



Networking for equity
in forest climate policy



REDD+ and other sectors in East Africa: opportunities for cross-sectoral implementation

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Front cover image source: David Mwayafu.

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REDD+ processes and initiatives are gaining popularity internationally and are gaining momentum in East Africa as one of the 'hot topics' of climate change discussions, though a formal international framework for REDD+ is yet to be fully defined.

As REDD+ implementation will affect many actors, it is important that a multi-stakeholder process is initiated including governments and the people. Ownership, transparency, dissemination and implementation of activities by all relevant stakeholders are key to the success of REDD+ programmes. Also, REDD+'s proposed holistic approach where different sectors are actively involved in implementation will be important in future. This analytical paper outlines the status of REDD+ processes, opportunities and challenges in Uganda, Kenya, and Tanzania, and points out current and potential synergies between REDD+ and key economic sectors: agriculture and food security; energy for rural development; and to water resources management.

Kenya is set to develop its REDD+ strategy and establish institutional arrangements. REDD+ is considered relevant to the **energy sector** with the R-PP containing strategy options include promotion of efficient charcoal making technologies; implementation of a national fuelwood development strategy; promotion of fast growing fuelwood plantations to supply fuelwood; enhancing fuel efficiency; and promotion of community based utilization of biofuels for lighting and cooking thus reducing demand of fuelwood. On **agriculture and food security**, REDD+ seems to build synergies with current sectoral policies by setting strategic actions to promote agroforestry, and integrated management of dry land natural resources; address forest fires including early warning systems, fire preparedness, and enhancing fire fighting capability; encourage farming intensification, provide agricultural inputs to poor and vulnerable forest adjacent communities, support commercial agroforestry initiatives for improved farm level incomes to reduce over-dependence on forests. But there are unpredictable impacts of climate change in the Arid and Semi-Arid Lands (that make up more than 80 per cent of the country's land mass, and are home to more than 30 percent of Kenya's total human population and nearly half its livestock population), compounded by weak institutions and low management capabilities. With regard to **water resource management**, there are synergies with REDD+ that seek to improve forest sector governance, to support national water catchment protection programmes. Though REDD+ in Kenya is still in its infancy (and needs to be nurtured, probably through the country's National Climate Change Response Strategy), implementation is challenged by the current lack of cross-sectoral coordination (that could lead to inefficient resource use, duplication of efforts, etc.).

In Tanzania, the REDD+ process is looking to build synergies with the **energy** sectoral policies through its intention to introduce alternative energy sources, increase efficient utilisation of biomass, introduce sustainable management of critical watershed areas by safeguarding consistent water flow for proposed hydroelectric power generating dams. In the **agriculture and food security** sector, key actions include improvement of existing farming systems (new farming innovations and appropriate crop interventions); enhancement of human resource capacity; encouragement of agro-ecosystems which improve soil fertility, productivity and crop protection; commercial farming through advocating suitable government policy on bio-fuel production, and promotion of agroforestry farming systems and programs on farm animal health. With regard to **water resources management**, REDD+ is relevant due its potential to restore forest landscapes. However, the draft REDD+ strategy and R-PP lack explicit strategic activities for sustainable management of water catchments. In addition, the draft strategy does not clearly show how successful forest landscape restoration experiences like the *Ngitili* system could be scaled up beyond the pilot stage.

In Uganda where the REDD Readiness Plan (R-PP) was approved this year (2011), REDD+ strategies aligned with **energy** policies include regulation of charcoal production and trade; improvement of charcoal production efficiency; increasing biomass/trees on farmland; promotion of alternative fuels and improve wood fuel use efficiency. However, poor law enforcement results in illegal cross-border timber trade in contravention of Uganda's CITES obligations, while unsustainable tree harvesting for charcoal and firewood remains unaddressed. REDD+ could build synergies with **agriculture and food security** by assessing of the impact of grazing on deforestation; developing woodland management strategies; promoting farm forestry and sustainable forest management for agricultural expansion; facilitating investment from the carbon market for private land owners; clarifying of tenure rights; improving agricultural intensification and ensuring cost-benefit analyses between land conversion for agriculture and maintaining forest land are undertaken. However, the conflicting decisions that are taken, for example approval of development investments that are incompatible with forest conservation, remain a challenge. In relation to **water resource management**, REDD+ actions in Uganda, none of the strategies in the R-PP explicitly focus on forests for watershed management.

The paper concludes with a general discussion on the cross-sectoral implementation of REDD+ at the East African Community level, and how REDD+ can better contribute to the 3 key sectors (energy for rural development, agriculture and food security, water resources management) at the country and regional levels.

1.0 Introduction

REDD+ stands for Reducing Emissions from Deforestation and forest Degradation, the role of conservation, sustainable management of forests and enhancement of carbon stocks in developing countries. Although a formal international mechanism for REDD+ is yet to be fully defined, REDD+ processes and initiatives are gaining popularity internationally and are a subject of discussion in most climate change fora. REDD+ is also gaining momentum in East Africa, with Uganda, Kenya and Tanzania all participating in the World Bank's Forest Carbon Partnership Facility, Tanzania having a UN-REDD country programme and bilateral REDD+ programme with Norway, and a number of REDD+ pilot projects being established in the region.

As REDD+ implementation will affect many actors, it is important that the government and the people own the process. Ownership, transparency, dissemination and implementation of activities by all relevant stakeholders will be key to the success of REDD+ programmes. Also, REDD+'s proposed holistic approach where different sectors are actively involved in the implementation process will be important in the future. This analytical paper outlines the status of REDD+ processes, opportunities and challenges in Uganda, Kenya, and Tanzania and points out current and potential synergies between REDD+ and key economic sectors: agriculture and food security, energy for rural development and water resources management. The paper concludes with a general discussion on the cross-sectoral implementation of REDD+ at the East African Community level, and how REDD+ can better contribute to the 3 key sectors at the country and regional levels.

1.1 Overview of the East Africa Region

The East Africa (EA) region covers a total area of 1.8 million Km², with a population of approximately 133.5 million persons (EAC, 2010b). Forest cover is declining in all EA States. Kenya loses about 12,000 hectares of forest each year through deforestation, mainly due to agriculture for public or private development projects (FAO, 2009). In Uganda, the forest cover declined from 24% of the land area in 1990 to 18% in 2005 representing a decline of 1.8% per annum (Katoomba Group, 2009). Deforestation in Kenya and Uganda is attributed to increasing demand for agricultural land and biomass energy from the increasing population throughout East Africa (See Table 1 below). The rate of deforestation in Tanzania, which is estimated at 412,000 ha per annum, is taking place mostly in the General Land (open access) forests (FAO, 2009 & URT, 2010a) and is also caused by shifting cultivation, annual wild fires, harvesting of wood fuel, poles and timber, and heavy pressure for conversion to other competing land uses, such as agriculture, livestock grazing, settlements and industrial development.

East African economies – particularly Tanzania and Uganda – are generally dominated by rain-fed agriculture (EAC, 2006). The resulting agricultural (raw and processed) products, for example maize beans, bananas, livestock and fish, account for a significant proportion of cross-border trade among the 3 countries, although a large part of this trade is informal and therefore not captured in official statistics.

The emergence of REDD+ provides an opportunity to improve forest cover in East Africa. REDD+ activities may also provide additional benefits such as protecting watersheds which many people depend on directly or indirectly for agriculture, water for domestic use, water for productive use (crop irrigation, livestock and aquaculture), rural industries, and energy.

TABLE 1: MID-YEAR POPULATION (IN MILLION PERSONS)

States/Years	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Burundi	6.7	6.8	7.0	7.2	7.4	8.0	8.0	8.0	8.1	8.2
Tanzania	32.8	33.9	34.4	35.3	36.3	37.3	38.0	39.4	40.7	41.9
Uganda	22.6	23.3	24.1	24.9	25.7	26.5	27.4	28.2	29.6	30.7
Kenya	30.4	31.3	32.2	33.2	34.2	35.1	36.1	37.2	38.3	38.6
Rwanda	-	-	8.1	8.3	8.6	8.8	9.1	9.3	9.8	10.1
East Africa	-	-	105.8	108.9	112.1	115.7	118.6	122.1	126.6	129.5

Source: www.eac.int

Status of REDD+ processes in the region

REDD+ processes in the East African Community (EAC) are gaining momentum. Tanzania has already developed a draft national REDD+ strategy while the REDD+ Readiness Preparation Proposals (R-PP)¹ of Kenya and Uganda were approved by the World Bank Forest Carbon Partnership Facility (FCPF) in 2010 and 2011 respectively.

Funding

Kenya and Uganda have already received US\$200,000 grants from the FCPF to prepare their R-PPs. This will be followed by a grant of US\$ 3.4 million from the FCPF for the development of National REDD+ strategies. However, this funding is yet to be received. Tanzania has developed the national REDD+ framework that informed the draft National REDD+ strategy and the R-PP with bilateral support from Norway and funding from the UN REDD programme.

Stakeholder consultation

During the proposal formulation stage a series of consultations with stakeholders were undertaken with the aim of generating ideas from a cross-section of people and making REDD+ strategies and R-PPs as comprehensive as possible. According to each country's R-PP, much emphasis was placed on participation of all relevant stakeholders in each country. However, better results would have been achieved with more funds and time.

2.0 Overview of each of the other sectors

2.1 Agriculture and food security

Agriculture and food security, which are inextricably linked in East Africa, is one of the EAC's areas of co-operation. Agriculture refers to crop production, livestock production, fisheries and forestry, while food security describes a situation when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life (FAO, 1996).

The overall objective of the EAC Treaty regarding cooperation in agriculture and food security is:

- to increase production of crops, livestock, fisheries and forest products for domestic consumption, exports within and outside the Community and inputs to agro-based industries within the Community; and
- to co-operate through joint actions in combating drought and desertification that are a direct consequence of deforestation and land degradation (EAC, 2002).

Box: 1: Constraints in Achieving Food Security in the EAC

Although food security plays an important role in achieving regional development objectives, it is constrained by the following natural and human-induced factors:

- Low and unstable production and productivity as a result of over-reliance on rain-fed agricultural production systems.
- Inefficient utilization of water resources for agricultural production.
- Low capacity of rain water harvesting.
- Increased frequency and severity of extreme weather such as floods and drought as a result of global warming and climate change, adversely affecting food production.
- Inadequate flow of information on the adverse climate change impacts and appropriate adaptive actions for producers.
- Increased pressure on natural resources and degradation of environment due to rapid population growth, poor soil management practices, overgrazing etc.
- Disruption of food production and distribution due to social unrest and political instability.
- Inadequate food access particularly among vulnerable and resource poor populations.
- Gender imbalances in access to production, marketing and consumption opportunities; access and control of productive resources.

