoal sales vary from Kshs 17.5 billion (Ministry of Energy, 2002) to Kshs 32 billion (ESDA, 2005).

A forest information system accessible to the public is being designed as the basis for monitoring forest operations, providing better data to inform decisions on annual allowable cuts in planted forests, and for estimating supply and demand for timber products. However, the sector's importance in reducing poverty is not captured and thus remains elusive.

Suggested follow-up action

The United Nations Economic Commission for Africa is working with the United Nations Statistics Division to revise the System of National Accounts. The Kenya National Bureau of Statistics is participating in discussions but, for the most part, line ministries are not involved in the process. If MENR and KFS engaged in this review, it could seek improvements to the system which would better calculate forestry's share of GDP. Working more closely with KNBS would also increase the chances of capturing more pertinent data in economic and household surveys, and of setting up a satellite account for forestry, as did tourism in Botswana, Mozambique, South Africa and Tanzania, for example.

The establishment of a national forest accounting system would provide a description of the resource base and the means to track resource flows, i.e., the total value of forests and the optimal potential of the resource. Although the benefits of mounting such a system would

take up to 20 years to materialize, the precise contribution of forest products and services could be calculated, including their role in reducing poverty. If a pilot test was designed and tried in select communities, findings would provide the basis for fine-tuning the methodology, thereby paving the way for wider application.

If KFS gathered information already available in the literature on forestry's contributions to poverty reduction and carried out a forest resources assessment at regular intervals, it could better explain the need to collect certain data and how they will be used to central statistical authorities and the Poverty Eradication Commission in the Ministry of Planning and Development. The Commission, home to the PEI, and KNBS could then engage with KFS to incorporate pertinent questions into existing tools such as the Integrated Household Survey, develop a stand-alone instrument or, as noted above, establish a satellite account as has been done in other countries for the tourism industry.

3.3.2 Ban on timber harvesting

A ban on logging in natural forests was introduced in 1986 and another was imposed on timber harvesting in 1999. As of April 2002, the ban prohibits exploitation of timber in gazetted forests and forbids any cutting, including silvicultural thinning and pruning. As a result, close to 38 000 hectares of over-mature and mature industrial plantations in these forests, valued at more than Kshs 10 billion, are deteriorating. If the ban was removed, it would take close to 6 years to commercially thin the 18 000 hectares or so of planted forests between the ages 10 and 22 years, valued at about Kshs 3.5 billion.

The ban was responsible for the closure of more than 300 sawmills and the loss of 30 000 direct and 100 000 indirect jobs. When tertiary services associated with the industry are considered, the impact on livelihoods and the economy is far greater. Investments of the timber industry alone, estimated to be more than Kshs 44 billion, was significantly reduced. Perhaps as importantly, the ban gave rise to a lucrative black market for timber, forcing KFS to shift scant resources from priorities such as plantation establishment and management to law enforcement.

Since the ban, the country has been importing timber. Not only is it losing foreign exchange but it is also increasing the risk of introducing exotic pests and diseases. In 2006, imports included 85,106m³ of softwood, 21,277m³ of hardwood and 150 000 power transmission poles, valued at a total of Kshs 3.6 billion.

The ban was intended to give the Forestry Department time to carry out a resource assessment of planted forests, draw short to medium term harvesting plans, and streamline licensing and allocation procedures. The ban has allowed KFS to determine the stock available to maintain sustainable harvest levels and time to replant the logged areas. It also made farmers aware of the benefits of investing in tree planting as industry looked to farms for the supply of logs and led to more efficient use of timber by-products by creating markets for saw dust, for example. When the Presidential ban came into force in 1999, the planting backlog stood at 46 000 hectares but replanting efforts have since reduced it to 15000 hectares.

Suggested follow-up action

Control measures, including a comprehensive database and a transparent disposal and licensing process would pave the way for lifting the ban, as would the establishment of an independent Investment Centre to oversee the development and management of planted forests. Cabinet may wish to consider phasing out the ban, initially authorizing a gradual resumption of silviculture operations such as thinning, pruning, re-spacing, coppice reduction and treatment of seed stands.

