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REDD+ IN KENYA: AN INDIGENOUS PEOPLES' PERSPECTIVE

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INTRODUCTION

Background

Tebtebba,¹ in partnership with local organizations in eight countries, is implementing the Climate and Forest Initiative 2009 Project entitled “Ensuring the Effective Participation of Indigenous Peoples in Global and National REDD Processes.” The project is funded by the Norwegian Agency for Development Cooperation (NORAD). The project has two major components: Education and awareness-raising and advocacy and research. The research component is being undertaken at two levels: a Policy and Program Analysis at the national level in eight different countries composed of Nicaragua, Peru, Kenya, Cameroon, Vietnam, Indonesia, Philippines and Nepal; and case studies at the community level in three demonstration sites which are Nicaragua, Kenya and Indonesia.

In Kenya, the project is being implemented by Mainyoito Pastoralists Integrated Development Organization (MPIDO), an indigenous pastoralist’s organization for human rights and development. The research report therefore presents the findings and recommendations from the national policy and program analysis phase of the project. The findings documented here would eventually form part of the background information for the third component of the research project which is a case study of an indigenous people’s managed forest—Naimina Enkiyio Forest—in Narok South District, Southern Kenya.

General and Specific Objectives

The general objective of the research is to generate data and information that will:

- Support indigenous peoples' effective participation in REDD² processes (at local, national, regional and global levels), including the development of a REDD architecture that can effectively contribute to meet the objectives of the UNFCCC and the post-2012 global climate regime; and ii) Illustrate and promote indigenous peoples' strategies on sustainable forest resource management and enhancement of carbon stocks.

The Specific objectives for the Policy and Program Analysis research include:

1. To gather and present data on the drivers of deforestation and existing national laws and policies on forests, land tenure, indigenous peoples and their rights, climate change and REDD;
2. To present and analyze the processes and mechanisms of designing, implementing, monitoring and evaluating REDD and private stakeholders' programs, activities and initiatives that directly affect indigenous peoples and their forests;
3. To identify issues and challenges on the REDD programs that affect indigenous peoples and their rights.

Research Methodology and Conceptual Framework

Methodology

The research utilized various data gathering techniques including archival study, interviews, focused group discussions, field observations and assessments to maximize on the benefits of triangulation of data collected from all the methods and sources. The researcher conducted a number of interviews with

government officials, civil society representatives, indigenous peoples' representatives and other professionals knowledgeable in the question under study. Consultative and discussion forums at the community, district and national levels with indigenous peoples were conducted to have a glimpse of the indigenous peoples' perspective in the whole question of climate change, REDD and rights. Participation in government seminar-workshops equally provided opportunities for networking and partnership, access to relevant literature materials and discussions with key players in this field.

Field visits to indigenous peoples' managed forests were conducted and participant observations, besides focused group discussions and interviews, were incorporated in data collection. Finally, participation in global processes and exchange visits including the UNFCCC negotiations under the umbrella of the International Indigenous Peoples' Forum on Climate Change (IIPFCC), and research workshops with other country researchers conducting similar research work, enhanced opportunities for cross-continental learning among indigenous peoples, access to contemporary data and literature on climate change and REDD; and familiarization with the intricacies of global and international negotiation processes.

Conceptual Framework

The research conceptual framework invokes both the human rights and the ecosystem-based approaches within the broader framework of participatory action research. Key elements inherent in these approaches include: recognition of people as key actors in all development initiatives that concern their livelihoods and hence contemplate effective participation to monitor both processes and outcomes; and, the interrelatedness of the human cultural diversity with the ecosystem.

Rights-based approach (RBA)

The human rights-based approach provides an excellent opportunity for analysis of human rights claims of rights holders and the human rights obligations of duty bearers. While recognizing the critical value of other international human rights

instruments and agreements, the research, informed by the project's focus on indigenous peoples, draws immensely from the human rights principles enshrined in the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP). The recognition of the links between the enjoyment of human rights and environmental protection, broadly speaking, has been growing within the UN, government, civil society and other sectors for several decades, starting with the 1972 Stockholm Declaration (Sensi 2007). While there is no consensus on the definition or form of a rights based approach (RBAs), it can, at the minimum, be understood as integrating rights, norms, standards, and principles into policy, planning, implementation, and outcomes assessment to help ensure that conservation practice respects rights in all cases, and support their further realization where possible (CIFOR and IUCN 2009).

According to the Office of the High Commissioner for Human Rights (UN OHCHR's) RBA guidelines, "a human rights-based approach...premise that a country cannot achieve sustainable progress without recognizing human rights principles (especially universality) as core program of governance...the concepts of good governance and human rights are mutually reinforcing..." (UN OHCHR 2006, 16, 10). To be effective then, RBAs must account for and focus on improving the governance systems through which the approach is being carried out. RBAs may also provide a stronger foundation for incorporating human wellbeing concerns by recognizing that doing so is a matter of obligation. This is the thought informing the integration of local people through participation, community-based and decentralized natural resource management regimes, for doing so enhances conservation outcomes.

It is argued that a RBA is an improvement of the often criticized participatory and decentralized approaches on the ground that they "engage with people only at a superficial level, and that conservation costs and benefits are not evenly distributed within and across communities, as power differential can lead to elite capture" (Thomas 1996, 13). Thus, instrumental approaches alone may be insufficient to guarantee the people's wellbeing as a matter of obligation, and in addressing the rights not only of communities, but also of individuals and vulnerable

groups within communities. RBAs can, in principle, better ensure that basic human rights are respected though not entirely independent of instrumentally-driven approaches (Thomas 1996).

The rights contemplated in an RBA encompasses a vast array of potentially relevant rights, recognized in: treaties and declarations of the UN (Annex 1; for relevant treaties to Kenya and REDD); regional human rights instruments, national constitutions, law and regulation, often forming the basis for the implementation of International law; customary law and norms and practices, which may or may not be recognized as legal rights by the states; and multilateral environmental agreements such as the Convention on Biological Diversity (CBD). While this is not a rights instrument per se, it includes social standards. These rights could broadly be grouped into *procedural* and *substantive rights*.

Some of the relevant *procedural rights* include: information, participation in decision making and access to justice. Relevant *substantive rights* may include but not limited to: life, privacy, health, culture and religion, freedom from hunger, freedom from all forms of discrimination, right to a healthy and safe environment, indigenous peoples rights to maintaining traditional ways of life, free prior and informed consent, self representation through their own institutions, freedom to exercise customary law and rights of redress for infringements (Thomas 1996).

Although the human rights framework typically focuses on individual rights holders, these concepts have since been improved to include collective rights/group or communal rights. Strengthening collective land tenure rights can provide incentives and support (customary and new) community institutions for effective local resource management even within the context of REDD+. Perhaps the importance of the UNDRIP as the primary basis for implementing RBA with regard to indigenous peoples is best captured by the words of Victoria Tauli-Corpuz, the former Chairperson of the United Nations Permanent Forum on Indigenous Issues:

This (is) the only Declaration in the UN which was drafted with rights holders themselves, the indigenous peoples. We see this as a strong Declaration which embodies the most important rights; we

and our ancestors have long fought for our right of self-determination, our rights to own and control our lands, territories and resources, our right to free, prior and informed consent, among others... This is a Declaration which forms the opening phrase of the UN Charter We the peoples...meaningful for the more than 370 million indigenous persons all over the world.

Ecosystem-based Approach

Climate change is a rapidly increasing stress on ecosystems. While ecosystems are generally more carbon dense and biologically more diverse in their natural state, the degradation of many ecosystems is significantly reducing their carbon storage and sequestration capacity leading to increases in emissions of greenhouse gases and loss of biodiversity at the genetic, species and ecosystem level. Ecosystem services contribute to economic well-being and associated development goals such as MDGs (Millennium Development Goals) in two major ways: through contributions to the generation of income and material goods and through the reduction of potential costs of adverse impacts of climate change.

The Millennium Ecosystem Assessment (2003) defines ecosystem services as “the benefits people derive from ecosystems including *provisioning services* such as food and fuel wood; *regulating services* such as regulation of water, climate or erosion; and *cultural services* such as recreational, spiritual or religious services” (MEA 2003, 21). Ecosystems are directly linked to incomes, food security and water availability that are basic for life. These ecosystem services therefore directly influence all components of human wellbeing, thereby influencing the security of livelihoods of people living in the vicinity. Forests are critical components of these ecosystems.

Tropical forests which cover less than 10 per cent of the world's land area are very important providers of ecosystem services at local, regional and global levels. The livelihoods of 250 million to one billion people depend on forest products including traditional and modern medicine especially so in the developing world (Byron and Arnold 1999). For many local communities, tropical forests have a spiritual and religious value,

and ecosystem changes can affect cultural identity and social stability (Ramakrishnan 2007). It is argued that loss of ecosystems services impacts directly on institutions at all levels from household, local community, national and international (Hein et al. 2006; Maler 2008).

Conserving natural ecosystems and restoring degraded ecosystems is therefore essential for the overall goals of the UNFCCC because ecosystems play a key role in the global carbon cycle and in adapting to climate change while at the same time providing a wide range of ecosystems services that are essential for human well-being. It follows then that any adaptation and mitigation efforts aimed at alleviating the ravaging effects of climate change such as REDD would be more meaningful when integrated to reflect the ecosystem nature of our world.

Research Context

International Discourse on Climate Change

There is general global recognition that climate change constitutes the greatest environmental challenge facing the world in this century. This recognition is echoed in the November 2007 IPCC Fourth Assessment Report (AR4) which states that “warming of the climate system is unequivocal, as is now evident from observations of increases in global average air and ocean temperatures, widespread melting of snow and ice and rising global average sea level.” This report presented incontrovertible evidence that the global climate is changing because of human activities. The effects of climate change occur at all levels—local, regional and global—and have potential to disrupt the earth’s ecological systems with serious negative consequences on livelihoods systems and overall human development.

The negative impacts of climate change, though global in scale, vary across and within countries reflecting their geographical conditions, level of development, and socio-cultural orientation among other variables. Notwithstanding these variations, there is almost universal consensus that climate change will affect the poorest members of society and the poorest societies

more than the more economically advanced on the basis of the latter's ability to adapt to climate change by their sheer wealth.

Many ecosystems, including tropical forests, are likely to be affected this century by unprecedented combination of climate associated disturbances (like flooding, drought, wildfire, insects and other global change drivers), land use change, pollution and overexploitation of resources. While these events may not be disasters in themselves, the combination of vulnerable and ill-prepared communities exposed to natural hazards precipitates disaster (IUCN 2009). Forests play a crucial role in the lives of many of the poor on the planet as well as forest-dependent indigenous peoples. Many of the countries that account for the highest percentage of global forest cover are also among the poorest in the world. Forests are home to 300 million people of the world with at least 100 million being indigenous peoples who are almost entirely dependent on forests for a living. Another 800 million rural people who live in or around tropical forests and savannas rely on forests for fuel, food or subsistence income

The role of tropical forests in mitigating climate change, through carbon storage, has been recognized and incorporated in international agreements and policy instruments. Afforestation and reforestation, including CDM (Clean Development Mechanism), for instance, are under the Kyoto Protocol and most recently, deforestation is taken up under Reduction of Emissions from Deforestation and Forest Degradation (REDD+). The links between mitigation/adaptation and tropical forests are two-fold. First, tropical forests are vulnerable to climate change, and people living in forests are highly dependent on forest goods and services and are vulnerable to forest changes both socially and economically. Second, tropical forests deliver ecosystem services that are vital for people beyond the forest worldwide such as global vulnerability to climate change. Tropical forests therefore need to adapt or be adapted to because they are vulnerable to climate change; and tropical forests are needed for mitigation and adaptation, because they can help to reduce human vulnerability. Every year, more than 13 million hectares of the world's forests are lost. Greenhouse gas emissions from deforestation, forest degradation and the associated land-use

change are greater than the total emissions from the European Union; they are also more than all the cars, trucks, planes and ships in the world combined. The damage caused by deforestation is not limited to greenhouse gas emissions but also includes a range of other social, economic and environmental impacts (IWG-IFG 2009).³

Through the United Nations Framework Convention on Climate Change (UNFCCC), countries are working to avoid “dangerous anthropogenic interference with the climate system” and to do so within the context of sustainable socio-economic development (IWG-IFG 2009). Tropical ecosystems in semi-arid areas, for example, are very sensitive to changes in rainfall, which does affect vegetation productivity and plant survival. Tropical dry forests are likely to be affected more by drought and fires. Prolonging the dry season (a consequence of climate change) would prolong desiccation, making the forest system more exposed and sensitive to fires. Many scientists are concerned that the adaptive capacity of forests will not be sufficient to adapt to unprecedented rates of climate change (Gitay et al. 2002). Because of these, current management or conservation practices should integrate climate change threats and aim at reducing vulnerabilities.

National Context

Kenya is a climate dependent country. The REDD+ mechanism in the country should be seen in the context of a series of climate change and environmental conservation related sector reforms towards the realization of a green economy. This context is briefly outlined below.

The Republic of Kenya, having both signed and ratified the UNFCCC and the Kyoto Protocol on February 25, 2005 as a non-Annex 1 country means it can host CDM projects under compliance schemes as well as projects in the voluntary carbon market. According to the CDM Investment Climate Index (CDM-ICI), Kenya’s investment climate is rated as “adequate” and Kenya lies at the ninth position in Africa. ICI puts Kenya among the top 10 based on emissions reductions already sold to international climate funds, (however this does not include CDM, as

the only CDM project in the country was registered by the UNFCCC Executive Board [EB] in September 2008 (NCCRS 2009).

In its endeavor to respond to the demands of climate change and to improve the investment environment, the country has recently initiated coordinated efforts aimed at mitigation and adaptation to climate change that are entrenched in the on-going process leading to the establishment of a National Climate Change Response Strategy (NCCRS). The NCCRS is an outcome of a recommendation contained in the current National Environmental Policy, 2008 with the aim of unlocking funding for mitigation and adaptation endeavors.

The element of a participatory approach to the NCCRS process is underscored because climate change is and will continue to affect every facet of life of the Kenyan people. Efforts are aimed at the institutionalization of adaptation and mitigation measures to minimize risks and maximize opportunities. Essential in this task is an informed public on climate change and its impact; and establishment of institutional framework that would translate the aspirations of the public as a whole and spell out roles and responsibilities of all actors including indigenous peoples.

Overall, the NCCRS provides a framework for adaptation, mitigation, capacity building, policy, public awareness and participation mechanism to address the challenges and opportunities afforded by climate change. In short, the NCCRS is for posterity and will be used to guide Kenya's present and future climate change activities given that climate change will persist.

Kenya's performance in the CDM (and other carbon markets) so far has been dismal. The reasons given for Kenya's poor performance include corruption, low level awareness of CDM potential on the part of the private sector, particularly investment and financial organizations. CDM is private sector-driven and only undertaken in about two per cent of the countries in Africa. There are three projects associated to CDM in Kenya – Kengen Geothermal projects, Sondu Miriu, and the Turkana Wind-power project all of which are based on western concept (Kroeder 2010). Almost all financial organizations involved in CDM are northern-based. High transaction costs and slow move-

ment of carbon projects due to the need to develop baselines and methodologies, especially for small-scale projects with small Certified Emission Reductions (CER) revenues, are factors that are unlikely to attract credit facilities. Other reasons include lack of capacity and poor institutional structure to support climate change activities in Kenya. Kenya is not considered a least developed country (LDC) hence it does not qualify for the Least Developed Countries Fund (LDCF) which is an adaptation fund under the UNFCCC. However, Kenya's project on Adaptation to Climate Change in Arid Lands (KACCAL) has benefitted from the World Bank's Special Climate Change Fund (SCCF).

The strategic focus of the NCCRS is to ensure that adaptation and mitigation measures are integrated in all government planning and development objectives and realized through collaborative and joint action with all stakeholders in order to ameliorate this vulnerability. The strategy paper makes attempts at prioritizing most vulnerable sectors of the economy among which are rangelands. The NCCRS is therefore one of the many policy and legal frameworks processes relevant in the country's participation in global, national and local initiatives such REDD+ in response to the challenges and opportunities occasioned by climate change.

In the section that follows a brief overview of the status of the country's forests, the link between forests, land tenure, rights and vulnerability of indigenous peoples including the value of indigenous knowledge and practices is presented.

FORESTS, DEFORESTATION AND DEGRADATION

Forests in Kenya

Africa is a massive continent with vast natural resources many of which are under increasing threat (Smith 2009). Its area can actually fit the whole of the USA, China and Europe and still have South Africa left over which itself is as big as Germany, France and Holland combined. The vastness of Africa is a home to a rich biodiversity. It is estimated that Africa holds at

least 25 per cent of global biodiversity in terms of ecosystems, species and genetic variety (Mugabe and Clark 1998). This rich and varied biological resources form the region's natural wealth on which its social and economic systems are based. These resources have global importance because of their potential to mitigate and adapt to climate change.

The world's forest is estimated at 30 per cent of the world's surface with tropical and subtropical forests and woodlands comprising 56 per cent temperate and boreal forests accounting for 44 per cent. In a report by FAO (Food and Agriculture Organization), the total forest cover in Africa was estimated to be around 650 million hectares in 2000. This is equivalent to 17 per cent of the global forest cover and approximately 22 per cent of Africa's land area. Africa has 14 different types of forest in temperate and tropical climates. However, the extent of forest cover varies between sub-regions. In terms of life support, the humid tropical forests of equatorial Africa support an estimated 1.5 million species in Africa's arid land, like that of Namib Desert and Sahel, may be considered as among the harshest environments in the world but it still serves as a home to some plant and animal species. Kenya is a part of these rich and diverse African ecosystems (Grida 2009).

The Republic of Kenya has an area of approximately 582,646 sq km comprised of 97.8 per cent land and 2.2 per cent water surface.⁴ Only 20 per cent of the land area can be classified as medium to high potential agricultural land and the rest of the land is mainly arid or semi-arid. Forests, woodlands, national reserves and game parks account for ten per cent of the total land area.⁵ Kenya is rich in biological diversity, including over 6,000 species of higher plants, about 875 species of butterflies, 1,079 species of birds and 379 species of mammals (NCCRS 2009). Most of these species of fauna are associated with forest and woody vegetation. Furthermore, forests contain more than 50 per cent of the nation's tree species, 40 per cent of the larger mammals and 30 per cent of birds (NCCRS 2009). This biological diversity is spread over the four ecological zones, each with different flora and fauna composition.