Source: EAC, 2010a

¹ A proposal to the World bank's Forest Carbon Partnership Facility detailing how a country proposes to get ready for REDD+ implementation.

Despite these objectives achievement of durable individual and collective food security status has continued to elude Partner States since the signing of the EAC Treaty. This has been further compounded by the negative impacts of climate change as shown in Box 1 below.

In connection with the need to develop and guide the implementation and actualization of a regional food security objective, the EAC Food Security Action plan and EAC Climate Change Policy has been developed to address food insecurity and adverse effects of climate change in the region. One of the potential strategies is to employ cost effective, long-term methods that blend modern science and traditional knowledge, for instance integrated soil, water and forest management (EAC, 2010a).

2.2 Energy for rural development

The East African Community (EAC) faces several challenges in achieving its development vision. Access to energy has been recognized as one of the key elements in achieving this vision. The majority of East African people live in rural areas and use traditional biomass energy from fuel wood, charcoal and agricultural waste (Table 2) that contributes more than 80% of the region's energy mix (EAC, 2006).

Most traditional biomass is burnt in open three-stone stoves which expose the users to health hazards from indoor smoke and fire hazards. Household cooking and heating use the largest amount of energy, and charcoal production is one of the key drivers of deforestation and forest degradation in East Africa (GOK, 2010c; URT, 2010a, GoU, 2011a). For example, the deforestation ring expanding around Dar es Salaam has meant the outer boundary of the charcoal production area has moved 30 km between 1991 and 2005 at a rate of 2 km per year (Salla, 2011).

The current power outages in Uganda and Tanzania lasting up to 12 hours a day, and the proposal to increase electricity tariffs in Uganda could further add to demand for fuel wood (the most affordable energy option) from the fast growing urban population as well as the small and medium scale industries. This further threatens the remaining forests.

Without improving access to modern energy services, most residents in EAC countries will continue to face extreme poverty and inequality and will not be able to meet any of the MDGs by 2015. It was with this in mind that the EAC Strategy on Scaling-up Access

TABLE 2: ENERGY INDICATORS IN EAC

	Energy Consumption	
	Biomass	Modern (electricity, solar, LPG)
Kenya	70%	30%
Tanzania	90%	10%
Uganda	93%	7%
EAC	84%	16%

Source: UNDP, (2005) as quoted by the EAC, 2010b

to Modern Energy Services was conceptualized and developed to enable the Partner States (Kenya, Uganda, Tanzania, Rwanda and Burundi) to fight poverty, improve living conditions and achieve the MDGs (EAC, 2009). The Strategy has four key targets to be fulfilled by 2015, in line with the MDG framework in scaling-up access to modern energy services. Targets that are related to forests (in terms of addressing demand, supply and efficiency constraints of woodfuel) are:

- Target 1: Provide access to modern cooking practices for 50% of the population that currently uses traditional cooking fuel. (Linked to MDGs 3, 4, 5 and 7)
- Target 2: Provide access to reliable electricity for all urban and peri-urban poor. (Linked to MDGs 1, 4, 5 and 6)
- Target 3: Provide access to modern energy services for all schools, clinics, hospitals and community centres. (Linked to MDGs 1 through 6)

In addition, at the national level, mainstreaming energy access into national development planning and budgeting, developing pro-poor and gender-responsive energy policies, and strengthening national capacity to deliver energy services for the poor will be implemented.

2.3 Water resources management

According to the EAC Secretariat, countries in East Africa face severe water constraints. Deforestation, forest degradation and poor agricultural practices are leading to reduced water retention periods, increased surface runoff and soil cover losses. This results in persistent occurrence of water-borne diseases - the main cause of morbidity in

all the countries in the region. In addition, conflicts over water are likely to escalate as the population level rises and water stress and scarcity sets in, as the trends in Table 3 below indicate.

TABLE 3: WATER STRESS AND SCARCITY

Water availability per capita	1990	2006	2025
Plenty (More than 2,500 m ³ /yr)	Uganda, Tanzania		
Vulnerable (1,700 – 2,500 m ³ /yr)		Uganda, Tanzania	
Stress (1,000 – 1,700 m ³ /yr)			Uganda, Tanzania
Scarcity (Less than 1,000 m ³ /yr)	Kenya	Kenya	Kenya

Source: UNDP, (2005) as quoted by the EAC, 2010b

In addition to this, all the East African Countries face budgetary challenges with low budgetary allocations for holistic water governance and management (including manage-

ment of water catchments that are vital for sustainable water resources management), as priority is given to urban and rural water supply. Also, although some of the East African countries have good laws and policies, the lack of enforcement, implementation and monitoring have made these ineffective.

Integrated water resources management (IWRM) is being used to improve governance of water and improve management of water resources in response to many climatic and other stresses facing East Africa and other parts of the world. EAC countries are at different stages in terms of the establishment of policy and legal frameworks that provide for IWRM. For example, while Kenya has established the Water Act to promote IWRM and has designed policies and plans to implement it in selected river basin and catchment areas (EAC, 2000), Rwanda and Burundi have much to do.

By responding to changing social, economic and environmental needs or impacts, IWRM can gradually achieve better and sustainable water resources management, based on the perspectives of other water users in agriculture, domestic water supply, industry, hydropower, sewerage sectors (UNESCO et al., 2009).

3.0 REDD+ in East Africa and its links with other sectors

3.1 Kenya

3.1.1 REDD+ in Kenya

In Kenya, closed canopy indigenous forests have already been reduced to about 2% of the total land area and open woodlands to 3.7% of land area. This means that the greatest potential for REDD+ activities will be on reducing further deforestation and degradation in the remaining forests and thereby reducing carbon emissions from these forests, but perhaps to a larger extent, on the "plus" aspects of REDD+. This would include improving management of remaining forest resources and enhancing carbon stocks on degraded forest land, as well as reforestation and afforestation programs (GOK, 2010c). All activities will be designed with a focus on co-benefits such as improving biodiversity and livelihoods of forest dependent peoples, since forests contribute considerably to the Kenya economy, as outlined in Box 2 below.

The Government of Kenya submitted its REDD+ Readiness Plan Idea Note (R-PIN) to the FCPF in 2008 and submitted its R-PP in May 2010. Funds to support the development of the REDD+ strategy have been approved and Kenya is now establishing institutional arrangements to initiate the process.

Box 2: The Role and Importance of Forests to the Kenyan economy

Kenya's forest resources are of immense importance for their provision of environmental and ecosystem services, for their contribution to economic development and for their contribution to rural livelihoods. The contribution of forests in water catchments is critical to Kenya's rural and urban water supplies, and approximately 70% of power is hydro generated. Much of Kenya's biodiversity and wildlife resources – a major factor in attracting foreign tourists – depend on forests, woodlands and dryland forest. A large rural population depends on woodland and bush resources to provide firewood, charcoal and other forest products critical to rural livelihoods.

The plantation resources make a substantial contribution to economic development in Kenya and are an import source of raw materials for economic development in the wider region. In the mid 1990s, it was estimated that the sawmilling industry provided 30,000 direct jobs and 300,000 indirect jobs in Kenya. In 2007, the forest sector was estimated to contribute about 1% to GDP (Ksh 16.4 billion) to the economy, and that more than 10% of households living within 5 km from forest reserves depend on them for subsistence resources (FAO, 2007)

Source: GoK, (2010c)

Sector	Key sectoral priorities	Relevant identified REDD+ actions	Is there alignment?
Energy	<p>Kenya Energy Act, 2006</p> <ul style="list-style-type: none"> Development and use of Renewable Energy Technologies (RETs) Enabling policy framework for the efficient and sustainable production and marketing of RETs Promoting the use of fast maturing trees for energy production <p>Kenya Energy Sector Environment Programme (KEEP)</p> <ul style="list-style-type: none"> Promote commercial growing of fuelwood and improve energy efficiency 	<ul style="list-style-type: none"> Promotion of efficient charcoal making technologies Implementation of a national fuelwood development strategy, Promotion of fast growing fuelwood plantations to supply fuelwood, and fuel efficiency. Promote community-based utilization of biofuels for lighting and cooking thus reducing demand for fuelwood. 	<p>Yes. But REDD+ is still in its infancy (needs to be nurtured, probably through the NCCRS), implementation is potentially challenged by the current lack of cross-sectoral coordination (that could lead to inefficient resource use, duplication of efforts etc).</p>
Agri-culture and food security	<p>Draft National Policy for the Sustainable Development of Arid and Semi-Arid Lands of Kenya (GoK, 2004)</p> <ul style="list-style-type: none"> Sustainably tap the enormous potential of forests, woodlands in the ASALs for improved livelihoods in these areas Key Result Area 2 of ASAL: Environmental Sustainability seeks to improve land sustainability capacity, conservation efforts. <p>Kenya Energy Sector Environment Programme (KEEP)</p> <ul style="list-style-type: none"> Enhance overall agricultural productivity, diversify incomes and increase farmhold incomes. 	<ul style="list-style-type: none"> Promote agroforestry, and integrated management of dry land natural resources Address forest fires including early warning systems, fire preparedness, and enhancing fire fighting capability. Encourage farming intensification. Provide agricultural inputs to poor and vulnerable forest adjacent communities. support commercial agroforestry initiatives for improved farm level incomes, to reduce over-dependence on forests. 	<p>Yes. But there are unpredictable impacts of climate change in ASALs compounded by weak institutions and low management capabilities.</p>
Water resources management	<p>Vision 2030</p> <p>To protect the five water towers and increase the forest cover through aggressive afforestation, reforestation and restoration programs.</p>	<ul style="list-style-type: none"> Improve forest sector governance. supports national water catchment protection programmes. 	<p>Yes. But might be affected by the unpredictable impacts of climate change.</p>

The National Secretariat for REDD+ readiness activities lies with the Kenya Forest Service (KFS).² This has a regulatory function in relation to logging, charcoal making and other forest utilization activities and manages forests in water catchment areas primarily, but not solely, for purposes of water and soil conservation, carbon sequestration and other environmental services.

3.1.1.1 Institutional arrangements for REDD+ in Kenya

Kenya has developed an institutional structure that is summarised in Box 3 below.