3.3.3 Unregulated charcoal business

Virtually all rural dwellers depend on fuelwood for energy and more than 90% of urban households use charcoal as a primary source of fuel for cooking. Based on a projected annual growth rate of 2.3%, Kenya's population is expected to increase from 35 million in 2007 to an estimated 60 million in 2030. By that time, the demand for fuelwood and charcoal could reach 23.5 million tons and 5.7 million tons respectively if per capita consumption remains at the present level. Assuming a conversion rate of 50% to produce charcoal, 11.4 million tons of biomass would be needed. Hence, to supply energy from both fuelwood and charcoal by 2030, 34.9 million tons of biomass would be required. Based on a conservative estimated yield of 10 tonnes per hectare, about 3.5 million hectares would have to be harvested annually (Cardno Agrisystems, 2007).

Presidential decrees have been the main form of regulatory control over the charcoal industry for the past 20 years. They operate under a fragmented and poorly harmonized framework which involves many institutions with overlapping roles and mandates. The new *Forests Act* allows for the production (if sustainable), sale, purchase, and transport of charcoal. At present the informal charcoal economy is worth around Kshs 32 billion a year, equivalent to revenues from tea production. When the government legalizes the industry under the *Forests Act*, its annual tax revenue could be at least Kshs 5 billion. To prepare for this occurrence, KFS will elaborate a National Charcoal Development Programme in 2007/08 which will include medium-term investment priorities.

The draft Forest Policy notes the need to commercialize and regulate the production and marketing of fuelwood, including charcoal. It further notes the need to develop strategies to achieve sustainable production, increase efficient utilization, and promote improved wood energy technologies as well as alternative forms of energy.

The Energy Policy (2004) calls for licensing charcoal production to encourage its commercial sustainability and promotes private sector participation in all phases. It also seeks to increase the rate at which efficient charcoal stoves are adopted – from the current 47% to 80% by 2010 and 100% by 2020 in urban areas; and to 40% by 2010 and 60% by 2020 in rural areas. The policy further targets up to a 50% increase in the efficiency of stoves by 2020.

While the main drivers in the Ministry of Energy are electrification and the provision of energy from charcoal, the focus in MENR is more on environment issues. Thus, collaboration has been limited to date.

Suggested follow-up action

A realistic timeframe for reducing the country's dependency on charcoal is 15-20 years, a period on which the National Charcoal Development Programme should be based. The use of *Prosopis juliflora* as an energy source should also be considered (see Box 3), in addition to incentives to encourage schools, hospitals and restaurants to move away from charcoal and adopt fuel efficient wood stoves.

Since biomass is expected to remain the primary source of energy for as long as it takes to transform the rural economy from subsistence to a monetized economy, the establishment of a multi-stakeholder body to oversee wood fuel production and marketing would facilitate the shift towards a sustainable charcoal industry. MENR and KFS could offer expertise in setting out simple licensing procedures in designated areas which are governed by national standards and guidelines for production as well as fiscal measures that support conservation.

In addition to the need to work together on charcoal issues, much scope exists for KFS and Energy to establish closer linkages in other areas: developing a joint action plan to increase the domestic supply of poles for electrification rather than continue importing them at high

costs; addressing the shortfalls in energy which the tea industry is facing; and collaborating on a national strategy to use the oil of *Jatropha curcas* for biofuel (see Box 4).

Box 3. Potential uses of *Prosopis juliflora*

According to KEFRI estimates, *Prosopis juliflora* covers 600,000 hectares in the country. The tree is a hardy species and valuable in terms of restoring degraded land in that roots extend to 80 meters deep and 30 meters laterally. It is fast-growing, drought resistant, salt tolerant, and has remarkable coppicing power. It produces as many as 60 million seeds per ha per year and bears fruit in 3 to 5 years. The wood gives off high heat and burns slowly – properties which make it an excellent source of fuelwood. The timber is classified as durable to highly durable and has high calorific value of about 5 Kcal/g. About 10 kg of the green tree are required to make 1-2 kg of charcoal using the traditional earth kiln.

People in Kenya's arid lands want *Prosopis* eradicated yet experience in Australia, Brazil, South Africa, USA, and other countries shows that doing so is difficult and costly. Moreover, in Peru for example, revenue generated from charcoal made from *Prosopis* is about US\$50 million per year. Gujarat State in India produces 3 million tons per year and *Prosopis* meets as much as 75% of the fuelwood needs of rural people in arid and semi-arid India.