Forests in Kenya cover a total area of 37.6 million hectares out of which 2.1 million hectares are woodlands, 24.8 million

are bushlands and 10.7 million are wooded grasslands. Only 1.7 million hectares are gazetted and managed by Kenya Forest Service (KFS). A total of 9.4 million hectares of a variety of tree coverage exists on farmlands, settlement areas and urban centres. The majority of these (gazetted) forests are managed by the Kenya Forest Service while the Kenya Wildlife Service (KWS) manages other forests in National Parks and Nature Reserves.

Most of the forests in the country are largely confined to the semi-humid and humid parts of the country and occur in two main regions: the Western Rainforest and the Montane Forest Region in the central highlands. The Western Rainforest Region has nearly 19,000 hectares of forest and it includes the Kakamega and Nandi forests. The Montane Forest Region has about 748,500 hectares of indigenous forest and 102,800 hectares of plantation. Included in the Montane Forest Region are Mt Kenya forests, the Mau forests and the Aberdares ranges. They represent an overwhelming 90 per cent of Kenya's gazetted forests. In addition, there are also the riverine and coastal forests, including mangrove forests. Of the total area of reserved forest, roughly 65 per cent is indigenous forest, 10 per cent is exotic plantation and one quarter is covered by other vegetation.

In addition to the closed canopy indigenous forests, 80 per cent or more of the total land area in Kenya is classified as arid and semi arid lands (ASAL) which comprises savanna and grassland ecosystems traditionally used for pastoral purposes. Woodlands, bushlands and grasslands cover approximately 40 million hectares of land in Kenya and constitute significant but diminishing carbon sinks. Farm forestry and dry land forests have recently assumed a lot of prominence in providing goods and services to rural communities. According to the NCCRS, the two programs also present the two most promising opportunities for increasing forest cover in the country. There is growing concern over the rate of deforestation in the country generally associated to increase in population, economic expansion, land use and land use changes.

Of critical importance for restoration of desired forest cover in Kenya is the conservation of Kenya's five forested mountains namely Mount Kenya, Aberdares, Mau Forest, Mount Elgon, Cherengani Hills which jointly supply most of the freshwater

resources for the entire country, as well as being critical reservoirs of biodiversity and carbon stocks. These forests directly deliver vital services such as clean water, timber, fuel, and food to rural communities. In Kenya, electrical power generation (70%) and wildlife conservation are all directly or indirectly related to the country's forest resources. The benefits of healthy forests and the costs of forest degradation are felt at all levels, from individuals through local communities, and at national, regional, and global scales. Through their linkage with larger scale hydrological and climatic systems, they also directly impact agricultural production, biodiversity and global climate change (Okowa-Bennum and Mwangi 1996).

Specifically, the carbon sequestration capacity of tropical forests has been estimated at 144.0 tons of carbon per hectare (tc/ha) for total above ground biomass and 66.0 tons of carbon per hectare for soil and below ground biomass. The total forest area (2.2 million hectares) has a capacity to sell 483 million tons of carbon equivalently in proto-carbon credits (at US\$20 per tc). This translates to approximately Ksh77.28 billion at the current prices.⁶

The Kenyan forestry sector also contributes significantly to the growth of the national economy. According to KFS, forest products and services are estimated to contribute about Ksh7 billion to the economy and nonstop employs 50,000 and indirectly another 300,000 people. Over 530,000 households living within a radius of five kilometers from the forest reserves depend directly on forests for cultivation, grazing, fishing, fuel wood, honey, herbal medicine, water and other benefits. The sector contributes about Ksh320 million per year to Kenya's GDP or approximately one per cent of the monetary economy and 13 per cent of non-monetary economy with a direct use values in terms of timber, fuel wood and poles estimated at Ksh3.64 billion. Tea, tobacco and fish processing companies alone annually consume an additional 20-10 million cubic meters of wood fuel worth Ksh1.6 billion. In the rural areas, more than 3.5 million households rely on forests and forest based products (fuel wood, charcoal timber and wood and fruits) to meet their livelihood needs. Approximately 75 per cent of the country's total domestic energy is derived from wood.

While the benefits derived from forests are critical for the general populace in the country due to their role in supporting biodiversity, they are most especially so for the indigenous peoples who consider the forest as their home, an integral part of their culture and the source of their livelihood. Despite the overwhelming evidence of the benefits accrued from forests locally, regionally and globally, these forests are under serious threats from deforestation and forest degradation.

Drivers of Deforestation and Forest Degradation

There is growing concern on deforestation and degradation with experts saying that deforestation in developing countries is exacerbating the effects of climate change. Closed canopy forests in Kenya, for example, reduced from about 30 per cent of Kenya's land area at the beginning of the 20th century to less than two per cent at the present. The country recorded an annual deforestation rate of 0.3 per cent between 1990 and 2005. These forests are threatened by deforestation and forest degradation through excisions, exploitation, illegal logging, pit-sawing, charcoal burning and forest fires. The increasing population of Kenya is likewise putting a strain on the natural resources. In 2003, Kenya's population was estimated to have reached 31,987,000, which placed it as number 34 in population among the 193 nations of the world. Interim results of the 2009 national census place the population figure at 40 million, well above the UN projected population for the year 2015 initially placed at 36,864,000 growing at a rate of 1.45 per cent.

Deforestation in Kenya releases about 348 metric tons of carbon for each hectare cleared or converted to agriculture or other purposes. As such, Kenya's annual deforestation rate of 12,000 hectares may produce 4,276,000 tons of carbon emissions per year (FAO 2006). It is estimated by the UN that for sustainable development to occur, a nation, such as Kenya, needs to have at least 10 per cent forest cover to provide all the vital services which these important and fragile ecosystems supply. According to the NCCRS, the reforestation needed to achieve a

10 per cent cover is about 50,000 sq km, which equates to over a billion trees.

Since the REDD+ mechanism aims at slowing down the rate at which the remaining primary and managed forests are degraded and deforested, understanding the factors contributing to the reduction of forest cover and degradation is paramount. One of the most comprehensive attempts to discuss the main drivers of deforestation in the country is presented in the country's R-PIN and to some extent by the NCCRS. The Policy and Institutional Working Group formed under the REDD process in the country, also focused its work on drivers and underlying causes of deforestation and forest degradation, including possible ways of addressing these underlying causes (WB 2009). Some of the causes of deforestation and forest degradation identified include, among other things: over-harvesting and unsustainable timber harvesting practices, excessive extraction of fuel wood for commercial and non-commercial purposes, increasing forest fire frequencies and overgrazing. Degradation is facilitated by rampant illegal activities (encroachment and settlement) and corruption. A closer look at each of the identified drivers of deforestation and forest degradation is essential in endeavors to develop strategies aimed at the restoration of forest cover in the context of REDD+.

Unsustainable utilization

A partial presidential logging ban has been in place since 1999. With the partial ban still in place, only a few larger industries with Government shareholdings were allowed to harvest trees in State forest plantations. Harvesting operations were wasteful since the concessionaires were only paying a very low price for the extracted timber. Although the said concessions are currently abolished within natural forests, and the logging ban remains in force, unsustainable utilization continues for the reasons provided below.

Institutional failures

These failures are linked to: 1) inefficient governance structures; 2) inadequate capacity to enforce the law; 3) inadequate forest management plans; and 4) lack of real community participation in forest management. Institutional failure, for example, happens when State monopoly rights over gazetted forests presupposes the existence of an efficient state machinery that is able to carry out its duties without necessarily taking into account the existing capacity of State agencies, forest policy and legislation. Such presupposition is often contravened owing to inadequate enforcement capacity, differences between local and national priorities, labor needs and shortage of vehicles for monitoring purposes (Okowa-Bennum and Mwangi 1996). The Transparency International Global Corruption report (2010) opines that climate change is perhaps the most complex global governance challenge the world has ever faced. According to the report, corruption threatens to jeopardize current efforts of international cooperation, deep economic transformation and resource transfers. Many of the institutions, governance processes and initiatives designed to mitigate and adapt to climate change are vulnerable to a wide range of corruption risks. Understanding these corruption risks is crucial if the regime to address climate change and secure stable future for our planet is to be effective and specifically so if REDD+ as a mitigation strategy to climate change is to be successful.

Poverty and Inadequate Resource Mobilization

Forest goods and services are largely public in nature and therefore depend on public resources. However the forestry sector in Kenya was marginalized during the last decade. In the 2007/08 financial year, the budgetary allocation for forestry development was 0.3 per cent of the national budget, which is hardly adequate for reforestation, afforestation and management activities. Also, incentives to support private sector investments in forests are inadequate despite the country's heavy reliance on wood fuel for energy (currently at 70% of national energy demand). The challenge of mainstreaming forestry management and conservation efforts into the national poverty re-

duction strategy paper (PRSP), that is, getting the evidence that forests make a contribution to livelihood and national economy, remains a daunting task for development planners and policy makers in the country.

Shifting Cultivation System

Shifting cultivation is popularly blamed as unproductive and a serious cause of desertification and deforestation. However, many shifting cultivation systems were appropriate and sustainable at low population pressures. Generally they are no longer adequate to meet current demand because of increases in population. The practice still exists mainly on trust-land in semi-arid regions but not anymore on large areas. With increasing population pressure, the fallow periods decrease leading to woodland degradation and severe food shortages. The reduction in fallow periods makes shifting cultivation less a closed system these days than simply a means of opening up forest frontiers for agricultural expansion. The adoption of Sustainable Land Management practices and the protection of trees on farms can increase agricultural productivity, reduce the vulnerability of agricultural systems to climate change and increase carbon stocks. This is a less common practice among the indigenous peoples (pastoralist and hunter gatherers) in the country.

Pressure for Expansion of Agricultural land, Settlement, and Development

The depletion of forests in Kenya has also been aggravated by various social problems. According to Okowa-Bennum and Mwangi (1996), the rapid rise in population has as consequence an increased pressure on resources leading to amplified demand for agricultural land, timber and other forest products. This situation ultimately results in encroachment on forests reserves. This problem is compounded by an increase in official excision for purposes of settling landless communities.

However, compared to many other countries, there is a limited pressure in Kenya to expand agricultural land and settlements. In this country, it is widely recognized that increasing agricultural productivity and reforestation are the most prom-

ising options to sustain the growing population and to support rural development. A landscape mosaic of cropland, woodlots, fruit orchards and managed protected forests woodlands is envisioned and such is already developed in some areas. As outlined in the World Development Report 2008 on agriculture, fruit trees are already contributing to about 10 per cent of rural income generation. Therefore, a national REDD+ program in Kenya will focus on reducing emissions from forests, agroforestry and woodlands. The latter are also crucial in the production of fodder and in the reduction of climate change vulnerability in pastoral systems (NCCRS 2009). However, a joint effort is required to support the adoption of Sustainable Land Management Practices, including agroforestry and fodder production.

Unsustainable Charcoal Production and Marketing

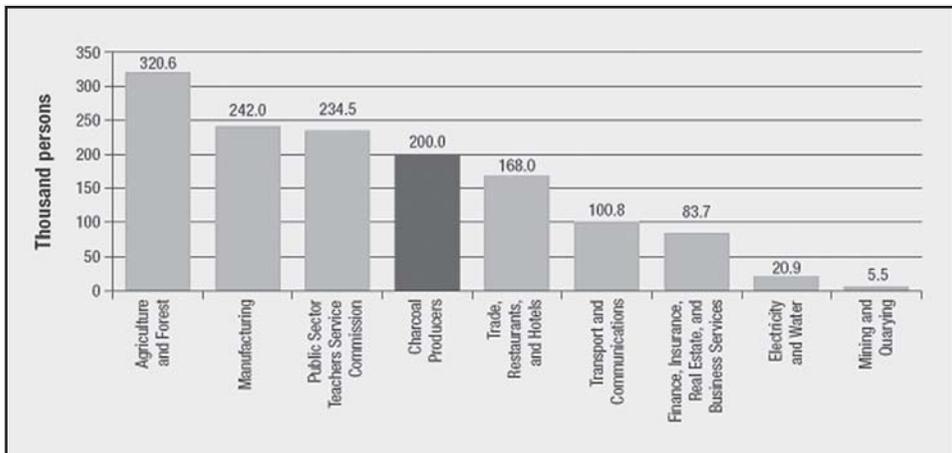
Charcoal is: a) the main source of energy for many households and industries; b) a leading cause of forest degradation (Lambreacht et al. 2003); and c) a livelihood system for more than 10,000 charcoal burners. According to the NCCRS, over 90 per cent of all the wood harvested in the country is used as wood fuel while only two per cent is used as poles and four per cent is used for industrial feedstock. In some places, nearly 100 per cent of rural energy is biomass based with little prospects for any significant change in the immediate term. Charcoal consumption is therefore expected to grow with increasing rural-urban migration and rising kerosene prices (See Table 1).

Table 1. Kenya's Total Biomass Energy Consumption by Sector and Fuel Type, 2000. Source: Ministry of Environment, 2002

	SHARE IN KENYA'S TOTAL BIOMASS ENERGY CONSUMPTION (percent)					TOTAL BIOMASS
	Firewood	Charcoal	Industrial Wood	Wood Wastes	Farm Residue	
Households: Rural	40.0	22.0	0.0	0.4	7.0	69.4
Households: Urban	1.0	17.0	0.0	0.2	0.0	18.2
Cottage Industry	4.0	8.0	0.0	0.0	0.0	12.0
Agriculture	0.0	0.0	0.0	0.0	0.0	0.0
Transportation	0.0	0.0	0.0	0.0	0.0	0.0
Commerce and Industry	0.0	0.0	0.3	0.0	0.0	0.3
TOTAL	45.0	47.0	0.3	0.6	7.0	100.0

Around 10 per cent of Kenyans are involved in or supported by the charcoal trade (Figure 4). The amount of charcoal produced each year in Kenya is 1.6 million tons with an annual income from charcoal estimated at Ksh32 billion. This amount is almost equivalent to income generated from tea (ESDA in NCCRS 2009). This makes charcoal not only a source of energy in Kenya but also an important and simple means of earning cash income. This trade in charcoal is heightened by the fact that charcoal suits the living conditions of the urban poor by providing a reliable, convenient and accessible source of energy for cooking because this can be availed at a stable cost and at any required proportion at all times. Currently, however, most of the charcoal is unsustainably produced in woodlands therefore sustainable charcoal production is not cost competitive (See Annex 2).⁷ At present, the land owner and the producer receive only 23 per cent of the gross revenues.

Table 3. Employment by the Charcoal Industry Compared to other Formal Sectors, 2004. Sources: ESDA 2005b, CBS 2006.



In as much as charcoal provides the aforementioned benefits, the consequence of its production is now one of the most pressing environmental problems faced in Kenya especially in the ASALs because there is reduction of natural resources on which the poor depend. The continuous process of land degradation also contributes to the downward spiral of people's eco-

conomic situation. The unsustainable use of trees for charcoal production also reduces the forest cover thus carbon sequestration is in turn reduced while the release of already fixed carbon into the atmosphere is increased.

The government also often does not receive any resource use of income tax. This demonstrates the need to improve the system in addition to creating legal job opportunities particularly for the youth in rural areas. The Policy and Institutional Working Group under REDD/REDD+ discussions focused on the high reliance on charcoal and wood fuel, the lack of incentives to use appropriate technologies, the need for regulations on production/trade/consumption of wood fuel, the role of the Ministry of Energy in making charcoal production more sustainable, and the need to understand the charcoal value chain as the underlying factors fueling charcoal as a driver of deforestation.

In the framework of a REDD+ program, the conversion technology would hopefully be improved and the legal ambiguity be reduced in order to achieve emission reductions. Under a REDD+ program, a coherent taxation system and a fair reward mechanism for emission reductions should be developed with support from indigenous peoples, community associations, local government agencies and NGOs. Unsustainable charcoal burning as a driver of deforestation is of particular concern to indigenous communities (pastoralists) living in the more than 80 per cent ASAL areas of the country. In these areas, the County Council administrative and management structures are not clear about where forestry and natural resources are taken care of and they often lack technical capacity to take leadership on forest management. There is also very little information about forest resources on private forest land.

Overgrazing

Forest grazing is a common practice in many deforested and degraded State forest reserves, and it is a source of income for KFS as long as the partial logging ban is in place and resources for reforestation or other incomes are lacking. In the framework of the World Bank Green Belt Movement's Bio Car-

bon Fund for example, regulatory mechanisms to control grazing inside forest reserves and to support the establishment of fodder trees and zero grazing systems outside the reserve are promoted.

While most government literature point at overgrazing as one of the drivers of deforestation and forest degradation, indigenous peoples representatives interviewed do not entirely agree with this assertion. They contend that indigenous communities would only utilize trees as fodder or graze in forested areas as a last resort during extreme droughts when they have no other grazing options. Even in the rare instances when trees are utilized as fodder, the indigenous peoples' value system on promotion of environmental conservation and integrity, for example in the case of the Maasai, would discourage the indiscriminate cutting of trees. Besides, most of the humid tropical/montane forests do not provide the best grazing environments for the local indigenous livestock breeds in the country. Hesse et al. (2009) argue that contrary to the belief that pastoralism causes overgrazing, there is little evidence that drylands pastures are generally over-stocked or overgrazed. In fact, much more pasture degradation is evident in areas around permanent settlements than in open rangelands where mobile pastoralists seasonally move their herds to allow pastures to regenerate. Where overgrazing presents a problem, it can be controlled in a joint effort between community associations and government agencies.

Forest Fires

Fires set by human agency are threats for many ecosystems especially in the tropics. Fire outbreaks in forested areas in Kenya have become more frequent and these have caused disastrous economic consequences. Forest fires have, in the recent past, affected Kenya's major forests including Mt. Kenya Forest. Table 3, which summarizes the extent of damage caused by fires over the last 20 years, indicates loss of more than 5,700 ha per year.