3.1.2 How the REDD+ Readiness Preparation Proposal fits within Kenya's national priorities in the other sectors

Constitutional mandate

Article 69(1) of the Constitution of Kenya requires the country to work towards achieving at least a 10% tree cover of the land area (GoK, 2010a). This is because Kenya is internationally considered to be a low forest cover country with less than 10% of its total land area classified as forest due to clearance for agriculture and other uses; unsustainable utilization through illegal logging, unregulated grazing, and charcoal burn-

Box 3: REDD+ institutional arrangement in Kenya

Climate change governance structure proposed in the NCCRS - The institutional framework includes a Division dealing with REDD+, Land Use and Land Use Change. The management arrangements for implementing REDD+ described in the R-PP will be linked to this Division. As the NCCRS Secretariat and its functional units have not yet been set up, it is proposed that the REDD+ unit will function as a stand-alone unit initially and subsequently become integrated into the NCCRS Secretariat structure once established and operationalized.

The National REDD+ Steering Committee (RSC) - The REDD+ Steering Committee will become operational upon approval of its current terms of reference. The RSC will be chaired by the Permanent Secretary in the Ministry responsible for Forestry. The Kenya Forest Service (KFS) and Kenya Forestry Research Institute (KEFRI) will provide secretariat services. The RSC is composed of Permanent Secretaries from the Ministries of Forestry and Wildlife, Environment and Mineral Resources, Energy, Local Government, Planning, Finance, the Directors of KFS, Kenya Forest research Institute and NEMA, IUCN, WWF, Kenya Forest Working Group, a representative from Universities, UNDP/UNEP and the Donor Coordination Group. The RSC be responsible for policy guidance and implementation of REDD+ activities; national coordination of inter/intra-sectoral REDD+ activities; approval of REDD+ work plans and budgets; resource mobilization; assurance of timely delivery of a national REDD+ strategy, national reference emission level and an effective carbon monitoring system; monitoring and evaluation; quality control of REDD+ preparedness deliverables; provide mechanism for international collaboration with other REDD+ processes.

REDD+ Technical Working Group (TWG) - The TWG will play a key advisory role for the National REDD+ Steering Committee. It will also liaise directly with the National REDD+ Coordination Office. Members will have expertise in forestry, finance, land use, agriculture, wildlife management, rangeland management, and timber production and the management of private sector enterprises. With a representative from CSOs, community forest associations, water resource users groups, and indigenous communities living in forests.

The National REDD+ Coordination Office (NRCO) - The NRCO will be constituted immediately upon approval of the R-PP by the FCPF with the designation of an Interim National REDD+ Coordinator. The Interim National REDD+ Coordinator will recruit the additional positions required in the R-PP implementation period.

Local Conservancy REDD+ Officer - Designated as focal point for REDD+ in each of the 10 conservancies. These Officers liaise directly with operational staff of the National REDD+ Coordination Office who in turn coordinates directly with REDD+ component task forces.

REDD+ Component Task Forces - Small groups of members elected according to the subject matter of the part of the REDD+ Strategy they will work on, and to the possible demonstration sites for that task force. These REDD+ Strategy task forces will include approximately 12 task force members that together have the expertise required for the design and oversight of each aspect of the overall Strategy.

Source: GoK, (2010c).

² The Kenya Forest Service (KFS), under the Ministry of Forests and Wildlife, is the state agency charged with ensuring sustainable management and conservation of forest resources.

ing; and poor governance and institutional failures (GoK, 2007). Hence, Kenya seeks to put in place measures to significantly increase the area under forest cover, with the aim of achieving and sustaining at least 10% coverage within the next decade.

Kenya would therefore like to use REDD+ to support its remaining forest resources from deforestation and degradation and to conserve the environment and ensure ecologically sustainable development and use of natural resources (GOK, 2010b).

Energy for rural development

Kenya's Energy Act (2006) provides the regulatory framework for energy in Kenya. Section 103(1) requires the Minister to promote the development and use of renewable energy technologies, including but not limited to biomass, biodiesel, bioethanol, charcoal, fuel wood, solar, wind, tidal waves, hydro-power, biogas and municipal waste. In addition, under this Act the Minister is mandated to promote the development and use of renewable energy, including but not limited to formulating a national strategy for coordinating research in renewable energy; providing an enabling framework for the efficient and sustainable production, distribution and marketing of biomass, solar, wind, small hydros, municipal waste, geothermal and charcoal; and promoting the use of fast maturing trees for energy production including biofuels and the establishment of commercial woodlots including peri-urban plantations (GoK, 2006). REDD+ will strengthen the implementation of this Act through promoting efficient charcoal making technologies and fast growing fuelwood plantations to supply fuel wood (GoK, 2010c)

Kenya's Energy Sector Environment Programme (KEEP) is an initiative of the Minister of Energy, following the Presidential Directive on the need for the government to conserve the environment (December 2006). Its priorities include promotion of the commercial growing of fuelwood and improved energy efficiency. Similarly, the Department of Renewable Energy's interventions relate to energy conservation, efficiency and the promotion of alternative sources (KEEP, 2011). The proposed REDD+ strategy supports this initiative through the promotion of efficient charcoal making technologies, the implementation of a national fuelwood development strategy, and the promotion of fast growing fuelwood plantations to supply fuelwood and encourage fuel efficiency (GoK, 2010c). Furthermore, proposed REDD+ activities will promote community-based utilization of biofuels for lighting and cooking thus reducing demand of fuelwood.

Agriculture and food security

The primary mission of the draft National Policy for the Sustainable Development of Arid and Semi-Arid Lands of Kenya (GoK, 2004) is to "ensure co-ordinated, efficient and effective utilization of natural resources."

The main objective of this draft Policy is to improve the standard of living of the population of Arid and Semi-Arid Lands (ASAL) (See Box 4 below) by appropriately integrating ASALs into the mainstream national economy and social development strategies in an environmentally sustainable manner (GoK, 2004).

The policy highlights the need to tap into the potential in the ASALs since they have enormous resources, including human capital, wildlife, forests (woodlands), minerals and livestock (GoK, 2004). With proper policies and development approaches these resources could provide a basis for improved lives and livelihoods in these areas and could significantly contribute to the country's economic recovery and growth.

One of the 7 key result areas of the ASALs vision and strategy is environmental sustainability (GoK, 2005a). It seeks to improve land sustainability capacity (promote agro-forestry, and promote/introduce plant species that protect the environment); conservation (promote alternative livelihood options to charcoal burning and fuel wood harvesting, promote solar and wind

Box 4: Arid and Semi Arid Lands of Kenya

The arid and semi-arid lands of Kenya make up more than 80 per cent of the country's land mass, and are home to more than 30 percent of its total human population and nearly half its livestock population. Eleven districts in Kenya are classified as arid, 19 as semi-arid, and six as having pockets of arid and semi-arid conditions. This means that, in total, the government classifies 36 out of Kenya's 70 districts as ASALs.

The arid districts are hot and dry, with low and erratic rainfall. These districts are predominantly pastoralist and agro-pastoralist, with large areas of land suitable only for supporting livestock grazing systems. The semi-arid lands have more diverse characteristics. They are also a mixture of agro-pastoral and pastoral, but include some extensive irrigated areas, wetlands and protected areas such as national parks. Overall, in the 36 designated districts pastoralism is the predominant livelihood, involving 70 per cent of the population in these districts. The fate of Kenya's pastoralists, therefore, is inextricably linked with that of the arid lands they inhabit. For example Pastoralists are the custodians of these dry land environments inhabited by Kenya's world-famous wildlife, which contribute to a tourist trade worth more than 50 billion Kenyan shillings (\$700m) each year.

Source: Oxfam, (2006)

energy utilization to counteract dependence on wood fuel energy, protect water catchment areas through reforestation and capacity build communities to conserve soil through appropriate anti-erosion technologies.

Related to the above policy, the proposed REDD+ strategy aim to promote agroforestry, and integrated management of dry land natural resources, supporting the KFS to address forest fires including early warning systems, fire preparedness, and enhancing fire fighting capability, promoting fuel efficiency, alternative energy sources and enhancing national carbon stocks through afforestation and reforestation.

The key mission of Kenya's Strategy for Revitalizing Agriculture (SRA) is to "promote and guide sustainable agriculture, livestock, fisheries and agro-based production systems and strengthen related institutions now and in the future" (J.E.O. Ongwae, 2005). The core SRA objectives are to enhance overall agricultural productivity, diversify incomes and increase farmhold incomes. To address these national priorities, the REDD+ strategy's proposed activities include encouraging farming intensification, providing agricultural inputs to poor and vulnerable forest adjacent communities in line with the government's National Accelerated Agricultural Inputs Access Program (NAAIAP), supporting commercial agroforestry initiatives and assisting the Kenyan Forest Service with related pilot forestry projects. The proposed REDD+ strategy also seeks to provide improved income sources at the farm level, aimed at reducing the current poverty levels over-dependence on forests for livelihoods. This demonstrates the close alignment between REDD+ and agricultural priorities in Kenya (GoK, 2010c).

These interventions will complement other programs for enhancing agricultural productivity already under way, including the Kenya Agricultural Input Supply emergency project and the Kenya Agricultural Productivity and Agribusiness Project. All these efforts are consistent with the objectives of SRA which Kenya's R-PP seems to support.

Water resources management

Under the Country's Vision 2030, Kenya aims to protect the five water towers (Mt. Kenya, Aberdares, Mau, Cherangani and Mt. Elgon) and increase the forest cover through aggressive afforestation, reforestation and restoration programs.

The country's REDD+ proposal (R-PP) also seeks to tackle forest governance issues, and therefore fits well with the goals of improved forest management for the five water towers (GOK, 2010c). Furthermore, the proposed REDD+ strategy supports national water catchment protection programmes through the support and promotion of sustainable forest management, and increasing carbon stocks through afforestation and reforestation. This will ensure sustainable water flows to support agriculture and other key sectors.

3.1.3 Cross-sectoral coordination at the policy level

In order to coordinate Kenya's response to climate change and to minimize the impact of climate induced disasters the Government of Kenya has put in place the National Climate Change Response Strategy (NCCRS) as a set of policies and measures for climate change adaptation and mitigation across all sectors (GoK, 2010b). It is expected to inform nationwide climate change programmes and development activities, including the formulation of relevant documents.

The vision of the NCCRS is for a prosperous and climate change resilient Kenya, whereas the Mission of the Strategy is to strengthen nationwide focused actions by ensuring commitment and engagement of all stakeholders towards adapting to and mitigating against climate change.