Assuming that the further spread of the tree in Kenya is inevitable, it can supply significant amounts of fuelwood and charcoal to the ASALS and other parts of the country, possibly for export as well. If each hectare produces a mere 10 tonnes per year, some 6 million tons of fuelwood would be available from the current tree cover alone.

Source: Cardno Agrisystems Africa Ltd, 2007

3.3.4 Enforcement and crime prevention

Recognizing that indigenous forests are central to Kenya's society and culture, they were managed to conserve water supplies, reduce soil erosion and, to a lesser extent, produce timber. However, steady growth in the rural population continues to place strains on forest land which is often considered the only remaining land reserve in the country.

The reasons for committing forest offences are often because of ignorance of the law and negligence. They also include poverty, unemployment, and the collection of medicinal plants for commercial purposes. Widespread bribery of forest guards and local police, lack of support to junior officers, shortage of vehicles and other equipment in the field to collect evidence of infractions, and inadequate fines or sentencing continue to hinder enforcement efforts (World Bank, 2007a) and create conflict between the authorities and communities in many natural forests. Although the command and control approach of the past emphasized law enforcement rather than crime prevention, KFS understands that it must integrate compliance measures with greater efforts to involve communities in forest management.

As initial steps, KFS has established a rapid response team, strengthened field units, introduced a confidential hotline to report illegal activities, and is designing a comprehensive re-training programme for its 2 600 forest guards. The Service continues to build partnerships with key government institutions to carry out these tasks.

Suggested follow-up action

If KFS developed an enforcement strategy that focuses on community engagement and on compliance through preventative action, it would reduce conflict as well as surveillance costs. With re-training such as that taking place at the Londiani Forest College, guards could then direct part of their time to support participatory forest management.

3.3.5 Land tenure and resettlement

Given that 70% of the population lives on 12% of the land area classified as medium to high potential for agriculture and livestock production, any discussion on forestry in Kenya inevitably reverts to issues surrounding land policy and administration. A recent study characterizes land distribution in Kenya as follows:

- Ownership of arable land is unequal, most of which is in the hands of 20% of the population. According to Kenya Rural Development Strategy, 3 600 large landowners control 39% of arable land while 3.5 million smallholders share less than 50%, for an average of 1.2 hectares per household.
- There are large regional inequalities in terms of land quality. In absolute terms, the Rift Valley province has the largest area, with high and medium potential land for agriculture production. Western, Nyanza and Central provinces have the least area but a sizeable proportion is high potential. The three provinces are also the most densely populated in the country and comprise specific ethnic groups.
- The proportion of rural poor households without land differs widely across the country, with the highest in Central Province (15.8%) and the lowest in Western Province (6%). The problem of landlessness was significantly reduced due to resettlement between 1994 and 1997, except in Eastern Province. (KIPRA, 2007)

The Land Policy recognizes that inequality leads to the degradation of land and other natural resources and gives rise to conflict, for example when government attempts to evict encroachers in gazetted forests.

Suggested follow-up action

A new draft land policy is putting forward bold proposals on redistribution, ownership by women, the amount one person can own, and measures to correct historical injustices. If the KFS Board added the Ministry of Lands to its membership, it could discuss the need to include special interventions in the new policy to protect the rights of vulnerable groups and minority communities such as hunter-gatherers, forest dwellers and pastoralists. Adding these dimensions would strengthen its usefulness as a tool to enforce the new forestry and land legislation.

A coherent KFS resettlement policy, formulated and implemented in a participatory manner, would mitigate conflicts over land and customary rights, especially if it outlined a process to identify and assess the rights of affected persons, including groups residing in gazetted forests, and if it provided guidelines on suitable approaches to resolve problems. The United Nations Human Rights Commission would be instrumental in building country capacity to deal with resettlement and human rights issues.

3.4 Strengthening forestry links to poverty reduction

3.4.1 Monitoring and evaluation

Kenya's Integrated Monitoring and Evaluation System provides for reporting at both central and district government levels. It aims to supply timely and reliable information to feed the budget process and assess the effectiveness of government programmes. Officials involved in these functions also seek to engage civil society in M&E activities.

The Monitoring and Evaluation Department of the Ministry of Planning and Development (MPND) uses 31 indicators to assess implementation of the Economic Recovery Strategy and report on progress. It draws on information from the Kenya National Bureau of Statistics (KNBS) and planning units in relevant ministries. District development officers, with input

from sectors operating at that level, compile reports which supplement the national effort.