Table 3. Forest Cover loss due to forest fires over the last two decades

Year Area Burnt	Area Burned (Ha)			Total
	Plantation	Natural	Forest Bush & Grass	
1988	188	155	3,792.00	4,135.00
1989	231	175	2,356.00	2,762.00
1990	85	331	12,183.00	12,599.00
1991	1,705.00	236	6,697.00	8,638.00
1992	6,170.00	5,494.00	13,302.00	24,966.00
1993	1,731.00	515	1,718.00	3,964.00
1994	690	69	1,914.00	2,673.00
1997	4,726.00	2,961.00	7,729.00	15,416.00
1999	1449	317	2,041.00	3,807.00
2000	861	1,229.82	886	2,976.82
2001	601	486.8	1,383.00	2,470.80
2002	783.4	4,229.00	3,041.00	8,053.40
2003	301.6	2,361.00	2,349.00	5,011.60
2004	214	893	3,783.00	4,890.00
2005	1,068.3	4,683	4,901.9	10,653.20
2007	2	5	18	25
2008	1,020.30	146.55	351.01	1,517.86
Totals	21,826.60	24,287.17	68,444.91	114,558.68

Source: NCCRS 2009.

Forest fires continue to decimate the country's forests mainly due to lack of adequate preparedness and prevention measures arising from low resource allocation, lack of firefighting equipment and lack of collective responsibility across government agencies in dealing with fire outbreaks. Elsewhere, communities have traditionally used fire as a management tool or a way to regenerate pastures, but due to disruption of grazing patterns (as a result of changing weather patterns and population pressure), this practice is no longer effective. It is therefore nec-

essary to introduce tree fodder banks in forestry program outside of developing fire management plans. The projected rise in temperatures and long periods of drought will most likely lead to more frequent outbreaks and intense fires. The rise in temperature is likely to affect many aspects of forests such as tree growth, survival, yields and quality of wood and non-wood products. Food and fuel for indigenous populations may be disrupted due the changes in temperature.

Wildlife Damage

In some areas like Mt. Kenya, Aberdares, Mt. Elgon and Arabuko-Sokoke forests, large herbivores are a constant threat to young forest plantations causing economic and biodiversity losses. The Aberdares fencing project is one option to reduce wildlife damage. In the past, wide ditches placed in strategic wildlife movement areas reduced wildlife damage (NCCRS 2009). Most of the country's National parks and game reserves such as Samburu, Maasai Mara and Amboseli are found within pastoral rangelands. Several research works around these areas indicate that a significant percentage (not less 65%) of all Wildlife in these parks forage within communal ranches for most part of the year. The stress arising from reduced forage within the protected areas associated to climate change has forced large herbivores, especially elephants, to forage for longer periods within communal areas thus contributing to forest degradation. A close cooperation between KFS, KWS and local communities can reduce respective damages.

Replacement of Superior Forest Covers Types

As indicated elsewhere in this paper, exotic forest plantations represent 10 per cent of the total area of reserved forest, 65 per cent of indigenous forest, and one quarter under other vegetation. The concern over deforestation and forest degradation goes beyond the need to simply maintain and restore forest cover. Another interest is the nature of forest plantations adopted. On the Kenyan Coast for example, some privately owned high-conservation natural forests have recently been converted into coconut plantations.

Further loss of forest in the country in the late 1980s resulted from the ungazetted excision of forest land for the establishment of Nyayo Tea Zone Development Corporation (NTZDC) which was created under presidential decree. The project was implemented around gazetted forests in 14 districts ostensibly to: increase the country's acreage under tea, create employment in rural areas, and to provide a buffer around the nation's forests to fend off encroachment (Okowa-Bennum and Mwangi 1996). Although additional forest areas have also been created, such areas are generally of poor quality. On the whole, the net effect has been the reduction in the forest cover as well as the integrity of forested areas. Regulations, combined with Payments for Environmental Services (PES) for maintaining carbon stocks (such as REDD+) and biodiversity, are hoped to contribute to the reduction of these respective incidents in the future.

In order to effectively address some of the drivers of deforestation and degradation, there is a need to carry out assessments on forest products' sustainable utilization systems, studies on supply and demand modeling and analysis of value chain of forest products (including pricing). It is also equally necessary to look at the mechanisms for benefit and/cost sharing.

Evidence of Deforestation and Forest Degradation: the Case of the Mau Forest Complex

The Mau Complex forms the largest closed-canopy forest ecosystem of Kenya. Its area is as large as the forest of Mt. Kenya and the Aberdare combined. As a montane forest, it is one of the five main "water towers" of Kenya together with Mt. Kenya, the Aberdare Range, Mt. Elgon and the Cherengani Hills (Annex 3). It is the single most important water catchment in Rift Valley and Western Kenya. Through the ecological services provided by its forests, the Mau Complex is a natural asset of national importance that supports key economic sectors in Rift Valley and Western Kenya, including energy, tourism, agriculture (cash crops such as tea and rice; subsistence crops; and live-stock) and water supply. According to the April 2, 2009 issue of

Kenyan national newspaper, Daily Nation and the April 4, 2009 issue of Standard Newspaper, the Mau Complex is particularly important for tea and tourism, two of the three largest foreign currency earners in this country. The market value of goods and services generated annually in the tea, tourism and energy sectors alone to which the forest of the Mau Complex have contributed, is in excess of Ksh20 billion.

The Mau complex is the catchment of all (but one) main rivers west of the Rift Valley, including Nzoia, Yala, Nyando, Sondu and Mara Rivers all draining to Lake Victoria ; Kerio River draining to Lake Turkana; Molo River draining to Lake Baringo; Ewaso Nyiro River draining to Lake Natron; Njoro, Nderit, Makalia and Naishi Rivers draining to Lake Nakuru. Hence, the complex feeds major lakes including: Lake Victoria, Lake Turkana, Lake Baringo, Lake Nakuru and Lake Natron of which three are cross-boundary: Lake Victoria (Nile River Basin), Lake Turkana (Kenya/Ethiopia), and Lake Natron (Tanzania/Kenya). The waters of these rivers have a combined market value of electricity generated and planned hydropower plants of approximately Ksh5.3 billion (BBC 2010).

Furthermore, the Mau complex is the lifeline for eight major conservation areas in the country, including Lakes Baringo, Nakuru and Natron National Parks; Maasai Mara National Reserve, South Turkana National Park, Kerio Valley National Reserve, Kamnarok National Reserve, Serengeti National Park, and Kakamega Forest Reserve all of which are rich heritage sites for a diverse array of flora and fauna for the region and the global community (Annex 4). In addition, the Mau Complex provides environmental services essential to crop production (continuous river flow, favorable micro-climate conditions) as well as many products (medicinal plants, firewood and grazing).

These forests are the life support system of half of the country and beyond. Tea grown in Kericho and the Nandi Hills, worth an estimated Ksh8 billion a year, is nurtured by the moisture and ambient temperatures provided by these forests. Five million people in the Lake Victoria basin owe their livelihood to those same forests. But these forests have been systematically attacked over the past 10 years. The story told over time was

that the forest was being destroyed to resettle victims of land clashes who had been kicked out of their farms in politically instigated tribal warfare.

Degazettement of forest reserves (excisions), logging and continuous widespread encroachments have led to the destruction of some 104,000 hectares representing over 24 per cent of the Mau Complex area over the last 10 years. In 2001, 61,023 hectares of forest in the Mau Complex were excised. In addition, some 43,700 hectares have been encroached in the remaining protected forests of the Mau Complex (Annex 5). Such an extensive and on-going destruction of key natural assets for the country is a matter of national and regional concerns. It presents significant environmental, economic and social threats and underlines a breakdown of law and order (BBC 2010).

The stories narrated by the local indigenous peoples on the profound negative impacts of the destruction of the forest are any one's guess. A community of about 350,000 or so residents are threatened as the Narok River suffocates following the strangling of the Mau. The Enkare Narok River (river of black waters, in Maa—attesting to the high water quality before deforestation) has been reduced to what an April 20, 2009 article in the Standard Newspaper describes as “a dirt-laden stream flowing sluggishly where water currents were once intimidating and fast. The river is sadly bereft of life.” Jackson ole Kamoye, an activist and founding member of a local community based organization called “Friends of Mau Conservation” said his father told him that the only drought compared to that in 2007 and 2009 was the one in 1946. The trouble is that these droughts are becoming more frequent, more severe and less predictable particularly since 2001—the year when 60,000 hectares of the Maasai side of Mau were allocated to settlers and subsequently cleared.

Efforts to save the Mau forest have generated a storm pitting government agencies, beneficiaries of the forests' excision, conservationists and local communities. So serious is the Mau Forest fiasco that several multilateral institutions and organizations and private sector players have offered to chip in including the Nairobi-based UN Environment Programme (UNEP), Equity Bank, and East African Breweries (EABL), among others. The government too has set up several task force and com-

missions to look into the genesis of the problem and propose solutions.

The history of the Maasai side of the Mau Complex is one that has been fraught with contestation over tenure and user rights since the colonial times. Despite its critical importance for sustaining current and future economic development, the Mau Complex has been impacted by extensive illegal, irregular and ill-planned settlements as well as illegal forest resources extraction. The REDD mechanism provides both opportunities and challenges in the current efforts to restore the Mau Complex, reduce emissions and secure livelihoods. Unless the underlying structures related to the respect of rights of indigenous communities, security of resource tenure, harmonization of laws and policies and strengthened law enforcement capacity to address concerns of corruption are dealt with, the mechanism may just give rise to another scandal.



Figure 1. A section of Mau Forest Complex upon deforestation.



Figure 2. Forest destruction in progress.

Source: Standard Newspaper April 2009.

In the section that follows, a brief discussion on the situation of indigenous peoples in relation to control, access and user rights to land and natural resources within their ancestral domains in the country is provided.

INDIGENOUS PEOPLES, FORESTS AND RIGHTS

Indigeneity in Kenya

While all Kenyan communities generally share the same history of colonial subjugation and racial discrimination and thereafter the right to freedom and equal citizenship of the new State upon acquisition of independence, it is generally accepted that due to geographical situation and historical circumstances, social and cultural distinction are considered defining characteristics that differentiate the many tribes that populate the country. It is only most recently that government authorities and specialists are beginning to recognize that historically, the pastoralists and hunter-gatherer communities in the arid and semi-arid lands and forests were (and perhaps still are) systematically marginalized on the basis of their economic, social and cultural characteristics which are inextricably connected to the use of land and natural resources. Over the years, policies directed at these communities were mainly top-down and discriminatory and these have eventually impoverished them.

The International Working Group for Indigenous Affairs (IWGIA) Report 9:993-94 recognized as indigenous in Africa the nomads of Eastern Africa, the Pygmies in Central Africa, the hunting gathering Sans of Southern Africa and the Basarwa of Botswana. Indigenous peoples in Kenya include (but may not be limited to): Awer, Boni, Borana, Burgi, Elmolo, Entorois, Ilchamus, Gaaljecel, Gabra, Maasai, Malakote, Munyaya, Ogiek, Orma, Pokot, Rendile, Sabaot, Sakuye, Samburu, Sengwer, Somali, Talai, Turkana, Watta and Yaaku often categorized into the two broad categories of Pastoralists and hunter-gatherers (forest dwellers or forest dependent). They are spread across the country either adjacent to forests or within the vast Arid and Semi-arid Lands which make up more than 80 per cent of the land mass and are home to more than 25 per cent of the national population and include almost all the majority of wild-life parks, reserves and protected forests. These areas present the highest incidences of poverty and the lowest level of access to basic services in the country. According to the Rodolfo and Miloon Report, over 60 per cent of the population lives below

the poverty line which is above the average of 50 per cent nationwide.

Having small population, many indigenous communities do not have sufficient political representation at the national or provincial levels. The main effect of their political marginalization is the unequal access to development resources including the Constituency Development Fund (CDF) and government employment besides the lack of consultation and effective participation in “development” initiatives that affect their livelihoods.

Although there is no specific legislation governing indigenous peoples in Kenya, this State is party to the six core international human rights treaties (Annex 1). Kenya has also ratified a significant number of ILO Conventions relevant to indigenous and tribal peoples (such as Convention Nos. 111, 29 and 182). Kenya, however, did not sign ILO Convention No. 169 which concerns indigenous and tribal peoples in independent countries. At the regional level, Kenya is a party to the African Charter on Human and Peoples’ Rights.

The Constitution of Kenya incorporates the principle of non-discrimination and it guarantees civil and political rights; however, it fails to recognize economic, social and cultural rights and group rights. The rights of indigenous pastoralist and hunter gatherer communities are not recognized as such in Kenya’s constitutional and legal framework, and no policies or governmental institutions deal directly with indigenous issues. However, there seems to be growing consensus on the need for affirmative action towards these communities.

The most ambitious attempt to address the concerns of Indigenous communities in the country is reflected in the Draft National Land Policy and the Harmonized Draft Constitution. The constitutional review process that started in 2003, resulting in the current “Harmonized draft constitution,” takes into account specific needs and rights of pastoralists and hunter-gatherers. Under the Chapter on the Bill of rights article (44) on rights and fundamental freedoms, the Harmonized draft constitution articulates the rights of minorities and marginalized groups. Specifically taking into “account their identity, way of life, special circumstances and needs.” Furthermore, it calls for

measures to put in place affirmative action programs in areas of education, water, health services and transport infrastructure, designed to benefit and improve the situation of marginalized groups. The draft further vouches for efforts aimed at promoting marginalized groups' full participation and representation in governance and at assisting such communities "to develop their cultural values, language and practices" (Draft Constitution 2009, 27).

The Harmonized Draft Constitution proposes formation of a Land Commission with the broad goal of addressing the thorny issues of land in the country. It was noted that the marginalized communities are losing their traditionally owned land due to "development."

Under the National Action Plan and Policy on Human Rights spearheaded by the Kenya National Commission on Human Rights (KNCHR) and the Ministry of Justice and Constitutional Affairs, attempts are being made to promote and protect activities related to pastoralist and hunter-gatherers in Kenya. Other official development initiatives, including the Poverty Reduction Strategy Paper (PRSP), the Vision 2030 and the Draft National Policy for the Sustainable Development of the ASALs, take into account the special characteristics of pastoralism.

Most of the human rights violations experienced by pastoralists and hunter gathers in Kenya are related to their access to and control over land and natural resources. Indigenous peoples' reliance on natural resources and their disproportionate poverty makes them more vulnerable to the effects of environmental threats such as cyclical droughts and floods, deforestation, soil erosion and pollution. The REDD+ mechanism, being a natural resource dependent strategy to combat climate change, has the potential to either exacerbate these tensions and marginalization over indigenous peoples' access and control over land or provide a window of opportunity for dialogue around respect and protection of their rights.

The Case of the Hunter Gatherers and Forest Peoples

Most of the hunter-gatherer communities have been evicted out of the forest during gazettement of these forests. These communities have traditionally preserved the forest but due to wanton destruction of the forest by members of other communities, they have become victims of blanket eviction by the government without consideration of the original homes of these communities. Examples cited in the two reports are the Ogiek in the Mau Forest and the Endorois in the Mochongoi Forest. Logging companies including Pan African Paper Mills, Raiply, Timber and Timsales Limited found an entry point into the forests, eventually transforming what used to be a vast forest and important water reservoir into hectares of tree stumps. As a result, the Ogieks were deprived of their traditional sustainable livelihood and they have been increasingly forced to become laborers at the new settlers' farms.

Settlement schemes, logging and charcoal production have put a severe strain on Kenya's rich and varied forests, and these have resulted in the loss of traditional habitat of Kenya's forest peoples, the indigenous hunter-gatherers such as the Awer (Boni), Ogiek, Sengwer, Watta and Yaaku. Many of these communities can no longer live by traditional livelihoods, and their cultures and language are rapidly vanishing with illegal logging playing a key role in this misfortune.

The Rodolfo Report indicates that when the Mau was gazetted as a National Forest in 1974, the Ogiek were evicted from their traditional habitat without prior consultation or compensation and in total violation of their basic rights. They were henceforth prevented from hunting or collecting bee honey for survival in the forest. Illegal logging, introduction of exotic plantations and the excision of parts of the forest for private development by outside settlers have endangered the Mau Forest, a water catchment area, as well as the country's environmental security. Being considered as squatters on their own land and legally banned from using the forest resources for their livelihood, their attempts to survive according to their traditional

lifestyle has often been criminalized and their repeated recourse to courts have not been successful.

The story is the same in the case of the Sengwer of the Cherangany Hills and Kapolet Forest. Likewise, the Watta in the precincts of the Tsavo National Park face similar threats to their livelihoods and the El molo on the eastern shore of Lake Turkana are also threatened by a continuous influx of settlers. These and other hunter-gatherer communities constitute the most marginalized communities in Kenya so they require urgent government attention to guarantee their basic human rights.

In his report, Rodolfo further argues that due to their historical marginalization and social exclusion, pastoralists, hunter gatherer and other minority communities consistently show higher poverty rates and lower levels of social and human development than the rest of the population in the country. It is perhaps in the recognition of this harsh reality of inequality that the government of Kenya's Economic Recovery Strategy for 2003-2007 (ERS) defines the situation in the ASALs as one of "rampant poverty." Under the "Social Pillar" within the Country's vision 2030, the government endeavors to address the concerns of social inequality by committing itself to increased "investment in the arid and semi-arid districts, communities with high incidence of poverty, unemployed youth, women, and all vulnerable groups in the country" (Republic of Kenya Vision 2030 2009, ix).

The latest vindication of the government's marginalization of hunter-gatherer communities and indeed general violation of indigenous peoples' rights in the country came with the landmark ruling delivered in February 2010 by the African Human Rights Commission over the expulsion of Endorois people from their ancestral domain for purported "tourism development." The ruling, in effect, makes clear to governments that they must treat indigenous peoples as active stakeholders rather than passive beneficiaries. The ruling should equally add impetus to other indigenous peoples' demands for restitution over historical injustices and dispossessions over their ancestral domains such as the infamous Anglo-Maasai Treaties of 1904/1911, the Iloodo-ariak Case and the Wagalla massacre, among others.