NCCRS has identified the forestry sector (in addition to agriculture, water, energy, rangelands, health, social and physical infrastructure) as one of the vulnerable sectors of the economy and hence prioritized for quick and immediate action.

The NCCRS's primary focus is ensuring adaptation and mitigation measures (where REDD+ is implied) are integrated in all government planning, budgeting and development objectives. It has called for collaborative and joint action with all stakeholders (private sector, civil society, NGOs, faith-based organizations, etc.) in tackling the impacts of climate change. (GOK, 2010b).

Overall, cross-sectoral coordination between REDD+ (which is still in its infancy) and other sectors needs to be nurtured (probably through the NCCRS, if REDD+ is elaborated further beyond mitigation actions), as the pre-occupation of Government Ministries to meet performance targets in agriculture, forestry and so on, might result in giving minimum effort towards this.

3.2 Tanzania

3.2.1 REDD+ in Tanzania

In Tanzania, forests and woodlands have very important and critical ecological values and are a source of vital services such as conserving soils and water sources, harboring rich biodiversity and important genetic resources, providing bee nectar, regulating extreme weather events, serving as habitats for wildlife, providing a wide range of cultural, spiritual and recreational benefits and are important sinks for carbon dioxide from the atmosphere (URT, 2010a), as outlined in Box 5 below.

Tanzania is one of the nine countries receiving support through the UN-REDD programme. Norway and Tanzania signed a Letter of Intent on a Climate Change Partnership focussed on REDD in April 2008. The purpose of the Partnership is to "implement programmes

on adaptation and mitigation of climate change". To operationalise the Partnership, NICFI has committed NOK 500 million (about US\$ 83 million) over a five-year period (NORAD, 2011).

Specifically, the Royal Norwegian Government is facilitating the preparation of the National REDD+ strategy and supports, inter alia, (i) REDD+ policy development processes; (ii) public, private and community piloting of REDD+ mechanisms and actions ("REDD+ pilots"); (iii) research, training and education on REDD+; (iv) institutional development, including monitoring, reporting and verification (MRV) system development; (v) development of a REDD+ financing mechanism / performance-based financing; and (vi) programme management (NORAD, 2011).

Sector	Key sectoral priorities	Relevant identified REDD+ actions	Is there alignment?
Energy	<p>The National Energy Policy of Tanzania</p> <ul style="list-style-type: none"> To ensure availability of reliable and affordable energy supplies and their use in a rational and sustainable manner. To establish an efficient energy production, procurement, transportation, distribution and end-use systems. 	<ul style="list-style-type: none"> Introduce alternative energy sources, plus increased efficient utilisation of biomass Promote alternative energy sources to wood fuel. Sustainable management of critical watershed areas by safeguarding consistent water flow for proposed hydro-electric power generating dams. 	Yes. The low carbon development projects already being undertaken in Tanzania offer significant synergies with the national REDD+ strategy.
Agri-culture and food security	<p>Agricultural Policy (Tanzania)</p> <ul style="list-style-type: none"> Development and introduction of new technologies and human resources to increase productivity. Promotion of integrated and sustainable management of natural resources. <p>Tanzanian Development Vision 2025</p> <ul style="list-style-type: none"> Sustainable natural resource management related to livestock production (management of fallow and forestlands) 	<ul style="list-style-type: none"> Improve existing farming systems (new farming innovations and appropriate crop interventions) Enhance human resource capacity (through the creation of related farmer field schools) Encourage agro-ecosystems which improve soil fertility, productivity and crop protection. Commercial farming through advocating suitable government policy on bio-fuel production, Promotion of agroforestry farming systems and programs on farm animal health (taking into account carrying capacity for livestock production to be a viable source of income that can reduce pressure on the forest resources). 	Yes. But there is a risk of conflict between Tanzania's two parallel forest management systems (central government; regional and district local government) that may trigger land use changes to the detriment of REDD+.
Water resources management	<p>National Water Policy (Tanzania)</p> <ul style="list-style-type: none"> Protection of ecosystems underpinning national water resources. Advocates for the establishment of new catchment forest reserves for watershed management in critical watershed areas. 	<p>Draft National strategy and R-PP lack explicit strategic activities for sustainable management of water catchments, though the drivers and impacts of deforestation and degradation are clearly acknowledged.</p> <p>R-PP recognizes the importance of <i>forest landscape restoration</i> like the successful <i>Ngitili</i> system. However, the draft REDD+ strategy does not clearly show how this could be scaled up beyond the pilot stage.</p>	Yes. But management of water catchments and critical highland catchment as an overarching objective is lacking. REDD+ actions do not take up this as a strategic option(s).

Box 5: The Role of Forest in Tanzania's economy

Tanzania has a total area of about 94.5 million ha out of which 88.6 million ha are covered by landmass and the rest is water bodies. The country has a total of 35.3 million ha of forestland out of which 16 million ha comprise of reserved forests, 2 million ha are forests in national parks and the rest, 17.3 million ha (49% of all forestland), are unprotected forests in General Land. Forests in General Land are 'open access', characterized by unsecured land tenure, shifting cultivation, annual wild fires, harvesting of wood fuel, poles and timber, and heavy pressure for conversion to other competing land uses, such as agriculture, livestock grazing, settlements and industrial development.

The World Bank (2008), drawing on a range of specific sectoral studies in Tanzania, highlights the importance of forestry, wildlife, fisheries, and mining to the economy and the role of governance in structuring resource benefit flows. The study makes two key points in relation to forestry:

- The per capita value of informal forest uses amounts to between US\$25 and US\$50 in rural areas, providing in particular over 90% of energy supplies, 75% of building supplies, and 100% of traditional medicines;
- Informal local resource uses, if properly captured in economic statistics, would amount to an additional US\$100 per capita per annum in Gross National Income, in a country where GNI per capita is US\$350.

Source: URT, (2010a)

3.2.1.1 Institutional arrangements for REDD+ in Tanzania

A draft National REDD+ Strategy in Tanzania (currently released for comments and expected to be finalised in December 2012) has been developed based on the National Framework for REDD+ developed in 2009 (URT, 2010a).

The framework is based on the objectives of reducing emissions related to deforestation and forest degradation as well as reducing poverty of forest dependent communities. In this stage, institutional structures were established, including the REDD+ Task Force and its Secretariat. A National Climate Change Steering Committee (NCCSC) coordinates REDD+ in Tanzania and reports to the Vice President's Office. It is comprised of Permanent Secretaries from 13 ministries: the Prime Minister's Office, the Ministry of Energy and Minerals, the Ministry of Finance and Economic Affairs, the Ministry of Industry, Trade and Cooperatives, the Ministry of Natural Resources and Tourism, the Ministry of Justice and Constitutional Affairs, the Ministry of Lands Housing and Settlements, the Ministry of Agriculture and Food Security, the Ministry of Fisheries and Livestock Development, the Ministry of Foreign Affairs and International Cooperation, and the Ministry of Agriculture, Livestock and Environment of the Government of Zanzibar.

The NCCSC is assisted by the National Climate Change Technical Group, while the National REDD+ Taskforce is guiding the REDD+ Strategy formulation process. The National Carbon Monitoring Centre (NCCMC) and the National Carbon Accounting/Assessment System (NCAS) are expected to be established soon, to coordinate REDD+ MRV and pave the way for the implementation of REDD+ Strategy activities (see Box 6).

3.2.2 How National Strategy for REDD+ fits within Tanzania's national priorities in other sectors

Energy for rural development

The goals of the National Energy Policy of Tanzania are to exploit hydro-electric power sources, and to arrest wood fuel depletion by improving technology efficiency and land management practices (URT, 2003). The national energy policy objectives are to ensure availability of reliable and affordable energy supplies and their use in a rational and sustainable manner in order to support national development goals; and to establish an efficient energy production, procurement, transportation, distribution and end-use systems in an environmentally sound and sustainable manner. Tanzania's REDD+ strategic activities, which involve introducing alternative energy sources, combined with increasing efficient utilisation of biomass, will support the strategic focus of the National Energy Policy, to improve conservation by promoting alternative energy sources to wood fuel.

Box 6: Institutional framework for REDD+ activities in Tanzania

The National Climate Change Steering Committee (NCCSC) which handles all climate change related issues in Tanzania will serve as a top decision making body for the national REDD+ scheme and general overseer for the implementation of this Strategy. Technical issues will be handled by the National Climate Change Technical Committee.

The National Climate Change Technical Committee (NCCTC)

The NCCTC is made up of Directors of the various Ministries in the National Steering Committee. Its function is to oversee all technical issues related to the implementation of climate change issues. The NCCTC reports to the steering committee.

National Carbon Monitoring Centre (NCCMC)

When operational the NCCMC will provide technical services on measuring, reporting and verification of REDD+ activities across the country. It will be a depository of all data and information concerning REDD+, including the National Carbon Accounting Systems (NCAS). The centre will report to the NCCTC.

The REDD+ Task Force

A REDD+ Task Force (TF) has been appointed by the Government to oversee implementation of technical and operational issues in relation to REDD+ readiness. The TF is an interim arrangement which will eventually be replaced by more permanent structures such as the NCCTC. Currently, the TF consists of 8 technical officers drawn from the DoE and FBD, Zanzibar and Local Government with the provision to co-opt members from other sectoral organizations as needed. It is chaired by the Department of Environment.

The REDD Secretariat

Currently, activities of the TF are facilitated by a Secretariat based at the Institute of Resource Assessment (IRA) of the University of Dar es Salaam. The IRA was identified by MNRT-FBD/VPO-DoE/RNE in March 2009 to facilitate the consultation process leading to the development of this National REDD+ Strategy, and to facilitate the initial stages of quick start activities of REDD+ implementation to mid-2010.

Regional and district level coordination

The coordination of REDD+ at the regional and district levels adheres to the existing government local government institutional structure. The Regional Administrative Secretariat serves as the link between the Ministries and the District Councils. REDD+ related activities are coordinated at the regional level through the Regional Secretariat. At the district and municipal levels, Environmental Committees as established by EMA, 2004, will serve as coordinators for REDD+ activities in their respective areas.

Source: URT, (2010a)

In addition, by encouraging sustainable management in critical watershed areas, the REDD+ strategy will contribute further to the National Energy Policy's strategy to diversify energy sources by safeguarding consistent water flow for proposed hydro-electric power generating dams.

