UN COLLABORATIVE PROGRAMME ON REDUCING EMISSIONS FROM DEFORESTATION AND FOREST DEGRADATION IN DEVELOPING COUNTRIES NATIONAL PROGRAMME DOCUMENT

Country: **Tanzania**
Programme Title: **UN-REDD Programme – Tanzania Quick Start Initiative**

Joint Programme Outcomes:
Outcome 1: National governance framework and institutional capacities strengthened for REDD
Outcome 2: Increased capacity for capturing REDD elements within National Monitoring, Assessment, Reporting and Verification Systems
Outcome 3: Improved capacity to manage REDD and provide other forest ecosystem services at district and local levels
Outcome 4: Broad based stakeholder support for REDD in Tanzania

Programme Duration: 24 months Anticipated start/end dates: 1 October 2009/ 30th September 2011 Fund Management Option(s): Pass-Through Managing or Administrative Agent: UNDP	Total estimated budget*: 4,280,000 US$ Out of which: 1. Funded Budget: 4,280,000 US$ 2. Unfunded budget: _____ * Total estimated budget includes both programme costs and indirect support costs
	Sources of funded budget: • Government — In kind • UN-REDD MDTF — 4,280,000 US$ • Other — Norwegian Embassy

Names and signatures of (sub) national counterparts and participating UN organizations

National Coordinating Authorities	*UN Coordinating Authorities*
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Section 1: Executive Summary

Deforestation and forest degradation contribute close to twenty per cent of anthropogenic greenhouse gas emissions globally. Negotiations are underway within the auspices of The United Nations Framework Convention on Climate Change (UNFCCC) with a view to reducing emissions from these sources (Reducing Emissions from Deforestation and Forest Degradation or REDD). To facilitate REDD, efforts are urgently needed to adapt forest management systems, and establish financing systems and associated monitoring and verification systems attuned to country needs. These systems need to address concerns relating to the cost-effectiveness of REDD approaches, leakage, additionality and the rights and responsibilities of local communities, amongst other issues. The UN-REDD Programme was established in 2008 as a partnership between FAO, UNDP and UNEP, financed through a multi-donor trust fund, to assist countries to address these needs. Tanzania comprises one of nine countries receiving support through the UN REDD Programme, with funding provided by Norway.

The Quick-Start Initiative will strengthen Tanzania's readiness for REDD as a component of the Government's evolving REDD Strategy, and is integrated with other REDD activities in the country. Interventions are planned over a period of 24 months, laying the ground work for activities in later years. The Initiative is an integral part of the ONE-UN Programme in Tanzania and the Joint Programme on Environment, which has the objective of '*Increasing Funding for Environment Management from International Environment Funding Mechanisms with a focus on Climate Change and natural resource management*'. The programme will have the following outcomes:

Outcome 1: National governance framework and institutional capacities strengthened for REDD (led by UNDP)

Outcome 2: Increased capacity for capturing REDD elements within National Monitoring, Assessment, Reporting and Verification Systems (led by FAO and UNEP)

Outcome 3: Improved capacity to manage REDD and provide other forest ecosystem services at district and local levels (led by UNDP)

Outcome 4: Broad based stakeholder support for REDD in Tanzania (led by UNEP and UNDP)

These outcomes are aligned to the National framework for REDD in Tanzania. The initial year of investment will prepare the ground for the decisions that will be made at the Copenhagen meeting of the UNFCCC. At that point decisions will need to be made on the activities and implementation modalities for ongoing UN REDD support to Tanzania. It is therefore expected that the existing programme of support will also help deliver a longer term package of assistance, linked to the goals of UN REDD and fully harmonized with the Tanzanian REDD framework documents, and the donor assistance being provided by other countries.

Section 2. Situation Analysis: Tanzania

Deforestation and Forest Degradation

Above and below-ground forest biomass has been calculated to contain some 2,050 gigatons of carbon , or about 20% of the world's terrestrial carbon stock (Campbell *et al.* 2008a; Kapos et al., 2008). Forests contain the highest density of stored carbon in their biomass (Gullison et al., 2007). According to FAO about 3,950 million ha, or around 30% of the global land area, was covered in forest in 2005 (FAO 2006). Of this around 1,250 million ha was tropical forest and woodland types in developing countries (Schmitt et al., 2008).

Deforestation over the past decade has occurred globally at a rate of around 1% of the remaining resource, or about 13 million hectares per annum (Achard et al., 2002). Most of this deforestation has occurred in the tropical developing countries. Degradation also affects large swathes of forest, particularly in the tropical areas, and also has significant impacts on the ability of forests to store carbon.

The Intergovernmental Panel on Climate Change (IPCC) estimates that land use change, primarily forest loss and degradation, now contributes close to 20 per cent of the overall anthropogenic greenhouse gas emissions into the atmosphere (IPCC 2007). This is equivalent to around 1.5-1.6 Gigatons of carbon per year. As these emissions constitute the second largest contributor to global warming (IPCC 2007), there is broad agreement within the scientific community that emissions from the loss of natural habitat, particularly from forests in the developing countries, need to be reduced as a matter of priority.

The Conference of Parties to the United Nations Framework Convention on Climate Change (UNFCCC) began to address this matter: known as REDD (Reducing Emissions from Deforestation and Degradation) at COP 11, held in Montreal, Canada, in December 2005. Broad agreement was subsequently reached on the need to address REDD at COP 13, held in Bali, Indonesia, and a road map for developing a REDD framework, that compensates forest nations for the costs of reducing forest loss and degradation was set out in the Bali Action Plan (2007) and in Decision 2/CP.13[1] on 'reducing emissions from deforestation in developing countries: approaches to stimulate action' and Decision 1/CP.13 on possible financial incentives for forest based climate change mitigation actions in developing countries. A framework for REDD is in the process of being negotiated, with a view to including REDD within the post Kyoto climate change Framework that will be approved in 2009. REDD may play a significant role in climate change mitigation and adaptation, can yield significant sustainable development benefits, and may generate a new financing stream for sustainable forest management. If cost-efficient carbon benefits can be achieved through REDD, increases in atmospheric CO_2 concentrations could be slowed, effectively buying much needed time for countries to move to lower emissions technologies.

[1] The Bali Action Plan, adopted by UNFCCC at the thirteenth session of its Conference of the Parties (COP-13) held in Bali in December 2007, mandates Parties to negotiate a post 2012 instrument, including possible financial incentives for forest-based climate change mitigation actions in developing countries. COP-13 also adopted a decision on "Reducing emissions from deforestation in developing countries: approaches to stimulate action". This decision encourages Parties to explore a range of actions, identify options and undertake efforts to address the drivers of deforestation. It also encourages all Parties in a position to do so, to support capacity-building, provide technical assistance, facilitate the transfer of technology and address the institutional needs of developing countries to estimate and reduce emissions from deforestation and degradation. Furthermore, it lays out a process under the Subsidiary Body for Scientific and Technological Affairs (SBSTA) to address the methodological issues related to REDD emissions reporting.

Key Issues for REDD

A number of technical, political and social challenges will need to be addressed if REDD is to be made a reality, and market or fund based REDD payment schemes are to be introduced under the post Kyoto Framework. Approaches will need to prove the following:

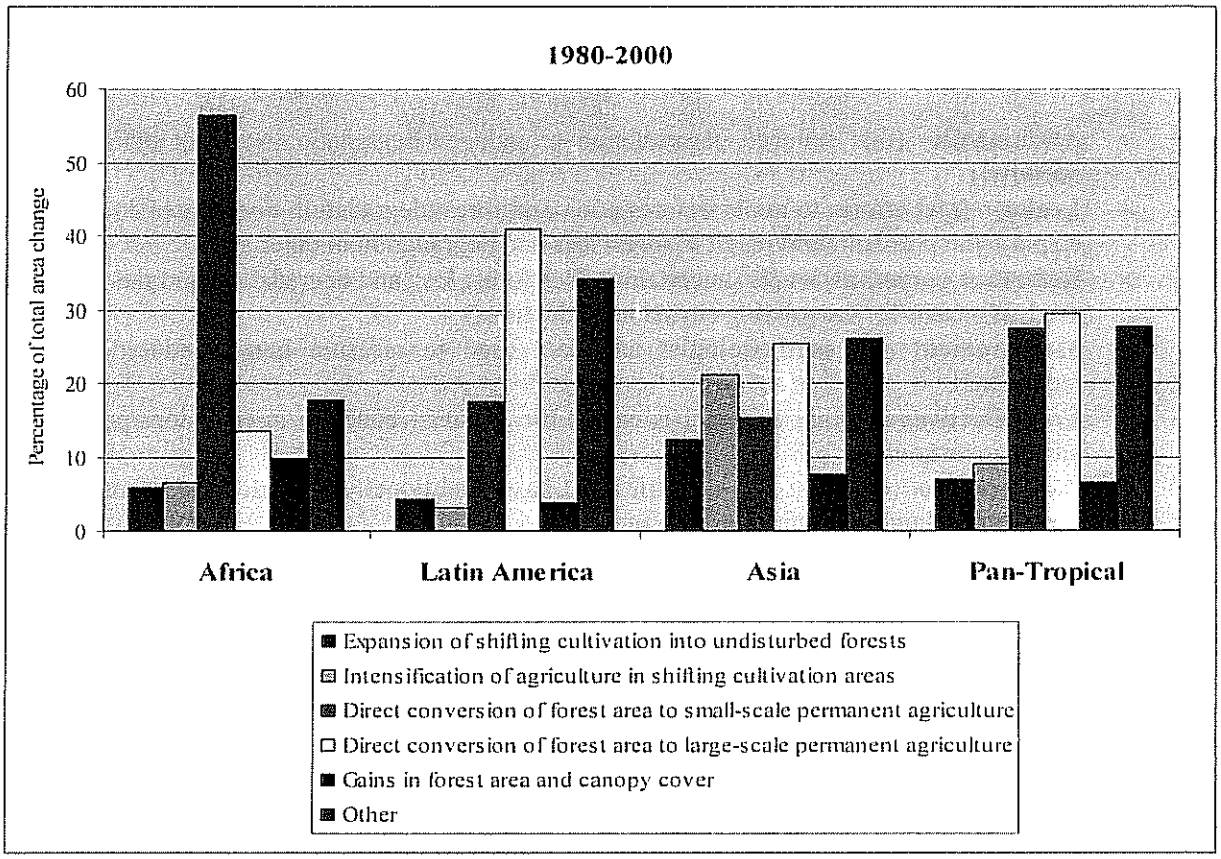
- **Additionality** (that reduced deforestation or reduced degradation will not otherwise have occurred)
- **Leakage** (that efforts to avoid deforestation and forest degradation in one area do not simply displace the problem, and result in forest loss and degradation in other areas)
- **Reference emissions levels** (uncertainty over forest loss and degradation and the trajectories used, as a basis for calculating emissions reductions)
- **Measurement** (the methodologies and data used to measure human-induced emissions reductions),
- **Cost effectiveness** (that approaches ensure the greatest reduction in emissions possible, per unit of investment)
- **Conservation** (ensuring that countries that have traditionally protected their forests are not compromised under the framework) and;
- **Social concerns**, including the rights, roles and responsibilities of indigenous and local communities under the REDD Framework.

The challenge remains of demonstrating practical and effective approaches to addressing these concerns, and building national capacities to manage the REDD framework.

Causes of Deforestation and Forest Degradation

The underlying causes of deforestation vary from country to country and even within a country and are often complex. Box 1 below shows the results of an FAO study that highlights general regional differences across the world. In Africa deforestation is mainly caused by conversion of forests to small scale permanent agriculture while degradation typically occurs as a result of energy use (the consumption of fuel wood and production of charcoal). In other tropical regions the conversion of forest to large scale commercial plantations is a more important cause of deforestation, while degradation is caused by extraction of useful forest products for local use, or by selective logging for timber.

Box 1: Causes of Deforestation in Developing Countries, by region



The underlying causes of forest loss are more intractable than the direct threats, and range from weak or corrupt governance structures, expanding human populations and a need for additional farmland, weak land tenure systems and law enforcement, expanding markets for forest products, eroded cultural values of forests, the lack of land ownership or land use rights for the indigenous and local communities, weak or lacking benefit sharing mechanisms, high poverty levels and a lack of alternative livelihoods, or government policies and food production imperatives. As a result, solutions need to be tailor-made to the environmental and socio-economic conditions and to the institutional frameworks of different countries.

Risks related to delivering REDD benefits

Concerted efforts have been made by developing countries with support from the international community to reduce unplanned deforestation, and stem forest degradation. Despite some successes, the challenges have proven to be considerable. Delivering emission reductions adds a significant layer of complexity and risk. If there are doubts about the ability to deliver actual, lasting, achievable, reliable and measurable emission reductions, REDD investors will remain risk adverse. They will seek to invest in countries that can provide the lowest risk for their carbon investment and thus to transfer the risks by making carbon payments to REDD countries ex-post, or "on-delivery". The logic is that this creates a stronger incentive for REDD countries to successfully implement their REDD programmes and reduce emissions. However, it is not clear whether the incentive of payment-on-delivery will be sufficient to achieving lasting change in forest-use practices, or whether it will create perverse outcomes. For example: On-delivery payments have the effect of making REDD countries bear all the delivery risk, thus limiting the incentive for countries to invest in time-consuming (and expensive) participatory, community-based measures, or complex (and expensive) methodologies to establish carbon baselines. Having to pre-fund the implementation of REDD programmes may also reduce the incentive to equitably distribute the proceeds from REDD transactions to forest-dependent stakeholders whose livelihoods may be impacted by the measures taken. This in turn, may affect the sustainability of REDD interventions and thus compromise the permanence of REDD carbon savings

Technical and Institutional Capacity

The technical and methodological issues that need to be addressed in order to deliver emission reductions have been identified under a process of the UNFCCC's Subsidiary Body for Scientific and Technological Affairs (SBSTA) since 2005. Some of the issues are currently being addressed, but others will require new approaches. Insufficient technical capacity and resources (i.e. for establishing national reference scenarios against which to assess REDD emissions reductions; for monitoring and assessment of changes in forest carbon, and for developing and implementing REDD strategies and field activities) is a barrier to REDD (Holmgren *et al.*, 2007). Many developing countries may need assistance to set up systems to assess carbon emissions and removals on forest land, using methodologies recognized by IPCC (IPCC Good Practice Guidance) so that future results could be demonstrable, transparent, verifiable, and estimated consistently over time.

Co-Benefits

Meetings of the IPCC, including most recently at the December 2008 meeting in Poznan (Poland) have highlighted the interest of many governments, indigenous peoples groups, and non-government organizations in the potential of REDD implementation to deliver further benefits in addition to the storage of carbon and consequent mitigation of climate change. The main co-benefits are:

Social. In terms of social benefits, REDD programmes have the potential to achieve significant sustainable development benefits from ecosystem services for millions of people worldwide. Intact forests also provide a range of cultural services relating to traditional values. An estimated 60 million indigenous people are completely dependent on forests, while 350 million people are highly dependent, and 1.2 billion have some dependence on forests for their livelihoods. However there are also potential social costs of REDD; fears have been raised that REDD payment systems could amplify many of the concerns levelled against payment for ecosystem services (PES) in general (Griffiths 2007): (i) *REDD will lock-up forests by decoupling conservation from development; (ii) Asymmetric power distribution will enable powerful REDD consortia to deprive communities of their legitimate land-development aspirations; (iii) Hard-fought gains in forest management practices will be wasted; (iv) Commercial REDD may erode culturally rooted not-for-profit conservation values.*

Biodiversity. Forests contain as much as 90% of terrestrial biodiversity, with tropical forests being particularly important in terms of both species richness and their concentration of endemic species (Brooks *et al.* 2006). As such there is a strong opportunity to provide the co-benefit of enhanced biodiversity conservation by using REDD payments as a forest conservation mechanism.

Natural Resource Management REDD activities could also serve to enhance soil and water conservation efforts, help ensure sustained supplies of timber and non-timber forest products, and provide areas for hunting and ecotourism.

It is possible that an additional payment premium within REDD schemes may be negotiable for forest conservation schemes that generate co-benefits in addition to reducing carbon emissions. However, it is also possible that REDD benefits in some circumstances may have to be traded off against other social, economic or environmental benefits. The linkages between deforestation, development and poverty are complex and context-specific. Weak governance and institutional capacity in some countries, as well as inadequate mechanisms for effective participation of local communities in land use decisions, could seriously compromise the delivery of both local and global benefits and the long-term sustainability of REDD investments. If REDD programmes are not carefully designed, they could marginalize the landless and those with informal usufruct and communal use-rights.

UN-REDD Programme

The UN-REDD Programme was established as a partnership between FAO, UNDP and UNEP, financed through a multi-donor trust fund in July 2008 that allows donors to pool resources and provides funding for countries to test and adapt REDD approaches, and build national capacities in readiness for REDD. The UN-REDD Programme grew out of requests from the three agencies

respective governing bodies and rainforest countries to ensure that these needs are reflected in the future negotiation of REDD.

FAO, UNDP and UNEP are well positioned to provide the critical assurances necessary to establish a REDD regime. As neutral bodies, the agencies can work as "honest brokers" to support country-led development programmes and to facilitate the informed participation of national stakeholders, particularly forest-dependent local communities. They will also use their convening power to bring together other organizations, experts and scientists to develop global and national monitoring, assessment, verification and financial components.