Pastoralists' Ecosystems, Climate Change and REDD

In Kenya and in East Africa, decision makers in government, the donor community and the wider public often perceive pastoralism to be an archaic, economically inefficient and environmentally destructive form of land use. Pastoralists are viewed as backward, resistant to change and inherently violent, willfully refusing the benefits of modernization because of their irrational attachment to their animals and mobile lifestyle. These deep-seated perceptions have had and continue to have a direct impact on policy, justifying either alienation of pastoral land or measures to turn pastoralists into modern livestock keepers. Such policies perpetuate a vicious cycle of increasing poverty, resource conflict and environmental degradation that reinforce the very perceptions surrounding pastoralism as a livelihood system. This, not only deprives pastoralists of their rights of self determination, but also represents a missed opportunity to capitalize on the significant economic and ecologic potential pastoralism offers in arid and semi arid areas of Kenya in a context of increasing climatic variations. These perceptions continue to be disseminated through the media and are often articulated in policy documents.

Pastoral rangelands are characterized by a number of habitat structures ranging from open grasslands to closed woody or bushy vegetation with varying amounts and composition of grass cover and grass species. Deforestation and poor land use have further increased environmental degradation, making the land more vulnerable to cyclical droughts and floods. The dry land ecosystems are generally characterized by poverty and climate change vulnerability. The ecosystems are ecologically grazing-dependent, and a reduction of mobility or exclusion of grazers results in a drastic drop in ecosystem's health and stability.

According to the NCCRS, rangelands make up about a third of the global land surface and nearly 88 per cent of Kenya's land mass and home to an estimated 4.5 to 6 million pastoralists and agro-pastoralists who are practicing mainly livestock keeping. According to USAID, pastoralism is the most economically viable production system for the drylands of Kenya, and the most environmentally sustainable management system. In Kenya, over

60 per cent of the national livestock herd is held by pastoralists and this produces 10 per cent of GDP and 50 per cent of agricultural GDP (NCCRS 2009). According to government statistics, the pastoral herd in 2002 alone had an estimated value of \$6-7 billion. The sector also has forward and backward linkages with manufacturing, agro industries, distribution and other services, which add to the value of its overall contribution to the national economy. USAID suggests a multiplier effect of 1.8 to estimate the real value of livestock production to the economy.

Furthermore, rangelands play an important role in wildlife conservation in Kenya which is critical to Kenya's economy for generating foreign exchange earnings through trade and tourism. 75 per cent of Kenya's wildlife, a critical component of its tourism industry, is found in the drylands, and about 80 per cent of this are found outside protected areas. In addition, 92 per cent of the 3.5 million hectares of protected areas in the country fall within pastoral lands (Barrow and Magoka in Hesse 2009). Rangelands therefore form an important part of conservation areas of wildlife in Kenya both outside and within protected areas. It is estimated that direct and indirect revenues from wildlife conservationist policies amount to 10 per cent of GDP and nine per cent of total formal employment with tourism remains the leading foreign exchange earner for the country which brought in \$800 million in 2006 (Republic of Kenya *Vision 2030 2009*).

Arising from this high value attached to wildlife conservation, this has often resulted in indigenous peoples being separated from wildlife and forests. Many families were evicted by the creation of protected areas, most of which were originally inhabited by pastoralists and hunter-gatherers (Rodolfo 2007). The growth of the tourism industry in connection with the establishment of protected natural areas has created additional problems for these communities. Cattle rustling, banditry and cross-border insurgency, mostly in the northern part of the country, have led to hundreds of deaths, thousands of internally displaced persons and flourishing trade in small arms, partly as a result of competition over diminishing natural resources (NCCRS 2009; Rodolfo 2007).

It is evident that drylands ecosystems are not only valuable in wildlife conservation, tourism and livestock keeping but equally in maintaining soil fertility, holding and maintaining water and air quality and also in carbon sequestration. They also harbor natural resources, including species adapted to drylands conditions. According to Shackleton et al. (2008), the degradation and/or loss of these resources would reduce climate adaptation and resilience options. The current climate change and REDD+ discussions around carbon sequestration is an emerging opportunity in the drylands. Empirical evidence suggests that grasslands store approximately 34 per cent of the global stock of CO₂. African grasslands extend 13 million km² and have vast carbon sequestration potential (Reid et al. 2004 and Mortimore et al. 2008). In order to exploit carbon sequestration opportunities, the carbon sink capacity of drylands needs to be rehabilitated in some areas and preserved in others.

Pastoralists employ a number of highly specialized adaptation strategies to cope with their highly variable, unpredictable and sometimes extreme climatic conditions. These strategies include but not limited to: large herd size as insurance, splitting herds across space and time to spread risk from lack of grazing and exposure to disease, diversity in breed and species to utilize different ecological niches; loaning surplus animals to family and friends for their subsistence and building of their herds for enhanced social relations and social capital, and matching the availability of animals to the availability of natural pastures and water (Hesse 2009). These coping strategies are significantly threatened by a combination of communal land privatization policies and negative impact of climate change.

Global climate change has had an inordinate impact on rangelands and indigenous peoples' knowledge, systems and practices, because the productivity of grass and shrub dominated ecosystems is so closely linked to the short term expression of climate, weather, thermal regimes, rainfall amounts and duration of wet versus dry seasons which influence soil moisture content (Hesse 2009). Other aspects of global change, such as CO₂ fertilization, invasive species and changes in land use, will also have significant effects on the ability of rangelands to meet human needs and desires (NCCRS 2009).

Despite decades of empirical research providing evidence of the value and resilience of the pastoral livelihood, many policy makers still view pastoralism as a backward, environmentally destructive and unsustainable production system. For their part, pastoralists often lack the knowledge, capacity and resources with which to lobby their cause. Climate change intensifies the challenges already facing the drylands because it interacts with existing problems and challenges and makes them worse.

Impact of Climate Change on Indigenous Peoples

In an article in the November 12, 2006 issue of *The Observer* entitled “Kenya’s herdsman are facing extinction as global warming destroys their lands,” the author, Peter Beaumont, citing a research commissioned by the charity Christian Aid in Northern Kenya, dubbed pastoralists as “climate canaries” – people destined to become the first victims of world climate change. The report reckons that hundreds of thousands of these seasonal herders have already been forced to forsake their traditional culture – essentially becoming environmental refugees. This observation may not be far from the reality of the current situation of indigenous peoples in the country. The issues highlighted not only in other literature but equally from oral interviews and the researcher’s observations attest to this reality.

The country has witnessed one of the most prolonged drought and famine in recent times resulting in enormous livestock losses and total disruption of livelihoods especially pastoral (NCCRS 2009). Describing what is now understood by most indigenous peoples to be the ravaging effect of climate change, one respondent exclaimed that “there are children born into this community who are now three years of age and have never known what it means to rain because it has not rained in the last three years.” A similar story is told by a local herder who, two years ago, had a herd of about 700 heads of livestock, but at the time of the conduct of this research, he was left with only 50 heads of cattle whose survival couldn’t be guaranteed. Mr. Oloishuro’s⁸ story isn’t any different; his was a herd of 400 cattle but was also reduced to a herd less than a hundred emaciated animals, hardly able to lift their frail body-frames from the

ground. The psychological and emotional stress arising from the loss of his herd was too unbearable that the man attempted suicide.



Figure 3 & 4. Effects of Drought, Inkineji Area, Narok South District. Photo by James Twala (2009).



One would be compelled to ask: How is the community coping with this situation? My research assistant, upon my arrival to this community, asked “have you seen any livestock along the road as you drove to this village?” “Very few,” I responded and I asked why. My assistant answered, “The few surviving cattle nowadays rarely leave the homesteads. There are no more grasses and pastures across the entire rangeland. The seasonal dry grazing limits have been surpassed. Some herders went as far as Kwale district,⁹ along the Kenyan coastline but few returned with livestock.” The herders have resorted to feeding their remaining herds with commercially prepared feeds. Due to the prolonged duration of the drought and a large number of pastoralists increasingly relying on these feeds, the nutritive value of these feeds is doubtful. The urge to make profits while the drought lasts also contributes to the poor quality of the feeds.

The market prices for the weak and emaciated cattle are also at an all time low. With the market prices for animals previously placed at Ksh20,000 going for less than Ksh3,000, the pastoralists see no difference between selling the animal alive

and leaving it to die. Most choose to keep the cattle hoping against all hopes that the rains will fall sooner than later. They then opt for selling smaller stock (sheep and goats) to raise money to feed both the cattle and the household. While the price of cattle is diminishing, that of the most basic consumer goods is at an all time high with inflation estimated at 26.2 per cent in 2008 and 20.5 per cent in 2009 (CIA World Factbook 2010).

Lack of market for hides and skins has made the situation worse. Although livestock were lost in previous droughts, the price of hides and skins was often encouraging during such periods. Pastoralists, this time around, simply watched helplessly with their traditional resiliency and adaptation and coping mechanism stretched to near breaking point. The NCCRS and several print media reports in the country reported an increase in the incidences of diseases for both human and livestock associated to climate change including highland Malaria and Rift Valley Fever (RVF) which affect cattle.

Our discussions with indigenous peoples groups and individuals at community, district and national levels suggested a general increase in the incidences of conflicts among indigenous groups themselves and with other neighboring communities or livelihood systems. All such conflicts were compounded by climate change. The agro-pastoral Ilchamus community of Baringo District, for example, has witnessed a long-standing conflict associated to climate change that has worsened their poverty. Climate change has affected Lake Baringo. There are fewer fish in the lake. The pastoral culture and religious practice of the community is disrupted; for instance, *kiserian*, a sacred site for sacrifice and worship to gods around the Lake is no longer accessible. Women used to worship at night but due to insecurity, they no longer can do so. Schools were destroyed through conflicts; youth dropped out of school and were recruited in inter-tribal wars or livestock herding to enhance security like in the case of the Mukutani in Baringo District (Lenashuru 2010).

The Senior Warden in charge of Maasai Mara National Reserve observed that although incidences of human-wildlife conflicts often occur within communities living in proximity with national game parks and reserves, these conflicts have, of late, increased in frequency and intensity and involve a wider vari-

ety of wildlife species than ever witnessed before. Baboons for example, were reported to have turned “carnivorous” in a section of Kajiado where they resorted to taking pastoralists’ smaller stocks (goats and sheep) for a meal, almost by force. Elephants, especially in Narok South are interfering with daily livelihood activities including school attendance, fetching of wood and water by women, market related activities and herding of livestock. Social and cultural activities such as traditional rites of passage that ideally should be held collectively as a community have been postponed indefinitely. Furthermore, elephants, like never before, are destroying human property and lives.

This disruption of traditional and cultural practices that are core to the perpetuation of the community’s identity such as rites of passage (naming, initiation, marriage, graduation to elderhood, age set formation ceremonies amongst others) due to prolonged drought and out-migration in search of pasture and water, and also due to unavailability of certain plant and tree species utilized in such ceremonies is a direct impact of climate change. An interesting thing to note here is that, in Loita Division of Narok South, where a section of the indigenous Maasai community are involved in the management and conservation of Naimina Enkiyio Forest (Forest of the Lost Child), only here was one of the major ceremonies – *Eunoto* – performed. The forests and general environmental integrity is still maintained under a highbred of customary institutions and indigenous knowledge and relevant state bureaucracy.



Figure 5 & 6.
Indigenous
peoples’ Managed
Forest.¹⁰

The ripple effect of these delayed rites of passage is a diminishing or immensely strained capacity of sharing and perpetuation of indigenous knowledge systems and practice among indigenous communities. Of significant importance in the transmission and sharing of indigenous knowledge and practices is the institution of *elatia* – a grouping together of several villages (often of the same lineage). *Elatia* facilitates not only the pooling together of labor, resources and security services, but, equally provides a rich and conducive environment for the enactment and enhancement of indigenous knowledge systems and practices. The dispersal of pastoral families in search of pastures and water beyond traditionally utilized regions coupled with land individuation have contributed to the near dissolution of this informal customary institution among the pastoral Maasai. The frequent, intense and prolonged droughts have negatively affected the indigenous communities' ability to predict seasonal variation which ideally would inform livestock mobility strategies. This has affected aspects of the community's adaptive capacity.

The problem of shortage of labor for pastoral production is further worsened due to out-migration from indigenous peoples' livelihoods systems arising from entrenched poverty associated to the loss of livestock on account of climate change. This situation has resulted to the increase of environmental refugees. The increasing level of poverty which has led to food insecurity and strain on basic survival has had negative impacts on the program of activities of indigenous organizations working in local indigenous areas. Access to food has now become the most urgent among other immediate concerns. These organizations are therefore compelled to look for alternatives to respond to the most felt community needs.

Increase of extreme weather related phenomena other than drought is also a big issue. Most recently, a huge and strong cyclone travelling hundreds of kilometers in width and distance was reported moving from west to east across Maasai land (southern part of Kajiado). It is attributable to increasing swaths of barren land due to a combined effect of deforestation, charcoal burning, overgrazing and cultivation on non-agricultural zones and prolonged drought. The current heavy rains and

floods pounding the country and pastoral rangelands in particular, have left a trail of death and despair. In areas such as Turkana, Narok, Kajiado and other parts of North Eastern Kenya, hundreds of families were displaced, property and infrastructure worth millions of shillings were destroyed and lives were lost. Such aftermath has further compounded the effects of drought and famine.



Figure 7. Effects of floods at the Central Business District of Narok town.



Figure 8. A submerged Maasai home at Suswa, Narok District. Photo by James Twala (January 2009).

Women around the world are already disproportionately affected by climate change. Two-thirds of the people living in extreme poverty are women. This is especially so because of the roles women play in households; they are key providers of food, fuel and water. The impacts of climate change directly affect the availability of these vital resources. In the customary pastoral context, women have reduced access to land and natural resources, reduced ability to earn a living and lesser voice in decision making. Loss of biodiversity can compound the non-security of women because many rural women in different parts of the world depend on non-timber forest products for income, traditional medication and nutritional supplements in times of food shortages. They also depend on the forest for a seed bank of plant varieties needed to source alternative crops under changing conditions (GBM 2004). Thus, loss of biodiversity challenges

the nutrition, health, and livelihoods of women and their communities. Furthermore, nutritional status partly determines the ability to cope with the effect of climate change and other natural disasters (WHO 2005).

In their desperate efforts for survival, indigenous peoples now experiment with alternative sources of livelihoods even if they themselves find these activities disdainful. These alternatives include charcoal burning and paid menial labor. Charcoal burning is the latest menace to environmental degradation because it contributes to GHG emissions and it reduces opportunities for carbon sequestration. Although carried out within indigenous peoples' environments, the activity is mostly conducted by members of non indigenous communities in Kenya. The activity equally affects the social, economic and political aspect of the local community as indicated by indigenous communities at Elangata Wuas in Kajiado District.

Deforestation and forests degradation have a direct impact on forest dwellers and forest dependent communities. Destruction of forests, coupled with forced evictions, diminishes opportunities for hunter-gatherers to survive on naturally available foodstuffs such as wild fruits and honey. For indigenous communities, forests are not just carbon sinks or commercial products for the markets; their value encompasses aspects of spirituality, water availability and medicinal value. This worldview of an interrelated commonwealth of life shared among indigenous peoples the world over corresponds with the general principles of an ecosystem approach to conservation and development.

Indigenous Peoples' Views on Drivers of Deforestation

In our various discussions with indigenous peoples' representatives at the community, district and national levels regarding the drivers of deforestation and forest degradation, the question of recognition or lack of recognition and protection of Indigenous Knowledge, Systems and Practices (IKSP) in REDD+ discourse featured prominently. Indigenous peoples expressed their conviction that from time immemorial, they have been prac-

ticing REDD, that is, conserving and managing indigenous forests for reasons other than carbon sinks. Forests management and conservation depends on local forest dwellers or forest dependent communities who see their connection to forests beyond the economic-carbon sink value. For these people, forests management and conservation permeate all aspects of their livelihoods including health, water and food security, spirituality, social and cultural value (Cheruyiot 2010).

Communal ownership of forests generally ensures access for all group members to tree resources. This access is generally defined by gender, season, state of the resource and other socio-economic and cultural factors. They protect the sustainability of resource by establishing closed seasons, bans on the cutting of live trees or particular methods of tapping the resource. These rules are designed to ensure perpetual use of resources and are generally responsive to changing external circumstances though these are still vulnerable to population pressure (Callisto and Juma 1996).

Because indigenous peoples attribute deep value to forests, they do not have any incentive or interest to destroy these and they actually despise the destruction of such an important resource. There was also a general feeling among indigenous peoples interviewed that the government is a poor protector of forests. To fortify this assertion, they often argued that the forests currently witnessing the greatest deforestation rate are those under the control of either the central government or local authorities. They therefore insisted that indigenous peoples and local communities should be supported in keeping their forests and they should be allowed to benefit from forests which they have conserved and protected over time.

A member of the indigenous Maasai community from Nakuru district observed that where indigenous forests are replaced by exotic plantations, the ecosystem is disturbed. He noted, for example, how certain species of exotic trees have had a negative impact on wildlife. He narrated that giraffes and elands are no longer common at a region that previously formed part of their habitat. The bees too are not getting the right flowers to make honey. The same respondent further commented that political under-representation is a major issue that gives rise to the

marginalization of indigenous communities. This also contributes indirectly to forest excision to outsiders and forced eviction of indigenous peoples from forests.

It is hoped therefore that in the design and implementation of the new REDD+ mechanisms, the rights of indigenous peoples will be both recognized and promoted. Such initiatives should be geared towards building the capacity of indigenous peoples based on IKSP and avoidance of further marginalization and poverty of these groups.

LAWS, POLICIES AND PROGRAMS: FORESTS & REDD

The policy and legal environment generally plays a critical role in clarifying resource tenure regimes, minimizing conflicts and providing guidelines for resolution of conflicts where and when they arise. By doing these, the policy and legal environment promotes security, and it standardizes norms. Of relevance in the context of REDD+ are laws related to land and natural resources governance and human rights. The Table below provides a brief overview of such key policies and laws in country.