A number of low carbon development projects are already being undertaken in Tanzania, offering significant synergies with the national REDD+ strategy. These include improved production and use of biomass energy to safeguard forest resources through efficient use of fuel wood. In addition, the low carbon projects have potential co-benefits in terms of reducing health impacts to households, saving fuel costs, developing the local manufacturing

economy and safeguarding biodiversity and associated forest industries. A summary of the identified interventions in this Low Carbon Strategy is shown in Box 7 (overleaf).

Agriculture and food security

Tanzania's Agricultural Policy objectives include the development and introduction of new technologies and human resources to increase productivity, and the promotion of integrated and sustainable management of natural resources (URT, 2007). Strategies include natural resource management and agricultural research and training. The draft National Strategy for REDD+ in Tanzania complements national objectives by including strategic activities to improve existing farming systems

Box 7: Interventions identified under Tanzania's Low Carbon Strategy

- **Switching to modern fuels in the household sector** such as LPG is an important part of the solution for safeguarding forests, and reducing emissions.
- **Forestry management and protection.** An integrated approach to forestry management and protection, including the agriculture and energy sectors.
- **Biofuels.** As an alternative to transport fuels, biofuels have the potential to reduce reliance on expensive imported fuels, develop new export markets and stimulate the rural economy. However, it will be necessary to structure the industry in terms of sustainability and food security if benefits are to accrue to local communities.
- **Energy efficiency.** There is significant potential across all sectors to realize energy efficiency improvements, which may in turn reduce fuel costs dramatically. This is particularly true in the transport sector and probably in the industry sector (although this has not been fully assessed for this sector).
- **Renewable generation.** Tanzania has long invested in renewable generation through the development of hydropower. The potential now exists to assess opportunities for other renewable including wind, solar and geothermal. However, investors will need to be incentivized through the tariff structure, etc.
- **Agricultural measures.** These are important where they also enhance productivity and provide the potential for financing. Ensuring food security is paramount now and in future years.
- **Sustainable urban planning.** Promoting a low carbon climate resilience agenda in urban planning could enhance future sustainability of urban areas, by ensuring integration of different departments (transport, buildings, utilities etc), recognizing future pressures, developing public transport systems, and designing communities with climate impacts in mind.

Source: Pye et al., (2010).

(introducing support for new farming innovations and appropriate crop interventions), enhancing human resource capacity (through the creation of related farmer field schools) and by encouraging agro-ecosystems which improve soil fertility, productivity and crop protection (URT, 2010a). Activities also include advocating for formulation of adequate government policy on bio-fuel production (given that expansion of commercial farming like tobacco and bio-fuels is one of the recent major direct causes of deforestation and degradation), raising awareness on land tenure issues, enhancing the green labeling system and supporting the Tanzania Investment Centre to develop REDD+ investment guidelines.

Based on the Tanzanian Development Vision 2005, the livestock industry's primary objective is to have "a livestock sector which to a large extent shall be commercially run, modern and sustainable, using improved and highly productive livestock to ensure food security, improved income for the households and the nation while conserving the environment" (URT, 2006). Furthermore, the Vision emphasizes sustainable natural resource management related to livestock production as a key objective, explicitly providing for the protection and management of fallow and forestland. The draft National REDD+ Strategy complements this policy by improving forest governance issues, afforestation

and reforestation activities, the promotion of agroforestry farming systems and programs on farm animal health (if carrying capacity is taken into account, livestock production can be a viable source of income that can reduce pressure on forest resources).

Water resources management

Within Tanzania's National Water Policy, a key objective is "to have in place [a] water management system which protects the environment, ecological system and biodiversity" (URT, 2002). The protection of ecosystems underpinning national water resources is given second priority after basic human needs. Tanzania's draft strategy for REDD+ (under Key Result 10: *Options for addressing drivers of deforestation and degradation*) and R-PP (*Options under agricultural expansion, human settlement and processing*), lack explicit strategic activities for sustainable management of water catchments, however the drivers and impacts of deforestation and degradation on water resources are clearly acknowledged (URT, 2010a & 2010b).

Additionally, although the National Forest Policy advocates for the establishment of new catchment forest reserves for watershed management in critical watershed areas, the R-PP only recognizes the importance of forest

landscape restoration (a process for re-establishing ecological integrity and enhancing human well-being in deforested or degraded landscapes through natural regeneration, assisted natural regeneration, enrichment planting, plantations, agroforestry and various soil and water conservation techniques) without explicit strategic actions on it (URT, 2010b).

For example, the *Ngitili* system is a successful forest landscape restoration of agro-pastoral communities in Shinyanga Region where more than 350,000 ha of land were restored or newly established, of which about 50% was owned by groups and another 50% by individuals (URT, 2010b). However, the draft REDD+ strategy does not clearly show how this success story could be scaled up, except perhaps under Result 3 (stakeholder engagement) where pilot schemes are planned.

3.2.3 Cross-sectoral coordination at the policy level

The draft National REDD+ Strategy in Tanzania has been developed based on the National Framework for REDD developed in 2009 (URT, 2010a). This strategy is closely derived from the national development vision of Tanzania, popularly known as Vision 2025, which articulates the economic and social aspirations of the Union Government. Specifically, Vision 2025 aims at attaining (i) high quality livelihoods (ii) peace, stability and unity (iii) good governance (iv) a well-educated learning society and (v) a competitive economy capable of producing sustainable growth and shared benefits.

The draft REDD+ Strategy is closely linked to the current national growth and development strategies such as the National Growth and Poverty Reduction Strategy Programme (MKUKUTA), the National Forest Programme and other strategies which contribute to effective conservation and utilization of Tanzania's natural and renewable resources and improving the livelihoods of its people.

One of the challenges of cross-sectoral coordination is the broad membership in policy creation. This might be in terms of unclear working modalities, communication channels and decision-making, due to bureaucracies and members sticking to 'cultures' from their home institutions. Nevertheless, if well harnessed to address these potential pitfalls, the broad based nature of cross-sectoral coordination serves to bring various views and concerns on board, which could be an opportunity for REDD+.

3.3 Uganda

3.3.1 Status of REDD+ in Uganda

In Uganda, there are many existing laws and policy frameworks that support and underpin the development of REDD+. The Constitution of Uganda (amended 2005) is the supreme framework under which sustainable forest management, the ownership of natural resources for all Ugandans, and the creation of trusteeship arrangements are situated. The Constitution additionally provides for the management of national natural resources, which includes forest resources. The 2001 National Forestry Policy and the 2003 National Forestry and Tree Planting Act provide the principle framework for forest management (GoU, 2001). Other subsidiary laws relating to forestry management include: the Wildlife Act (cap 200), Local Government Act (1998), Land Act (cap 227), National Environment Management Policy (1995), National Environment Act (cap 153), among others.

In addition, Uganda's National Development Plan (2010–2015) categorizes forestry as a primary growth sector with prospects for investment both from the national budget and the private sector (see Box 8 overleaf). The National Development Plan emphasizes "*sustainable development through preservation of natural resources such as forests ...*" The National Development Plan (NDP) also aims to increase forest cover from 3,604,176 ha to 4,933,746 ha by 2015 and commits to enhance capacity for: i) enforcing forestry law; ii) private tree planting, and, iii) farm forestry (GoU, 2011b). Box 8 (below) provides a summary of the role of forests in Uganda's economy.

Uganda's draft Vision 2035 is explicit on carbon trading as a means of conserving forests for climate change mitigation. It provides that Uganda will promote carbon trade that will increase forest cover, as well as incomes of the rural communities. It further provides for promotion of conservation programs that will not only restore but also sustain an optimum level of forest cover in the country (GoU, 2011a).

Uganda formulated its R-PIN and R-PP between 2009 and 2011. The R-PP was approved in June 2011 and has 14 strategic options with over 40 potential measures and interventions: addressing deforestation and forest degradation caused by agricultural encroachment on forested lands; addressing unsustainable impact of charcoal production and utilization; addressing impact of firewood harvesting and utilization on forestry resources

Sector	Key sectoral priorities	Relevant identified REDD+ actions	Is there alignment?
Energy	<p>The Renewable Energy Policy</p> <ul style="list-style-type: none"> A number of renewable energy technologies have become commercially viable and therefore need to be brought into the national energy supply mix. Diversification to meet fast growing electricity demand (promotion and dissemination of technologies and efficient use of energy). <p>Renewable Energy Feed-In Tariff (REFIT)</p> <ul style="list-style-type: none"> Encourage and support greater private sector participation in power generation from renewable energy technologies, through the establishment of an appropriate regulatory framework. 	<ul style="list-style-type: none"> Regulate charcoal production and trade. Improve charcoal production efficiency. Increase biomass/trees on farmland. Promote alternative fuels and improve wood fuel use efficiency. <ul style="list-style-type: none"> Undertake policy reforms in Energy Sector to facilitate growth (through incentives) and development of affordable alternative renewable energy sources that reduce pressure on biomass energy. 	Yes. But poor law enforcement results in illegal cross-border timber trade in contravention of Uganda's CITES obligations. Unsustainable deforestation for charcoal and firewood remains unaddressed.
Agri-culture and food security	<p>National Agricultural Sector Development Strategy and Investment Plan, 2010/11 – 2014/15</p> <ul style="list-style-type: none"> Enhance productivity through sustainable land management. Develop suitable farming systems and clear and predictable policy frameworks. Improve public education on natural resource issues. <p>Uganda National Land Policy</p> <ul style="list-style-type: none"> Harmonize tenure rights and land-related policies and laws. Sustainable utilization, and management of environment and natural resources. 	<ul style="list-style-type: none"> Assess the impact of grazing on deforestation and developing woodland management strategies. Promote farm forestry and sustainable forest management for agricultural expansion – facilitating investment in the carbon market for private landowners. Clarification of tenure rights, agricultural intensification and cost-benefit analyses between land conversion for agriculture and maintaining forest land. 	Yes. But in practice conflicting decisions taken, for example approval of development investments incompatible with forest conservation remain a challenge.
Water resources management	<p>National Water Policy</p> <ul style="list-style-type: none"> Promote the development of water supply for agricultural production; modernize the sector and mitigate climate impacts on rain-fed agriculture. <p>Uganda Forest Policy (2001), policy statement No.8</p> <ul style="list-style-type: none"> Promote the rehabilitation and conservation of the country's catchment forests. 	<ul style="list-style-type: none"> Sustainably manage and conserve forest estates and increase carbon stocks to complement the National Forestry objective to protect, rehabilitate and conserve key watershed forests. 	None of the strategies in the R-PP explicitly focus on forests for watershed management.

in Uganda; addressing unsustainable timber harvesting; addressing the impacts of livestock development and grazing on forestry resources; securing the plight of forest dependent people during REDD+ implementation in Uganda among others (GoU, 2011a). The next step is to turn these proposed options into the REDD+ strategy.