The application of FAO, UNDP and UNEP rights-based and participatory approaches will help ensure the rights of indigenous and forest-dwelling people are protected as well as the active involvement of local communities and relevant institutions in the design and implementation of REDD plans and methodologies. Using existing cooperation models, UN-REDD Joint country Programmes will enable rapid initiation of programme implementation and channelling of funds for REDD efforts in pilot countries. It will also encourage coordinated and collaborative UN support to countries, thus maximizing efficiencies and effectiveness of the organizations' collective input. The UN agencies' regional and in-country presence represents a crucial support structure for countries, and the organizations' governing bodies, expert networks, and convening capacity provide invaluable mechanisms for information exchange, for access to technical and scientific expertise, and for capacity strengthening.

The UN-REDD Programme is consistent with the "One UN" approach advocated by UN members. It builds on existing initiatives and networks and is guided by the importance of avoiding parallel structures and facilitating effective implementation at national level. The three agencies will work together with other REDD actors such as the UNFCCC Secretariat, the World Bank, regional development banks, bilateral donors, research institutions, NGOs and potential REDD investors thus maximizing the effectiveness of the organizations' input.

At the core of the Programme are the five inter-related principles of the UN Development Group (UNDG): Human-rights-based approach to programming (including indigenous peoples); gender equality, environmental sustainability; results-based management; and capacity development. The overall objective of the UN-REDD Programme is to ensure international coherence and provide support to developing countries in building capacity to design and implement REDD measures. The four Programme outcomes are:

i) International and multi-sectoral coherence on key technical and operational issues (e.g. Monitoring and Verification, links to payment structures)
ii) Negotiators & other stakeholders informed on REDD issues (in collaboration with the UNFCCC Secretariat)
iii) Key institutions & stakeholders in pilot countries have the capacity to develop and implement participatory and equitable systems of M&V and payment structures; and
iv) Developing countries are able to reduce risks and maximize benefits associated with generating verifiable and permanent emissions reductions

"Quick Start" actions will be implemented during the run up to the UNFCCC COP 15, to be held in Copenhagen, Denmark, in December 2009. "Quick Start" action takes two forms: (i) assisting developing countries prepare and implement national REDD strategies and mechanisms, focusing on the needs and priorities expressed by a set of pilot countries; and, (ii) supporting the development of normative solutions and standardized approaches based on sound science for a REDD instrument linked with the UNFCCC.

National actions will be identified and led by the host government and supported by the UN Country team. Host governments determine the scope of activities and the roles of the participating international organizations. A primary objective of national actions will be to facilitate and broker the challenging participatory whole-of-government processes and responses in which REDD actions are

defined and agreed. National level actions are designed flexible enough to harmonize with other REDD initiatives within country. In support of national efforts and the UNFCCC negotiations, the UN-REDD Programme, coordinating with other partners will undertake support functions at the international level to ensure consistency in national approaches and economies of scale in the development of science, knowledge management and monitoring and reporting.

REDD is a huge undertaking and the challenges inherent in its operationalization are not likely to be met by any one initiative alone. The critical factor is to ensure all approaches are complementary, do not burden forested developing countries with duplicative demands, and contribute to the final UNFCCC negotiations on a post-2012 framework. For this reason the UN-REDD Programme cooperating closely with the World Bank's Forest Carbon Partnership Facility (FCPF) and the GEF Tropical Forest Account as GEF Implementing and Executing Agencies, as well with Australia's International Forest Carbon Initiative (IFCI) and are working with other members in the Collaborative Partnership on Forests to support progress toward sustainable forest management. In Tanzania there is further collaboration with the bilateral funding (US$100 million) that has been agreed by Norway to assist REDD-related activities in the country, and funding provided by Germany (US$3 million) to improve the management of Nature Reserves and thus reverse degradation and enhance carbon sequestration in these reserves.

In response to a request from the Government of Tanzania, and the commitment of funding from the Government of Norway, a Quick Start Initiative is proposed herein to support country actions in Tanzania. UN-REDD has committed to provide US$ 4.2 million for the initiative, the objective of which is to strengthen the capacity of the Government of Tanzania, NGOs and local communities to develop a comprehensive national REDD Framework, and to implement, monitor and adapt interventions in support of the Strategy, to improve their efficacy. The aim is to ensure actual, lasting, achievable, reliable and measurable emission reductions in a cost effective manner through nationally and locally appropriate approaches. It also seeks to contribute to the reduction of poverty maintain and improve the other ecosystem services that forests provide, including biodiversity.

ONE-UN approach

The Joint programme will use existing modalities for the Joint Programmes and on-going activities in Tanzania to enable rapid initiation of programme implementation and channeling of funds for REDD efforts. The joint programme is part of the Tanzanian Joint Programme on Environment with a focus on Climate Change, land degradation, desertification and natural resource management and is consistent with the "One UN" approach advocated by UN members. Building on existing initiatives and networks in Tanzania will encourage coordinated and collaborative UN support to Tanzania, thus maximizing efficiencies and effectiveness of the organizations' collective input.

The programme will be guided by the five inter-related principles of the UN Development Group (UNDG):

- Human-rights-based approach to programming, with particular reference to the UNDG Guidelines on Indigenous Peoples' Issues
- Gender equality
- Environmental sustainability
- Results-based management
- Capacity development

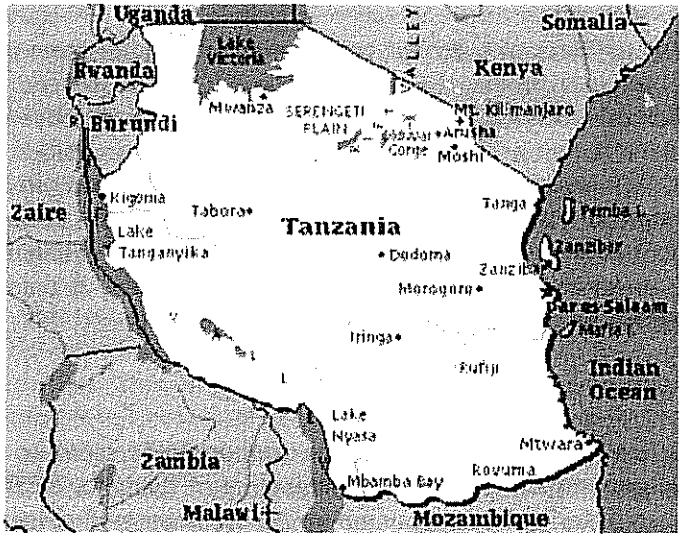
In addition, each UN Organization will:

- Build on its comparative strengths
- Facilitate partnerships, drawing on expertise from a range of national and international organizations acting as executing agencies to ensure well coordinated and timely action

- Actively contribute to coordination and mainstreaming in-country, while avoiding duplication of effort with other REDD initiatives

A number of additional principles will guide the activities of the UN REDD collaboration and the way in which its country-level interventions will be designed:

i) First, in line with the Paris Declaration, the UN-REDD Programme Fund seeks to support programmes anchored in national priorities
ii) Second, the Fund seeks to ensure the sustainability of its investments.
iii) Third, the Fund seeks to apply the highest standards in quality of programme formulation, monitoring and evaluation within a management framework oriented towards results and accountability.
iv) Fourth, the Fund seeks to consolidate inter-agency planning and management systems at the country level.
v) Fifth, the Fund seeks to minimize the transaction costs associated with administering the Fund.



Background on Tanzania

Geography and Climate

The United Republic of Tanzania is located on the eastern side of the African continental mainland, just south of the equator. The country consists of the islands of Zanzibar (240,000 ha) and the Tanzania mainland (94,260,000 ha), which have largely separate administrative and legal frameworks. Geographically the mainland includes a large central plateau of ancient and heavily eroded landforms dating back millions of years, which support various types of woodland habitats. Rising out of this plateau are a series of mountain ranges, each with different histories, but all supporting natural forest, grassland and 'heath' vegetation types. In the far west of the country the Mahale Mountains and associated smaller ranges occupy the margins of the Albertine Rift system that has resulted in the deep depressions of Lake Tanganyika.

In the north a series of large volcanoes arise from the plains, including Kilimanjaro and Meru. Further to the east, in a broad Arc from Kilimanjaro to south-western Tanzania there are a series of uplifted blocks of ancient rocks that form the Eastern Arc and associated Southern Rift Mountains. Along the eastern seaboard of the country is a lower lying coastal plain that is comprised of more recent marine and fluviatile sediments that have been submerged and uplifted over the past 30 million years due to tectonic events associated with the Rifting further west. This coastal margin supports a mosaic of different habitats, ranging from lowland forest to woodland habitat types. In marine influenced areas, mangrove forests are also found – particularly in the Rufiji delta. Zanzibar consists of the island of Unguja – which is an uplifted area of coral reef and marine sediments of low overall relief, and Pemba – which is a block of ancient metamorphic rock with overlain uplifted coral and marine sediments – again with low overall relief. Both formerly supported tropical forest habitats, but have been heavily deforested over millennia.

The climate of the mainland ranges from seasonal tropical, to temperate climates on the larger mountain massifs, and even to Afroalpine on the highest parts of Kilimanjaro. Zanzibar has a tropical moist climate, with the rainfall on Pemba being over 2,000 mm per annum. Across the mainland, most of the country is tropical, with climate influenced by the north and south annual movements of the Inter-Tropical Convergence Zone. This brings rainfall, which varies temporally and spatially according to the location in the country. In some regions there are two rainy seasons (long and short

rains), whereas in others there is one rainy season and a nine month long dry season. In the mountain areas and along the coast rain can fall in all seasons, with some areas being regarded as 'perhumid' or permanently wet.

Socio-economic Context

Tanzania is currently home to over 40.2 million people (CIA, 2008). Over 80% of the population lives in rural areas, in more than 8,000 villages. The urban population is about five million, growing rapidly at seven to eight percent a year against the national average of about 2.8 percent a year. Forests and woodlands are crucial resources for hundreds of thousands of households across Tanzania. Officially, they provide employment for one million mainly rural people and un-officially provide part time occupations for 5 to 10 times more.

Tanzania had a per capita GDP of US$210 in 1997 which was low compared with the average of US$503 for African countries at the time. Since then the economy has improved dramatically, largely driven by exploitation of mineral wealth and tourism, and Tanzanian per capita (PPP) GDP stood at $1,400 in 2008, with real growth rates at 7.1% that year (CIA, 2008).

Despite its natural wealth, Tanzania is one of the poorest countries in the world. The economy depends heavily on agriculture, which accounts for more than 42% of GDP, provides 85% of exports, and employs 80% of the work force. Topography and climatic conditions, however, limit cash crop cultivation to less than 10% of the land area (CIA, 2008). Furthermore, whilst the majority of the population are engaged in agriculture most is only at a subsistence level. Plantation agriculture is uncommon and where it occurs usually lies within the private sector where it is a source of employment to local people, especially in sisal, coffee and tea. The main agricultural products country wide are coffee, sisal, tea, cotton, pyrethrum, cashew nuts, tobacco, cloves, corn, wheat, cassava, bananas, fruits and vegetables. Subsistence level animal husbandry is also common, with cattle, sheep and goats commonly kept.

Silviculture and other forms of forest management are relatively unpractised by the majority of Tanzanians, although that situation is slowly changing as a process of government decentralisation is giving communities greater access to and ownership of forest resources.

As a net importer of oil, electricity and natural gas, Tanzania has to rely on foreign exchange and donor remittances to meet a growing demand for energy. Power cuts are a regular occurrence. As part of its investigation into improving energy supplies the country has been exploring offshore gas potential and has begun to utilise natural reserves. Increased interest in biofuel production has opened the country up to speculation. However there is concern that inadequate legislation may leave agricultural and forested areas unprotected from significant land use change.

Tourism is of crucial importance to Tanzania and represented 17.5% of Gross Domestic Product (GDP) in 2006. Tourism earnings were US $862 million in 2006, an increase of 16% from 2004.

Land Use

About half of the land area of Tanzania is in the form of natural and near-natural habitats, and an approximately equal area is agricultural land of various types. The natural habitat areas are used by semi-nomadic pastoralists such as the Masaai and the Sukuma for extensive grazing by cattle, for hunting of wild animals, and contain an extensive network of reserves of various types. The agricultural lands consist of a mixture of farming systems, depending on the environmental conditions. The vast majority of the farmland is small-holder subsistence agriculture, often involving several crops in a tight mosaic and (where climate is suitable) several crops in a single year. In drier areas only one crop per annum is possible. A smaller part of the farmland area consists of estate agriculture of various types – ranging from tree crops (conifer, teak, eucalyptus), to sugar cane and rice in lowland wet areas, to wheat and sisal in drier regions, and coffee, tea, and pyrethrum in mountain regions.

Wildlife Management

In terms of the future management of African wildlife, Tanzania has a unique position in the continent because of its relatively moist seasonal climate, comparatively low population density in relation to fertile land area, and political stability. Furthermore Tanzania is unique in the high value that it places on wildlife and on the care given to the protection of its natural resources: some 27% of its land surface is currently protected (Murray *et al.*, 2008).

The wildlife sector in Tanzania is managed principally by the State, in a range of levels of protection, starting from National Park (managed by TANAPA), to Game Reserves, Game Controlled Areas and Open Areas managed by the Wildlife Division (WD). Villages have legal rights and a responsibility of land management but do not have rights over wildlife which remains under the management remit of the WD throughout Tanzania.

The Wildlife Policy of 1998 provided legislation to devolve management rights and responsibilities through the Convention on Biological Diversity. This legislation provided the early framework for the creation of Wildlife Management Areas (WMAs), the regulations for which were ratified in 2002. Since that time, the WD has supported the creation of 16 pilot WMAs in association with local government, communities and, in some cases, with the support of NGOs. The government identified WMAs in wildlife-rich areas adjacent to Protected Areas (PAs) in order to devolve management tenure, share wildlife benefits, create a PA buffer and institute more control over wildlife policy. Of the original 16, currently 10 have been gazetted (Murray *et al.*, 2008).

Forest Cover and Forest Types

In terms of forest cover, Tanzania has a total of 33.5 million hectares of forests and woodlands according to the Forest Policy document (MNRT 1998). The total area is divided into a number of different forest types, which are summarized in Table 1, and described below.

Table 1. Forest Area in Tanzania

Forest type	Historical Area	Area 2000
Miombo Woodlands	40% of land area (rough estimate)	Only partial data
Acacia Savanna	No data	No data
Eastern Arc Mountains[2]	1,799,200 ha	353,100 ha
Kenya/Tanzania Mountains	No data	No data
Eastern African Coastal Forests[3]	13,637,900 ha	684,100 ha
Guinea-Congolian forests[4]	Below 1,000,000	670,000 ha
Mangrove forests[5]	No data	108,100 ha
Albertine Rift forests	No data	No data
Southern Rift forests	No data	No data
Itigi Thicket	No data	No data

1- Estimated from landcover maps for Tanzania

2 – (FBD 2005) *Forest Area assessment for the Eastern Arc Mountains.*. Forestry and Beekeeping Division, Ministry of Natural Resources and Tourism, Dar es Salaam. www.easternarc.or.tz

3 – Tabor, Mbilinyi, Kashigali and Burgess (in press). Forest area assessment for the coastal forests (this assumes that all this ecoregion was originally forested). African Journal of Ecology

4 – GEF Cross Borders Project

5 – Wang *et al* 2003. Remote Sensing of Mangrove Change Along the Tanzania Coast. Marine Geodesy, 26:35–48, 2003

Forest types in Tanzania

Tanzania contains a number of different forest and woodland types. These are outlined below, based on the descriptions in Burgess *et al.* (2004a). An indication of their biological values is also provided, and is summarized in Table 2.

Wet Lowland Forest

Moist lowland forest, of the Guinea Congolian Forest type, is found primarily around the shores of Lake Victoria. It forms a part of a larger forest mosaic ecoregion, which covers much of southern and central Uganda. The number of endemic species is not particularly high, although species richness is high for all groups (see Table 2). Biologically the most important parts in Tanzania are the *Podocarpus* swamp forests and associated habitat mosaics of the Minziro area of the western Lake Victoria. Here species more typical of the West and Central African forest zones reach their easternmost limits.

Wet Montane Forests

The wet montane forests encompass parts of four different ecoregions with differing species composition, carbon density, and biological values(Burgess et al., 2004a); the Eastern Arc Mountains, Albertine Rift Mountains, the Kenya-Tanzania volcanic mountains and the southern Tanzania-Malawi Mountains.

The Eastern Arc Mountains run from the North Pare Mountains in northern Tanzania, through South Pare, West and East Usambaras, Nguru, Uluguru, Ukaguru, Rubeho and Udzungwa ranges further south. The biodiversity value of the Eastern Arc, in terms of the total number of endemic species, and the density of these endemics, is exceptional in world terms (Burgess et al., 2007; Table 1). The majority of the endemic species are montane forest specialists, although a few are species of open grasslands and bushlands at higher altitudes.

In Tanzania the Albertine Rift ecoregion is only found as outliers in the Mahale mountains and Mount Kungwe in the far west of the country, close to Lake Tanganyika. The biodiversity importance of the Albertine Rift as a whole is very high in world terms, although the portions of this ecoregion found in Tanzania are not as rich as other parts (see Table 1).

The Kenya-Tanzania volcanic mountains ecoregion includes the highland areas of Ngorongoro, Mountains Meru and Kilimanjaro of northern Tanzania, and Hanang further south. Similar volcanic mountains exist in Kenya. These mountains are only a few million years old and contain fewer endemic species than Eastern Arc or Albertine Rift mountains (Table 1).