Summary of Relevant Legislations

Table 4: Summary of Laws and Policies Relevant to the Forestry Sector. Source: Forest Cover and Forest Reserves in Kenya: Policy and Practice 1999; Forest Policy, Legal and Institutional Framework Information Sheet 2009.

LEGISLATION on LAND TENURE	
Law or Policy	Comment
Government Lands Act, Cap. 280, (revised 1984)	This Act deals with government land which includes forest reserves, other government reserves, townships, alienated and unalienated government land and national parks. In this Act, Section 3 gives the President powers, subject to any other written law, to “make grants or dispositions of any estates, interests or rights in or over alienated Government land.” The powers of the President over government land also extend to forest reserves because these are administered under the government land tenure. This legislation is critical in the REDD+ mechanism with respect to indigenous peoples because most national parks and game reserves are found within indigenous peoples’ ancestral domains.

Trust Lands Act Cap. 288 of 1962 (revised 1970)¹¹	<p>The Trust Land Act makes provision for rights in Trust Land and controls the occupation of land. The Act also sets out the procedures for the setting aside of land for a variety of purposes likely to benefit the persons residing in that area or for transfer to the Government. The Government may, by written notice to a council, state that a parcel of land is required to be set apart; compensation shall be paid for this land.</p> <p>Of particular relevance to forestry is the fact that the Act makes provisions for general conservation, protection and controlled utilization of trees and other forest products on land, other than gazetted Forest Reserves—essentially forests under communal ownership such as the Maasai Mau and the Naimina Enkiyio Forests. The extent of the deforestation and forest degradation witnessed in the Mau Complex, (administered under this Act) raises questions on the reliability and effectiveness of this legal instrument in the protection of forests in communal land.</p>
Local Government Act, Cap. 265 (revised 1986)	<p>This Act allows local authorities to alienate, own and sell land within their jurisdiction under the Trust Lands Act or to purchase land within the jurisdiction of other local authorities. This was partly the factor contributing to the excision of the Maasai Mau.</p>
The Land Adjudication Act, Cap. 284 of 1968 (revised 1977)	<p>This Act provides for the ascertainment and recording of rights and interests in Trust land. Land that is adjudicated under this Act is then registered under the Registered Lands Act or the Land (Group Representatives) Act. The Department of Land Adjudication and Settlement of the Ministry of Lands and Settlements is responsible for implementing this Act.</p> <p>This Act has potential implications in the management of forests in that the adjudication officer in declaring specific sections for adjudication is empowered to exclude areas of ecological importance such as watershed areas and hilltops from being converted into private ownership.</p>
The Land Adjudication (Amendment) Bill of 1999¹²	<p>The Bill gives a definition of “customary law” as “the law or custom relating to the tenure or user of land observed by the indigenous inhabitants ordinarily resident in the area where the land is situated and of which the person or group of persons concerned form a part”.</p> <p>This Bill makes an attempt to recognize customary law and give it legal recognition. This recognition could have implications for forest management because customary knowledge and institutions could potentially play a greater role in forest management within land held under customary law.</p>
POLICY AND LEGISLATION ON NATURAL RESOURCES	
Forest Act	<p>The Forests Act, Cap. 385 of 1962 (revised 1982 and 1992) states that a “forest area means an area of land declared under section 4 to be a forest area.” The Act addresses preservation, protection, management, enforcement and utilization of forests and forest resources on Government land.</p>

<p>Water Act, Cap. 372 of 1951 (revised 1972)</p>	<p>This Act makes provisions for the conservation, control, allocation and use of water in Kenya. The Act vests all the water resources in the Government. However, commercialization of water resources has been allowed in Kericho, Eldoret and Nyeri, with the formation of companies and contracts under the Local Government Act (UNCHE 1998). In Section 13(1) of the Act, the Minister is empowered to drain swamps and this could have adverse effects on forests. Section 14 of the Act gives the Minister power to gazette water catchments in the country. The Water Act is presently under review.</p>
<p>Fisheries Act, Cap. 378 of 1989</p>	<p>This Act contains two provisions relevant to forestry; it regulates trout fishing in forests and protects fish breeding areas. The latter provision is relevant to mangrove management. The execution of this Act falls under the Fisheries Department of the Ministry of Natural Resources which has signed a Memorandum of Understanding with the Forest Department for the management of mangrove forests gazetted as Forest Reserves.</p>
<p>Trespass Act, Cap 294 of 1963 (revised 1982)</p>	<p>This Act confers protection to land owned or occupied by virtue of freehold title, cultivated or enclosed land, or any forest area. It is relevant to the control of squatters in forest reserves. The effectiveness of this Act is limited by the low penalties imposed for infringement (MENR 1994).</p>
<p>Mining Act, Cap. 306 of 1940 (revised 1987)</p>	<p>The Mining Act vests all unextracted minerals, other than common minerals, under or upon any land, in the Government, which may grant such rights and interests in any other person. The Act also stipulates that on abandonment of an area that has been mined, the license holder shall fill up or secure the area, to the satisfaction of the Commissioner for Mines and Geology, in such a manner as to prevent persons or stock other than dogs or poultry inadvertently entering the shafts, pits, holes and excavations. Failure to secure the land thus shall constitute an offence with a fine of one thousand shillings or imprisonment of a term not exceeding three months. This Act has implications for forests in that, with the approval of the Minister, mining can be allowed in both gazetted and non-gazetted forest areas. Further, there is no legal requirement for the re-forestation of the abandoned mining area. For example, quarrying has been going on in the Oloolua Forest Reserve despite protests from communities adjacent to the forest and a court order banning blasting within the forest (Kenya Forest Working Group 1999).</p>

<i>The Environmental Management and Coordination Act (EMCA) of 1999</i>	This Act aims at the provision of a framework for integrating environmental considerations into the country's overall economic and social development. It specifically aims at harmonizing the various sector specific legislations that touch on environment to ensure greater protection of the physical and social environment. The Act emphasizes the principle of public participation and makes attempts at recognizing the cultural and social principles traditionally applied by communities in Kenya for the management of natural resources. This may provide a window of opportunity for the enhancement of IKSP, Free, Prior and Informed Consent (FPIC) and effective participation of indigenous peoples.
<i>The Wildlife (Conservation and Management) Act, Cap 376</i>	The Act was adopted in 1976 but since then eight amendments and revisions have been done with the latest being in 1990. The Act was adopted three years after Kenya ratified the CITES so it deliberately inbuilt most of CITES recommendations. As provided for in the Act, the process of gazettelement and de-gazettelement requires parliamentary approval so the heightened level of decision-making and legitimacy of the whole process ensures no grabbing of protected areas. The Act would be useful in the discussions around Carbon sequestration and REDD+.
<i>The Agriculture Act, Cap 318</i>	This Act promotes soil and water conservation and prevents the destruction of vegetation. The Act identifies shifting cultivation or the slash/burn agriculture, as the biggest threat to forest conservation. Under the Act, the Minister can make rules to prohibit, regulate, control clearing of land for cultivation, grazing or watering of livestock thus complementing the Forests Act. Enforcement of the Act has been the biggest problem especially on protection of riverbanks that have been cultivated resulting in soil erosion and heavy silt load on rivers.
<i>The Antiques and Monuments Act, Cap 215</i>	The Act has been used for gazettelement of areas of historical importance and threatened heritage, e.g., the Kayas at the coast have been protected under this Act. Forest management decisions depend on the elders while other management decisions are vested with NMK. NMK's mandate does not adequately cover management of forest resources in these sites as most of the Kayas are now under threat from cultivation, charcoal burning and mining.
International conventions relevant for forestry signed by the country	
<i>Convention on Biological Diversity- CBD Ramsar Convention</i>	The Convention on Wetlands of international importance was signed in 1990.

Convention on International Trade in Endangered Species – CITES	The Convention on international trade in endangered species of wild fauna and flora was signed in 1979.
United Nations Framework Convention on Climate Change – UNFCCC	The Convention on Climate Change was signed and ratified by Kenya on August 30, 1994.
United Nations Convention to Combat Desertification – UNCCD	Kenya signed this convention in 1994 and ratified it in 1997.

Land Tenure and Property Rights in forests

Property rights regimes have a significant role in the management and conservation of forests. There are three tenure regimes in Kenya's legal systems which, to a larger extent, determine the conservation and management of forests. First is the individual tenure founded on English common law and embodied in Chapter 300 of the Registered Lands Act (Okowa-Bennum and Mwangi 1996). Second is the communal or customary ownership of land, a system characterized by complex and multilayered rules. In theory, this property right is no longer significant with the advent of land adjudication and consolidation programs. However, the system is still functional at local level, especially within indigenous peoples' environments. It is significant here because it is linked to the application of indigenous knowledge to the management of natural resources including forests. This regime continues to govern property relations even in those areas where individual tenure regimes are in existence. It mainly applies under *Trustlands* – areas where land has not been adjudicated and consolidated – and *Group ranches*

—areas where all members of the group have equal and guaranteed access to the resource in question.

State ownership is the third property regime system. This is applied to gazetted forests subject to state monopoly rights. Under the Forest Act, land may be declared a forested area by proclamation in the Official Kenya Gazette. By the same mechanism, any forests area may be declared as demarcated forest or nature reserve. Unfortunately, the state has proved to be an inefficient custodian of the monopoly of rights vested on it. The regime is often seen to be delinked from the social context on which it operates. The future of forests is inextricably tied to the future of the local communities because conservation of the forests depends upon the sustainability of local livelihoods. Attention to human issues will therefore be necessary (Okowa-Bennum and Mwangi 1996).

As a response to the often conflicting policy and legal environment, the government, albeit under pressure from the public and civil society organizations, has recently passed an ambitious policy document on land which makes a laudable attempt to harmonize and improve laws and policy on land tenure in the country. Sessional Paper No. 3 of 2009 on National Land Policy recognizes how individuation of title under the Registered Lands Act (Chap 300) “has affected customary tenure by undermining traditional resource management institutions and ignoring customary land rights not deemed to amount to ownership such as family interest ... communal rights to clan land (such as rights to *inkutot* land among the Maasai” (Article 65). In addition, Articles 180–183 are dedicated to the recognition of Pastoralism as a legitimate land use production system. Furthermore, Article 194 emphasizes the need to secure land rights of vulnerable groups including pastoralists, hunters and gatherers.

The Sessional Paper points at both colonial and post-colonial land administration systems as the foundation for the systematic undermining of traditional resource management institutions. This document indicates that these administration systems created uncertainty in access, exploitation and control of land and land based resources including forests. It asserts that successive governments in Kenya have been “poor stewards” of government land and Trust land resulting in the irregular

and illegal allocation of essential public land and the destruction of critical natural resources such as forests and water catchments areas. Most of the recommendations contained in the Sessional Paper No. 3 are captured in the Harmonized Draft Constitution.

The Harmonized Draft Constitution under Article 87 (Sections a, b, I, and j) on Environment and Natural Resources provides a legal framework for the respect of the integrity of natural processes and ecological communities. This article too promotes the conservation of habitats and species, and it ensures the use of renewable energy sources. As a consequence of the items provided by this article, social and cultural values traditionally applied by communities of Kenya are inclined to be protected. The draft stipulates the need for the country to work towards the achievement and maintenance of a tree cover of at least 10 per cent of the total land area of Kenya. It also calls for the promotion of public participation in environment management, in the protection and enhancement of intellectual property rights and indigenous knowledge of indigenous peoples, and in the assurance of biodiversity and genetic resources of communities. The enactment of the Forest Act of 2005 is also worth noting since it is a government legislation that provides guidelines for the management and conservation of forests in the country.

The Act recognizes the value of forests in conservation of biological diversity and habitat for wildlife, in stabilization of soils and ground water, in protection of water catchments and in moderation of climate change. All these will ultimately lead to the rationalization of forest resources for the socio-economic development of the country. The Act calls for “sustainable use” of forest and forest products in a manner which does not compromise the capacity of the forest and its use by future generations. “Sustainable use” also refers to the avoidance of abusing the carrying capacity of the forests’ supporting ecosystems. This statement essentially adopts the ecosystem approach common among indigenous communities.

The Act applies to all forests and woodlands under the control of the state, local authority (Trust Land Act or community) and private entities. Most of the forests currently man-

aged by indigenous peoples groups are legally held in trust of the community of interest by Local authority under the Trustlands Act. The Act defines a "Forest community" as a group whose members have a traditional association with the forest for purposes of livelihood, culture and religion or a group that is registered as an association or organization engaged in forest conservation (Forest Act 2005).

One of the provisions of the Act (which would be of particular interest to indigenous communities) has to do with the "sacred grove" which refers to a grove that has religious or cultural significance to a forest community. By criminalizing the destruction of these sites, this provision ensures that they are protected (Forest Act 2005). In the endeavor to address the perennial problem of lack of community involvement in forests management, the Act (through Article 45) also provides for the establishment of Community Forests Associations (CFAs) which must then submit an application to the Director of KFS for authorization to participate in forestry conservation and management activities in the country. The role of these associations may include participation in the protection of the sacred groves.

One of the key elements of the Act is the promotion of an "Inter-sectoral approach to management of forest" through a representative Board. This Board consists of all relevant government Ministries and government agencies including individuals appointed by the minister. The composition of this board takes into account gender and regional representation (Forest Act 2005). The major role of the board is to coordinate and monitor inter-agency forestry activities in the country.

There are other openings in the Act which offer opportunities for indigenous peoples' representation. For instance, the Act makes provisions for the position of "honorary foresters" for a 5-year period. It also provides for the establishment of Forest Conservation Committee to manage forest conservancy areas. This committee has power (in consultation with the board) "to assist local communities to benefit from royalties and other rights derived from flora and fauna traditionally used or newly discovered by such communities." The chair of such a committee, however, would still be appointed by the board and he/she should have at least 10 years experience in forestry (Forest Act

2005). By virtue of this clause, the chance of indigenous peoples for the positions may be limited because the criteria of choice apparently favor those with experience based on a western type of education.

Furthermore, the Act calls for the establishment of a "Forest Management and Conservation Fund" which, in part, will be used in the conservation of indigenous forests and community-based forests projects, in the maintenance of sacred groves and areas of cultural, ethno-botanical or scientific significance and in the conduct of education and research (Forest Act 2005).

Although the Act, under Section 21, indicates that forest dwellers/forest dependent communities will benefit from forest produce "as it has been the custom of these communities," the provision is not without limitations. The communities' benefit would still be "subject to such conditions as may be prescribed and not for the purpose of sale" (Forest Act 2005). Under the Act, the Minister of Forestry and the Director of KFS remain with immense power over other government institutions prescribed by the Act. This situation almost nullifies the opportunity for decentralization and effective community participation in management of forests. Such arrangement appears to have been premeditated in the drafting of the Act.

The three policy documents reviewed here, though progressive in their attempts to promote environmental ethics, to address historical injustices and marginalization of a section of the population in the country, to harmonize the legal and policy environment around access to land and security of tenure and to ensure effective participation of the citizenry in governance, the realization of these aspirations remains to be seen. Although the three key policy and legal documents refer to the terms "marginalized," "vulnerable" or "minority groups" and some aspects of indigenous peoples such as indigenous knowledge, they still avoid explicit mention of the term "indigenous peoples." Furthermore, the Harmonized Draft Constitution, though recently passed by the national assembly, still awaits its fate with the national referendum expected around July 2010. The Forest Act, though passed by parliament, is yet to be fully operationalized. Similarly, the Sessional Paper on Land Policy is yet to be translated into law.

Kenya and Its Way to REDD:

Processes and Mechanisms of Designing, Implementing, Monitoring and Evaluating REDD/REDD+

With the coming of the “new green” which is REDD, the world (especially the developing countries) is now facing the challenge to mitigate climate change by preserving the world’s tropical forests. Studies show that tropical trees store vast amounts of carbon, but each year, wide swaths of forests are cut down or burned thus releasing more greenhouse gases into the environment than all the world’s cars, planes, and trucks combined. An estimated 24 per cent of global emissions can be attributed to land use change and forestry activities. In developing countries, the bulk of emissions result from conversion of forest to agricultural lands.¹³ A study by Mackinsey discloses that deforestation in Africa will need to be reduced by 50 per cent over current rates in order for this continent to contribute to the aim of keeping temperature rise at 2°C or less.

Kenya is one among 14 countries in Africa that has pledged to participate in the World Bank’s Forest Carbon Partnership Fund (FCPF) project to combat deforestation and climate change. The FCPF aims to reduce deforestation and forest degradation by compensating developing countries for greenhouse gas emission reductions.¹⁴ Kenya affirmed its commitment to maximize its opportunities on the REDD program in early 2008. From February to May 2008, Kenya engaged in REDD preparation through several processes that included the appointment of a national REDD focal point through an official communication from the National Environmental Management Authority (NEMA) to the Kenya Forestry Service (KFS). Mr. Alfred Gichu of the KFS is currently the focal point.

Kenya submitted its R-PIN in June 2008 and this was accepted by the FCPF in July. In October of the same year, Kenya participated in the FCPF Participants’ Committee meeting and signed its partnership agreement to formally become a REDD participant country.

The Kenyan Government has therefore embarked on a national process of preparation for an international climate change

regime that would reward countries for Reducing Emissions from Deforestation and Forest Degradation (REDD). Kenya obtained the support from the FCPF to prepare and implement a Readiness Preparation Proposal (R-PP) which summarizes the activities that would need to be undertaken to make the country “ready” to participate in REDD.¹⁵ The Kenya Forest Service is the nodal agency and is working in collaboration with the REDD Technical Working Group in the preparation of the R-PP. The Grant Agreement for \$200,000 for preparation of the R-PP has been signed by the Government of Kenya. The R-PP formulation process is being led by the Government of Kenya with the assistance of appropriate and necessary external expertise.

A joint mission (Government of Kenya, Development Partners and the World Bank) to Kenya took place from November 16 to 20, 2009. The aim of this mission was to support Kenya in launching the preparation of its R-PP in a timely, coordinated, consultative and transparent way. The mission also aimed to ensure that different REDD-related initiatives contribute in a coordinated fashion to the goal of making Kenya ready to participate in REDD. Since, the mission was expected to support the ongoing national REDD process, it brought together all main partners and created an open space for information exchange. The mission made certain that key local partners (government agencies, civil society and private sector) and development partners reached an agreement over a coordinated work plan leading to the development of Kenya’s R-PP.