As the ERS draws to a close and the 2030 Vision for Kenya becomes the national framework for future action, MPND is leading efforts to 1) finalize the document, along with indicators, and 2) identify flagship projects for implementation in the first 5-year phase, such as a strategy for revitalizing agriculture. Therefore, little time is left for MENR and KFS to influence decisions on both forestry indicators and flagship projects.

A sound forestry monitoring and evaluation system is one of the best means to overcome statistical deficiencies and the time has come to move beyond reports produced solely by and for foresters to those which consider the wider needs of society. New approaches require incentives, appropriate structures, and competent staff to engage central agencies such as the KNBS. KFS ownership of the performance contract process is a step in the right direction but monitoring and evaluating implementation of medium and long-term activities in the KFMP and the KFS Strategic Plan would make clear forestry's contributions to poverty reduction.

Suggested follow-up action

Given the importance and the urgency of submitting forestry indicators and project proposals to MPND for inclusion in the 2030 Vision before it is finalized, KFS needs to work closely with the planning department of MENR to develop key inputs without delay. If it misses this opportunity, it will have to wait another five years to mainstream the sector in the country's core strategy to achieve economic growth and prosperity.

A system which not only supports the accounting needs of KFS but also fills important gaps in data to improve national forestry planning will help to secure wider government buy-in, especially if it provides relevant and accurate information on how the sector helps to achieve the goals and targets of the ERS, the 2030 Vision, and the Millennium Development Goals. For example, poverty maps which KNBS updates regularly to show changing trends would be more useful if they included better spatial data on forests and trees on farms (see Box 4).

The annual National Household Survey would help KFS and KNBS to establish credible baselines to assess patterns and identify factors which affect the delivery of forest-related services, particularly to poor people. Along similar lines, the KFMP and the KFS Strategic Plan provide a sound basis on which MENR and KFS can develop a coherent, harmonized, and comprehensive M&E system for forestry and design a framework for implementing these plans that correspond to established goals and targets.

The Natural Resources Management Project which the World Bank is financing can provide a useful model for MENR and KFS to follow with regard to the participatory approach it has adopted for M&E at the local level – for example community score cards, social audits, participatory budgeting and expenditure reviews, and participatory poverty assessments.

Box 4. *Nature's Benefits in Kenya: an Atlas of Ecosystems and Human Well-being*

This atlas uses a new approach to examine the links between ecosystem services and poverty by overlaying geo-referenced statistical information on population and household expenses with spatial data on ecosystems and their services (for example water, trees, wildlife). The result yields a picture of how land, people, and prosperity are related in Kenya. The maps and analyses are an attempt to provide information on the connections among environmental resources – including forests as well as trees on farms and in landscapes – human well-being, and economic expansion. Better knowledge of these linkages can then be used to develop programmes to reduce poverty and design policies to improve water resource management, agriculture production, conservation of biological diversity, and charcoal production.

The atlas represents a first step to stimulate informed dialogue, seek answers to difficult questions, and lay the foundations for effective strategies to reduce poverty in the hardest hit areas of the country, making better use of Kenya's natural resources.

Source: World Resources Institute; Department of Resource Surveys and Remote Sensing, Ministry of Environment and Natural Resources, Kenya; Central Bureau of Statistics Ministry of Planning and National Development, Kenya; and International Livestock Research Institute (2007)

3.4.2 Civil society organizations

Civil society groups have a place in Kenyan politics and are increasingly engaging in forestry. In addition to community associations and conservation committees which operate at local and district levels, the Forestry Society, the Kenya Forests Working Group, the Forests Action Network, the Kenya Association of Forest Users, and the Green Belt Movement are national in scope. The National Council of Women, although mainly concerned with environment issues, also promotes tree planting.

Most groups support communities to sustainably manage forests and advocate the benefits of forestry to wider audiences. In this latter regard, the Forests Action Network produced a brochure on the economic potential of forests in Kenya, drawing on several sources for facts and statistics to describe the value of forest products and services. Such publications are instrumental in raising awareness of the importance of the sector to the country.

Suggested follow-up action

As Kenyans prepare to go to the polls in December 2007, the time is ideal for civil society organizations to lobby politicians to include forestry issues in their election platforms and have them publicize the sector's significant contributions to national development and poverty reduction. The Forestry Society also has much potential to champion forestry as a critical means to reduce poverty in the country – a direction it has not pursued to any great extent to date. It is a credible group of professionals which should be more active in searching for solution to pressing issues, including ways to increase private sector involvement in forestry operations.