The Southern Rift ecoregion is similar to the Eastern Arc, but separated geographically and climatically. There are a number of endemic species (Table 1), which are found in both the montane forests, and the montane grasslands of the ecoregion. The most important areas include Mt Kungwe, the Southern Highlands and the Livingstone Mountains.

Seasonal Coastal Forest and Thicket

Most of this zone is found in the coastal region, where it is termed Eastern African Coastal Forest Mosaic. Here a mosaic of forest and other habitats ranges from northern to southern Tanzania, including the Zanzibar islands. The number of endemic species is exceptional in world terms (Burgess and Clarke, 2000; Burgess et al., 2004b). Biologically, the most important habitats within the ecoregion are the remnant patches of lowland forest, often on raised hills where they can receive slightly higher rainfall. However, there are also endemic species in the grassland and bushland habitats of the ecoregion (Table 1).

Seasonal Miombo Woodland
The vast Miombo woodlands of southern and eastern Tanzania are dominated by trees in the genera *Brachystegia* and *Julbernadia*. There are few endemic species confined to smaller portions of this vast area, although throughout the Miombo woodlands several hundred species of plants area endemic and there are also endemic animals (mainly south of Tanzania) (see Table 1). The main biological importance is the density of large mammals.

Seasonal Acacia Savanna
Savanna habitats are found in from east of Kilimanjaro to coastal Tanga, and along the border with Kenya. An elongate tongue of this habitat also extends as an arid corridor as far southwest as Ruaha National Park through the central part of Tanzania. There are relatively few endemic species in this ecoregion (see Table 1), but these habitats support a high density of large mammals.

Forest Monitoring Capacity in Tanzania

Tanzania has some capacity to monitor forests extent and condition, and there are groups working on these issues already. Foremost amongst these are the Sokoine Univesity of Agriculture (Department of Forestry and Nature Conservation and the GIS and Remote Sensing Laboratory), and the University of Dar es Salaam (Institute of Resource Assessment). Both places have GIS and remote sensing capacity and have been involved in efforts to monitor changes in forest cover over time. Both have also been involved with projects that have been collecting field data on forests and especially the condition of forest habitats. This provides a good basis for implementing the technical elements of the REDD programme in Tanzania.

Biodiversity Values

Tanzania is a globally recognized storehouse of forest biodiversity. At the large scale, the country includes parts of two distinct *forest-based* global biodiversity "hotspots". These are the Eastern Afromontane Hotspot – and three of its constituent components; a) Eastern Arc Forests (95% in Tanzania), b) Albertine Rift Forests (5% in Tanzania), c) Kenya / Tanzania Highlands (20% in Tanzania) and the Coastal Forests Hotspot – that is shared with Kenya and Mozambique (40% in Tanzania) (Mittermeier *et al.*, 2004; Mittermeier *et al.*, 2005). The Miombo and Acacia woodlands of Tanzania are also parts of high biodiversity wilderness areas supporting some of the most intact assemblages of megafauna on the planet. These large animals which define the African landscape and which require intact ecosystems for their conservation can be defined as:

- large herbivores (e.g. elephant, rhino, hippo, giraffe, buffalo);
- migratory plains game (e.g. zebra, wildebeest, eland, gazelle);
- large predators (e.g. felids, canids, hyaenids, crocodile, python);
- large/migratory avifauna (e.g. vultures, raptors, ostrich, bustards, cranes, storks).

The biological values of the different forest ecoregions in Tanzania are summarized in Table 2, using data derived from Burgess et al. (2004a). This shows that all these forest types contain high species richness for major vertebrate and plant groups, but that endemism is concentrated in the mountain and coastal forest habitats, whereas the majority of the values for large mammals are found in the miombo and acacia woodland habitats.

Table 2. Species richness and species endemism in the main forest ecoregions found in Tanzania (from Burgess et al. 2004).

Ecoregion Name	Bird Richness	Bird Endemics	Amphibian Richness	Amphibian Endemics	Reptile Richness	Reptile Endemics	Mammal Richness	Mammal Endemics	Invertebrate Richness **	Invertebrate Endemism **	Plant Richness **	Plant Endemism **	Vertebrate Richness	Vertebrate Endemism	Migratory Phenomena	Notes
Albertine Rift Montane Forest	700	30	65	33	130	11	220	25	H	H	H	H	1100	99		A
Kenya-Tanzania Montane Forest	600	4	17	2	62	10	180	8	H	VH	M	L	850	24		B
Eastern Arc Forest	540	15	80	25	85	27	160	6	H	VH	VH	VH	860	73		C
Southern Rift Forest / grassland mosaic	485	15	48	5	46	14	159	4	L	H	H	M	738	38		D
Coastal Forest Mosaic	550	11	55	3	192	40	170	8	H	H	VH	H	970	60		E
Guinea-Congolian Forest Mosaic	600	1	30	2	110	3	210	3	H	M	H	L	960	9		F
Acacia Savanna	590	2	17	0	90	3	180	0	H	L	H	H	880	5	GO	G
Miombo Woodland	690	2	85	13	190	19	230	2	M	L	M	H	1200	36	GO	H

** VH=very high; H=high; M=medium; L=low; GO=Globally important for migrations.

A = Most of the endemics for this ecoregion are found in Uganda, Rwanda, Burundi and DRC. Only around 10% of the species are found in Tanzania.

B = Some of the endemics for this ecoregion are found in Kenya (Mt Kenya) and Uganda (Mt Elgon). Around 50% of the species are found in Tanzania.

C = Almost all of these endemics are found in Tanzania (only few in Taita Hills of Kenya). Around 95% of the species are found in Tanzania.

D= Some of the species in this ecoregion are found into Malawi

E = Some of these endemics are also found in Southern Kenya coastal area. Around 90% of the species are found in Tanzania.

F = Some of the few endemics in this ecoregion are found in Uganda. Around 90% of the species are found in Tanzania.

G = These endemics are all found in Tanzania.

H= Most of the endemic species are found outside Tanzania as this is a huge ecoregion

Goods and Services Provided by Tanzanian Forests

Whilst forests and woodlands cover around 40% of the total land area they support the livelihoods of 87% of the rural poor (Milledge *et al.* 2007). With such levels of engagement in forests by rural people, Tanzanian forests provide a variety of goods and services.

Timber for construction and export

Approximately 75% of construction material used in Tanzania derives from forests (Milledge *et al.* 2007), and the construction industry has been the fastest growing sector of the national economy in recent years. Construction of local furniture, doors, window frames, and other household items is largely based on the use of pitsawn hardwood timber from natural forests. Much of this timber comes from forest and (especially) woodland areas on village lands; some of this exploitation is legal according to official licenses (Milledge & Elibariki, 2005). The natural forest in almost all Tanzanian Forest Reserves are also being exploited either legally (if they are production reserves), or illegally (if they are protection reserves). Some timber harvesting is also reported to be taking place in other forms of protected area, for example in remote areas of some Game Reserves or even National Parks. A controversial expansion of export of round wood of native hardwoods in the early 2000s provided a rush to log areas within reach of a deep water port, and generated significant economic benefits for a few, but this form of export has now been banned (FBD, pers comm.). Industrial plantations, covering around 90,000 ha, are increasingly important as sources of treated softwood that is used for local construction and for export. Further expansion of the plantation forest estate is underway.

Non-timber forest products

A wealth of non-timber forest products are also extracted from the Tanzanian forests, including a huge trade in charcoal burned from woodland and coastal forest habitats and transported to towns for use as a cooking fuel, and the collection of fire wood and building poles from woodlands and forests to provide fuel for cooking and house construction materials in the rural areas. As an example of their importance, forests in Tanzania are estimated to provide over 90% of the overall national energy supply through fuel wood and charcoal (Milledge et al. 2007), with the amount of wood fuel collected being estimated as over 30 million m^3 per year (Government of Tanzania National Bureau of Statistics). Moderately good data are available on the scale of the charcoal trade and its impacts on woodlands and forests, and there is also more patchy information on timber trade, pitsawing, firewood collection and building pole collection. Much of the available data comes from the eastern part of the country, within 200 km of Dar es Salaam, which is a major centre of demand for woody products. However, similar demands are known across the border to Kenya, and within large cities such as Mwanza, Arusha and Moshi.

Water Supply

A non-use benefit of some types of Tanzanian forests is their role in smoothing annual water flows, and even capturing additional moisture from clouds that augments rainfall. These primarily high mountain forests provide a source of reliable running water which flows throughout the year, even in the long dry season. This is an important ecological service in a dry country like Tanzania. Other types of forest (miombo woodlands, acacia savanna, coastal forests, lowland wet forests) generally use more water in evapo-transpiration than they supply back into the system; although this is less important in the woodland habitats as the trees drop their leaves and become dormant in the dry season. The important role of the mountain forests in providing a reliable source of clean water supply is utilized by both the hydroelectrical power industry, and by many major towns and their population and industries. For example, nearly 70% of the power supply in Tanzania is derived from hydropower (Mwalavanda pers comm.), and the dry season flows maintaining power delivery were derived from mountain forest areas. In addition, up to 20% of the 40.2 million people in the country also get their dry season water supply from rivers maintained by run off from forested highland areas. The situation is similar for the major industries, water bottling companies and brewing companies in Dar es Salaam, Morogoro, Moshi, Arusha, Iringa, Mbeya and Tanga.

Carbon storage

Tanzanian forests also store carbon in their biomass, and in their soils and leaf litter. The different forest types contain highly variable quantities of carbon based on variables such as size and density of trees, the density of the wood, the degree of degradation and the amount of elevation. The available knowledge on Tanzanian forest carbon is summarised later in this proposal as it forms the crux of the REDD framework.

Other services

Forests also provide a diversity of other non-use products, or ecosystem services. These range from provision of areas where tourists can see a diversity of animals and plants, including rare and endemic species. Forests also provide a wide range of cultural services and traditional values. Some of the key issues on the role of forests in rural livelihoods are summarised in Byron & Arnold (1997), of which three key elements are summarised as follows (Harrison, 2006).

With regards to the importance of forests to livelihoods:

> *For millions of people living in forest environments, the forest forms such a dominant part of their physical, material, economic and spiritual lives that its importance is not most appropriately described and assessed in terms of the individual products or services that the forest provides.*

On the use of forests and forest products to supplement nutritional and medicinal needs:

> *Forests and forest trees are the sources of a variety of foods, that supplement and complement what is obtained from agriculture, of fuels with which to cook food, and of a wide range of medicines and other products that contribute to health and hygiene.*

With regards to the use of forest products to meet seasonal food shortages:

> *Forest foods are most extensively used to help meet dietary shortfalls during particular seasons in the year. Many agricultural communities suffer from seasonal food shortages, which commonly occur at the time of year when stored food supplies have dwindled and harvest of new crops is only just beginning.*

Forest Management in Tanzania

The management of Tanzanian forests dates back to the German and British colonial periods where they were mainly focused on the establishment of reserves and the planting and management of plantations of exotic tree species. Forest Policy and laws were developed by the Colonial administrations and remained in force into the 1980s. Since the early 1990s the Tanzanian government with the assistance of the international community has modernized its entire legislative framework with respect to forest conservation and management, seeking to reduce unplanned deforestation, stem forest degradation and implement sustainable forest management.

The first National Forest Policy of Tanzania was established in 1953 and reviewed in 1963. The Government of Tanzania then formulated a new national forest policy in 1998. It accommodated community involvement in conservation, such as through policy statement 39:

> *'Local communities will be encouraged to participate in forest activities. Clearly defined forest land and tree tenure rights will be instituted for local communities, including both men and women.'*

Several major policies to support Forest Management in Tanzania have been put in place in the past decade. A list of the relevant policies is presented below. Foremost amongst these has been the Forestry Policy (1998), which was operationalised through the Forest Act No. 14 (2002) and the National Forest Programme (2001). These policy and legal documents have been accompanied by regulations and guidelines, including a major effort to involve communities in forest management through the promotion of Participatory Forest Management across both Forest Reserves and forest on village lands.

In addition to changes in the policies, laws, programmes, regulations and guidelines relating to the forest sector - there has also been a significant modernization of all other elements of the Tanzanian legal framework. Broadly these changes have promoted a market economy and decentralisation to the District as the operational unit of government and to the village for the actual implementation on the ground. There has also been a strong thrust to reduce poverty at all levels, culminating in the operationalisation of the Tanzanian Strategy for Economic Growth and the Reduction of Poverty (MKUKUTA).

The policies and relevant Acts that pertain to forest management and the operationalisation of REDD in Tanzania are as follows;

- Forest Policy 1998 (under review) and the Forest Act No. 14 of 2002;
- Beekeeping Policy 1998 and Beekeeping Act No. 15 of 2002;
- Land Policy 1999
- Environmental Policy 1997
- National Development Vision 2025
- National Forest Programme, 2001
- National Beekeeping programme, 2001
- National Land use plan and Village land-use Plans;
- Poverty and Business Formalization Programme (MUKURABITA)
- The National Strategy for Growth and Reduction of Poverty (NSGRP) MUKUKUTA
- Agriculture and Food Security Policies;
- Livestock Policy and Legislation;
- Water and Irrigation Policies;
- Village Land Policy (1999) and Village Land Act (1999);
- Wildlife Policy (revised 2008) and Wildlife Act (under review)
- Energy Policy and legislation;
- Mining Policy and Legislation;
- The Road policy and Legislation;
- The National Investments Policy;
- Eastern Arc Mountain forests Conservation Strategy (2008);
- Tourism Policy (2008) and Tourism Act (2008).

Forest Management Administration

Tanzania has two separate administrations for forest conservation and management, namely mainland Tanzania and the Zanzibar Islands. The systems of forest management in these two administrations are described below.

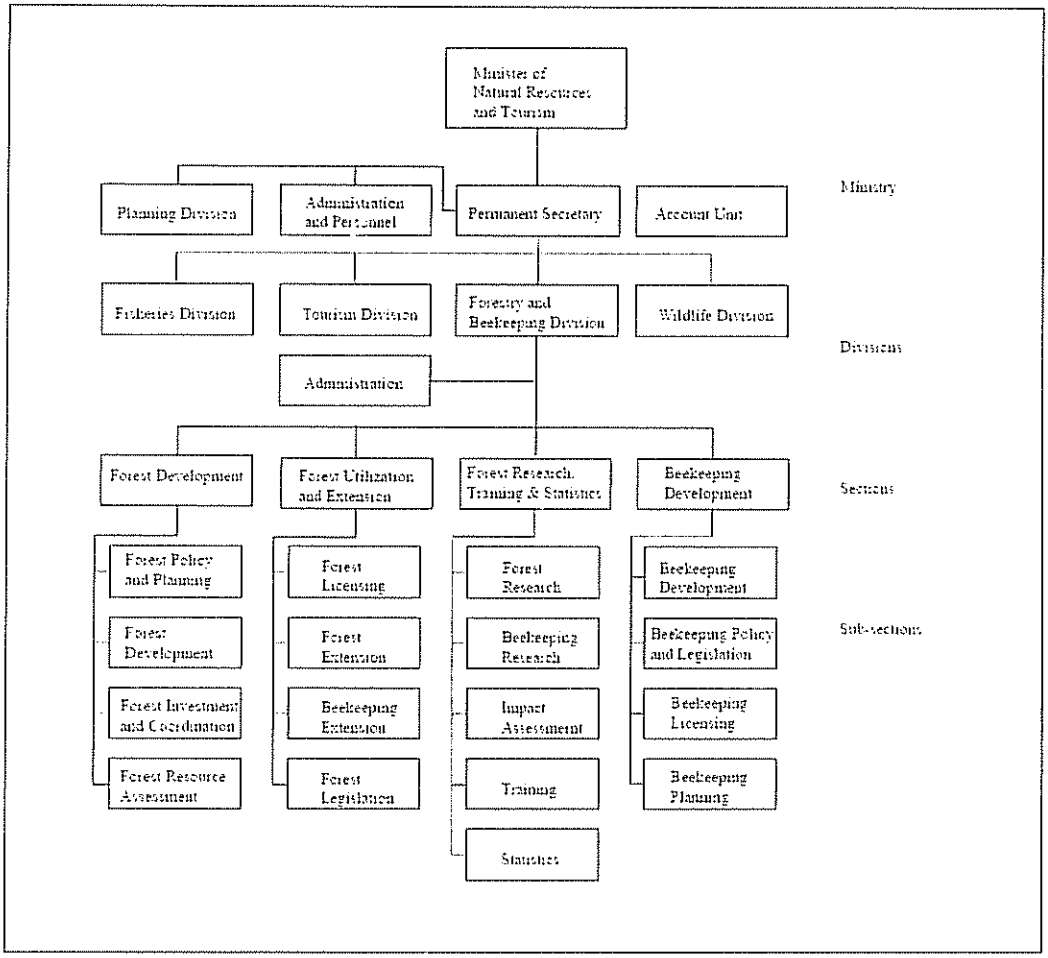
Tanzania Mainland

Within the mainland there are two parallel systems for forest management. One is primarily concerned with the protection of habitat and species; the other is primarily concerned with forest production. In total around 27% of the land area of Tanzania (almost 28 million ha) is within some form of protected area. The total area of forest in the country is 33 million ha. Further detail on the distribution of this forest within and outside reserved lands is provided below.