3.3.1.1 Institutional arrangements for REDD+ in Uganda

Forest resource management in Uganda falls under the Ministry of Water and Environment (MWE), which, through the Department of Forestry Sector Support Service (FSSD) is responsible for formulating policies, standards and legislation for environment management (GoU, 2010b). The National Forestry Authority (NFA) and the Uganda Wildlife Authority (UWA) manage central forest reserves and forest under wildlife conservation areas, respectively. Local government District Forestry Services (DFS) are mandated to manage Local Forest Reserves (LFR) and provide advisory services for the management of private forests.

Other key actors in forest management include the National Environment Management Authority which coordinates and supervises all environmental issues in the country. The Ministry of Finance, Planning and Economic Development is responsible for directing national development and allocating the necessary financial resources.

Donors, NGOs and the private sector (land owners and forest owners) contribute strongly to forest management especially by implementing those activities constrained by funding or whose management is not suitable for government service institutions. There are an estimated 200 CSOs working in the environment and natural resources sector (GoU, 2010b). One of the challenges is the short-term cycle of their projects and duplication activities due to poor coordination. In addition there is tenure insecurity among land and forest owners (Environmental Alert et al., 2010) that can provide a disincentive to forestry investment.

Box 8: The Role of Forests in Uganda's economy

Uganda's economy is closely linked to her rich environment and natural resource base that have contributed more than 50% to GDP over the past decade. Generally, Uganda's forest resources offer a wide range of non-timber products and services; they provide various ecological functions such as watershed protection, erosion control, wind-breaks, climate amelioration, and carbon sequestration. Uganda's forests also provide habitat to a diverse range of animal and plant species that are potential eco-tourism attractions.

According to the National Biomass Study (2005), Uganda's natural forest vegetation is categorized into three broad types namely Tropical High Forest (THF) well stocked, THF low stocked, and Woodland, covering 3,570,643ha and occupying approximately 15% of Uganda land surface as of 2005. Of these, approximately 15,500ha were of soft wood plantations.

The demand for timber is estimated at 750,000 m³/year (Kayanja and Byarugaba 2001) compared to the current sustainable timber harvesting levels of 53,000m³/year over the next 30 years from central forest reserves. Timber sources include tropical high forests (280,000 m³/year), plantations (100,000 m³/year) and woodlands (19,300,000 m³/year) on government and private land (FAO, 2005). Most timber is currently procured from private lands (which constitute 70% of the forest estate) using wasteful methods. The Ministry of Water and Environment estimates that timber production from privately owned forests will be exhausted by 2013.

In addition, Uganda consumes 16-18 million tonnes of firewood annually mainly in rural areas, equivalent to annual per capita consumption of 0.6 tonnes of air-dried wood. Also, charcoal production is a major industry employing 200,000 people (Kayanja and Byarugaba 2001) -contributing US\$ 20m/yr to rural incomes (Knopfle 2008), and millions of dollars annually in fees to Local Governments.

Source: GoU (2011a); NEMA (2009).

Uganda started the REDD+ Readiness Preparation Proposal (R-PP) formulation process in early 2010. This was completed by the REDD+ National Focal Point in collaboration with the REDD+ Working Group (WG) and with participation of a wide spectrum of stakeholders. The stakeholders involved in the process included Government representatives, parliamentarians, NGOs/CSO, private sector, academia, cultural groups, special groups (like women, youth and disabled), forest dependent people and communities among others. The current institutional framework for REDD+ is summarized in Box 9 overleaf.

3.3.2 How the REDD+ Readiness Preparation Proposal fits within Uganda's national priorities in other sectors

Energy for rural development

Uganda Government's Policy Vision for Renewable Energy is expressed in The Renewable Energy Policy. The overall policy goal is to increase the use of modern renewable energy from 4% currently to 61% of the total energy consumption by the year 2017 (GoU, 2007a).

The need to develop an elaborate Renewable Energy Policy is rooted in the recognition that a number of renewable energy technologies have become commercially

viable and therefore need to be brought into the national energy supply mix. It has also been reinforced by four major challenges the Government has faced in meeting the energy needs of its people, namely the unprecedented electricity supply deficit on the national grid due to the fall in Lake Victoria water levels; the escalating oil prices on the international market, which impose a heavy burden on the economy; the need to make electricity accessible to the rural population, through grid extension and mini-grids (considering that the level of electrification is very low at 9% countrywide and 3% in rural areas); and the need to fulfil Uganda's commitment on greenhouse gas emissions reductions under the Kyoto Protocol and contribute to the global fight against climate change (GOU, 2007a).

In addition, the Renewable Energy Feed-In Tariff (RE-FIT) (a mechanism to promote the deployment of renewable energy that places an obligation on specific entities to purchase the output from qualifying renewable energy generators at pre-determined prices), has been put in place (ERA, 2010). The overall aim of the REFIT is to encourage and support greater private sector participation in power generation from renewable energy technologies, through the establishment of an appropriate regulatory framework. REFIT covers wind, biomass, small hydro, geothermal, biogas and social & municipal waste.

Box 9: Institutional framework for REDD+ activities in Uganda

The following institutional structure is for the R-PP implementation and coordination towards a national REDD+ strategy.

The National Policy Committee on Environment

The National Policy Committee on Environment, under the Office of the Prime Minister, will be responsible for the coordination of REDD+. In addition, during 2012-2014, the Committee will take charge of harmonizing Government policies pertaining to REDD+ with sectoral ministries, liaise with the Cabinet on issues affecting the smooth implementation of the REDD+ Strategy and harmonize the implementation of REDD+ with broader Climate Change initiatives in Uganda.

Lead Ministry

The Ministry of Water and Environment (MWE) shall be lead ministry, taking executive function for coordinating implementation of the REDD+ R-PP. The Ministry's responsibilities will be to supervise, co-ordinate and report on the progress of preparing the REDD+ Strategy, to ensure that the R-PP budget is reflected in the lead and sectoral ministry's plans, budgets and accounts, to facilitate the integration of REDD+ Strategies and actions into the plans and budgets of implementing agencies, and to convene the REDD+ Steering Committee (RSC) and the National Technical Committee.

REDD+ Steering Committee

The Steering Committee will be established by the MWE and comprise Central Government ministries and agencies, Local Governments, NGOs, Academia and Private Sector agencies. Advised by implementing institutions, the Steering Committee will advise the Lead Ministry.

National REDD+ Focal Point

Designated by the MWE, the Forestry Sector Support Department (FSSD) will serve as the National REDD+ Focal Point. It shall be responsible for facilitating links between the MWE and other implementing institutions, the REDD+ Steering Committee and the National Technical Committee. The specific tasks for the Focal Point will be to implement the mandate of the Lead Ministry, represent the Lead Ministry in RPP implementation activities and implement day-to-day activities.

National Technical Committee

The REDD+ Steering Committee will establish and supervise a National Technical Committee made of individual experts from key specialized areas within and outside government. In addition, the National Technical Committee will also oversee the technical aspects of preparation of the REDD+ Strategy for Uganda, ensure quality and standards and compliance to REDD+ principles and provide specialist inputs into the design of REDD+ strategies, tools and methodologies.

Implementing Institutions

Potential implementing institutions include the Uganda Wildlife Authority, NFA, the Wetlands Management Department, Local Government Administrations and Uganda Bureau of Statistics. The institutions will implement and report on the progress of assigned tasks, participate in the REDD+ Steering Committee and facilitate the functioning of the Taskforces.

Task Forces

The task forces will support R-PP implementation, and will be appointed on a case-by-case basis by the Lead Ministry on recommendation from the National Steering Committee. The role of the task forces will be to design and provide oversight to the strategies corresponding to the themes, provide specialist input into the preparation of REDD+ Strategy and facilitate technical level coordination and the sharing of information within institutions.

Source: GoU, (2011a)

The biomass resource base management strategy in Uganda's Renewable Energy policy seeks to increase the rate of adoption of efficient charcoal stoves from 20,000 currently to 2,500,000 by 2017 in urban areas; license charcoal production and transportation and encourage its commercial production in an efficient and sustainable manner; integrate biomass energy production and efficient utilization and its impacts on climate and health into the formal education system; and to provide incentives for farmers to establish commercial woodlot plantations, including peri-urban plantations (GOU, 2007a).

Uganda's proposed REDD+ strategy, as set out in the R-PP, identifies potential areas for intervention within the energy sector. The strategic options for charcoal production are to address the unsustainable impact of production by regulating production and trade, to clarify tenure rights on private land, to improve charcoal production efficiency by strengthening enforcement and compliance, and to undertake policy reforms in the energy sector to facilitate growth (through incentives) and develop affordable alternative renewable energy sources that reduce pressure on biomass energy (GoU, 2011a).

The proposed strategic options to address the impact of firewood harvesting are to increase biomass/trees on farmland, promote alternative fuels and improve wood fuel use efficiency.

Agriculture and food security

Within the National Agricultural Sector Development Strategy and Investment Plan 2010/11 – 2014/15, key objectives are to enhance productivity through sustainable land management, develop suitable farming systems and clear and predictable policy frameworks, and to improve public education on natural resource issues. The Uganda National Land Policy goal is "to ensure efficient, equitable and sustainable utilization and management of Uganda's land and land-based resources [...]" (GoU, 2010a). Under this, objectives include harmonizing tenure rights and all land-related policies and laws and sustainable utilization, protection and management of environment and natural resources.

Uganda's R-PP complements the priorities of the agricultural sector with strategies to address the impacts of agricultural encroachment on forests and livestock grazing. Clarification of tenure rights, agricultural intensification and cost-benefit analyses between land conversion for agriculture and maintaining forest land

are proposed to reduce agricultural encroachment. For livestock grazing, proposed interventions include assessing the impact of grazing on deforestation and developing woodland management strategies. Furthermore, the R-PP seeks to promote expansion of farm forestry and sustainable forest management by facilitating local and private landowner investment in the carbon market.

Water resources management

Under the National Water Policy, key objectives identified are the integrated sustainable management and development of water resources to secure and provide resources for all present and future social and economic needs (GoU, 1999). An additional objective is to promote the development of water supply for agricultural production, to modernize the sector and mitigate climate impacts on rain-fed agriculture.