World Bank Mission to Kenya

The World Bank mission team held bilateral meetings with government representatives, the REDD Technical Working Group and development partners prior to the official start of the mission. The mission team held meetings with the Permanent Secretaries from the Ministry of Forestry and Wildlife and the Ministry of Environment and Mineral Resources. According to the Mission’s report, there is an immense interest and support for REDD/REDD+ processes in the country as indicated by Table 5.

Table 5. Countries indicating support for REDD. Source: WB's Mission to Kenya report

Agency/Country	Support/Interest	Target
European Union	Provide 23 million Euros as financial support	To support community forestry activities
Finland	support for the Miti Mingi Maisha Bora II Project (2009-2014)	With a budget on REDD and support to ASALs, forest sector reforms
USAID	Support to land tenure issues including customary rights	Dispute resolution in the Upper Mara - useful for REDD readiness
DANIDA	Support to National Climate Change Response strategy	Broader framework for Climate change related activities
JICA	Indicated willingness to get involved	

In addition to the interest and support of several development partners in the forestry and land use sector, the coordination among all partners would provide additional stimulus and momentum to the REDD readiness process in Kenya. Discussions between the World Bank mission team and government officials reflected a strong commitment from the Government to move forward on REDD, to integrate it into the NCCRS and to ensure that communities benefit from it.

On REDD/REDD+ Readiness in Kenya, the Mission observed that deforestation and forest degradation in the country currently estimated at 12,000 ha per year is a serious issue. This issue especially concerns Arid and Semi-Arid Lands (ASALs) which, according to the report, are currently under severe threat from deforestation and forest degradation, but which could potentially be reforested to add to the green cover in the country. The NCCRS for Kenya was launched just before COP 15. It contains a chapter on forestry in which REDD is highlighted. There is thus a linkage between REDD+ activities and the national climate change plan. It is hoped that this linkage is strengthened at the time of the implementation phase. The reform in the forestry sector is also underway so there is an opportunity to undertake policy and institutional reforms pertinent to effective implementation of REDD+ throughout this process especially with regard to the rights of indigenous peoples and local communities.

On the management of the REDD/REDD+ Readiness processes in the country, the processes are coordinated through four thematic groups: Technical Working Group on REDD, Policy and Institutional Working Group, Methodology Working Group and Consultation and Participation Working Group. The REDD Technical Working Group membership includes representation from key ministries, CBOs and NGOs. The main task of this group is coordination of the REDD/REDD+ readiness process. The composition of the REDD WG and its Terms of Reference are attached as Annex 6. The working group reviewed the drivers of deforestation as contained in the country's R-PIN with the aim of ensuring a comprehensive identification of the drivers, underlying causes, existing gaps and actors that should be engaged in the process of developing the policy and institutional components of the REDD strategy options. The group is also expected to provide guidance in the establishment of an overall consultation plan for engaging the key actors in identifying ways of addressing these underlying causes. The outcomes of the discussions of the thematic working groups formed the building blocks for the inputs into the county's RPP.

The Methodology Working Group, for its part, focused on the need to establish Reference Emission Level (REL¹⁶) setting and sources of key carbon emissions. It also worked on setting up monitoring, reporting and verification (MRV). The Consultation and Participation Working Group, on the other hand, elaborated on how to ensure effective consultation and how to develop good participatory mechanisms and structures to enhance the process. It identified existing national level and local institutions as well as decentralized participatory structures in place such as the Forest Conservation Committees (FCC), Community Forests Associations (CFAs) and CBOs to be used as mechanisms for rolling out the consultation process. It was, however, acknowledged that some CFAs do not include communities living adjacent to the forest so it was suggested that KFS make provision for the inclusion of these communities.

The WB Mission to Kenya proposed the expansion of the composition of the REDD+ Technical Working Group to include further representation from other sectors and NGOs particularly the Ministry of Lands, Office of the President and the Prime

Minister's Office. The composition and role of the National Steering Committee also needs to be defined. It is important to note that the roles and responsibilities of the two bodies (REDD TWG and the National Steering Committee on climate change/REDD+) need to be clarified. Several multi-stakeholder workshops were also held to promote broad participation and contribution of the various stakeholders.

The WB Mission noted with appreciation the efforts made by the government to strengthen the Kenya Forest Service through the establishment of a Climate Change Unit team to ensure an efficient delivery of the Readiness program within the KFS. The REDD agenda will require regular interaction and coordination with a broad range of stakeholders. The mission also recommended the formulation of a communication strategy to reach out to all relevant stakeholders in a timely manner. The mission equally noted that there was great expertise and knowledge in REDD related issues among government officials, development partners, civil society and private sector organizations. The mission suggested that civil society and private sector entities should be proactively involved in designing the national REDD strategy for Kenya.

During the development of the NCCRS, which has a component on REDD, the government has conducted several multi-stakeholder workshops to sensitize the nation on climate change and to seek the views of citizens in order to develop the strategy in an inclusive manner. Furthermore, the REDD+ consultative working group created by KFS has held several meetings and workshops in the past with key stakeholders including forest dependent communities and government sectors with the aim of sensitizing them on REDD.

Key Actors in the Development, Implementation and Monitoring of REDD+ Policies and Activities in the Country

Table 6. Key Actors. Sources: Kenya's R-PIN; WB Report 2009.

Agency/Organization	Roles
Kenya Wildlife Service (KWS)	The lead agency in charge of protected areas so it has capacity to do inventory and monitoring in protected areas; can focus on habitat change and wildlife monitoring.
Department of Resource Survey and Remote Sensing (DRSRS)	A government agency for natural resource surveys, remote sensing, aerial surveys, vegetation mapping and database development. Given its expertise in time series animal and habitat mapping, it was able to develop a climate change warning system.
Regional Centre for Mapping of Resource (RCMRD)	It promotes development and use of geo-information for natural resource management in Eastern and Southern Africa.
ICRAF	Undertakes forestry productivity studies in agro-forestry systems.
UNEP	Has a unit specializing in deforestation and forest degradation monitoring with a long term interest in Mt. Kenya and Aberdares.
WWF	Involves in forest inventory and monitoring in the coastal regions and in monitoring of population changes in Mara and Mau forests.
Forest Action Network (FAN), Green Belt Movement (GBM) Kenya Forest Working Group (KFWG), National Association of Community Forest Associations (NACOFA), Nature Kenya	Have been playing critical roles in bringing issues relating to forests to the attention of the public holding the government accountable on these issues; some like GBM implement afforestation and reforestation projects. GBM has projects on carbon sequestration
MPIDO ¹⁷	This is an indigenous organization working with the Maasai and other indigenous peoples like the Ogiek, with a mission to promote, facilitate, and create an enabling environment for securing human rights including natural resources rights for sustainable livelihoods. MPIDO has also played a big role in supporting indigenous peoples in presenting their views to both the Constitution of Kenya Review Commission and the Njonjo Commission.

Environmental Research, Mapping and Information System for Africa (ERMIS)	Works with communities to establish monitoring protocols in indigenous area.
International partners (World Bank, IUCN, Clinton Foundation, USAID, Finnish Embassy, European Commission, FAO, UNDP, UNEP, and JICA, DFID and DANIDA)	Involved in funding various projects related to climate change and REDD.
Government Ministries (Ministry of Forestry and Wildlife, Ministry of Environment and Mineral Resources, Ministry of Finance, Ministry of Agriculture, Ministry of Energy, Ministry of Development of Northern Kenya and other Arid Lands); Kenya Forestry Research Institute	The government strategy is aimed at mainstreaming all interventions on Climate change across all relevant ministries.
Kenya Climate Change Working Group (KCCWG)	A consortium of civil society organizations involved in climate change whose objective is to advocate for a positive policy and legislative framework that puts into account the effects of climate change on human development focusing on vulnerable sectors of the economy.

Indigenous Peoples' Involvement in REDD Processes in the Country

Indigenous peoples' involvement, both at the Technical Working Groups' level and during the consultative workshops under the broader climate change activities and the REDD+ specific processes, were minimal to say the least. The so-called "consultations" were often just information dissemination meetings. A quick look at the composition of the REDD/REDD+ TWG (See Annex 8) shows how the government perceives the contribution of local communities and indigenous peoples in the development of REDD+ policies and strategies. Some of the workshops almost literally translated to consultation between gov-

ernment ministries and agencies on one hand and the development partners on the other. In the process of developing the REDD+ Readiness Preparation Proposal (R-PP), the KFS hosted a workshop on November 16-17, 2009 attended by 41 participants. In this workshop, the bulk of representation came from government and multilateral Institutions. There was only one indigenous peoples' representative from IPACC and this representative also doubles as a WB consultant in his personal capacity.

The proposed institutional arrangement for addressing climate change under the NCCRS has no direct reference to indigenous communities in the country. Least mentioned and represented in climate change and REDD+ processes are women and the youth.

Data on REDD and Future Activities on REDD

Forest inventory is a prerequisite for management planning and decision making. This is also necessary in meeting basic international good practices and in fulfilling international conventions and multilateral agreements (CBD, RCC, etc.). One of the mandates of the Methodology Working Group is to look at the status of forestry, carbon data and key sources of carbon emissions in Kenya. This working group is also tasked to monitor co-benefits, institutional needs and capacity for Monitoring Verification and Reporting (MVR) in the country. On the status of forestry data in Kenya and data on carbon stocks, the Department of Resource Survey and Remote Sensing (DRSRS) is the institution responsible for inventory for land use. Actual inventory of carbon stock is handled by KFS.¹⁸

The Methodology Working Group reported a total of three different National forest inventories in the country since independence. One of these inventories was undertaken in 1969-1970 in plantations and natural forests in Kenya. The second was done in 1989-1993 in plantation forests covering almost all plantations. The third inventory in 1993-1994 was based on regional ecosystems which included Mt. Elgon and Arabuko Sokoke. In 2000, FAO/DRSRS conducted Afri-cover mapping

on land use on all types of land use in Kenya (no stocking) (WB Mission Report 2009).

It is therefore evident that data on forests and carbon stocks currently available in the country are quite old. It is hoped that these data will soon be updated when the on-going Forest Resource Inventory under the World Bank supported Natural Resource management Project (NRM) is completed and released. With financial support for actual forest mapping from various stakeholders such as the Clinton Foundation and the World Bank, appreciable interest in the country on this front is already building up. The main challenge of the government here is how to coordinate all funding activities to maximize results.

The future of REDD activities

The future prospects of REDD programs in the country are promising, at least from the government's coordination efforts and the development partners' impressive interest. UNDP and UNEP have already pledged support to KFS and Kenya Forest Working (KFW) group for carbon accounting capacity development. Through financial support from the Clinton Foundation, plans are in advance stage for the development of a concept on MRV. KFS is expected to convene a meeting with the REDD TWG to discuss the process for rolling out the initial level of Information Education and Communication (IEC) to the regional and local levels. The country, guided by the REDD Technical Working Group (TWG), aimed at finalizing and submitting its R-PP by mid April 2009.

Indigenous Peoples' Concerns over REDD

While the REDD+ mechanism aims to slow down the rate at which the remaining primary and managed forests are degraded and deforested, to support livelihoods, to maintain vital ecosystem services and to preserve globally significant biodiversity, this mechanism is not without challenges in the context of indigenous peoples in country.

Challenges

- There is generally a low level of awareness among indigenous groups on REDD/REDD+ as technically defined in scientific jargon and an equally low capacity to engage in “carbon markets,” especially the private sector driven mechanism. The indigenous organizations also lack financial and technical capacity for leadership within indigenous communities;
- As indicated elsewhere in this paper, there is minimal and ineffective participation of indigenous peoples on national processes of climate change and REDD+ including the processes leading to the establishment of both the NCCRS and Strategy on REDD+;
- There is a misconception existing within global discourse and with national governments’ policy makers that over emphasize the role of forests as carbon sinks while downplaying other critical factors such as the ecosystem or holistic worldview of indigenous peoples that encompass their spirituality, medicinal value and social aspects besides the economic and ecological aspects. With its negative consequences on the interest of indigenous peoples, this misconception is highly problematic. This challenge is also related to the concern on “plantations” which presents the risk of replacing indigenous forests cover with exotic types which may not necessarily serve as substitutes for the socio-cultural uses of particular species;
- Often, there seems to be a general disregard or devaluation of Indigenous Knowledge, Systems and Practices which may, in fact, work to compliment those which are considered as “scientific options” for adaptation to or mitigation of climate change;
- There is a lack of recognition of climate change as a human rights and social equity issue. If it were present, this recognition would have necessitated actions that respect and protect rights of local communities including indigenous peoples especially in the context of international human rights instruments like the UNDRIP. The

same recognition would also have promoted the principle of Free, Prior and Informed Consent beyond the so-called “consultations” which are often just information meetings;

- The conflicting policy and legal framework create loopholes open for abuse of the law as highlighted under the policy and laws analysis in this paper. The enforcement of compliance to existing laws and regulations requires effective and efficient governance devoid of corruption. Widespread illegal logging, for example, can be attributed to this question of corruption and bad governance;
- The absence of field-based training on Community Carbon Forestry Mapping Technologies and Approaches for piloting of local REDD+ system is equally of great concern because this undermines the level of preparedness of local communities to effectively engage in the system.

DISCUSSION, CONCLUSION AND RECOMMENDATIONS

Discussion

Human Rights-Based Approach to Climate Change and REDD

The current climate change debate, at all levels, has traditionally focused on scientific, environmental and economic aspects thereby sidelining human, social and cultural aspects of climate change despite the fact that climate change has adverse impacts on human lives and living conditions in communities around the world. Many indigenous peoples and local communities are indeed in the line of fire of climate change and their lives and living conditions are severely affected by the changing climate.

While the negative impact of climate change is indiscriminate to all sectors, certain sectors are more vulnerable due to

other compounding factors. Due to their historical marginalization, high poverty levels, reliance on natural resources and fragile environments, pastoral and hunter-gatherer indigenous peoples are highly vulnerable to shocks like drought, famine and floods. The devastation of not only pastoral livestock but also of entire livelihood systems in certain regions by the current drought and (most recently by floods) in the country is a testimony to this fact. Climate change is therefore not only an environmental and economic issue but more importantly, a livelihood issue.

A number of indigenous peoples and communities around the world have already been severely affected by climate change and climate change-related impacts. This has resulted in relocations and has adversely affected indigenous peoples' well-being, livelihoods, cultures and identities. As recently discussed by John Henriksen, member of the Saami parliament, to the IIPFCC meeting at Copenhagen (COP 15), indigenous peoples are *not only* faced with direct adverse impacts of climate change, caused by, among other factors, extreme weather conditions, changing rainfall, draught, and rising sea-levels, but they *also* suffer from effects of mitigation measures and actions which are taken in response to climate change. Thus, according to Henriksen, indigenous peoples pay a "double negative price" for climate change; they suffer from direct adverse climate change impacts as well as from actions or measures taken to stop climate change from occurring or developing further. Often, mitigation efforts such as forest conservation, carbon offsetting and wind power installations which require waters and lands, turn to indigenous peoples' lands and waters.

It is beyond any doubt that climate change and climate change-related effects have hampered indigenous peoples' enjoyment of freedoms and privileges provided by human rights, collective property rights and such other rights inherent to free men and women. Human rights are universal, indivisible, interdependent and interrelated. In other words, universal human rights are applicable regardless of the legal or political system in the country concerned, and the provisions cannot be interpreted in isolation; these provisions have to be regarded as a complete body of international law.

Human rights standards establish clear obligations for States and grant specific rights for individuals, groups and peoples. States are not only obliged to take concrete action or abstain from certain actions to guarantee that beneficiaries can enjoy their rights and freedoms, but also ensure that actions of third parties do not deny beneficiaries from enjoying their rights and freedoms. This obligation of the State is crucial in relation to mitigation actions, including REDD+, which in some instances, will be undertaken by third parties following State approval. Because of the intricacies involved in arranging climate change mitigation actions, international human rights standards are useful in underscoring the fundamental moral and legal obligations of the State to protect and promote full enjoyment of rights enshrined in universal human rights instruments. In the context of REDD/REDD+, States (including Kenya) have generally been reluctant to accept human rights as an integral part of the REDD-scheme. It has been argued that a flexible REDD/REDD+ scheme is necessary in order for this to be responsive to national circumstances. The flexibility requirement, however, cannot and should not prevail over universal human rights and fundamental freedoms.

In view of the foregoing issues raised, the international principle of “common but differentiated responsibility” which recognizes different clusters’ apparent contribution to and capacity to respond to the challenges of climate change should be integrated into all intervention efforts including the NCCRS and REDD/REDD+ in the country.

It is imperative that in the government of Kenya’s effort to develop a negotiation language or text in the on-going climate change discourse under the five thematic areas of adaptation, mitigation, financing, technology transfer and capacity building within the UNFCCC framework, a language recognizing, protecting and promoting human rights, including the rights of indigenous peoples and local communities, should be well-established. The spirit and letter of the Country’s Vision 2030, Harmonized Draft Constitution and National Land Policy, all of which recognize the historically entrenched social inequality and marginalization of certain regions of the country or groups of people, should be upheld and translated into reality even within the context of REDD+.

Carbon Markets as the main means of funding

The existing carbon market mechanisms, including Clean Development Mechanism (CDM), Joint Implementation (JI) projects, REDD and REDD+ are all wholly or partly “market driven” initiatives. Being so, these mechanisms are likely to perpetuate further marginalization against indigenous peoples who have a low capacity to fully and effectively participate. It is only fair that in attempts to avoid climate change injustices which are likely to arise from such market based mechanisms, indigenous peoples, forest dwellers and forest dependent and pastoral communities who have been engaged in environmental conservation for ages be protected and be made as foremost beneficiaries.

In order to shield local and indigenous communities from the negative impact of climate change in general and market driven interventions in particular, these mechanisms ought to recognize and uphold the principles of “full and effective participation” through free, prior and informed consent (FPIC) and respect to and protection of human rights at all stages of project design and implementation and in benefit sharing especially as stipulated in the UNDRIP.