Central Government. The central government owns and manages a network of protected areas and other reserves, for the purposes of species and habitat conservation and the provision of ecosystem services (timber, non-timber, water). The gazetted reserve network includes around 650 national sites in several management categories operating under different institutional jurisdictions. The categories are (in declining order of conservation focus): National Parks, Forest Nature Reserves, Game Reserves, the Ngorongoro Conservation Area and Forest Reserves[2].

[2] The security afforded to natural resources varies between reserve categories. At the better protection level: National Parks require an Act of Parliament to degazette, and permit no extractive use. Forest Nature Reserves require notification in Parliament before the Minister can degazette, and allow no extractive use. Game Reserve denotification needs noting in Parliament; tourist hunting is permissible. At the lower

Figure 2: Diagram Illustrating Structure of the Ministry of Natural Resources and Tourism



Source: Milledge et al, 2007

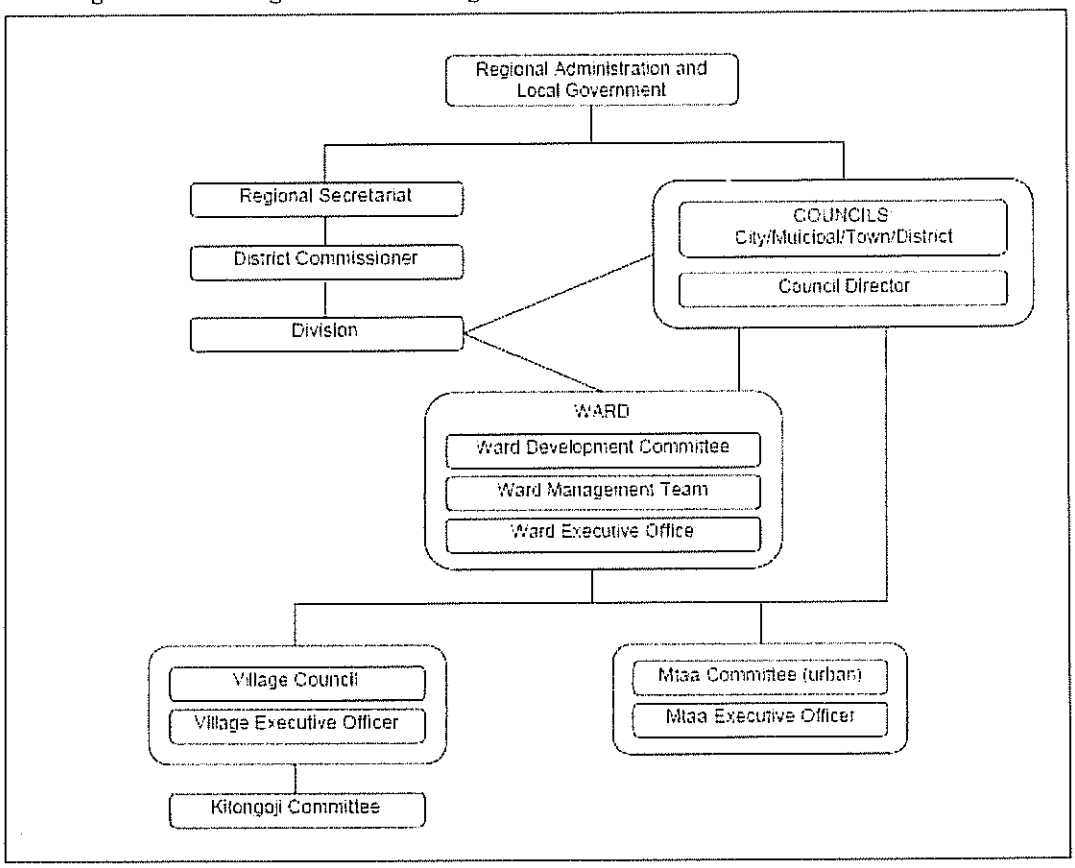
The Forestry and Bee-keeping Division of the Ministry of Natural Resources and Tourism, is responsible for managing for conservation 4 Forest Nature Reserves and 250 'Catchment' Forest Reserves, which cover about 1.6 million ha of mainly mountain forest. An increasing proportion of these reserves are managed in collaboration with surrounding communities. A further 90,000 ha of land in 10 Forest Reserves are managed by FBD as industrial plantations of exotic tree species. The Wildlife Division of the Ministry of Natural Resources and Tourism manages 32 Game Reserves that cover 11.5 million ha of Tanzania. Most of these support miombo or acacia woodland habitats. The Tanzania National Parks Agency (TANAPA), a parastatal, manages forest and woodland within its 14 National Parks that cover 1.8 million ha of land. The Ngoronogoro Conservation Area manages a single reserve covering 829,000 ha. Around 100 of the protection reserves meet the IUCN definition of a protected area (National Parks, Game Reserves, Nature Reserves and some of the mountain 'Catchment' Forest Reserves), but others have not yet been assessed against the IUCN protected area categories and their assignation as 'protected areas' is problematic. The management structure of the central government reserve system is outlined in Figure 1 (from Milledge *et al.* 2007).

Local Government. The Regional and Local governments of Tanzania fall under the Prime Ministers Office for Regional and Local Government, which is entirely separate to the government structure for managing central government reserves. Beyond the appointed figurehead of the District Commissioner, district government is managed by the District Executive Director (DED), part of the Executive branch of government that stretches down to village level. Under the DED are specific

end: Forest Reserves can allow any forest practice from complete protection to clearance of natural forest and replanting with exotic tree species in plantations, and may be degazetted by the Minister of Natural Resources and Tourism. Forest Reserves are administratively categorized into protective or productive reserves; many are managed by Districts on behalf of the central Government.

departments under which the business of district government is divided. Each department is manned by officials who specialise in the field of operation. Each of the departments has their work and targets scrutinised by the District Council which comprises of individual councillors, each of whom is voted in by the electorate to manage individual wards. Each ward governs typically two to four villages. Of most relevance to the REDD framework is the District Natural Resources Office which is usually divided into District Forestry, Fisheries and Wildlife offices, each with an officer at their respective helms (Figure 3).

Figure 3: Diagram Illustrating Structure of Regional and Local Government



Source: Milledge et al, 2007

The districts also manage a network of Forest Reserves. In 1977, former central government Forest Reserves that were considered to have no significant national catchment or timber values were passed to district administrations to manage as part of Tanzania's decentralization process. Other Forest Reserves gazetted as Local Authority Forest Reserves have always been intended for district management. In total these district-managed Forest Reserves cover around 11 million ha of land in about 400 Forest Reserves. District authorities also issue timber harvesting licenses for non-reserved forests and woodlands within their district, potentially across a total of around 20 million ha of forest lands. There is also an increasing number of Village Forest Reserves, with 2006 data indicating that these management approaches cover 3.6 million ha of forest land distributed across 1788 villages nationally. Village based Wildlife Management Areas are also expanding and cover extensive areas of forest land. Village governments increasingly take control over the management of the forest resources within their boundaries, displacing the control of the Regional and Local authorities, as a further element in the Tanzanian decentralization process.

Zanzibar

Zanzibar has a separate Forest Agency: "The Department of Commercial Crops, Fruits and Forestry" with its own policy, legislative and funding processes. Whilst responsible for administering terrestrial

National Parks, the Department does not function as a Protected Area Authority *per se* and lacks the mandate/capacity to administer new Protected Areas effectively.

There are three main forest reserves in Zanzibar including Jozani (5,000ha), recently promoted to a National Park, and Kiwengwa (3,000 ha) which is under the process of gazettement. The forest reserves in Pemba include: Ngezi Nature Reserve (2,900 ha) and Msitu Mkuu Forest Reserve (200ha). There are also other patches of forests such as Muyuni, Ufufuma, Ras Kiuyu which are community managed. In addition to natural forests there are about 20,000 ha of mangroves, chiefly found at Chwaka bay, Kisakasaka, Mkokotoni and Mpiga Duri (Unguja Island) and Michweni, Mkoani and Chake Chake on Pemba Island. Outside of these reserves there is little natural forest habitat remaining as most land is either used for farming, tree cropping, human settlement or is rocky.

The Department of Commercial Crops Fruits and Forestry has the following stated responsibilities[3]:

- To protect, conserve and develop forest resources for the social, economic and environmental benefits of present and future generations of the people of Zanzibar.
- To encourage the farmers to produce enough and good quality crops especially fruits and spices for home consumption and export.
- To protect and conserve the germplasm of Zanzibar.

The Department is composed by the following notable sections: Administration and Good Governance; Planning; Nurseries & Seedlings Production; Resources Management and Marketing; Forests & Rubber Plantations (The Department owns six forest plantations in Unguja and Pemba with the total area of 8,623 ha., and there are 1,270 ha of rubber plantations in the isles which are currently leased to a private company); Commercial Crops & Fruits (eight plantations plus a number of small plots for commercial crops); and Conservation and Development.

The Conservation and Development section is responsible for the protection of the remaining natural forests in Zanzibar and for protecting all wildlife species and their habitats with emphasis on endemic and endangered species by promoting community participation in the management of forest resources.

Forest Management Approaches

Reserved Lands (Protected Areas and other kinds of reserves)

At the simplest level, the national government and the private sector owns and manages a network of reserves and estates that contain large areas of forest and forest carbon, but deforestation rates are typically low in these areas of land (although degradation can be significant). Table 3 outlines the various types of reserves (and non-reserved lands) in Tanzania, many of which do have potential for REDD interventions.

Table 3: Forest Management Categories in Tanzania. Source: Harrison, 2006.

[3] http://www.dccff.com/index.html

Forest Categories	Description
National Park, Game Reserve	Protected areas typically established for wildlife conservation, but often containing large areas of forest and woodland habitats.
Nature Reserves	The highest category of forest protected area (new category), does not currently allow human consumptive activities, may have joint agreements (Government and Communities), can have some zonations for special purposes (e.g. traditional or sacred)
Central Government Forest Reserve	Forest Reserve under the mandate of the central government and can be managed jointly under JFM, forms the major category of Productive and catchment forests, some are managed by District councils with guidance from FBD, others are major forest biodiversity reserves.
Local Authority Forest Reserve	Under the mandate of local government (e.g. District councils), can be production or catchment and may have joint agreements with communities under JFM

Forest Categories	Description
Private Forests	Forest under lease and management by a private company, may be a licensed plantation, may harvest exotic species
Village Land Forest Reserve	Found within village land, managed by village government and a natural resources committee. It can be a productive or protective forest, and is managed under the process of CBFM instigated by the FBD.
Village land	This is land under village government (Village land act 1999 section 7), Can have an approved land use plan which may have multiple uses such as grazing, agriculture, schools, living areas and so forth. In reality many villages do not yet have approved land use plans

Participatory Forest Management

Tanzania has been a leader of community forestry in Africa (Blomley, 2006). Since its inclusion in the National Forest Policy in 1998 and the Forest Act of 2002 and subsequent regulations, Participatory Forest Management (PFM) has become a central part of the country's approach to forest management. The PFM programme which began in the mid nineteen nineties with a handful of pilot projects, is now operational in 53 districts in mainland Tanzania, out of a total of 126 (Blomley et al. 2008).

Enabling legislation for the new policy was passed with the new Forest Act of 2002. This provides the legislative foundation for the implementation of Participatory Forest Management (PFM) in Tanzania (MNRT, 2001). This act "provides a clear legal basis for communities, groups or individuals across mainland Tanzania to own, manage or co-manage forests under a wide range of conditions." (FBD, 2006)

The objective of PFM is sustainable forest management through management or co-management of forest and woodland resources by the communities living adjacent or amongst the forest (Harrison, 2006). PFM may be applied to forests that require full protection, typically catchment forests, or to forests that can be productive under a sustainable harvesting regime, or a combination of the two with management zones. The Tanzanian Government has adopted a definition of PFM based on work undertaken by the FAO, namely:

> *"The arrangements for management that are negotiated by multiple stakeholders and are based on a set of rights and privileges recognized by the government and widely accepted by resource users; and the process for sharing power among stakeholders to make decisions and exercise control over resource use"*

Tanzanian law recognises two categories of PFM:

Joint Forest Management (JFM)

JFM allows communities to sign joint forest management agreements with government and other forest owners (FBD, 2006). JFM is applicable where there is a pre-existing local or central government forest reserve. In this instance the forest adjacent communities enter into a Joint Management Agreement with the appropriate reservation authority to share management responsibility and benefits accruing. JFM allows greater governmental control over the resource, for instance of there is a lack of capacity within a community to manage the resource alone. It is criticized for not offering sufficient benefit-sharing to the communities involved (Harrison, 2006). Revenues are reported to be negligible, as they are only made from penalties taken from those caught carrying out unauthorized activities in the forest, which requires management, patrolling and admission of guilt. Typically, JFM has been promoted in Central Government 'catchment forests' ahead of CBFM because of the high level of biodiversity within these forests and the oft-perceived greater risks of deforestation and risk to and water catchments where communities are sole managers.

Community-Based Forest Management (CBFM)

CBFM enables local communities to declare and gazette village, group or private forest reserves (FBD, 2006). CBFM is used to refer to cases where there is no pre-existing forest reserve which must be taken into account. Here communities decide to reserve a part of their village lands as a VFLR. Upon provision of an acceptable Village Forest Management Plan (VFMP) including following the implementation of byelaws and a resource assessment, control and ownership of all the forest resources within is devolved to the village government. In practice the process is slow. A lack of perceived financial incentives for individual community members, both short and long term is blamed for the slow implementation of CBFM, as well as delays in bringing donor funding to an implementation level (Harrison, 2006).

Community Based Natural Resource Management (CBNRM)

In Africa, conservation practitioners have long been aware that problems faced by wildlife and forest managers are more related to socio-economic issues than biological ones (Murray *et al.*, 2008). In Tanzania the Wildlife Policy of 1998 provided legislation to devolve management rights and responsibilities through CBC. This legislation provided the early framework for the creation of Wildlife Management Areas (WMAs). However, the development of WMAs has been slow and with limited successes to date. The Forest Policy of 1998 led to participatory Forest Management which has yielded a more effective and collaborative response than its wildlife equivalent, and has lead to a significant development of various forms of participatory forest management.

Problem Analysis for REDD in Tanzania

Context

The area of forest is declining in Tanzania. The latest estimation of the deforestation rate nationally is 91,200 ha per annum (FAO 2007). More detailed deforestation rates are available for some specific forest types in Tanzania; for example in the Eastern Arc Mountains and the lowland Coastal Forests, where rates of deforestation have been calculated from 1990-2000, and are currently being updated to 2005 (Table 4). In general the closed canopy forest habitats declined quite slowly (-1 to -7%) over the period 1990-2000, whereas miombo woodlands declined more rapidly (-13%). To some extent the slower rate of decline in the former is because most such areas have either been cleared already, or are protected in reserves. More miombo is unprotected and hence rates of loss are higher. Several forest types in Tanzania have no reliable estimate of their area, or rate of loss of area. This is clearly an important additional piece of knowledge to be acquired to support the REDD process in Tanzania.

In terms of degradation, it is estimated that over 500,000 hectares of forests and woodlands especially in general lands are degraded annually (National Forest Programme 2001). Various studies have also been

conducted in the levels of degradation to Eastern Arc and lowland Coastal Forests, resulting in a database of 2,800 forest plots and 500 km of disturbance transects from over 50 sites; these data are in the process of being analysed to assess levels of forest degradation and to develop a model of degradation for eastern Tanzania. Considerable further effort is required to develop a proper understanding of the level of degradation to the woodland and forest resources of Tanzania, and the impacts of that degradation on carbon storage. Such work is included within this UN REDD project.

Table 4. Rates of forest loss in the main forest types of Tanzania 1990-2000 (where known)

Forest type	Area 1990	Area 2000	Percentage loss (%)
Miombo Woodlands[1]	Only partial data	Only partial data	-13%
Acacia Savanna	No data	No data	
Eastern Arc Mountains[2]	355,000 ha	353,100 ha	-1 %
Kenya/Tanzania Mountains	No data	No data	
Eastern African Coastal Forests[3]	704,200 ha	684,100 ha	- 7 %
Guinea-Congolian forests	No data	670,000 ha	
Mangrove forests[4]	109,500 ha	108,100 ha	-2 %
Albertine Rift forests	No data	No data	
Southern Rift forests	No data	No data	
Itigi Thicket	No data	No data	

1- Data from a partial sample of miombo in Eastern Tanzania (FBD 2005) *Forest Area assessment for the Eastern Arc Mountains*.. Forestry and Beekeeping Division, Ministry of Natural Resources and Tourism, Dar es Salaam. www.easternarc.or.tz

2 – FBD 2005 (ibid)

3 – Tabor, Mbilinyi and Kashigali (in prep). Forest area assessment for the coastal forests (this assumes that all this ecoregion was originally forested)

4 – Wang *et al.* 2003. Remote sensing of mangrove change along the Tanzania coast. Marine Geodesy, 26:35–48, 2003

Carbon Storage

The amounts of carbon stored in the various forest types in Tanzania are partly known, and are the subject of a number of ongoing research projects, mainly working from the Sokoine University of Agriculture (SUA). Examples of the mean values of tons of carbon per hectare of habitat from the available studies are as follows: Miombo woodlands; 87 tons carbon per hectare, Eastern Arc Mountain forest; 306 tons carbon per hectare, East African coastal forests; 157 tons carbon per hectare. Estimates are not available for *Acacia* savanna, Kenya/Tanzania volcanic mountain forests, Guinea-Congolian forests, Albertine Rift foreests, Southern Rift forests, Itigi Thicket or Mangrove forest.