If KFS established closer ties to the Green Belt Movement and the National Council of Women, it could draw on their networks to strengthen national tree planting efforts and to better take into account the need for women to be more involved in decisions surrounding forest access and management. Benefits of improved collaboration with these groups also include achieving optimum representation of women on forest conservancy committees.

3.4.3 Awareness and communications

Like in many countries, the public does not understand well the mandate and role of forestry authorities or of the economic, environmental, social and cultural value of forests and trees. Many communities located in or near these resources are some of the poorest in the country and, because forests offer them little chance for financial gain, they favour cutting them down to grow crops. They also eliminate wildlife and the conflicts that go with it when they do so and thus consider that they benefit in this way as well.

Neither is the general population aware that most planted forests are established for logging purposes to relieve pressure on indigenous forests. People should understand that logging of a renewable resource is not harmful *per se* and that planted forests are important assets which, in addition to timber, provide a myriad of ecological services.

Suggested follow-up action

With the recent promulgation of the *Forests Act 2005* and submission of the draft forest policy to Parliament when it reconvenes after elections, Kenyans will need to be informed of the reforms and how they affect forest management in the country. Making these documents available in user-friendly format and in local languages will promote greater understanding of the changes and provide a good opportunity to describe how forests and trees on farms contribute to national development and to all Millennium Development Goals.

In collaboration with non-government organizations, KFS should consider requesting assistance from international development partners, including the National Forest Programme Facility, to produce and widely distribute both official and simpler versions of the *Act* and the policy once approved. Fact sheets on the importance of forests and trees outside forests for the range of products and services they provide would also be useful.

3.4.4 Improving livelihoods through establishment of planted forests

Development of industrial planted forests remains a core activity of the KFS, given their potential to support viable economic enterprises if managed sustainably. By 1994, planted forests covered 160 000 ha but excisions in the late nineties reduced the area to 120 000 ha.

In 1910, Kenya's colonial administration introduced the shamba system (a modified Taungya system) or non-residential cultivation to reduce pressure on natural forests to supply raw materials for a growing timber industry. Under this system, farmers planted both trees and food crops on small plots and tended the trees planted by the Forest Department. They then harvested the crops until the trees were established.

The system was a preferred method of establishing planted forests because it reduced costs and increased food production. Other benefits included higher survival rates for seedling and lower susceptibility to pests and diseases, in addition to generating income for farmers from the sale of surplus crops – Kshs 124 000 per hectare per year in Kiambu District, for example (Kagombe, J.K. & J. Gitonga 2005).

Because expansion of the system in the mid-eighties was mismanaged, it was banned by presidential decree in 1987 and no provisions were made to continue reforestation. A cutback of 6 000 staff in the ensuing years, coupled with inadequate funding, led to further inaction. In 1994, the system was reorganized but plots were allocated indiscriminately, stakeholder participation was low, and technical solutions were compromised. Although guidelines were issued in 2000 and productivity improvements led to intensified planting, the system was abandoned again in 2003 because farmers were intentionally delaying tree growth in order to extend use of the land for agriculture.

KFS, in collaboration with key partners, revisited the shamba system in mid-2007 and are

outlining a new Plantation Establishment Scheme for Improved Livelihoods. The KFS Board, through Forest Conservancy Committees and Community Forestry Associations, will provide the institutional framework to administer the new system which will target the participation of poor people.

Suggested follow-up action

Public support for the Plantation Establishment Scheme for Improved Livelihoods would increase significantly if KFS, prior to implementation, involved stakeholders in elaborating clear operational guidelines, objectives, and a system to monitor and evaluate impacts. A campaign to explain how the scheme will function, how it will be managed, and how it will be assessed would secure additional buy-in.

With regard to planted forests, the development of a 5-year felling plan for each forest conservancy and division, which includes annual replanting targets, would ensure harvesting levels are sustainable across the country.

3.4.5 Intensifying dryland forestry in arid and semi-arid lands

About 80% of Kenya's land area is arid and semi-arid (ASALS) and is home to close to 10 million people, roughly 25% of the population. Many of the more than 1.5 million who are chronically food insecure and depend on emergency relief to meet basic needs are located in this region. The government's strategy to address historic marginalization, as detailed in the ASALS Policy, includes a 15-year investment plan to increase services and infrastructure, a drought contingency fund to improve disaster management, a 10-year programme to fight hunger, and a programme to manage natural resources, among others.