National Climate Change Response Strategy (NCCRS)

The process leading to the development of the Zero Draft of the NCCRS and R-PLAN was far less than participatory, at least on the part of local communities including pastoral communities and hunter-gatherers. In the proposed Institutional arrangement for coordination of climate change related activities, local communities, indigenous peoples, including pastoralists and hunter-gatherers, are locked out. In response to this gap, we propose the creation of a Working Group on Indigenous Peoples and Climate Change in appreciation of the extreme vulnerability of this group and the potential value of its members’ indigenous knowledge in adaptation and mitigation efforts. This group shall report to the National Climate Change Coordinating Unit (CCCU).

It is also evident that Indigenous Knowledge, Systems and Practices have great potential in providing complimentary op-

tions to scientific knowledge for adaptation and mitigation. The NCCRS Action Plan, for example, should recognize the critical role played by livestock mobility in the pastoral ASAL areas as one of key adaptation strategies to climate change. Deliberate efforts within the national policy framework should be put in place to provide for “livestock corridors” including cross-border areas to ensure access to dry-season grazing areas.

REDD Mechanism

In relation to REDD/REDD+, much progress has been made in the country such as the preparation of the National Climate Change Response Strategy (NCCRS) and the R-PIN. There is also an ongoing participation in the World Banks’ FCPF. In addition, concerted efforts are being made to establish legal and institutional framework to achieve the REDD/REDD+ objectives. A number of challenges to REDD implementation, however, are still to be resolved in order to develop a REDD+ mechanism that is able to deliver socially-equitable, environmentally-effective, and economically-efficient emission reduction. Some of the challenges identified include: Monitoring, reporting and verification for national inventory purposes, determining the role of indigenous peoples in MVR, capacity building, minimizing perverse incentives and ensuring cordial policy environments on land tenure.

At the national level, high quality national greenhouse gas inventories are the backbone of international climate change regime. High quality data from land use, land use change and forestry, which is consistent and comparable across developing countries, are also critical requirements especially if REDD/REDD+ is to be integrated into the international market. Historical trend data on deforestation are key starting points, but these need to be supplemented with data on emissions or changes in carbon stocks.

In terms of achieving emission reductions, it is important to recall that deforestation and forest degradation are caused by a number of multiple drivers. These include: the lack of secure land tenure systems and clearly defined property rights, insufficient capacity for effective law-enforcement, corruption, change

in land use, population pressure and poverty, among others. The government will need to redress policies that have adverse implications on the forestry sector at all levels.

Any new REDD/REDD+ mechanism therefore will need to be flexible and it needs to evolve as national and regional circumstances change overtime. Actions on REDD/REDD+ should aim to work towards the long-term “shared vision” for climate change mitigation that is necessary to meet the ultimate goals of both local and indigenous communities and the Convention (GCP 2009).

The Kenyan government should take a cue from the recent positive gesture by the World Bank under the FCPF Charter in which it decided to apply safeguard policies in recognition of the special circumstances of indigenous peoples of the world. The same charter also includes adoption of new rules recognizing the need to respect the rights of indigenous peoples and forest dwellers in accordance with applicable International obligations. Furthermore, the World Bank has availed of a small fund to support indigenous and local participation in the REDD+ planning activities (Forest peoples program Oct. 2009).

Building capacities for an effective REDD+ mechanism not only at the State level but also within indigenous peoples and local communities is critical. This may include support for monitoring systems, strengthening existing customary institutions, technical assistance, trainings and educational programs. These undertakings will enable the understanding of opportunities and risks associated with the REDD+ initiatives.

Role of indigenous peoples’ groups and indigenous peoples’ civil society organization

Both indigenous peoples groups and organizations have an apparent lack of capacity to engage in climate change and REDD+ processes to ensure the benefit and protection communities. There is therefore need to strengthen networking and partnership of indigenous peoples’ groups, leaders and organizations to promote cross-organizational learning, leverage resource utilization, reduction of wastage, avoidance of duplication, creation of synergies and provision of larger platforms and louder

voices to advocate for indigenous peoples' concerns. The recent establishment of a National Steering Committee on Climate Change and REDD by a consortium of indigenous groups and organizations is a step in the right direction. The committee which draws membership from indigenous organizations and groups across the country is mandated to monitor the policy environment, develop an indigenous peoples' national strategy on REDD/REDD+ and provide a link between global, national and grassroots processes on climate change and REDD. One of the key outputs of this committee is the development of the recently completed National Strategic Plan on indigenous peoples and REDD+. Resource and logistical support to this committee from indigenous groups and organizations, government institutions and development partners will be critical.

To advocate for their rights and concerns, indigenous peoples' groups and organizations in the country should utilize the window of opportunity provided by the government's efforts to reform and harmonize the legal and policy environment with respect to climate change, REDD+ and land tenure. Specifically relevant here are the Harmonized Draft Constitution, Sessional Paper No. 3 on National Land Policy, Forest Act 2005, National Climate Change Response Strategy (NCCRS), National Strategy on REDD+, Vision 2030 and the National Action Plan on Human Rights. Indigenous groups and organizations should, for example, consider the value of Community Forests Associations (CFAs) as possible frameworks for negotiations within the context of the REDD+ mechanism.

Also important in this endeavor is the urgent need to profile forests that are presently being managed and conserved by indigenous communities according to location, size, resource diversity and carbon sequestration potentials. It is essential therefore to explore options for linking local and national REDD+ verification processes and to consider carrying out field-based trainings on Community Carbon Forestry Mapping Technologies and Approaches, Community Measurements of Carbon Pools, Community Analysis of Carbon stocks and Community REDD+ Reporting.

Emergency Response/Disaster Risk Management

Climate change has not only affected indigenous peoples' livelihoods but it has equally put a strain on the ongoing programmatic work of indigenous organizations. Long term intervention programs including education, policy engagement and advocacy conducted by indigenous organizations have, in the short run, become secondary in the face of starvation and poverty. There is an urgent need for emergency response especially in the areas of food security and education among indigenous peoples' groups in the country. A significant portion of indigenous peoples' livelihoods have been disrupted and shattered as a consequence of the prolonged drought and ongoing floods in the country. Besides the overwhelming hunger and starvation experienced by communities, the education sector is seriously affected in terms of provision of school fees for children especially those at the secondary level. As a consequence, dropout rates among school going children has increased.

Gender and Climate Change

The IPCC acknowledges that disasters affect men and women differently due to variance in exposure to risk and risk perception. Addressing the social and gender dimensions of climate change poses many challenges but these are not insurmountable. It requires gender mainstreaming in climate change response activities which include sustainable and equitable development and a clear focus on adaptation and mitigation (WHO 2005). Equity and social justice cannot be achieved without recognizing both the differences in vulnerability and strengths of women and men as well as the various factors contributing to their vulnerability. This recognition is critical in any prospective attempts to address the consequences of climate change in gendered livelihoods. Gender-sensitive research is necessary towards this endeavor.

Many indigenous women are denied access to property rights as a result of discriminatory statutory and customary law. Women suffer marginalization with regard to land ownership due to patrilinear systems of land inheritance. They become virtually destitute in the case of widowhood or divorce. Women

are further excluded from decision-making processes in land transactions and the administration of communal ownership and group ranches. The age-set based traditional leadership system among the Maasai community in both Kenya and Tanzania, for example, has negligible opportunities for women's participation in leadership.

Indigenous communities should therefore revise existing customary laws and practices to eliminate discrimination against women especially with regard to their property rights. Their full participation in decision-making at the community and national levels should be ensured. The government should also review existing discriminatory laws and regulations affecting the property rights of indigenous women particularly those of widows and divorced women. The need, for example, to incorporate or enjoin a wife into the land titles and deeds of her husband may be emphasized.

Beyond recognizing and addressing the general concerns of indigenous peoples in the country, any REDD/REDD+ mechanism should take into account the unique vulnerability of indigenous women to avoid further entrenchment of marginalization.

CONCLUSION

Climate change presents one of the greatest challenges for humanity in the 21st Century. The extent, both in scale and intensity, transcends households, local, national, regional and international boundaries. Aside from the obvious and direct influence on the physical and economic environment of earth systems, the impacts of climate change also affect social, cultural and political processes. The level of discourse and negotiations as embodied within the UNFCCC framework and the global hype around the topic with a disproportionately slow pace in terms of outputs attest to this fact. As recognized by the IPCC, contribution to pollution/global warming (a predominantly human affair) is a differentiated phenomenon that pits the rich nations against the poor just as much as the impacts of global warming do. Thus, the principle of *common but differentiated responsibility* becomes critical in the endeavor to address the problem.

Kenya as a member of the global village is no exception. The country has experienced more than its equal share of the negative impacts of climate change in the form of droughts and floods. These traumatic events resulted to decimation of livestock, total crop failure, crippling of the key sectors of the economy and disruption/destruction of entire livelihood systems in certain regions of the country. That climate change is taken to be a serious matter in the country is evident with a flurry of activities including active participation in the regional and global negotiation processes and development of policy documents targeted at establishing an enabling environment for eventual stabilization of GHG emissions. One of these mitigation activities is the REDD program. Kenya, as a REDD country under the WB FCPF, is in the advance stages of operationalizing its REDD program. However, enormous challenges such as harmonizing the legal and policy environment, establishment of institutions of governance and educating the public on REDD remain daunting tasks. Common but differentiated responsibility is as true at the global level as it is at the country level as exemplified by the situation of indigenous peoples.

Kenya is home to several indigenous peoples' groups representing about 25 per cent of the country's total population. These indigenous groups are often categorized into pastoralists/agropastoralists and hunter gatherers. While notions of indigeneity are still problematic in official government circles, it is a reality that these groups form a significant portion of the so called "marginalized and vulnerable groups" in the country. This historical marginalization and vulnerability associated with these groups' reliance on nature-based livelihoods makes indigenous peoples more susceptible to the impacts of climate change than any other group in the country. Despite their vulnerability, indigenous peoples' worldview, customary institutions and indigenous knowledge, which have evolved overtime in response to changing environment, may provide opportunities for supplementing and complementing scientific efforts towards adaptation and mitigation. The REDD mechanism provides an opportunity to create synergies.

A well-designed and implemented REDD program will not only provide a cost-effective means of reducing GHG emissions

but also serve as an additional source of income for communities and governments where payment is directly received. REDD equally provides an opportunity for political and financial support toward forest conservation. The challenge with REDD remains on how to provide these benefits in a manner consistent with the livelihoods of indigenous peoples, local communities and forest dwellers. The State remains a key player in efforts to establish safeguards and to anticipate potential threats from REDD.

The government should therefore go beyond the mere recognition of the marginalization and vulnerability of indigenous peoples. It should establish legal frameworks premised on respect, protection and promotion of human rights ideals based on international human rights standards with specific reference to the UNDRIP. In the context of REDD, this framework should entail building the capacity of indigenous peoples both to adapt to and mitigate climate change. This framework should likewise incorporate principles of full and effective participation, FPIC and respect and promotion of IKSP.

RECOMMENDATIONS

Recommendations to the Kenyan Government

1. Overall, a human rights-based approach should be adopted by the government in all its strategies, interventions and policies with regards to climate change and REDD. In the context of indigenous peoples (pastoralists and hunter-gatherers), the government should take all the necessary steps, in consultation with indigenous peoples in the country, to ensure prompt ratification of ILO Convention No. 169 on Indigenous and Tribal Peoples and the United Nations Declaration on Rights of Indigenous Peoples (UNDRIP);
2. The government should put in place deliberate measures to create awareness, to promote effective and full participation of indigenous peoples on REDD and REDD

related processes, to establish safe guards and to ensure equitable benefit sharing where applicable;

3. The government should explore opportunities available in the Indigenous Knowledge Systems and Practices to strengthen traditional customary institutions and integrate indigenous knowledge to national strategies for adaptation and mitigation to climate change. The value of pastoral mobility within the rangelands should be recognized and facilitated;
4. In the long term, disaster risk management strategies including Early Warning Systems and timely intervention to avert enormous losses should be strengthened in terms of technology and funding. It is highly recommended that livestock insurance schemes and hay/pasture bank modeled in the design of the National Cereals and Produce Board and a school fees bursary kitty be established;
5. In response to the disruption of livelihoods and food insecurity, emergency support in the form of food relief and possibly re-stocking in the immediate short term is recommended;
6. Promotion and entrenchment of an inter-sectoral approach within government bureaucracy and an ecosystem approach to all efforts toward mitigating and adapting to climate change are worthwhile.

Recommendations to indigenous peoples' groups and organizations

1. Indigenous peoples' organizations are encouraged to develop concrete strategies for data collection, research and documentation, especially on indigenous knowledge, systems and practices relevant to climate change and REDD+;
2. These organizations are encouraged to establish and strengthen collaborative and networking efforts within and across themselves at all levels and with research institutions and development partners;

3. Indigenous peoples' constant and strategic advocacy engagement at all levels is strongly recommended. Advocacies should seek to influence national level policies by using the opportunities under the REDD mechanism. Through this mechanism, gains offered under the National Land Policy, the Forest Act 2005 and the draft constitution can be translated into reality;
4. Develop the capacity of indigenous leaders and organizations to effectively participate in the global negotiation processes under the UNFCCC thematic areas of adaptation, mitigation, financing, capacity building and technology transfer. To anticipate the real challenge of "elite capture," deliberate efforts which are community-centered and community-driven must be made to establish structures for negotiations within the REDD mechanism;
5. Indigenous communities should expeditiously initiate efforts toward profiling of forests currently under the management or ownership of indigenous peoples groups in the country. They must also conscientiously carry out carbon resource mapping and awareness/education campaigns.
6. Indigenous peoples should strengthen joint efforts to ensure smooth operations and productivity of the newly established National Indigenous Peoples Steering Committee and the realization of the objectives spelled out in the recently concluded indigenous peoples' National Strategic Plan on Climate Change and REDD.

Recommendations to development partners and the International Community

1. Donor community, research institutions and private sector should contribute in the areas of information sharing, research, strengthening traditional customary institutions, use of Indigenous Knowledge, Systems and Practices and technological transfer to build the capacity of indigenous groups in the country both to adapt to and mitigate climate change;

2. Support to indigenous peoples' groups and organizations to realize their aspirations of self-determination through exposure at the global arena, financial support to long term intervention programs such as education sponsorship at the secondary and tertiary levels would be particularly beneficial;
3. These entities should adopt a REDD regime at the international level based on ILO 169 and the UNDRIP in order to guard against the risk of States taking away land from indigenous peoples to capture the REDD revenue. REDD countries would then have to align their REDD strategies with these instruments.

Endnotes

¹ Tebtebba is an indigenous peoples' organization and a research, education, policy advocacy and resource center working with indigenous peoples at all levels and arenas, based in the Philippines.

² For purpose of consistency in the discussion, the use of the acronym "REDD" as opposed to "REDD+" or both is adopted.

³ Report of The Informal Working Group On Interim Finance For REDD October 27, 2009 Discussion Document.

⁴ Sessional Paper no. 3 2009 on National Land Policy.

⁵ Sessional Paper no. 3 2009 on National Land Policy.

⁶ Policy, Legal and Institutional Framework Information Sheet, Ndiritu D. G. 2009 (KFS).

⁷ Charcoal production in selected districts/section of the country.

⁸ Anonymized.

⁹ Kwale is more than 300 km away from the interview site.

¹⁰ Top right, is a photo showing one of ceremonial Villages (Emanyatta) with Loita forest on the Background in Loita. Photo by James Twala (2009); on the right section of the Naimina Enkiyio Forest (Loita), Kenya (East Africa) Photo by: Rhett A. Butler http://travel.mongabay.com/kenya/images/kenya_3988.html.

¹¹ Upon independence, all land that was not in private or government ownership became Trust Land, under the control of County Councils to be used for the benefit of the residents of the area (MENR,

1994a). Currently; approximately 78.5 per cent of the total land area in Kenya is Trust Land.

¹² This Bill, that was published on May 21, 1999, has as its main object to amend the Land Adjudication Act in order to cancel certain title deeds to land which were irregularly registered in the Mosiro and Illoodoariak Land Adjudication Sections in Kajiado Districts.

¹³ An overview of Readiness for REDD: A compilation of readiness activities prepared on behalf of the Forum on Readiness for REDD edited by Tracy Johns Evan Johnson.

¹⁴ *Kenya to benefit from WB's Forest Carbon Partnership Facility* available from <http://english.peopledaily.com.cn/90001/90777/90855/6455380.html>. Accessed on September 8, 2009.

¹⁵ These activities include: a) development of a national REDD strategy specifying the activities to reduce deforestation and degradation; b) establishment of a reference scenario of emissions from deforestation and forest degradation; c) establishment of a monitoring, verification and reporting system for the country's forest cover and forest cover change; d) design of an implementation framework for REDD; e) establishment of a consultation and participation mechanism for the national REDD process.

¹⁶ REL provides the reference against which Kenya's performance on REDD+ will be measured.

¹⁷ It is the only indigenous peoples' organization which was given an award on human rights advocacy by the National Human Rights Commission of Kenya. MPIDO organized the Africa Regional Summit on Climate Change and Indigenous Peoples in March 2009, which brought together indigenous peoples from 43 countries in Africa. This Summit came up with the Nakuru Declaration which it brought before the Global Indigenous Peoples' Summit on Climate Change held in Anchorage, Alaska in April 2009.

¹⁸ For institutions holding data related to REDD see Annex 9.