Carbon loss through deforestation

Tanzania does not have the data to allow carbon loss through deforestation to be calculated for each of its various forest types. Only one of the main forest types has been analysed sufficiently to make such and estimation, which is a clear knowledge gap that needs to be addressed.

In the Eastern Arc mountains remote sensing of forest loss tied to estimates of carbon content for various forest types, shows that deforestation over the past 20 years has resulted in the loss of 34 million tons of carbon from these mountains (FBD 2007). Much of this loss was from the unprotected woodlands and forests outside the network of protected areas; rates of deforestation within the reserves being insignificant. Some similar calculations are possible for the coastal lowland forests

where deforestation rates are known (Table 5) and estimates of carbon stored in different tree species are available.

Carbon loss through degradation

There is not much data across Tanzania on the impacts of disturbance on carbon storage. This is a clear knowledge gap that needs to be addressed. Detailed assessments of levels of degradation and some of the likely impacts on carbon storage are available for the Eastern Arc Mountains and lowland coastal forests, and for a few areas of miombo woodland (Table 5). These indicate that degradation processes in the Eastern Arc forests, for example, can reduce the carbon storage from 300 tons per hectare in pristine forest, to under 100 tons per hectare in degraded forest (FBD 2007). Across the Eastern Arc Mountains this equates to a potential loss of 66 million tons of carbon from reserves, which might be regained, if the reserves were better managed. Degradation reduces carbon storage in coastal forests from 157 to 33 tons per hectare (FBD 2007), and in woodlands from 87 to 33 tons per hectare (FBD 2007). For some other forest types there are no available data on the impacts of degradation on the carbon storage.

Table 5. Impacts of degradation on the carbon stored in Tanzanian forests (stem, branches, and roots – not soil carbon).

Forest type	Carbon in pristine forest (tons/ha)	Carbon in heavily degraded forest (tons/ha)	Loss through degradation (tons/ha)
Miombo Woodlands	87	33	54
Acacia Savanna	No estimates available	No estimates available	-
Eastern Arc Mountains	306	83	223
Kenya/Tanzania Mountains	No estimates available	No estimates available	-
Eastern African Coastal Forests (Dar to Rufiji)	157	33	124
Guinea-Congolian forests	No estimates available	No estimates available	-
Mangrove forests	No estimates available	No estimates available	-
Albertine Rift Forests	No estimates available	No estimates available	-
Southern Rift forests	No estimates available	No estimates available	-
Itigi thicket	No estimates available	No estimates available	-

All data from: FBD, 2007. *Carbon Ecological Services*. Forestry and Beekeeping Division, Ministry of Natural Resources and Tourism, Dar es Salaam. www.easternarc.or.tz

Carbon gains through sequestration

The rate of sequestration of carbon by the various forested habitats in Tanzania is not well known. However, studies are being undertaken within the miombo woodlands and Eastern Arc Mountains (by SUA), to assess rates of carbon sequestration in these different habitats, at different altitudes, and under various climatic regimes. Preliminary results will be available during 2009. Other work has shown that Agroforestry has the potential to sequester 2 to 5 tons Carbon per hectare per year, while the rehabilitation of degraded land can sequester 0.25 to 0.9 tons Carbon per hectare per year. A new study across the forests of Africa calculates an overall increase of 0.29Pg C/ha/yr, but it may be slightly lower in the Eastern Arc Mountains (Lewis et al., 2009; Marshall, pers com).

Carbon in reserves

An unpublished study by the Valuing the Arc Progamme (www.valuingthearc.org) suggests that about 35% of the carbon in the eastern half of Tanzania is found within protected areas and other forms of reserves. The highest carbon density is found in Forest Reserves and Forest Nature Reserves that are managed by FBD. The same work indicates that carbon storage in reserves has been significantly lowered by degradation, and hence that the reserve network could sequester large amounts of additional carbon if there was better management effectiveness in place.

A more detailed assessment within a single forest type shows that across the Eastern Arc mountains, around 91.7 million tons (of a total 151.7 million tons of carbon) are found in the existing reserves (FBD 2007). As some proposed Forest Reserves that are *de facto* protected were not included, a more plausible estimate is that >100 million tons of carbon are stored within the reserve network of the Eastern Arc (60 % of total carbon stock).

Against this general background of incomplete knowledge and a lack of compiled data from existing studies, there is an urgent need to conduct further detailed assessments on the current carbon stocks and the potential of Tanzania's forests to participating in the carbon trade and to benefit the country's economy.

Underlying Causes of Deforestation and Forest Degradation

The underlying causes of deforestation in Tanzania are mainly related to the needs of an expanding human population that remains poor and dependant on natural resources, and the national needs to earn foreign exchange to fund national development and debt repayments. The root cause threats for deforestation and degradation have been assessed and are outlined below (Table 6).

Table 6. Root causes of deforestation and degradation in Tanzania

Root Cause Threat categories	Scope and Scale of threat
Smallholder agricultural expansion	Small holder agriculture covers up to 50% of the country, and is expanding in line with human population growth. Forest land is cleared for agriculture by hand and fire is used to clear cut woody material, and crop residues. These fires often spread into natural habitats, increasing fire incidence above background levels, impacting on forest and woodland areas.
Energy needs	Urban people primarily cook using charcoal burned from miombo woodlands and coastal forest habitats. This is a major deforestation and degradation driver in the regions around major towns. In the rural areas people cook (and where necessary keep warm) using firewood cut from natural forest. This is another major sources of degrading pressure on remaining forests. The hydroelectical power companies are also somewhat dependant on the clean water flowing from intact mountain forests. Deforestation causes water to become muddy (which is bad for turbines) and seasonal (which is bad for reliable supply).
Plantation development	As the private sector becomes more established in Tanzania, and international investors find ways to operate in the country, plantation agriculture is being rehabilitated and is expanding. Major plantations of sisal, rice, wheat, and (especially) biofuel crops are underway. Many of these plantations remove existing high carbon natural vegetation and replace it with low carbon crops. An exception is the private tree plantations that are emerging in some areas, but these are not relevant to the REDD mechanism as that only addresses natural forest areas.
Building materials	Wood is used extensively as a building material in Tanzania. Timber and building poles in particular are extracted from forests and woodlands, and often transported to urban areas – or even out of Tanzania. Both uses, if undertaken unsustainably, degrade natural forest areas and reduce standing biomass and hence carbon content of the forest.

Underlying these root cause are more intractable issues, ranging from weak and corrupt governance structures, complex and insecure land tenure systems, poorly developed costs and benefit sharing mechanisms, and deeply rooted poverty and lack of opportunities out of poverty and the reliance on exploiting natural resources to survive.

Main Areas of Deforestation and Degradation

There is no national assessment of the main areas of deforestation and degradation in Tanzania. However, the combined field experience of the UN Team developing this proposal can make the following observations based on some level of certainty:

Tanzania is experiencing deforestation into habitats on good to moderate soils with reasonable rainfall patterns and where there is a good potential for agriculture. In the Eastern part of the country at least there is a systematic movement of people from already heavily populated areas (such as the mountains) to some of the more suitable lowland areas. For example people are being encouraged to move to Handeni District, Rufiji and Kilwa District in the coastal area. This includes people aiming to establish small scale subsistence farms, and also people setting up large plantations. Whether this holds true for the entire country is unknown, although similar trends are seen around Moshi and Arusha in the north.

It is likely that past, present and future trends in forest loss can be modelled as a function of population expansion, soils, rainfall, existing agriculture, and accessibility.

Main Forest Types Suffering Deforestation and Degradation

Examples are provided below on the threats and drivers of deforestation and degradation in Tanzania's main forest types, starting from those which have been most thoroughly investigated.

Eastern Arc Mountains. In the Eastern Arc detailed planning processes have determined the major threats to thee forests to be uncontrolled fire, conversion of natural habitats to agriculture, illegal logging, unsustainable collection of firewood and building materials, inappropriate mining practices, illegal grazing and invasive plant species (FBD 2008). These threats have resulted in the loss of forest from almost all areas outside reserves. The underlying drivers of these threats are assessed as issues of natural resources and land governance (including corruption), population growth, poverty, and a lack of alternatives to subsistence use of natural resources. Climate change is an emerging threat that may radically affect the forests and biodiversity of the Eastern Arc mountains region, by pushing habitats to increasing altitudes. The same threats and underlying causes affect the Albertine Rift Mountains, Southern Rift Mountains and the Kenya-Tanzania Mountains forest types.

Coastal Forests of Eastern Africa. Another planning process for the coastal forests has identified the following as the most important threats to the habitat: conversion to agriculture, increased demand for fuelwood (charcoal, firewood), infrastructure development, unsustainable logging (timber, poles), uncontrolled fire, over-harvesting of wood for carving, conversion for salt pans, aquaculture, mining, adverse climate change (WWF EARPO 2006). The underlying causes of these threats are the same as for the Eastern Arc Mountains. An emerging threat in the coastal forests is the clearance of large areas of habitat to establish biofuel plantations of *Jatropha* and in wetter areas – sugar cane for ethanol production. This threat has developed rapidly in the past few years and large areas of habitat are being cleared in Kilwa District of Tanzania (for example) for this use. It is believed that the situation is broadly similar for the Guinea-Congolian forests in the north-western corner of the country.

Miombo woodlands. Similar direct threats to the Eastern Arc and Coastal Forests are affecting the miombo woodlands, although here fire is less of a problem in this fire adapted system (WWF SARPO 2003). Instead, the clearance of woodland for agriculture and for the production of charcoal are the two major threats. The underlying cause of the massive clearance for charcoal production is the high price of alternative cooking fuels in major cities in Tanzania, and the need for new agricultural land to provide for an expanding human population dependant on the land for food and other resources. Large areas of miombo woodland are, however, well protected in National Parks, Game Reserves and Forest Reserves scattered across the country.

Acacia Savanna. The Acacia savanna is a dry woodland habitat type that is not very suitable for conversion to agriculture. As such the primarily impacts are from degradation caused by livestock grazing, and wild fires that are sometimes natural and more often set by people. These impacts tend to only become serious in areas where there is a high stocking density and for much of the habitat the impacts are fairly minor and there is an extensive network of protected areas in this habitat type, which provides a high degree of protection.

Mangrove. All Tanzanian mangroves are protected as reserves where exploitation should be managed. Nevertheless there has been some loss of habitat to rice farming in the Rufiji delta and various large scale farming schemes (including aquaculture) have been proposed for the same area. Most of the mangroves suffer from degradation as they supply building poles to Tanzania and some parts of the middle East.

Impacts of Forest Management Administration

As outlined below the forest resources in Tanzania are managed under a different administrative structures. Although there is little quantified data to measure the success of these approaches in terms of protecting forests and the carbon they store, some research material is available, and there is also a good deal of field experience to draw upon. We outline the main issues according the primary administrations of forest land in Tanzania.

Central Government. The central government controls 15.7 million ha of land, much of it forested, in Tanzania. This is in the form of National Parks, Game Reserves and central government Nature Reserves and Forest Reserves. Most of the high carbon habitats are actually found in central government reserves. Deforestation rates are practically nil in National Parks and Game Reserves, but may occur in Forest Reserves. Rates of degradation are also very low in National Parks and Game Reserves, but can be considerable in Forest Reserves. Improving management of Forest Reserves in particular might be an effective strategy to enhance sequestration and prevent further carbon loss in Tanzania. It is also administratively simple.

Local Government. The local government has a network of Local Area Forest Reserves under their control, totalling around 11 million ha or land, primarily in habitats that contain moderate (but not the highest) amounts of carbon. These reserves tend to be weakly managed and often have agricultural encroachment and heavy degradation. Better management of these reserves would certainly have a positive impact on carbon storage across a large area of the country. Each district is administratively distinct and there are at least 126 such districts in Tanzania.

Village Government. More than 1,800 villages in Tanzania control the largest proportion of remaining forest land across the country, some 20 million hectares, primarily of low to moderate carbon storage. Villages can establish reserved areas under their management, and the total area under village management of one type or another reaches 3.6 million hectares. Villages can also manage the forest and woodland habitats on their land for timber production or other productive uses. Over much of the country village forested land is being converted to agriculture, or degraded by logging and charcoal burning. This represents the land type with the greatest amount of deforestation and degradation, but is also the most administratively complex to address.

Private Land. There are relatively few private forest areas in Tanzania. Those which do exist are either quite well conserved, or are generally plantations of trees of crops. The private section may, however, be able to respond quite rapidly to the opportunities of REDD.

Developing a UN REDD programme for Tanzania

Stakeholder consultation

The UN-REDD Programme Tanzania Country Actions grew out of requests from the Government of Tanzania and the UNFCCC COP13 decision to create lessons learnt on REDD. A pre-scoping mission was held in September 2008, a planning mission in November 2008 and a final consultation mission in January 2009.

The missions identified key stakeholders, operators and partners within the Tanzanian forest and development sector with a focus on forests, climate change and REDD.

In September 2008 the mission attended the Eastern And Southern African Katoomba Group meeting in Dar es Salaam. Key informal meetings were held with the Director of Forestry and Beekeeping, Head of the Vice Presidents Office (Environment), UNDP Tanzania, the Norwegian Ambassador, and members of the NGO sector.

In the November 2008 mission the team formally with the REDD focal points for Tanzania, and members of the Government, UN, NGO and development partners. A solid basis for the proposal was laid and the National REDD Production Chain for Tanzania was agreed (Figure 4).

In January 2009 the team met again with the key stakeholders, attended the initial Tanzanian REDD strategy meeting organized by the REDD focal point in the government, and held a series of meetings with a Norwegian Mission, the World Bank, UN leadership and NGOs. The existing REDD related initiatives were identified at that time (Table 7).

The immediate objective of the missions was to develop a Joint Programme to support Tanzania with the first phase of achieving readiness to ensure *actual*, *lasting*, *achievable*, *reliable* and *measurable* emission reductions and identifying capacity and knowledge gaps in the National REDD Production Chain (Figure 4).

Civil Society Organization Consultation

During the process of developing the UN REDD proposal for Tanzania a number of nationally based organisations have been consulted. These include the Tanzania Forest Conservation Group and their network of over 150 forest management CSO organisations called MJUMITA (Tanzanian Community Forest Conservation Network); these are community groups involved in participatory forest management. MJUMITA has been supported by TFCG since 2000 and is now an independent NGO. It mainly operates in the eastern part of Tanzania.

The consultation process also involved meeting with the representative of the Indigenous peoples of Tanzania. At the same time conservations were held with the Tanzania Natural Resources Forum (based in Arusha), who provide a networking function for local people, NGOs and CSOs involved with wildlife conservation in Tanzania. The Tanzania Natural Resources Forum mainly operates in the northern part of Tanzania.

Finally, UNDP Tanzania invited 4 CSO to attend the PAC meeting of the 24th February, where the proposal would be presented and discussed in the Tanzanian context. In the week after the PAC a meeting of around 50 CSO organisations is also planned to be organised, providing a further opportunity to discuss the opportunities and challenges posed by REDD. This will provide initial input to the design of the stakeholder participation plan, which will be developed in the course of year 1 (as part of the REDD Strategy).

Key principles for implementation

It is recognized that REDD is a huge undertaking and time is extremely limited. The challenge is not likely to be met by any one initiative and a key message that has been incorporated in the project design is close collaboration with and between national authorities, research institutes and civil society. The Joint Programme has and will recommend and advocate for the establishment of a national coordination mechanism that brings together the various stakeholders and organizations as recommended by the National Forest Programme.

As the Government of Norway has pledged US$100 million (for 5 years), and several activities and a process to develop a Tanzanian REDD framework has already started, it is critical to ensure all

approaches are complementary, with the same overall objective, do not burden the government with duplicative demands, and can contribute to both the final UNFCCC negotiations on a post-2012 framework and to Tanzania's participation in a potential market or fund based approach.

The Joint Programme also recognizes the role of REDD in the wider development context and advocates the importance of treating REDD as one of many potential income tools for sustainable forest management.

Table 7. Existing REDD related initiatives in Tanzania

Initiative	Partners	Relevance to UN REDD
NAFOBEDA	FBD and development partners	Database of forest resources in Tanzania
Forest Inventory	FAO and FBD with support from MFA Finland and UN REDD	Forest inventory for Tanzanian forests
Co-managed and community managed forest areas	FBD PFM component	Accurate data on Joint Forest and Community Based forest management areas in Tanzania
Reserves mapping	FBD Survey and Mapping, TANAPA, Wildlife Division (UNEP-WCMC WDPA)	Accurate map of the protected areas of Tanzania
Establishment of carbon baselines	Clinton Foundation using Australian methodologies	Baseline carbon estimate for Tanzania using methodologies developed in Australia
Community carbon monitoring	Sokoine University, Twente University (Netherlands) and NORDECO/Copenhagen University (Denmark)	Methodologies for forest condition and carbon monitoring by communities
Carbon storage	FBD, Sokoine University of Agriculture, Valuing the Arc Programme	Spatial dataset of forest plots and carbon storage allowing development of a carbon model in GIS
Forest disturbance and carbon impacts	Valuing the Arc Programme and KITE project (UK)	Impacts of degradation on forest carbon storage and building a model in GIS
Forest Change Analysis	FAO, Sokoine University, Conservation International	Forest area and forest change in Eastern Arc and Coastal Forests 1990-2007
Policy analysis	WWF TZ / WWF US / Forest Trends / Katoomba Group	Analysis of Tanzanian policies related to the implementation of REDD
Ecosystem Service mapping	Valuing the Arc / Natural Capital Project (InVEST programme)	Spatial tool in GIS that maps ecosystem services, including carbon now and under future scenarios
Better Nature Reserve management	German Government / FBD	Improved forest management results in the capture of forest carbon
Policy and Implementation on the ground	Norwegian Embassy (applications already under consideration from TFCG and Forest Trends)	Improvements to policy framework and implementation of REDD pilot interventions on the ground
Capacity within Universities	Norwegian Embassy	Enhanced scientific capacity on issues related to REDD

Sustainability

The UN REDD programme for Tanzania aims to support the work of the REDD national authority- the Forestry and Beekeeping Division. As such the programme aims to be entirely embedded within the national REDD strategy and framework, and delivering work on the behalf of FBD. Over the course of the first year of implementation the programme will define its working mechanism for future years of UN REDD support, most likely through mainstreaming the work within the work of the FBD and the National REDD strategy and framework.