Under these objectives, strategies include the development of adequate and reliable water supply, regulatory support, connecting land-use links, the recognition of wetlands as integral systems, a holistic approach to resource management, development and use, and effective watershed management.

Within the National Agricultural Sector Development Strategy and Investment Plans 2010/11 – 2014/15, sub-programme 1.4 for sustainable land management strategies also include watershed management plans and the rehabilitation of degraded catchment sites (GoU, 2010a).

Under the Uganda Forest Policy (2001), policy statement No.8 on watershed management and soil conservation seeks to promote the rehabilitation and conservation of forests that protect the soil and water in the country's key watersheds and river systems (GoU, 2001). It recognizes that the achievements in watershed protection through forestry will result from the adoption of appropriate farm forestry methods on degraded private lands, from the improved management of natural forests on hilly private lands, and from the restoration of degraded hills on government lands.

The strategies identified in the R-PP to sustainably manage and conserve forest estates and increase carbon stocks, complement both the National Forestry objective to protect, rehabilitate and conserve key watershed forests, and the National Water Policy objectives (GoU, 2011a).

However, none of these strategies explicitly focus on forests for watershed management (though they might be implied – for example in securing the situation of forest dependent people). The implication is that the emphasis on the productive forestry function (timber, charcoal and agroforestry) might overshadow watershed protection and other ecosystem service functions, to the further detriment of Uganda's natural forest cover that has declined drastically from 54% in 1950s to the present 24% of the total land area (GoU, 2007b).

3.3.3 Cross-sectoral coordination at the policy level

The goal of Uganda's R-PP is "Uganda ready for REDD+ by 2014" (GOU, 2011a). Achievement of this goal will be realized through progress on a range of objectives: to develop and elaborate strategies and actions for addressing the direct drivers of deforestation and forest degradation; to develop practices for sustainable forest management and conservation; to define and pilot test processes for stakeholder engagement in implementing the REDD+ Strategy; and to strengthen national and institutional capacities for implementing the REDD+ Strategy. These R-PP objectives are expected to inform Uganda's imminent REDD+ Strategy process, expected to run up to 2014.

These R-PP objectives are in tandem with the Key Result Areas (KRAs) of Uganda's 2008/09 – 2017/18 Environment and Natural Resources Investment Plan (ENR-SIP) (GoU, 2007b). Among other KRAs, the ENR-SIP aims to ensure sustainable harnessing/use of natural resources (improving the ability of forests to yield increases in economic, social and environmental benefits for all people – especially the poor and vulnerable – now and in future generations, and to effectively conserve and manage wildlife and protected areas in order to contribute to poverty eradication) and a productive natural resources base (by progressively restoring environmentally degraded ecosystems).

Inadequate government funding to the forestry and other ENR sub-sector remains a constraint on REDD+ implementation. For example, in the financial year 2010/11 the total ENR sub-sector budget allocation was UgShs 83.5 billion. Of this development partners contributed UgShs 66.4 billion (79.5%) made in addition to sector budget support, while the GoU approved only UgShs 17.1 billion (20.5%) (GoU, 2011c). This poorly funded sector results in appalling ENR prioritization by Central and Local Governments. The District Forestry Services are not sufficiently funded to execute their mandates, and the lack of human resources hampers effective and operational efficiency of forestry and other departments (Environmental Alert et.al, 2010 & GoU, 2011c).

In terms of policy and institutions, the Climate Change Unit (CCU) in the Ministry of Water and Environment has recently developed climate change mainstreaming guidelines to ensure that climate change is integrated into the different sectoral investment plans and budgets (GoU, 2011c). The CCU is also mandated to develop a national policy to guide adaptation and mitigation actions for climate resilient ecological, social and economic systems, but is facing challenges in fulfilling this task because of conflicting sectoral legal instruments characterized by weak and contradictory provisions. Such conflicts include issuance of land titles in fragile ecosystems such as wetlands, river banks and lake shores; lobbying for degazettement of protected areas for expansion on farmlands and establishment of settlements; and flouting Environmental Impact Assessment regulations and ignoring required mitigation measures.

Overall, Uganda has so far not ensured cross-coordination between REDD+ and other sectors in practice.

4.0 Opportunities and Challenges for REDD+ in East Africa

4.1 Opportunities

4.1.1 Specific opportunities for REDD+ in Kenya

- The current high levels of deforestation and forest degradation create immense opportunities within the country for sustainable management of forests and enhancement of carbon stocks. This provides a strong ground for supporting REDD+ initiatives in the country to deliver the NCCRS objectives.
- The Government of Kenya has the appropriate institutions to implement the REDD+ strategy. For example, members of the REDD+ Technical Working Group (TWG) with expertise in forestry, finance, land use, agriculture, wildlife management, range management, and timber production and the management of private sector enterprises will be able to introduce different perspectives that can secure inclusiveness and rational decision making relevant to the Country's needs and development aspirations.
- The Government of Kenya's REDD+ proposal and the NCCRS provide an opportunity to address the gaps in the land tenure system and related legislation and policies that are needed for effective REDD+ implementation. These in turn will have knock-on effects for agriculture, replenishment of forest cover, securing political will for long term investment in water catchment areas, and promotion of sustainable biomass energy (charcoal, firewood, etc).

4.1.2 Specific opportunities for REDD+ in Tanzania

- Tanzania has a strong policy framework that will support REDD+. The country's policy and legal framework are accompanied by regulations and guidelines that emphasize the involvement of local communities in forest management and embrace participatory forest management in forest reserves and forests on private land. This has given rise to a review of

Tanzanian legislation in terms of land use, land use planning and allocation among others, to assess where there are gaps that need addressing to enable implementation of REDD+ and other rural development initiatives.

4.1.3 Specific opportunities for REDD+ in Uganda

- There is high potential for synergistic actions among key sectors like agriculture, land management and water resources. For example integrating agriculture, energy and water resources in Uganda's REDD+ strategy would bring over three quarters of Uganda's land and water resources under one sustainable development management regime. As a result of a well-managed agriculture sector, its role as a driver for deforestation would diminish while at the same time reducing emissions from deforestation.

4.1.4 General opportunities for REDD+ in East Africa

- There is an opportunity to build the capacity of technical staff in mandated institutions in forestry especially in monitoring, assessment, reporting and verification of REDD+ activities, forestry inventory and assessments including use of the GIS, satellite imagery, remote sensing and mapping. Such training and capacity development in collection and assessment of socio-economic information would bring in physical infrastructure, skills and knowledge that could enable collection and updating of data and information related to biomass production and consumption, agriculture, and water resource management.
- The East African Community integration process provides a viable opportunity for REDD+ as one of the sub sectors under collective action on climate change mitigation. For example, the EAC is being supported by the Australian Government/ Clinton Climate Initiative to develop National Carbon Accounting Systems (NCAS) that could enhance MRV at national level while also addressing 'leakage' at the regional level.

4.2 Challenges

4.2.1 Specific challenges for REDD+ in Kenya

- Kenya's ability to cope with the impacts of climate change in ASAL is compounded by many factors including poverty, weak institutions, poor infrastructure, inadequate information, poor access to financial resources, low management capabilities, armed conflicts due to a scramble for diminishing environmental resources and high interest rates (GOK, 2010b). Extended droughts arising from climate change and aggravated by conflicts have continued to cause severe food shortages in Kenya and the greater horn of Africa. These factors affect Uganda and Tanzania in the form of increased demand for food and other necessities due to the influx of refugees and internally displaced persons. These circumstances will provide a challenge for REDD+ implementation if it does not take a cross-sectoral approach (which would ensure efficient resource use and joint problem-solving based on lessons learnt from related sectors).

4.2.2 Specific challenges for REDD+ in Tanzania

- Tanzania has two parallel forest management systems - one implemented by central government in forest areas at the local level and the other by regional and district local government management of reserves and non-reserved forest areas. There is a high risk of conflict between the two systems due to influx of funds that are likely to come in implementation of REDD+. Positives could arise from harnessing community enthusiasm to conserve forest resources as long as they see value from having them intact, while negatives might occur from dissatisfaction with REDD+ benefits and benefit-sharing schemes that might not be commensurate to community efforts and expectations, and population movements in search of more arable land for agricultural expansion due to droughts and famine.
- Tanzania has very good policies, laws and regulations but faces an acute challenge of enforce-

ment. Central and district government natural resource departments suffer from a lack of capacity. For example, the multi-billion Tanzania-shilling charcoal economy is largely unregulated, and escapes government tax collectors, while most of the charcoal is derived from lands with contested tenure (Salla, 2011). In turn this affects water catchments, reducing water availability for production and consumption and retarding soil fertility and income from agriculture.

4.2.3 Specific challenges for REDD+ in Uganda

- Poor law enforcement despite existence of good policies, laws and regulations. This has resulted in an illegal cross-border timber trade in contravention of Uganda's international commitments on trade in wild fauna and flora, in deforestation for charcoal and firewood and in unsustainable harvesting of timber (GoU, 2011a & Global Witness, 2011). For example, about 300,000 illegal settlements were impinging on forest reserves in 2008, with effects ranging from land degradation, loss of forest quality to effects on the water catchment functions. Poor enforcement is compounded by a lack of regular monitoring and fact-finding to inform future policy-making.
- Poor standards of governance in Uganda's public administration are recognized as a major concern by the Government of Uganda across all sectors including forestry (NDP 2010 as quoted by GoU, 2011a). Poor governance lowers compliance with environmental and other regulations (APRM, 2009) and is compounded by the lack of coordination between key actors in related sectors like forestry, agriculture and wetlands, trade and investment. Conflicting decisions are often made, for example with those seeking development investments nearby or within forest and wetlands areas which are incompatible with conservation objectives.
- Gaps remain in Uganda's policy and legal frameworks in relation to REDD+. For example, inadequate licensing of the carbon trade and definitions of carbon rights could potentially affect implementation of the REDD+ strategy. Unclear laws may allow landowners to make land

use choices (for instance a return to commercial agriculture) based on market opportunities rather than REDD+ contractual obligations that may emphasise forest conservation.

- There is no common benefit-sharing mechanism in Uganda. A number of benefit sharing mechanisms are currently being used in NRM (see Box 10 below), but until the benefit sharing mechanism is harmonized at the national level implementation of REDD+ projects and programmes will remain problematic due to lack of guiding principles to address socio-cultural, economic and ecological concerns.
- High coordination costs due to a lack of established mechanisms for Government institutions to collaborate, existence of bureaucratic red-tape, differing approaches and conception of issues due to differing professions and conflicting roles. This results in separate ministries with 'well protected territories' buttressed and prioritized by development partners.