Kenya's ASALS Policy (2006) recognizes that lack of appropriate action has been a problem over the years, rather than shortage of water. Low investment by government, including the Forest Department, has also plagued the area where forests support important production systems which are vulnerable to desertification, climate change, droughts and floods. The ASALS harbour key biodiversity habitats, contain many cultural and spiritual sites, are crucial for water conservation, and provide much of Kenya's domestic energy resources.

Although the management of dry land forests requires different interventions than other forest types and the demands of pastoralists on these resources vary according to season, forestry officials do not have sufficient capacity or training to address issues particular to these ecosystems. Moreover, the potential to use *Jatropha curcas* for the range of products and services it provides has not been fully considered (see Box 5) nor has government been proactive in opening up markets or assisting farmers in the ASALS to organize cooperatives and diversify their sources of income.

Suggested follow-up action

If government is to respond to the requirements associated with managing dryland forests and address the special needs of people living in the ASALS who depend on these resources, it will have to increase its support to them and strengthen the capacity of officials stationed in the area. Priorities include regulating the charcoal industry, commercializing non-wood forest products (gums, resins, essential oils, honey, insects, wood carving), providing extension services, and promoting appropriate technologies for the sustainable management of dryland forests.

Box 5. Current and potential uses of *Jatropha curcas*

Jatropha curcas is found in Kenya's Western and Nyanza provinces, Rift Valley, Coast and Eastern provinces, mostly in bushlands and along rivers. These favoured sites make the species a good candidate for expansion into marginal lands where it would not compete in areas that are suitable for crop cultivation. Fast growth, tolerance to drought, survival on poor soils, and its multiple uses make *Jatropha* a candidate for resource-poor households to grow.

The oil it produces has the potential to meet rural needs for cooking and lighting, serves as boiler fuel for industrial purposes, and is a viable replacement for diesel. Its use as a cooking agent would not only reduce deforestation but also the exposure of women and children to smoke pollution from inefficient fuel and stoves in poorly ventilated space. If produced in sufficient quantities, the oil from *Jatropha* may also entice Kenya Tea Development Agency, Kenya Electricity Generating Company, cement manufacturers and others to switch to this form of energy in their eagerness to go 'green' and to benefit from incentives under climate change mitigation schemes.

Its role in stabilizing soil, producing bio-energy, controlling erosion and livestock, and generating income makes it a valuable asset to improve livelihoods, especially of women. It combines short-term benefits such as revenue from the sale of soap and oil to long-term benefits such as conservation of natural resources.

Source: KFS, 2007c.

3.4.6 The potential of biomass energy production

The National Bio-fuels Committee which was established in 2006 is leading Kenya's efforts to formulate a bio-fuel strategy and action plan. Members are from the ministries responsible for energy, agriculture, water and irrigation, environment and natural resources, trade and industry. In a first phase, the committee will identify studies to be undertaken and, drawing on insights gained from restructuring the tea and coffee industries, will develop a strategy to make changes to the sugar industry in case sugar cane is the feedstock.

Further, the government is considering the establishment of a bio-fuel trust fund, similar to the ones in place for tourism, water and biodiversity. It could be financed by the Agricultural Finance Corporation and micro-finance entities to provide seed and venture capital to new bio-fuel enterprises, develop business models, elaborate options for household energy consumption, support bio-fuel research and training, as well as formulate legislation and policies conducive to attracting investments.

Suggestion follow-up action

Given that MENR is a member of the National Bio-fuels Committee, it is well placed to advance forestry, in collaboration with KFS and KEFRI, as an integral part of national bio-fuel policy processes. It is also well placed to secure the inclusion of forestry priorities – more silviculture research for example – in the bio-fuel strategy and action plan under development.

3.4.7 Development partner assistance

The Kenya Joint Assistance Strategy (KJAS), launched in September 2007, is the 5-year action plan of 15 development partners to support the government's development strategy, including the Economic Recovery Strategy and the Millennium Development Goals. The nature of the investments calls for initiatives to reduce poverty, of which forestry is a key entry point.