National REDD Production Chain

The National REDD programme for Tanzania has been designed around a REDD Production Chain (see below), which identifies key elements at field, national and international level that needs to be in place for a transparent, robust, equitable and reliable delivery of carbon credits from REDD.

The delivery of REDD carbon credit starts at the field level and bases on strong information of spatial carbon pools, village and district governance (e.g., tenure/usufruct rights, legal entities, management

planning) and private sector participation. Field level supply of carbon credits are supported by national cross-sectoral coordination, monitoring/reporting and appropriate legislation providing transparency at national and international level. As with any market transaction a product has to be brought to the attention of potential buyers and packaged in an attractive way through e.g., guarantees, insurance, pricing and even certification.

Before any payments for the product (carbon credit) can be made, a contract has to be negotiated stipulating terms. Returning to the national and field level the payments have to be received by the original service providers through a transparent and fair mechanism. For the payments to further contribute to sustainable development and potentially more carbon credits, business plans, reporting and re-investment opportunities are needed at the field level.

The success and potential of a country to participate and benefit from REDD carbon credit transactions is as strong as the weakest link in the production chain. If there are doubts about the national ability to deliver *actual*, *lasting*, *achievable*, *reliable* and *measurable* emission reductions, REDD investors will remain risk adverse. They will seek to invest in countries that can provide the lowest risk for their carbon investment. At best they will transfer the risks by making carbon payments to REDD countries *ex-post*, or "on-delivery".

The National REDD Production Chain identifies key elements at field, national and international level for the delivery of actual, lasting, achievable, reliable and measurable emission reductions (ERs) from deforestation and forest degradation in Tanzania. At the international level there are issues relating to marketing, contract negotiations, funds transfer and fund management, broadly classified into 'markets' and 'benefits'. At the national level there are issues of regulation and governance and sustainable forest management. At the national level there are also issues of insufficient technical capacity and resources (i.e. for institutional arrangements; establishing national reference scenarios against which to assess REDD emissions reductions; for monitoring and assessment of changes in forest carbon, and for developing and implementing REDD strategies and field activities). These will all need attention in Tanzania.

The National Production Chain (Figure 1) has been divided up on four quadrants that each have specific elements key to a successful delivery of REDD emissions reductions. As in any chain, the national REDD production chain will be as strong as its weakest link. Failure to address the various elements in each quadrant will affect the final quality of the REDD ERs and thereby also their marketability and price.

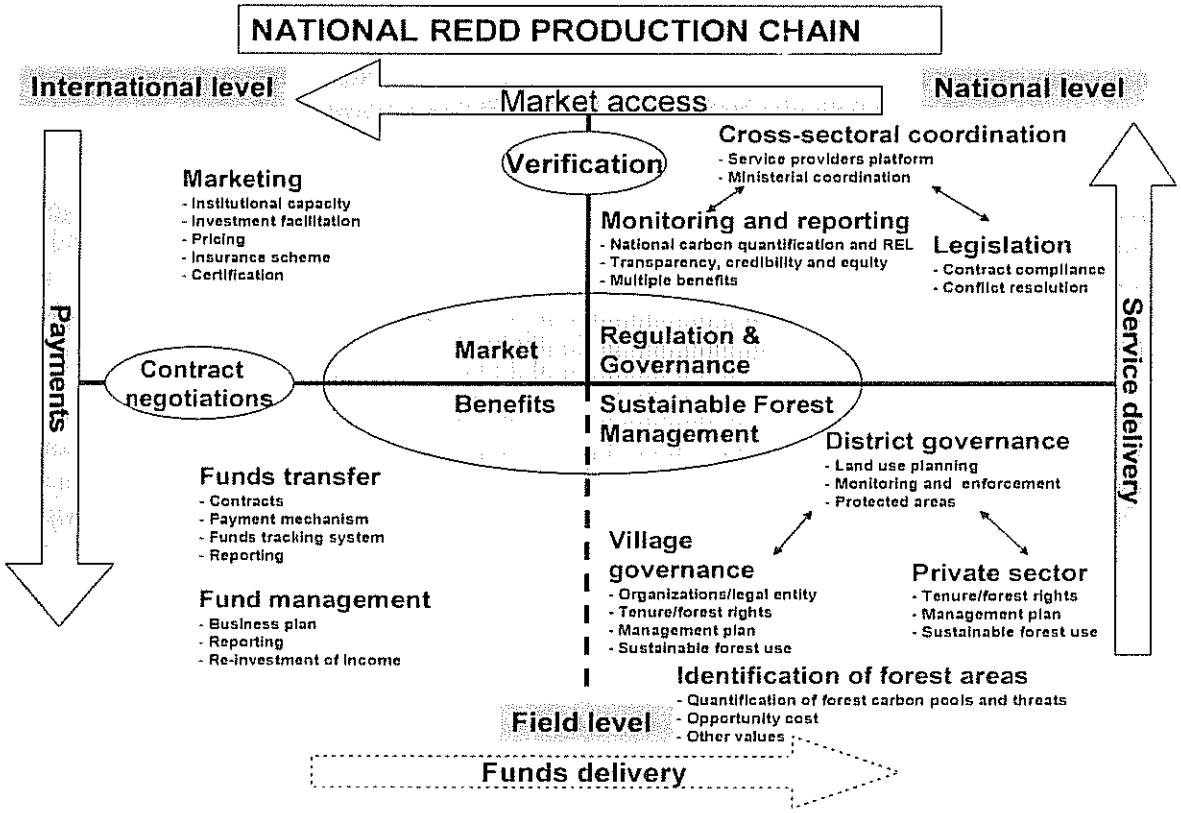


Figure 4: National REDD Production Chain

Quadrant 1 - Sustainable Forest Management at Field Level

Conceptual Background

There are a number of important conceptual issues within the broader category of Sustainable Forest Management (SFM) that relate to the implementation of REDD in Tanzania. For example, it is necessary to identify forest areas and quantify carbon pools. It is also necessary to have detailed knowledge of land ownership and governance at the District, Village and Private sector levels. In Tanzania, a country where the land allocation is in slow transition from a traditional African communal ownership system to a more modern land ownership pattern with defined ownership of different parcels of land, issues of ownership and governance are not straightforward in many cases.

Implementation of SFM within the national REDD production chain has to be supported by Local Level Governance (regional and district) support through political support, land-use planning and advisory services. The delivery of advisory services to forest adjacent communities and land owners also requires capacity, financial and logistical resources which currently are very limited and are even restricting the current efforts to implement SFM.

Identification of Forest Areas

In the Tanzanian Context, the applicability of REDD is likely to fall across a range of forest management types. These may include nature reserves, government forest reserves, local authority forest reserves, private forests, village land forest reserves and village land in general.

For the REDD framework, the first step will be to identify forest areas with REDD potential from the perspective of the forest areas appearing to offer sufficient biomass to be appropriate to the scheme. Quantification of forest carbon pools and threats follows. A range of factors will need to be considered at this stage through assessment of the threats to the forest area, across different sample points. Levels of biodiversity and biomass need to be established.

Willingness of Stakeholders

A stakeholder analysis will be required. Close and participatory collaboration with stakeholders will then be required to ensure there is sufficient will and interest amongst the stakeholders to go forward with REDD, both initially to research the viability and fully, as and when the area is regarded as viable for REDD over other land and forest use.

Understanding Context and Values

The economic, social and cultural context needs to be understood, and crucially, the type of resource and land ownership and whether that land is formally registered to a particular protected area type, community group or individual. Social, cultural, ecological, (including biodiversity) economic and aesthetic values of the forest to its owners and forest dependent or adjacent communities will need to be established. A study of values should also include a documented understanding of the various uses of the forest, both timber and non timber forest products to the stakeholders that would be involved.

Assessment of Opportunity Costs

REDD may or may not be the favoured option for forest management for a particular forested area. As well as understanding the values and uses of the forest area and its resources to the stakeholders a study of the opportunity costs of various different forestry and other land management activities should be carried out. For example, it may be that a VLFR under CBFM may be better placed to be used to utilise hardwood timber to meet international market demands in terms of comparable opportunity costs. Or, an assessment of the opportunity costs of deforesting an area and planting biofuel crops may lead that option being seen as more viable.

Local Governance Issues

Existing analyses of the current policies indicates that the policy framework in Tanzania is broadly sufficient to address issues of REDD implementation, but the main challenges are seeing the policies and laws translated down to operational practices at the District and village levels. Very often the existing policies and laws are not well known or even available at the operational levels, which severely constrain actual implementation. In many areas project assistance through government or NGOs provides operational levels of government and villages with access and understanding required to turn the policies into action on the ground.

Supporting District Governance

The process of decentralisation in Tanzania has already provided much of the institutional governance system requirements at district level that will be crucial to making REDD function at district level. Capacity at both the Executive and Legislative branches of district governments has been boosted by the decentralisation process. Most relevant to the forestry sector is the attention that has been focused on the institutional processes to make the PFM programme operational in over fifty of Tanzania's districts.

Developing the Decentralisation Process

District governments in Tanzania have become familiar with taking on complex programmes and delivering them at ward and village level. Whilst there are a great many lessons still to learn, the decentralisation process has paved the way for an increasing district role in supporting Tanzanian development activities. By extension, more empowered district governments have in turn been able to support capacity building and improved governance on a village level through increasingly closer ties and a greater programme of extension activities. In fact this greater attention has deliberately weakened the role of district government is areas such as PFM development as many village governments have taken on the role of managing their own forest areas themselves. This background will be crucial to the working of a REDD framework.

Boosting capacity and systems at District Level

Developing SFM to support REDD at the District level will need to build upon the knowledge and capacity of district officials to provide advisory services to communities and to implement

programmes of work. A successful REDD framework at district level might decide to build upon financial and logistical management systems set up under programmes such as PFM to ensure REDD activities can be managed in a timely, accountable and an effective manner. Financial and logistical resources will need to be maintained at a sufficient level to ensure momentum.

Village Governance

At village government level a great deal of work has been done across Tanzania to improve village governance systems. In the forestry sector the implementation of the PFM programme, especially for those under CBFM processes, has seen villages take considerable leaps on governance issues. This has included the setting up and institutionalising of specialist committees to deal with the management of village land forest reserves, usually called Village Natural Resource Committees (VNRC). Similarly, the use of Wildlife Management Area (WMA) legislation for forested areas with significant wildlife numbers will also simplify the process of developing a framework for REDD.

Land Use and Management Planning

As well as creating and strengthening VNRCs, the PFM process has by the nature of setting aside forest areas brought about land use planning procedures into village government activities. Many forest adjacent villages in Tanzania now have or are undergoing village land use planning which has allowed them to clearly demark areas of forest for protection, areas that will be cultivated and areas for social services, living and carrying out daily social activities. The REDD framework will therefore be able to build upon and improve land use planning processes.

Community Empowerment and Involvement

Enhanced capacity to existing frameworks of village governance for sustainable forest management will include addressing legal rights to forest resources and the empowerment of village community members and environmental mediation to support their involvement in the environment. The framework will also develop established programmes in villages that have been supported by district government and civil society organisations to improve levels of capacity and the financial resources to effectively manage land and forest resources at village level.

Private sector Involvement

Sustainable forest management guidelines will need to form an essential part of any agreement the private sector creates with forest management bodies including an understanding of any rights of ownership, rights of access as appropriate and a clear agreement from community stakeholders. The degree of technical and financial input from the private sector should be clearly agreed in order to ensure a minimum level of investment, both intellectual and economic and thus reduce the risk of a lack of continuity. The private sector agreement will need to thus define the exact roles each party will take as well as the costs, benefits and responsibilities expected from either party. For example, a private sector party mat be called in to manage a forest area under REDD in entirety or only to provide specific verifiable services, such as monitoring and documentation of changes in emissions. Whichever role is agreed, clear management guidelines and plans will be agreed and stuck to with independent monitoring of the investor incorporated.

On a wider, national level, regulation should be in place to ensure government is in a position to manage the activities of private sector investors without reducing either the incentive for investment including profitability of the company involved or the competitiveness of Tanzania in marketing its REDD productivity.

Quadrant 2 - Regulation and Governance

Conceptual Background

The second quadrant focuses on the national level regulations and governance structures that provide the overall credibility, sustainability and scale of economics in support of potential REDD interventions.

As REDD is a new concept, as yet not supported by an international agreement, the REDD regulatory and governance frameworks have not been designed and operationalized. The key elements within the quadrant are:

- Cross-sectoral coordination on delivery of REDD to avoid competing land-use investments and un-coordinated land-use planning
- Provision of the legal framework for carbon and emission reduction ownership and payment distribution with credible contract and conflict resolution legislation developed
- Provision of cost efficient Monitoring, Assessment, Reporting and Verification (MARV) solutions in response to REDD needs for potential UNFCCC negotiation outcomes

Existing Institutional Framework

Tanzania has a well defined institutional framework at the national and local levels, through the local government reform process, for implementation of forest and other natural resources programmes. At the national level, The Vice President's Office (VPO), Department of Environment (DoE) is responsible for coordination and harmonisation of environmental issues and carbon. The DoE is the Designated National Authority (DNA) for implementation of the Kyoto Protocol, more specifically the Clean Development Mechanism (CDM). The coordination of issues relating to REDD fall under the Forestry and Beekeeping Division of the Minsitry of Natural Resources and Tourism.

Monitoring and Reporting

Monitoring and reporting for REDD entails developing the Monitoring, Assessment, Reporting and Verification (MARV) system for Tanzania. The monitoring system is required to understand carbon and biomass related data such as carbon stocks, REL, expansion factors, potential REDD areas, forest cover changes, basis for payment distribution, evidence of emission reduction. However, monitoring is also essential for keeping track of co-benefits and the degrees of equity in managing resources under REDD, including changes over time as the frameworks mature and settle.

A key part of the monitoring will be to develop an assessment of Reference Emissions Levels (REL) for Tanzania. Work to develop the REL will involve a combination of remote sensing, ground truthing and local level resource assessments. Capacity will also be required at the national level to assess the specific forest areas under REDD that need to be monitored and the results reported upon. In terms of monitoring and reporting, Tanzania needs enhanced capacity and this proposal, combined with work by other players, should provide that capacity and deliver the required data.

Technical Capacity Building for MARV

Consistent technical support and training will be created if MARV processes are to be sustainable and consistently verifiable, at national, district and local community levels (Otsyina *et al.* 2008). On a national level, training of ministry staff in forest inventories and assessments including the use of GIS, satellite image analysis, remote sensing, forest inventories, mapping and database development and management. This training would be done through short and long courses conducted at the national and foreign universities. Training and capacity development in collection and assessment of socio-economic information will be required as will support for the development of physical infrastructure in the form of computers, data loggers, GPS equipment, databases, aerial and topographical maps and weather monitoring equipment.

On a district level training will be required of local government foresters and planners in the use of simple techniques for forest and natural resources inventories and assessments, the use of GPS and other inventory tools, data entry techniques, and database management. Training in participatory forest and natural recourses management techniques will be essential for those who do not have adequate knowledge. Training and capacity development in collection and assessment of socio-economic information will be required as will support the districts with physical infrastructure in the form of computers, data loggers, precision GPS equipment, databases and weather monitoring equipment and training as to effectively use them.

On a community level, training of selected community members in the use of simple techniques for forest and natural resources inventories and assessments will be required. Also, the use of GPS and other inventory tools, data recording, monitoring and evaluation of resources is needed at the community level. Also important will be training in the collection and assessment of social and development information such as population changes and recording most significant changes. The development of skills in group organisation, facilitation, bookkeeping and simple accounting as well as leadership and governance skills is likely to need enhancing. For those communities without prior exposure, training in participatory forest and natural recourses management techniques will be crucial where they are to take a management role.

Cross-sectoral coordination

Tanzania is making progress with issues of coordination and has established a cross sectoral committee for REDD coordination, chaired by the Director of Forestry and Beekeeping Division. Mutually supportive policy frameworks will be crucial to ovoid overlap and to ward of potential conflicts of interest. These will need to include cross-ministerial coordination on delivery of REDD to avoid competing land-use investments, national level land-use planning and cross-sectoral governmental support to payment distribution and potential up-front investments. Attention will be required to ensure conflicts are avoided between ministries on land use, such as one department supporting biofuels whilst another supports REDD.