Box 10: Case examples of Benefit Sharing Mechanisms in Uganda

- The Uganda Wildlife Authority (UWA) is obliged to share 20% of its park entry fees with the local governments adjacent to the forest reserves. This obligation is based on the acknowledgement that communities on the frontline of protected areas endure a disproportionate burden of the costs associated with the conservation of protected areas (UWA, 2000; Katoomba Group, 2009; REDD-net, 2010).
- The Mount Elgon Regional Conservation Program (MERECP) uses the concept of community revolving funds (CRFs) to distribute benefits to communities based on performance, measured by their contribution towards enhancement of planted forests. CRFs are extended to community groups, non-government organizations (NGOs) and community based organizations (Mwayafu et al., 2011).
- CSOs like the Environmental Conservation Trust of Uganda (ECOTRUST) are implementing Payments for Ecosystem Service (PES) schemes that have benefit sharing arrangements that could provide lessons for future REDD+ community projects.

- There is concern that many of the proposals to tackle the drivers of deforestation and forest degradation do not take into account or seek to address the economic aspects of the trade in illegal charcoal, firewood and timber, including the provision of economic alternatives for those engaged in these activities. These proposals could be more useful if they incorporate more technology transfer options (like improved charcoal kilns and selection of suitable tree species), skills and entrepreneurship development for nature-based activities that are compatible with forest conservation.
- There is little understanding among citizens of what implications REDD+ might have at the national and local levels. While the process of developing the R-PP involved stakeholder consultations, many people remain unaware of the REDD+ mechanism. For example, the R-PP consultations turned out to be largely REDD+ awareness sessions. Therefore, there is a need to ensure that the next steps - like the development of the REDD+ strategy - build in strong awareness creation alongside the consultation processes so as to secure meaningful participation and the views of forest stakeholders.
- In East Africa the technical and informational challenges may limit the success of REDD+ implementation. For example, inadequacies exist in technical capacity to carry out the Monitoring, Reporting and Verification (MRV) Systems and tools for measuring and monitoring vegetation cover changes. REDD+ will require manpower, training and equipment for monitoring and tracking of illegal activities, for example illegal forest clearance for agricultural expansion, charcoal production and illegal logging. Regular collection, documentation and dissemination of such information are needed for planning and decision-making processes.
- Successful REDD+ implementation will necessarily be a multi-stakeholder process requiring coordination between many actors. It is important that both the government and the people own the process. Ownership, transparency, dissemination and implementation of activities by all relevant stakeholders are key to the success of REDD+ programmes. The challenge lies in the

incorporation of diverse ideas into action, as this call for patience and time on part of the technocrats in Government.

- The implementation of REDD+ will be challenging if people living adjacent to the forest reserves are not compensated. The success of REDD+ in East Africa will depend on the clarification of access and user rights to land and forest resources enjoyed by these communities.
- There are many challenges related to the harmonization of sectoral instruments, legislation and institutions between REDD+/forestry and key actors/sectors. Harmonization will enable a reduction in conflicts, though this may prove difficult due to vested interests, political will and time constraints. For example, each development sector has its stand-alone performance targets derived from its policy goals and law (Acts of Parliament), which may not be in tandem with REDD+.
- There is a lack of suitable national systems for measuring and monitoring vegetation cover, forest condition and carbon stocks across the country. The available data is very fragmented and difficult to work with. Furthermore, there is a weak state of current survey and inventory section in the national data base unit. Other challenges include lack of Geographical Information Systems (GIS), remote sensing and analysis capacity within the REDD+ focal point institutions. The implication of this is that enforcement, planning and monitoring remains dependent on unreliable data that could further exacerbate land degradation, agricultural productivity and food security through pressure exerted on the remaining forest resources

5.0 The cross-sectoral implementation of REDD+ at the EAC level

REDD+ provides an incentive to invest in long-term sustainable forest management that also contributes to mitigation of carbon dioxide emissions through reduced deforestation and forest degradation in East Africa. Collective East African regional interventions could provide added value through pooling together resources for forest management (financial, technical and human resources).

For example, in relation to energy, there is an opportunity to address illegality (charcoal production, timber sale and trade in wildlife), weak enforcement and corruption through collective actions involving development of common policies, laws and programmes. These programmes can in turn tackle related impacts like agricultural expansion into forested areas and responses to energy shortfalls (energy poverty) through development of alternatives and protection of catchment forests to secure a steady water flow for hydroelectric power production essential for industrial growth and the services sector.

With regard to water resources management, climate is putting a burden on the various East African water bodies (causing increased incidence of drying up, drops in water levels and reduced fishing catches), and REDD+ stands to supplement the Integrated Water Resources Management approach that take into account different water users' perspectives, and which has been taken up in East Africa (EAC, 2000).

6.0 How can REDD+ better contribute to the objectives of key sectors at the country and regional levels?

Drawing on the above analysis and discussion, the following recommendations are put forward to enable REDD+ to contribute to the key sectors in East Africa:

6.1 Energy for rural development

- REDD+ actions should support improvement of the oversight institutions managing forestry and other natural resources at regional, national, and sub-national levels (legislators at national and lower levels). This is necessary because the reliance of the majority of East African people on firewood and charcoal, exacerbated by the electricity deficit, has submitted forest resources to considerable pressure (illegal practices in extraction of timber, firewood and charcoal). If this is not well regulated, the anticipated increase in carbon stocks, watershed protection and other 'service' functions may be greatly affected in the long run.
- REDD+ needs to contribute to policy and other interventions to improve efficiency in charcoal production and fuel-wood use from source to end users (households, small and medium scale enterprises).
- REDD+ needs to contribute to the development of policy incentives and investment plans to scale up other renewable energy alternatives to charcoal and firewood, and promotion of efficient energy saving technologies for small and medium scale enterprises, urban and rural dwellers. In addition to reducing pressure on the existing forest resources, this would also contribute to co-benefits like ecosystem services, catchment protection and biodiversity conservation.
- There is a need to harmonize policy and legal frameworks in agriculture, water resources, energy and other sectors to reflect REDD+ and avoid conflicting initiatives. In light of the anticipated economic and population growth 'compartment-

talization' of energy and other sectors, REDD+ could further flare up the conflicting mandates at the expense of sustainable land, water, biodiversity and other resources.

- Building on experiences from the R-PP process, REDD+ should create or strengthen foras in order to generate ideas and discussions to restrain potential conflicts and to secure ownership of planned energy-related interventions. These could include regular consultations, discussions and feedback mechanisms on intended interventions, policy development and reviews in sensitive discussions like electricity tariff setting, fees on charcoal and firewood businesses, resettlements etc., that could enable stakeholders to contribute to a sustainable energy regime.

6.2 Agriculture and food security

- REDD+ should contribute to the documentation and sharing of useful community experiences and practices in integrated disease and vector management of trees, crops and animals, and agroforestry pest management practices that are scalable and promote sustainable management of forest resources. The priorities of the research agenda should better reflect the needs of communities and support community-based forest management.
- REDD+ should support increased community knowledge exchange and skills development in sustainable agriculture, for example about methods such as conservation tillage that can reduce the impact of unsustainable agricultural practices on forest and land resources in East Africa's dry lands and fragile ecosystems.
- REDD+ should support demonstration centres in different agro-ecological zones, to supplement existing extension and advisory services. These could work as an interfacing platform between the farming communities and researchers, by displaying relevant agricultural technologies (including cropping systems, forestry and energy), innovations and practices as they are developed.

- National agricultural policies should be reviewed and harmonized in order to reduce conflicts and explore opportunities and linkages between REDD+, energy, water supply and education by addressing institutional weaknesses, governance and other gaps. This will provide better guidance to East African extension and advisory services as well as to community development staff to design interventions that can address relevant challenges from a wider rather than a narrow (agricultural) perspective
- Building on experiences from the R-PP process, REDD+ should enable foras to be created or strengthened in order to generate ideas and discussions to restrain potential conflicts and to secure ownership of the primarily agriculture-led development interventions. These include regular consultations, discussions and feedback/evaluation mechanisms, policy development and reviews (for example on the 'touchy' issues of land tenure and management, Value-For-Money of agricultural interventions, suitable models for integrating agricultural producers and processors, etc.) that could enable CSOs, think tanks, the media, and community-based and indigenous people's organizations to contribute to rural development that secures sustainable natural resources use while improving community livelihoods.
- There is a need to harmonize policy and legal frameworks in agriculture, water resources, energy and other sectors to reflect REDD+ priorities and avoid conflicting initiatives. In light of anticipated economic and population growth, 'compartmentalization' of agriculture and other sectors could further exacerbate conflicting mandates at the expense of sustainable natural resource management.

6.3 Water resources management

- REDD+ should contribute to putting in place an incentivized mechanism for communities and community groups to manage and monitor water catchments to stop soil degradation and other destructive uses as well as to sustain steady water flows in rivers, lakes and other natural water reservoirs.
- REDD+ should raise awareness at the community level about the importance of forests to the maintenance of water catchment areas, involving farmers, farmer groups, schools, private enterprises etc.
- REDD+ should contribute to the development of PES schemes where agro-based and other water catchment-dependent businesses can contribute to the conservation of these resources. For example the downstream users could pay for conservation efforts upstream in river or lake catchments.
- Lessons and experiences from past forest landscape restoration projects (for example the *Ngitili* system) need to be scaled up, possibly as stand-alone strategic options rather than being considered as pilot schemes.
- Packaging and dissemination of the available national information base (e.g., inventories, maps) on forest and water resources to policy and decision-makers and the general public needs to be increased, so as to influence governments to prioritize the necessary investments and sustained actions. One reason for poor budget prioritization of sustainable forest and other natural resources management in East Africa is the lack of a regular information flow (status reports, policy options and other potential interventions) to politicians, decision makers and the general public.

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ABOUT REDD-NET

REDD-net is an international knowledge forum for southern civil society organizations through which they can access information about efforts to Reduce Emissions from Deforestation and forest Degradation, share their own experiences and help to build pro-poor REDD projects and policies. REDD-net is a partnership between Centro Agronómico Tropical de Investigación y Enseñanza (CATIE), the Overseas Development Institute, RECOFTC – The Center for People and Forests and Uganda Coalition for Sustainable Development. REDD-net is funded by Norad.



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