Under this joint strategy, partners will provide technical and financial assistance to support forestry reforms and make the sector more responsive to social, economic and environmental

issues. Activities over the next 5 years include:

- increasing transparency, accountability and integrity of Kenya's forestry administration by improving the information base on forest resources and preparing plans for the development and sustainable management of both planted and indigenous forests
- providing institutional support to complete reforms and increase community and private sector involvement in the development and management of forests through a dedicated Investment Centre and transparent systems for concession allocation, asset valuation and marketing
- helping the KFS to work with the private sector to expand forest cover, maintain the ecological services of forests, and establish the country's credibility in the global carbon trading market.

Suggested follow-up action

If forestry institutions and international development partners who have committed support to the sector were to establish joint mechanisms to plan and finance reforms to KFS structures and systems, assistance would be better harmonized and aligned, thus more effective.

References

- Cardno Agrisystems Africa Ltd. 2007.** Economic Assessment of the role of the environment and renewable natural resources in economic growth and poverty reduction in Kenya. Ministry of Planning and National Development, United Nations Development Programme and Kenya Poverty Environment Initiative. Nairobi, Kenya.
- Energy for Sustainable Development Africa. 2005.** National charcoal survey: exploring the potential for a sustainable charcoal industry in Kenya. Nairobi. June 2005.
- FAO. 2005.** State of the World's Forests. Rome, Italy.
- FFR/IDL/Matrix Consultant. 2007.** Strategic environmental assessment of the Kenya *Forests Act (2005)*, prepared for the Government of Kenya and the World Bank. February 2007.
- Kagombe, J.K. & J. Gitonga. 2005.** Plantation establishment system in Kenya – the shamba system case study”, Kenya Forest Research Institute and Forest Department, September 2005. Nairobi, Kenya.
- Kariuki, P., Mukolwe, M., and Sato, Y. 2004.** Pilot Study for the Intensified Social Forestry Project. Development Impact Consulting. Forest Department. Nairobi, Kenya.
- Kenya Forest Service. 2007a.** Strategic Plan (2007-2012). Nairobi, Kenya.
- Kenya Forest Service. 2007b.** Extension Strategy Framework. Nairobi, Kenya.
- Kenya Forest Service. 2007c.** Proceedings of the Stakeholder Workshop on Jatropha/Biofuels. 28 June 2007. Nairobi, Kenya.
- KIPPRA. 2007.** Inequality, Poverty and Environment in Kenya: A matter of power relations, market failures and weak governance. Kenya Institute for Public Policy Research and Analysis. Nairobi, Kenya.
- Republic of Kenya. 2003.** Economic Recovery Strategy for Wealth and Employment Creation (2003-2007). Ministry of Planning and National Development. Nairobi, Kenya.
- Republic of Kenya. 2005.** *Forests Act, 2005*, Kenya Gazette Supplement No. 88, Act No. 7.
- Republic of Kenya. 2006.** Sessional paper No. 4 of 2006 on Forest Policy, Ministry of Environment and Natural Resources. Nairobi, Kenya.
- Republic of Kenya. 2007.** The Forest (Participation in sustainable forest management) Rules, 2007. DRAFT, January 26, 2007.
- Republic of Kenya. 2007.** Economic Survey. Kenya National Bureau of Statistics. Nairobi, Kenya. 2007.
- UNDP. 2006.** Human Development Report. Beyond Scarcity: Power, Poverty and the Global Water Crisis. November 2006. New York, New York.
- World Bank. 2000.** Emergency Power Supply Project. Technical Annex. Report No. T –

7388-KE. September 2000. Washington D.C.

World Bank. 2006. World Development Report 2006: Equity and Development. Washington, D.C.

World Bank. 2007a. Strategic Environmental Assessment of the Kenya *Forests Act 2005*. Main Report January, 2007. FRR / IDL / Matrix Consultants. Washington DC.

World Bank. 2007a. Forest Policy Note: Participation in sustainable forest management – linking forests and people. April 2007. Washington DC.

World Resources Institute; Department of Resource Surveys and Remote Sensing, Ministry of Environment and Natural Resources, Kenya; Central Bureau of Statistics Ministry of Planning and National Development, Kenya; and International Livestock Research Institute. 2007. *Nature's Benefits in Kenya: an Atlas of Ecosystems and Human Well-being*. World Resources Institute, Washington D.C. and Nairobi, Kenya.

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