For the REDD programme, due to its foreseen magnitude and involvement of various stakeholders, an institutional structure and mechanism which will allow transparency, efficient response to issues and challenges at all levels, effective technical support and swift decision making is required. This will require close collaboration between the FBD as overall coordinator at the national level as principal custodians of the forest resources. The FBD is likely to be in the best position to facilitate all technical implementation of the REDD programme through the established institutional framework of the Tanzania Forest Programme. To address specific REDD related issues effectively, a REDD technical subcommittee is in development at government level. This sub-committee will be responsible for facilitation and coordination of all technical implementation issues at all levels. It will advise the DNA Steering committee.

Policy Framework and Legislation

Tanzania has a strong policy framework that will support REDD. Nevertheless there will inevitably be gaps because of the new nature of REDD. The legislation of Tanzania is being reviewed to assess where there are gaps and areas that need addressing to make it appropriate for the implementation of REDD and will need to continue being assessed after the negotiations at COP 15 in Copenhagen have passed.

The policies and laws that govern forest management in Tanzania are some of the most modern in Sub-Saharan Africa and the current review of the Forest Policy (in prep) provides a further opportunity to include issues relating to REDD. As the Tanzanian government is discovering with the influx of biofuels companies into Tanzania, keeping on top of legislation in changing economic circumstances and in time with the birth of new markets is essential (Gordon-Maclean *et al.* 2008).

The potential involvement of the private sector and the realities of a complex product arising from a successful REDD process means that regulations and agreements will be important tools. These will ensure that the private sector plays a positive and effective role without bringing conflict or leading to high transaction costs, reduced rights and increased poverty in local communities.

In terms of legalities, research must explore whether the legal framework in Tanzania supports the delivery of a REDD carbon product and if so how is ownership of carbon stock and emission reductions managed and how will payment distribution be organised are key questions that need to be addressed.

Quadrant 3 - Market access at international level

Conceptual Background

The third quadrant contains the key elements for positioning Tanzania on a potential international REDD market or as a credible recipient of funds from a potential REDD Fund.

It is likely that a potential market or fund will place requirements on REDD emission reductions and providers will have to compete for buyers or funding. As with any market transaction a product has to be brought to the attention of potential buyers and packaged in an attractive way through such as through guarantees, insurance, pricing and even certification. In an emerging market past demonstration of transparency, efficiency and ability to produce quality products are also likely to influence the confidence of REDD emission reductions buyers.

Positioning Tanzania for REDD Readiness

Positioning of Tanzania as a credible provider of REDD emission reductions can take place through several means where the sum of the means will strengthen the position further. Positioning of Tanzania and increasing its market access, irrespective of the UNFCCC negotiations outcome, may include:

- Tanzania acting as a key negotiator on REDD within UNFCCC
- Defining the selling and contracting organization
- Pricing strategies
- Insurance schemes (e.g., through national bundling of REDD emission reductions where part of emission reductions are kept as buffer against fires, pests etc)
- Certification and third party verification (e.g., adhering to voluntary schemes)

In-depth knowledge of the market or fund requirements and the full cost of delivering REDD emission reductions will help with establishing a price and negotiating the price with potential REDD emission reductions buyers and help Tanzania to capture the full potential of REDD.

Investment Facilitation

In order to be seen as a credible and attractive player on the REDD market Tanzania is going to have to ensure it pays an appropriate amount of attention to investment facilitation. Tanzania will need to be able to show to its potential clients, whether donor countries or private investors that the REDD framework it operates is sound, verifiable and able to offer attractive investment yields.

Tanzania's government will need to have a clear understanding and faith in what the country is able to offer and the skills to communicate that offer if the country is going to able to compete successfully against other countries. Market research and knowledge is crucial for Tanzania to be able to successfully engage in this portion of the REDD framework.

Pricing Strategies

Pricing strategies will also be crucial. The pricing framework must ensure that equitable yields are brought all the stakeholders involved in the supply chain and the rights of each assured according to the level of investment, financial or in kind, that has been provided by each stakeholder group. Pricing strategies must take into account the need to be competitive in the REDD market and the outcome will need to be the establishing and negotiating of a Tanzanian REDD carbon price.

Further, a clear policy on payments must be established, particularly whether the forest manager, whether community, government or private sector, or a mixture, is to receive funds in advance (on anticipated reductions in emissions) or after the fact (on actual changes in emissions). The distinction is a crucial one as some forest managers, particularly communities but also government and private sector will not have the capital required to set aside forest areas without some form of upfront payment or compensation. However, advance payments may lead to all manner of risks of not collecting a return on initial capital outlays by the buyer.

Insuring against Risk

These parameters need to be discussed and formally agreed. One way of minimising risk may be the use of insurance schemes managed through bundling of REDD areas (e.g., 20% of emission reductions kept as buffer against fires, pests etc).

Certification Schemes

The verification of emission reductions by a credible third party is crucial to this process. Tanzania needs to be party to discussions on voluntary or enforced certification. Certification by voluntary schemes e.g., CCB, VVS may be the likely initial solution with required schemes to be assessed as REDD activities develop.

Quadrant 4 - Funds transfer and management

Conceptual Background

The fourth quadrant highlights the key elements for contracting, funds transfer, equitable payment distribution and funds management. Different solutions for contracting can be taken depending on the set up of the National REDD Framework and if a national versus sub-national approach has been set up.

REDD emissions reductions may be sold by national level operators (private or governmental), that have bundled emissions reductions, or directly by the producers of REDD emissions reductions, depending on what is agreed in forthcoming negotiations.

Irrespective of the contracting solution, it is assumed that any benefits or payments have to reach forest adjacent communities or the legal forest stewards and owners for further reinforcement of any desired land-use behaviour change.

Once the mechanism for benefit sharing or payment has been designed and implemented recommendations are suggested to be in place for fund management to ensure sustainability, improved livelihoods and optimum reinforcement of land-use behaviour change. Fund management can take the form of direct payments, social or infrastructure services, direct employment, community development grants or microcredit loans and an optimum solution is likely to be location specific.

To maintain the sovereignty and freedom of choice of benefit or payment receivers, decisions on fund management should be discussed through a participatory process and remain at recommendations or guidelines level.

Tanzanian Context

In Tanzania examples for contracting can be sought from the Participatory Forest Management (PFM) process through which considerable attention has been paid to village level financial management systems and fund transaction processes. For fund management there are a number of potential mechanisms in place that can be built upon including small loans and credit schemes that have been tested over several years both by government, nongovernmental organisations and consultants.

Fund Transaction

Key Issues when assessing the funds transfer process include the need for contracts, for a transparent and functional payment mechanism, for funds tracking system and a transparent and accessible reporting process.

Who will sell the REDD carbon will need to be established, depending on the forest area and the kind of ownership involved. For national government managed forest, funds are likely to go direct to the Treasury, earmarked for the Forestry and Beekeeping Division of the Ministry of Natural Resources. For district managed forests, district governments will be the recipients once monies have passed though central government. For communities, monies are likely to be facilitated through national and district government and passed to community fund management schemes.

Careful attention will need to be addressed to the question of who enters into contracts (for example, government, REDD carbon seller or a legal entity representing them?), what mechanisms are needed to ensure payments reach the real forest steward and forest adjacent communities, including to ensure that national and district governments to not take an unreasonable transaction fee and to clarify how reporting will be carried out if it is needed and agreeing who is responsible for producing these reports.

Fund Management

An optimal process for the utilization of REDD funds must be sought. This should question and establish how it will be possible to ensure that funds will re-enforce further behaviour change to reduce emissions from deforestation and forest degradation. The payment method, such as for work input or usage of the forest for REDD activities must be established and the manner in which funds are distributed, such as through small loans or credit schemes and whether through direct payments out through dividends into infrastructure and other social services in the case of community forestry. Lessons from experiences in fund management through the PFM and in Payments for Environmental Services (PES) will be invaluable in creating these systems.

In the case of national and district forests, payments to forest management schemes must be carefully instigated to ensure that a sufficient majority of the funds are reaching the forest management itself rather than taking heavy transaction costs at Treasury or FBD level. In particular, all operational costs and salaries must be paid for in full through this process to ensure the integrity of a particular areas scheme.

Section 3. Proposed UN-REDD Joint Programme for Tanzania

The global overall objective of the UN-REDD Programme is "an international mechanism to provide incentives for REDD is included in a post Kyoto regime" and the Country objective for Tanzania is "Increased Funding for Environment Management from International Environment Funding Mechanisms" which is also outcome 4 under the UN Tanzania Joint Programme on Environment with a focus on Climate Change, land degradation, desertification and natural resource management.

The UN-REDD Programme in Tanzania works within the priorities set by the Government of Tanzania and supports the roadmap towards a country REDD strategy development and implementation developed by FBD and other stakeholders at the national REDD strategy development workshop in Kibaha (January 26th to 30th 2009), and further updated since that time using support from the Royal Norwegian Embassy (see www.tzredd.org).

The UN-REDD Programme in Tanzania also seeks to support the agreed elements of the Tanzanian National Forest Programme (2001-2010), which contains four programmes that aim to put in place sustainable forest management in the country:

1) *Forest Resources Conservation and Management Programme* which aims at promoting gender balanced stakeholder participation in the management of forest resources prioritizing ecosystem conservation, catchment areas and sustainable utilization of forest resources.
2) *Institutions and Human Resources Development Programme* aiming at strengthening institutional set up, coordination, establishing sustainable forest sector funding and improving research, extension services and capacity building of human resources.
3) *Legal and Regulatory Framework Programme* focusing on the development of regulatory issues such as the Forest Act, rules, regulations, and guidelines to facilitate operations of participatory management and the private sector.
4) *Forestry Based Industries and Sustainable Livelihoods Programme* enhancing forest industry development through private sector investment, improved productivity and

efficiency and by seizing income generating opportunities by non wood forest products.

The National REDD Production Chain contains many elements of the work proposed by the National Forest programme in Tanzania, and also contains many parts of the Tanzania National REDD strategy and framework. The overlap between these various documents lays the foundation for successful implemention of REDD Tanzania, as there is no need for the development of new frameworks or overarching strategies. Instead, REDD in Tanzania can be harmonised with existing forestry sector plans to a large extent, while also adding the market based approach and payment mechanisms as new elements of work..

The UN REDD National Joint Programme support to Tanzania will be directed through four outcomes, which are fully aligned with the National Forest Programme and the national REDD strategy and framework. The outcomes also build upon existing in-country capacity with government, research institutes and non-governmental organizations and have been fully harmonised with the support of the donor community in Tanzania, in particular the support being provided by the Royal Norwegian Embassy and the activities set out on the World Bank Forest Carbon Facility R-PIN and outline RPLAN. The outcomes for UN REDD support in Tanzania are as follows:

Outcome 1: National governance framework and institutional capacities strengthened for REDD

The outputs and activities under this component will provide capacity building support to the central and zonal sections of the Forestry and Beekeeping Division of the Ministry of Natural Resource and Tourism, and the Vice Presidents Office (Environment) to help finalise the national REDD strategy and to clarify roles, structures and social safeguards for effective implementation of REDD in Tanzania. The component will also provide capacity building on the elements of the REDD production chain including financial and legal aspects. Close cooperation is envisaged between this outcome and the work being supported through the financial assistance of the Royal Norwegian Embassy to various non-government agencies, but coordinated by government.

Total outcome budget: US$1,650,000

Output 1.1: A Policy Framework for REDD is in place.

Support, in collaboration with assistance provided by the Royal Norwegian Embassy, the development, finalisation, printing and distribution of the National REDD and strategy - covering all aspects of the REDD Production Chain, including a social safeguards framework and clarifying the roles and responsibilities of different actors. Detailed analysis will be undertaken on what has worked in the forest management arena in addressing threats and deforestation drivers, and the economic issues surrounding the implementation of REDD. This analysis will be action orientated and will help FBD / VPO know how best to implement REDD nationally.

Output 1.2: Cross-sectoral institutional and individual capacities built to deliver the REDD production chain.

Delivery of a training programme for government, in particular the newly established REDD unit within FBD on (a) carbon markets including REDD methodologies (Carbon Stock Approach; dual markets approach, Stock-Flow Approach) (b) EIA/ SEA; and (c) social safeguards, and a train the trainers scheme targeting Forestry Officers (covering sustainable use oversight, enforcement, policing, reporting, survey/ monitoring work, participatory management).

Output 1.3: FBD has greater capacity to develop and implement the national REDD Strategy in collaboration with other partners

Support provided to the newly established REDD unit within FBD to make that unit fully operational in terms of materials and working facilities. Also to provide the equipment for a GIS unit within FBD that is capable of handling data relating to forest area and condition, protected forest lands, and carbon stocks - across the whole of Tanzania. International technical assistance will be provided to assist FBD to be prepared to implement the REDD supply chain, following decisions at the Copenhagen UNFCCC conference.

Output 1.4: Cost curves for REDD in Tanzania established

Develop REDD cost curves for Tanzania, which assess emissions reduction potential against costs for different land uses (protected areas, production forests, village lands, etc). Technical assistance will be provided to assist this process.

Output 1.5. The National Joint Programme for UNREDD in Tanzania effectively Managed, Monitored and Evaluated.

Programme Management Oversight provided to the NJP on UNREDD in Tanzania. This will include support for the recruitment of a UNREDD Technical Advisory Staff to assist government and other implementing partners to deliver the work It will also include employment of an administrative officer in UNDP Country Office to help the process of managing the programme in country. This function will be provided by UNDP Country Office in Tanzania

Outcome 2. Increased capacity for capturing REDD elements within national Monitoring, Assessment, Reporting and Verification (MARV) systems

The outputs and activities under outcome 2 will support REDD in Tanzania by implementing a system for REDD MARV within FBD / VPO. This will provide a basis for accounting for carbon stocks and fluxes and develop knowledge about carbon and co-benefits (biodiversity and social attributes), but will also generate feedback to the policy processes tasked to realize verifiable emission reductions within a broader sustainable rural development context. It will also provide capacity building on REDD MARV in the form of training on remote sensing, GIS, IPCC Good Practice Guidance, and will link to the Tanzanian National Forest Inventory work.

Total outcome budget: US$1,400,000

Output 2.1: A system for REDD information synthesis and sharing established at FBD and linked to NAFOBEDA.

Development of an FBD clearing house through collection of all REDD related studies, consultancy reports and findings and conducting a feasibility study for the development of an integrated early warning and monitoring system for detection of changes in forest cover. Help FBD to develop a national carbon accounting system for the country. Technical assistance will be provided to assist this process.

Output 2.2: Training provided to forest staff on monitoring, assessment, reporting and verification (MARV)

Develop and deliver a training programme that includes modules on remote sensing, GIS, data interpretation and IPCC good practice guidance.

Output 2.3: Forest degradation indices provided for forest landscapes

Assess levels of degradation in sample areas of the National Forest Inventory, and develop information on the impact of degradation on forest carbon. Use these data to add degradation overlays to the forest inventory in pilot districts, and provide relevant training.

Output 2.4: National maps inform delivery of the REDD Framework

Develop of set of basic maps and associated data on carbon storage and changes in carbon stocks - based on available GIS data, and through modelling existing compiled field inventories. the training of National Staff will be included in the work. Companion maps will be developed on biodiversity, water supply, opportunity costs, and the most suitable areas for REDD based on current knowledge, for the entire country.

Outcome 3: Improved capacity to manage REDD and provide other forest ecosystem services at district and local levels

This component aims to build the capacity of the decentralized forest sector governance systems to support the REDD production chain. It will integrate the REDD production chain, within the current policy and legislative framework, into district level governance, planning and support systems. The component will also integrate REDD into Protect Area policy, management and make the business case for REDD within PA management.

Total outcome budget: US$550,000

Output 3.1: Decentralized REDD Governance Framework developed and tested in pilot districts

Review and propose operational REDD systems at district and village level that detail the costs, roles and responsibilities, and also define implementation mechanisms. These will build upon systems already in place and be detailed enough that the work could be used to provide all necessary templates (contracts, agreements, etc) to implement REDD in Tanzania. In addition this work should assess how proposed REDD management strategies could be integrated with district land use plans, or national plans of protected area agencies or private landowners and major 'development corridors'. This work will conducted in pilot districts, and will lead to actual field testing of operational mechanisms on the ground. It is proposed that the focal pilot areas will be Matumbi and Kichi Hills in Rufiji / Kilwa districts (coastal forests and Miombo ecoregions), East Usambara mountains in Muheza district (coastal forests and Eastern Arc ecoregions) and Udzungwa Mountains and adjacent lowlands in Kilolo / Iringa districts (Eastern Arc and Miombo ecoregions).

Output 3.2: Payment distribution system outlined

Review existing payment distribution systems in Tanzania and propose the best way to make REDD payments operational. Seek to test proposed mechanisms on a limited basis in the 3 UN REDD pilot districts and learn also from the similar processes being implemented through Sokoine University (8 villages) and other REDD pilot projects (TFCG and WWF).

Output 3.3: REDD payments combined with payments for non-carbon services

Support the development of a strategy and associated field testing of mechanisms for combining REDD finance with other finance for climate mitigation and adaptation, water PES and biodiversity payments. Use lessons learned to inform development of national mechanisms for the 'bundling' of ecosystem service payments.

Outcome 4: Broad based stakeholder support for REDD in Tanzania

This component and its outputs and activities will generate knowledge on the successful implementation of elements within the REDD production chain. This will be aimed to provide a tool for Tanzania to promote their capacity to reduce emissions from deforestation and forest degradation while creating additional benefits/trade-offs associated with REDD. In parallel the potential and complexity of REDD will be communicated to stakeholders in Tanzania to allow a multi-sectoral approach to the development and implementation of the national REDD framework.