References

- Agrawal, A. 2008. The role of local institutions in adaptation to climate change. International Forestry Research and Institutions Program (IFRI) Working paper no. w081-3. University of Michigan.
- Boffa J. M. 1999. *Agroforestry parklands in sub-Saharan Africa*. Rome, Food and Agricultural Organization.
- Bosquet, B. and A. Rodrigues. *Forest Carbon Partnership Facility: Demon-*

- strating activities that reduce emissions from deforestation and forest degradation.* www.forestcarbinpartnerhsip.org.
- British Broadcasting Company. Kenya's Heart Stops Pumping. <http://news.bbc.co.uk/2/hi/8057316.stm> and <http://www.unep.org/dewa/assessments/EcoSystems/land/mountain/MauCrisis/index.asp>. 3 March 2010.
- Bruno, Locatelli et al. 2008. *Facing an uncertain future: How forests and people can adapt to climate change*. Center for International Forestry Research (CIFOR).
- Byron, R. N. and J. E. M. Arnold. 1999. What futures for the people of the tropical forests? *World Development* 27 (5): 789-805.
- Campese, J., T. Sunderland, T. Greiber and G. Gonzalo Oviedo, eds. 2009. *Rights-based approaches: Exploring issues and opportunities for conservation*. CIFOR and IUCN.
- Center for International Forestry Research. *CIFOR'S guide to forests, climate change and REDD*. www.cifor.cgair.org.
- Central Intelligence Agency. 2010. *The World Factbook*. <https://www.cia.gov/library/publications/the-world-factbook/fields/2092.html>.
- Forest Peoples' Program. 2009. *Rights, forests and climate briefing – Moving the goal posts? Accountability failures of the World Bank's Forest Carbon Partnership Facility*. www.forestpeoples.org.
- German Development Institute. *Reducing emissions from deforestation and forest degradation in developing countries: Meeting the main challenges ahead*. www.die-gdi.de.
- Global Canopy Programme. 2009. *The little REDD + book – An updated guide to governmental and non-governmental proposals for reducing emissions from deforestation and forest degradation*. Oxford, UK.: Global Canopy Programme.
- Green Belt Movement. 2004. *Responding to climate change from the grassroots: The Green Belt Movement Approach*. Nairobi: Green Belt Movement.
- Hesse et al. 2009. *Pastoralism and climate change: Enabling adaptive capacity*.
- Human Rights Watch. <http://www.hrw.org/en/news/2010/02/04/kenya-landmark-ruling-indigenous-land-rights>. 12 April 2010.
- _____. Opportunities for Africa. <http://www.emergingmarketsforum.org/papers/pdf/2008%20EMF%20Morocco%20Leo-Smith%20Climate%20Change.pdf>. 6 July 2009.
- _____. Forests in Kenya overview – management and legislative arrangement <http://www.kenyaforests.org/>

- index.php?option=com_content&task=view&id=61&Itemid=74. 29 September 2009.
- _____. Forests in Kenya overview - management and legislative arrangement http://www.kenyaforests.org/index.php?option=com_content&task=view&id=61&Itemid=74. 29 September 2009.
- International Union for Conservation of Nature. 2009. Last call: Climate and nature. *World Conservation*. 30(2). International Union for Conservation of Nature (IUCN).
- Informal Working Group on Interim Finance For REDD October 27, 2009 Discussion Document.
- Jensen, Marianne and Inger Sjørlev, eds. 1994. *The Indigenous World*.
- Juma, Calestous and J.B. Ojwang, eds. 1996. *In land we trust: Environment, private property and constitutional change*. Nairobi: Initiatives Publishers.
- Kothari, Miloon. 2004. "Adequate housing as a component of the right to an adequate standard of living." Report of the Special Rapporteur's Mission to Kenya. Presented to the Sixty-first Session of the UN-Economic and Human Rights Commission. (E/CN.4/2005/48/Add.2).
- Maler, K.G. 2008 Sustainable Development and resilience in ecosystems. *Environmental Resource Economics* 39:17-24.
- Ministry of Environment and Mineral Resources, Republic of Kenya. 2008. "Consideration for Participation under the World Bank Carbon Finance Partnership Facility." Nairobi.
- Ndiritu Dedan G. *Forest Policy, Legal and Institutional Framework Information Sheet*. <http://www.fao.org/forestry/14177-0-73.pdf>. April 2009.
- Ogonowski, Matthew et al. 2009. *Utilizing payment for environmental services for Reducing Emissions from Deforestation and Forest Degradation (REDD) in Developing Countries: challenges and policy options*. Center for Clean Air Policy.
- Pisupati B, Warner E. 2003. *Biodiversity and the Millennium Development Goals*. Gland: International Union for Conservation of Nature.
- Ramakrishnan, P. S. 2007. Traditional forest knowledge and sustainable forestry: A north-east India perspective. *Forest Ecology and Management* 249 (1-2): 91-99.
- Republic of Kenya. 2009. *Harmonized Draft Constitution*. Nairobi.
- Republic of Kenya. 2005. *Kenya Forest Act 2005*. Nairobi.
- Republic of Kenya. 2009. *Sessional Paper No. 3 of 2009. National Land Policy*. Nairobi.

- Republic of Kenya. 2007. *Vision 2030: A Globally Competitive and Prosperous Kenya*. Nairobi.
- Rodolfo, Stavenhagen. 2007. Report of the Special Rapporteur on the "Situation of human rights and fundamental freedoms of Indigenous people - Mission to Kenya" (A/HRC/4/32/Add.3) presented to the UN-HRC, 26 February 2007.
- Smith, Kevin Leo. 2009. Climate change: Opportunities for private sector. Emerging Markets Forum (EMF) Series of Papers on Trade and Investments, Infrastructure, Climate Change and Potential Business Opportunities for Africa. <http://www.emergingmarketsforum.org/papers/pdf/2008%20EMF%20Morocco%20Leo-Smith%20Climate%20Change.pdf> (6 July 2009).
- Sudmeier-Rieux, K. H., A. Masundire, Rizvi and Rietbergen, eds. 2006. *Ecosystems, livelihoods and disasters: An integrated approach to disaster risk management*. Gland, Switzerland and Cambridge: IUCN.
- Transparency International. 2010. Global corruption report 2010: Climate change, the global governance challenge of our time. www.transparency.org/gcr.
- United Nations Development Program. 2009. *The Human Development Report. (Fighting climate: Human solidarity in a divided World) 2007/2008* UNDP.
- World Health Organization. 2009. Gender, climate change and health, Draft Discussion Paper. www.who.int/phe/en/.

ANNEXES

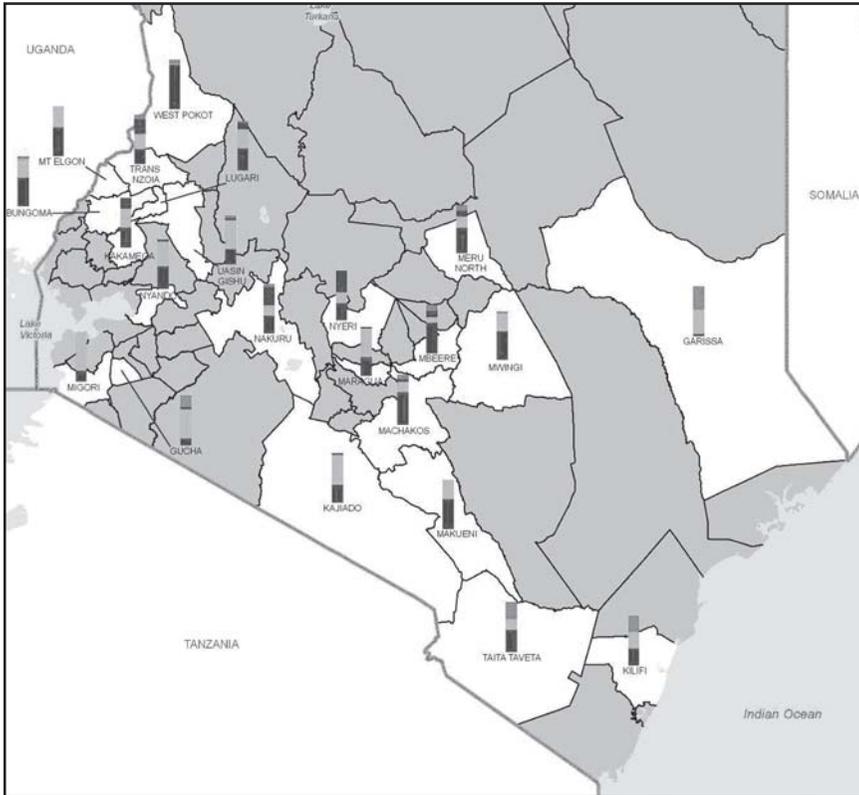
Annex 1. List of Kenya's Ratification of International Human Rights Treaties

TREATY/PROTOCOL	ACCESSION/RATIFICATION STATUS
Admission to UN	16.12.1963
United Nations Charter	
Universal Declaration of Human Rights (UDHR)	
International Covenant on Civil and Political Rights (ICCPR)	Accession 23.03.1976.
International Covenant on Economic, Social and Cultural Rights (ICESCR).	Accession 01.05.1972
Convention on Discrimination Against women (CEDAW)	Accession 09.03.1984
African Charter on Peoples and Human Rights (ACPHR).	
International Convention on the Elimination of All Forms of Racial Discrimination	
Convention of the Rights of the Child (CRC)	Ratification 30.07.1990
Optional Protocol on the Involvement of Children in Armed Conflict	Ratification 28.01.2002
Optional Protocol to CRC on Prostitution and Pornography	Signature 08.09.2000
Hague Convention African Charter on the Rights and Welfare of the Child	Ratification 25.07.2000
Hague Convention African Charter on the Rights and Welfare of the Child	Ratification 25.07.2000
African Charter	Accession 25.07.2000
Protocol to the African Charter on Human and Peoples' Rights on the Establishment of an African Court on Human and Peoples' Rights	
ILO Convention 138 on Employment Age	Ratification 09.04.1979
ILO Convention No. 182 Concerning the Prohibition and Immediate Action for the Elimination of the Worst Forms of Child Labour	Ratification 07.05.2001

Protocol to Prevent, Suppress and Punish Trafficking in Persons, especially Women and Children (supplementing the United Nations Convention against Trans-national Organized Crime) Palermo Protocol	Accession 05.01.2005
Convention on the Status of Refugees (CSR)	Accession 16.05.1966
Optional Protocol to CSR on the Status of Refugees	Accession 13.11.1981
Convention on the Rights of Persons with Disabilities (ICRPD), 2006	Ratification 18.05.2008
Optional Protocol to CEDAW	No action
Convention on the Elimination of Racial discrimination (ICERD)	Accession 13.09.2001
Convention against Torture	Accession 21.02.1997
Covenant on Economic, Social and Cultural rights	
Covenant on Civil and Political rights	Accession 01.05.1972
Rome Statute of the International Criminal Court.	Ratification 05.03.2005
The International Convention on the Protection of the Rights of All Migrant Workers and Members of Their Families,	July 2003
African Charter on Human and Peoples' Rights on the Rights of Women in Africa July 11, 2003	Signed by Kenya on December 12, 2003

Source: http://lib.ohchr.org/HRBodies/UPR/Documents/Session8/KE/KSC_UPR_KEN_S08_2010_KenyaStakeholdersCoalitionforUPR_Annex3.pdf.

Annex 2. Sources of Wood for Charcoal in selected Districts, 2004

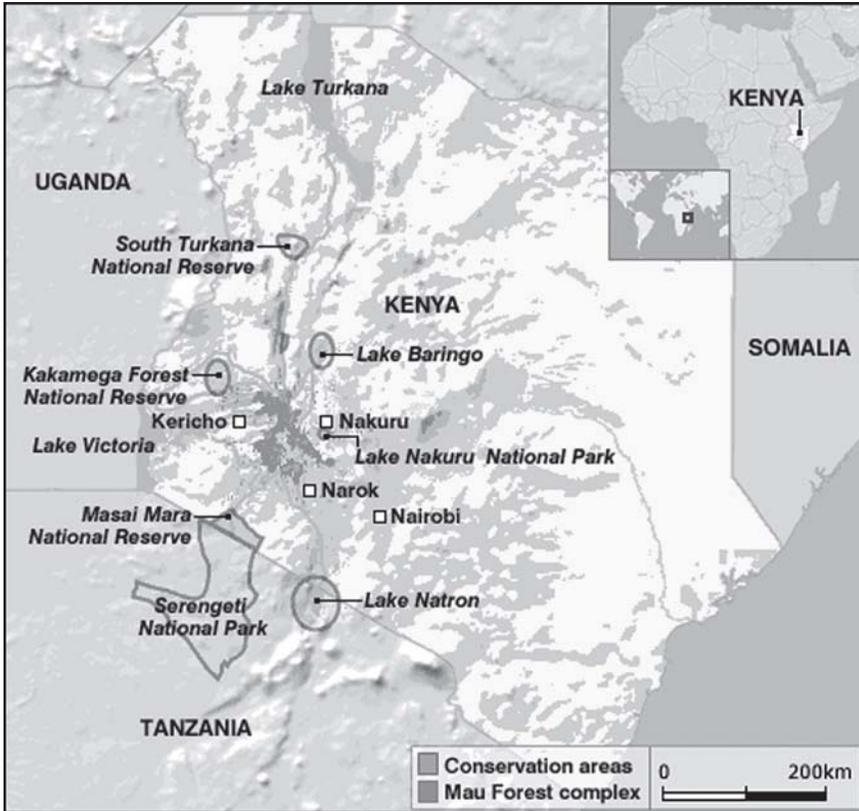


Sources: Administrative boundaries (CBS 2003), water bodies (FAO 2000), and sources of wood for charcoal (ESDA 2005a).

Annex 3. Kenya's Mau forest complex.

Source: BBC report: Kenya's heart stops pumping <http://www.optimumpopulation.org/blog/?p=1221>.

Annex 4. Conservation Areas Supported by the Mau Complex



Source: BBC report: Kenya's heart stops pumping <http://www.optimumpopulation.org/blog/?p=1221>.

Annex 6. TOR and Composition of the REDD Technical Working Group**Terms of Reference for the Working Group**

- Developing the organization, structure for preparation of REDD Readiness activities
- Implementation of interventions
- Development of the REDD Readiness- Plan Proposal
- Preparation and reporting of progress of Work plans and budgets (Capacity building activities)
- Entrenching stakeholder participation/ consultations
- Develop REDD Strategy
- Communication, information sharing and awareness
- Ensure participation of indigenous/ forest adjacent communities in the process.

Composition of the National Working Group**A) *Government Ministries and Agencies***

- Ministry of Forestry and Wildlife
- Ministry of Environment and Mineral Resources
- Ministry of Energy
- Ministry of Regional Authorities
- Ministry of Northern Kenya and ASALS
- Ministry of Agriculture
- Ministry of Local Government
- Kenya Forest Service
- Department of Resource Surveys and Remote sensing
- Kenya Wildlife Service
- Kenya Agricultural Research Institute
- Director, Kenya Forestry Research Institute
- Director, Kenya Forest Service
- Director General, NEMA

B) National NGOs

- NGOS- WWF , KFWG, FAN, Nature Kenya, Green Belt Movement, IUCN
- Representative of forest adjacent communities
- Indigenous groups representative

C) Private sector

- KTDA, KAM, Rai Ply, Kakuzi, Charcoal Producers, KPLC, BAT
- Universities-Kenyatta, Moi, Nairobi

D) International Multi-lateral Institutions

- UNDP, UNEP, FAO, World Bank
- Donor coordination group

Annex 7. Indicative List of Actors in REDD strategy options

- Ministry of Forestry and Wildlife
- Ministry of Agriculture
- Ministry of Livestock Development
- Kenya National Bureau of Statistics (Ministry of Planning)
- Ministry of Lands
- Ministry of Water and Irrigation
- Ministry of Environment and Mineral Resources
- Ministry of Finance
- Ministry of Agriculture
- Ministry of Energy and ERC
- NGOs / CSOs – Kenya Land Alliance, etc.
- DRSR
- Ministry of Planning, National Development and Vision 2030
- Kenya Forest Service
- Research institutes (KARI, KEFRI, Universities)
- Ministry of Local Government

Annex 8. Participants in Workshop and Working Group discussions for REDD Readiness Preparation Proposal (R-PP), 16th-17th November 2009, KFS HQ

	NAME	ORGANIZATION	NAME	ORGANIZATION
1	Robert Buzzard	USAID/Kenya	Inganji Yakhama	KFS-NRM
2	David Githaiga	UNDP	Gabrielle Giannini	FAO
3	Ngari Alex	Nature Kenya	Joshua Laichena	Ministry of Dev. of Northern Kenya & other Arid Lands
4	David Maingi	WWF	Praxedes Tororey	KFS-Legal; Services
5	Kai Windhorst	GBM-Unique Forestry	Julius Muchemi	ERMIS Africa
6	Haddy Jatoy Sey	World Bank USA	Sang K. Joepe	ERMIS Africa
7	*Kanyinke Sena	IPACC	Kefa M. Wamichwe	KFS
8	Niklas Hagelberg	UNEP	Patrick M. Kariuki	KFS
9	Makhanu Rudolf	KFWG	Leakey Sonkoyo	KFS
10	Kamau Julius	Embassy Of Finland	Michael Gachanja	KFWG
11	Jackson Kimani	Clinton Foundation	Alfred N. Gichu	KFS
12	Harta Honjane	IUCN	Benedict Omondi	KFS-Watershed Management

13	B.S. Wasike	KFS	John K. Maina	MOA
14	Zipporah Toroitich	KFS	Esau Omollo	KFS-Deputy Director
15	Enock W. Kanyanya	USAID/ABEO	David Mutuya	MEMR
16	Charles Situma	DRSRS	Christian Peter	World Bank
17	Freddrick Njau	GBM	Neeta Hooda	World Bank
18	Ochino Anthony	FAN	Erick F.N. Akotsi	Ministry of Energy
19	Daniel Plas	EC-Delegation	Ngari Alex	Nature Kenya
20	Joseph Mathuva	EC-Delegation	Diji Chandrasekharan Behr	World Bank
21	Harri Seppanen	MMMB		

Annex 9. National Institutions with Forest Data (there may be others. Not exhaustive list)

- KFS: Management data
- DRSRS: Land use Land Cover
- NMK: Biodiversity
- KWS: Biodiversity
- NEMA: EIA/ EA, Env. Hot spots
- Min of Water: Watersheds
- KEFRI
- Universities: National Universities, Londiani College
- Kenya National Spatial Data Infrastructure
- KFS and Clinton Foundation. Note from them will provide basis for this work and will be used to map the institutions and partners and their activities in the context of Reference Scenario and MRV development
- KIFCON project, none of the data is available to KFS