Total outcome budget: US$400,000

Output 4.1: Improved awareness of REDD at national level

Delivery of REDD awareness raising and learning campaign within ministries, FBD, forest adjacent communities and the general public. Facilitation of information exchange between the UN-REDD programme 9 pilot countries and joint presentation of national level experience at international high level event.

Output 4.2: Broad consensus built with forest communities regarding the REDD Framework

Facilitation of national dialogue with forest communities regarding their understanding, appreciation and concerns with regard to their potential involvement in REDD. Particular emphasis will be placed on gathering the input of a wide range of forest community groups, including pastoralists and hunter gatherer groups, as well as those practicing more settled agricultural lifestyles

Barriers to Implementing REDD in Tanzania

The REDD production chain diagram and the accompanying descriptive text outlines what needs to be done in Tanzania to implement a successful REDD programme. An analysis of the main root causes of forests loss and degradation in Tanzania has also been provided. Here we identify the main barriers to successful implementation of REDD in Tanzania, that the UN REDD and other programmes supporting REDD will need to overcome. This analysis of barriers is presented against the four outcomes of the UN REDD proposal.

Outcome 1: National governance framework and institutional capacities strengthened for REDD

Past work has indicated that a major barrier to all forms of sustainable forest management in Tanzania is weak governance of the excellent policy, laws and regulations that exist. Past experience also shows that a further barrier to successful forest management is the weak capacity of FBD, and of the district government natural resources departments to manage forestry activities.

These barriers are highly relevant to the implementation of REDD at national and local scales. Overcoming them is a challenge faced by all forestry related projects, but is something where progress has been made at both national and local levels in recent years. UN-REDD will continue to support reforms of governance and the enhancement of capacity to overcome these two linked barriers.

Outcome 2: Increased capacity for capturing REDD elements within national Monitoring, Assessment, Reporting and Verification (MARV) systems

A major barrier for implementing REDD in Tanzania is the technical demands of the MARV. Currently there is a lack of a suitable national system for measuring and monitoring forest cover, forest condition and carbon stocks across the country. Patchy data exists for many locations, but is only partly compiled. A further barrier is the weak state of the current survey and inventory section at FBD, and the lack of significant GIS, remote sensing, or analysis capacity within the REDD focal point institution, or in Tanzania in general.

These barriers are a significant concern for the implementation of REDD in Tanzania. This UN-REDD proposal contains a major element of capacity building and training on MARV, and also provides co-financing to a national forest inventory that through a grid of permanent systematic sample sites aims to provide the baseline data on the status of forests in Tanzania, and the trends in deforestation and degradation over time.

Outcome 3: Improved capacity to manage REDD and provide other forest ecosystem services at district and local levels

A further barrier for implementing REDD in Tanzania is the ability to channel funds from a national level carbon accounting system, down to the operational level for forest management, and feedback results on changes in forest area and forest condition to the national level. Two parallel forest management systems operate in Tanzania; one directly from central government (FBD, TANAPA, Wildlife Division) to forest areas on the ground (reserves of various types), and the other through Regional and Local Government to the district or village governments and their management of reserves and non-reserved forest lands.

In addition, whilst a balance of national and regional forest management programmes has been managed over recent years, the influx of high levels of finance that is considered likely from a successful implementation of the REDD framework, brings with it risks of conflict over forest management. Where high levels of funds are found, the risk of one system attempting to dominate the other (such as national over regional, district over community) grows considerably unless clear agreements are put in place.

This UN REDD proposal seeks to explore existing (working) systems of fund transfer to the local implementation levels, in particular the experience provided by the Participatory Forest Management Programme of FBD and PMORALG, and local systems of data collection that might be suitable for verification purposes. Some field testing in pilot districts of potential implementation mechanisms, in particular financial flow mechanisms, will also be undertaken in three proposed pilot districts, covering three forest types in Tanzania. These experiences will be relevant the removal of remaining barriers in this element of work and thus assist implementation of all REDD programmes in Tanzania.

Outcome 4: Broad based stakeholder support for REDD in Tanzania

A final major barrier to the implementation of REDD programmes in Tanzania is the lack of understanding of what REDD might be at the national, district and village levels. Linked to this barrier is the lack of clarity emerging from the UNFCCC meeting at Poznan and subsequently on how a REDD mechanism might be structured.

This UN REDD proposal seeks to build as broader understanding of REDD amongst key national and local stakeholders in Tanzania, and also gather opinions from local people on how REDD might be operationalised at their level. The details of the messages required will further informed by the discussions and debates of the Copenhagen UNFCCC COP15 in Copenhagen in December 2009.

Section 4. Results Framework

The results framework for this UN REDD programme in Tanzania is outlined below

UN-REDD Programme – Tanzania Country Action, Pilot phase
Goal: A national REDD strategy that has the confidence of all stakeholders from international buyers of emissions reductions to local communities, generates additional and lasting emissions reductions while avoiding leakage.
One-UN Programme Objective: Increased Funding for Environment Management from International Environment Funding Mechanisms (also outcome 4 and output 4 of the ONE-UN Tanzania Joint Programme on Environment with a focus on Climate Change, land degradation, desertification and natural resource management)
Participating UN organization corporate priority FAO: a) Reduction of the absolute number of people suffering from hunger, progressively ensuring a world in which all people at all times have sufficient safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life, b) Elimination of poverty and the driving forward of economic and social progress for all with increased food production, enhanced rural development and sustainable livelihoods, c) Sustainable management and utilization of natural resources, including land, water, air, climate and genetic resources, for the benefit of present and future generations. UNDP: a) Supporting countries in formulating, implementing and monitoring MDG-based national development strategies centered on inclusive growth and gender equality to ensure equitable, broad-based human development, b) Helping countries strengthen their – electoral and legislative systems, improve access to justice and public administration, and develop a greater capacity to deliver, c) Sharing innovative approaches to crisis prevention, early warning and conflict resolution, d) Strengthen national capacity to manage the environment in a sustainable manner while ensuring adequate protection of the poor. UNEP: a) Support governments and the international community with scientifically rigorous assessments, products and services in support of decision making for improved recognition of the value of environment for sustainable development and through identification of emerging issues, b) Provide governments coordination, guidance and technical assistance for environmental policy consensus, development and implementation at international and regional levels for the management and utilization of natural resources c) Raise awareness of private sector and the general public of the importance of ecosystems services in sustainable development.
Budget **Total Programme budget** : $4,000,000 **UNEP**: $200,000 **UNDP**: $2,400,000 **FAO**: $1,400,000

Table 5.1: **Results framework for the UN REDD programme in Tanzania** continue

JP Outputs (Give corresponding indicators and baselines)	Participating UN organization	Implementing Partner	Indicative activities for each Output	Resource allocation and indicative time frame		
				Y1	Y2	Total
1.1. A policy framework for REDD is in place	UNDP	FBD/VPO	1.1.1 Using examples from forest management in Tanzania, propose ways to implement REDD	20,000	20,000	40,000
			1.1.2. Support FBD to finalise and promote to stakeholders the National REDD Strategy and Framework	25,000	15,000	40,000
			1.1.3. Support National REDD task force to clarify the ownership of carbon and emissions reductions under Tanzanian law	20,000	15,000	35,000
			1.1.4 Define *how* stakeholders will participate in the REDD process, building on existing policies, laws, and implementation experience	20,000	15,000	35,000
			1.1.5 Develop materials for marketing REDD, covering different market scenarios (voluntary, retail or fund-based approaches)	20,000	40,000	60,000
			1.1.6. Support FBD to finalise, print and distribute the new Forest Policy incorporating issues relating to the implementation of REDD	20,000	10,000	30,000
						240,000
1.2. Cross sectoral institutional and individual capacities built to deliver the REDD production chain	UNDP	FBD/IRA/VPO/ Agriculture, Energy & minerals, PMORALG	1.2.1 Develop train the trainers materials to enhance capacity of Forestry Officers at national and district levels (covering REDD business and contract models, sustainable use oversight, enforcement, policing, reporting, survey/ monitoring work, participatory management)	80,000	50,000	130,000
			1.2.2 Deliver a training programme that covers (a) potential REDD methodologies proposed to SBSTA (Carbon Stock Approach; dual markets approach, Stock-Flow Approach, etc.), (b) EIA/ SEA; and (c) social and biodiversity safeguards	100,000	80,000	180,000
						310,000
1.3 FBD has greater capacity to develop and implement the national REDD Strategy in collaboration with other partners	UNDP	FBD	1.3.1. Build the capacity of FBD to undertake REDD functions in Tanzania (planning, monitoring and enforcement)	150,000	120,000	270,000
			1.3.2. Provide technical advisor to assist FBD staff to implement the REDD Production chain (planning, monitoring, enforcement)	100,000	80,000	180,000
			1.3.3. Provide Technical Advisor to assist FBD staff on MARV	100,000	70,000	170,000
			1.3.4 Provide essential equipment to the newly formed REDD Unit within FBD (computers, desks, etc)	40,000	40,000	80,000
						700,000
1.4 Cost curves for REDD in Tanzania established	UNDP	IRA / UNDP WB	1.4.1. Agree methodologies to be used to calculate the costs of REDD, including opportunity costs	20,000		20,000
			1.4.2. Calculate costs and benefits of REDD in Tanzania and assess the distribution of these costs and benefits (social, private, budget, etc).	30,000		30,000

			1.4.3. Build capacity of stakeholders to understand the methodology and participate in the costs and benefits analysis	50,000	30,000	80,000
			1.4.4. Develop a REDD cost curve for Tanzania plotting abatement costs against abatement potential for different land uses (protected areas, production forests, village lands, etc), and including deforestation drivers	50,000	20,000	70,000
						200,000
1.5 Programme Management Oversight provided	UNDP		Management Oversight (administration, oversight and project monitoring)	100,000	100,000	***200,000***
2.1: A system for REDD information synthesis and sharing established at FBD and linked to NAFOBEDA	FAO	FBD	2.1.1. Develop a FBD clearing house through collection of all REDD related studies consultancy reports/ findings	30,000	20,000	50,000
			2.1.2. Identify the needs and feasibility for MARV at the various levels of the REDD supply chain	40,000	30,000	70,000
			2.1.3. Study to collect and analyse the existing methodologies and options for carbon accounting for Tanzania	50,000	30,000	80,000
						200,000
2.2 Training provided to forest staff on monitoring, reporting and verification (MRV)	FAO	*FBD, IRA,VPO, MoA & MEM*	2.2.1 Develop training modules on remote sensing, GIS and data interpretation	30,000	20,000	50,000
			2.2.2 Deliver training on remote sensing, GIS and data interpretation	40,000	30,000	70,000
			2.2.3 Deliver training on IPCC good practice guidance	50,000	30,000	80,000
						200,000
2.3 Forest degradation indices provided for forest landscapes and capacity building for establishment of REL	FAO	FBD SUA	2.3.1 Assess forest degradation on the ground linked to remote sensing data in a FRA 2010 RSS sample tile	70,000	70,000	140,000
			2.3.2. Assess impact of degradation on carbon storage across the land cover types of Tanzania	50,000	50,000	100,000
			2.3..3. Assess complete carbon stocks for various land cover types	70,000	60,000	130,000
			2.3.4. Overlays of impacts of degradation on forest carbon added to the forest inventory in pilot districts.	50,000	50,000	100,000
			2.3.5. Purchase training equipment	30,000	20,000	50,000
			2.3.6. Training provided on degradation assessment methodology and REL	30,000	50,000	80,000
						600,000
2.4 National maps inform delivery of the REDD Framework	FAO	UNEP WCMC	2.4.1 Develop national maps of carbon storage and changes in carbon stocks based on available data	50,000	30,000	80,000
			2.4.2 Overlay carbon and biodiversity data to produce maps for the entire country	50,000	30,000	80,000
			2.4.3. Predict future carbon distribution under climate change and development scenarios.	100,000	40,000	140,000
			2.4.4. Provide training and capacity building for carbon mapping and overlays with co-benefits	50,000	50,000	100,000

						400,000
3.1 Decentralized REDD Governance Framework developed and tested in pilot districts	UNDP	FBD; Districts	3.1.1 Assess best practice in existing village governance systems as potential mechanisms for implementing REDD and propose mechanisms to REDD Task Force	40,000	20,000	60,000
			3.1.2. Assess where REDD management could fit into District and Village Land Use planning and make recommendations to REDD Task Force	40,000	30,000	70,000
			3.1.3. Undertake limited piloting of REDD implementation mechanism in 3 districts and learn lessons	85,000	85,000	170,000
						300,000
3.2 Payment distribution system outlined	UNDP	FBD; Districts	3.2.1 Test different payment distribution options for REDD and make recommendations to REDD Task Force	30,000	20,000	50,000
			3.2.2. Develop proposed payment mechanisms and prepare outline contracts for REDD payments in Tanzania	30,000	20,000	50,000
						100,000
3.3 REDD payments combined with payments for non-carbon services	UNDP	FBD : Districts	3.3.1 Propose mechanisms for bundling payments for non-carbon services (water, biodiversity, adaptation) to REDD to deliver a higher premium REDD credits	50,000	20,000	70,000
			3.3.2 Develop, agree and start to test plan for combining REDD finance with other sources of carbon markets (e.g. CDM, adaptation) and non-carbon finance (i.e. water) in two pilot landscapes (Uluguru, East Usambara).	50,000	30,000	80,000
						150,000
4.1. Improved awareness of REDD at national level	UNEP	FBD; TFCG, IRA	4.1.1 Undertake awareness raising campaign at national level on the potential for REDD and how it might reduce carbon emissions	80,000	80,000	160,000
			4.1.2 Exchange information with other 8 UN REDD pilot countries	20,000	20,000	40,000
						200,000
4.2. Improved awareness of REDD at national level	UNDP	FAO and UNEP	4.2.1 Collect local peoples perspectives on the potential for REDD and the likely benefits, costs and challenges.	50,000	20,000	70,000
			4.2.2 Provide targeted messages to communities on the potential for REDD to improve forests and livelihoods	65,000	65,000	130,000
						200,000
UNDP	Programme Cost			***1,335,000***	***1,065,000***	***2,400,000***
	Indirect Support Cost			***93,450***	***74,550***	***168,000***
UNEP	Programme Cost			***100,000***	***100,000***	***200,000***
	Indirect Support Cost			***7,000***	***7,000***	***14,000***
FAO	Programme Cost			***790,000***	***610,000***	***1,400,000***
	Indirect Support Cost			***55,300***	***42,700***	***98,000***
Total	**Programme Cost**					***4,000,000***
	Indirect Support Cost					***280,000***
	TOTAL					***4,280,000***

Section 5. Overall UN REDD Coordination Arrangements

Policy Board

The UN-REDD Policy Board provides overall leadership and sets the strategic direction of the UN-REDD Programme. It decides on Programme financial allocations, in line with the budget parameters set out in the UN-REDD Framework Document, and develops monitoring mechanisms, with a view to ensuring Fund-wide success. The UN-REDD Policy Body will ensure coordination with REDD actors at a global scale, such as the World Bank's FCPF participants' committee. The Terms of Reference and Rules of Procedure for the UN-REDD Policy Board will be made available on the UN-REDD Programme website www.un-redd.net

Technical Secretariat

The UN-REDD Technical Secretariat serves the Policy Board, using the capacities of the participating UN organizations, research institutions and recognized experts. It ensures policies and strategies decided by the Policy Board are implemented and adhered to. The Secretariat will manage the national joint programme review process. It will also manage the UN-REDD's overall monitoring and evaluation function which includes *inter alia* monitoring allocations to and delivery by the country joint programmes, and tracking Programme-wide progress and ensuring that monitoring mechanisms are applied.

The Secretariat's main roles can be □tilized□d as follows:

- Policy Board support
- Partner and external relations
- Quality assurance and oversight of national joint programmes
- Quality assurance and oversight of the International Support Functions described in the Global Joint Programme (hereafter referred to as the "Global Joint Programme")
- Monitoring and knowledge management

Participating UN Organizations' Coordination Group

The Participating UN Organizations' Coordination Group consists of representatives of the three UN agencies: FAO, UNDP, and UNEP. The Coordination Group will have the main function in ensuring active, participatory and well-coordinated engagement by the agencies to implement the goals and objectives of the overall UN-REDD Programme, as well as to provide oversight of the Secretariat consistent with the strategic directions and decisions provided by the Policy Board.

Administrative Agent

The UNDP Multi-Donor Trust Fund (MDTF) Office is the Administrative Agent of the UN-REDD Fund. The MDTF Office manages the distribution of resources and serves as the administrative interface with donors. UNDP's accountability as the Administrative Agent is set out in the policy "UNDP's Accountability when acting as Administrative Agent in MDTFs and/or UN Joint Programmes using the pass-through fund management modality".

The MDTF Office as AA will is responsible for:

- Receipt, administration and management of contributions from donors;
- Disbursement of funds to the Participating UN Organization, in accordance with the instructions of the UN-REDD Policy Board;
- Provide support to FAO, UNDP and UNEP in their reporting functions;
- Compilation of consolidated narrative and financial reports to the Policy Board through the Technical Secretariat, national steering committees and to donors.

The Administrative Agent may undertake additional functions at the request of the Participating UN Organizations. The Administrative Agent will charge a onetime fee of 1 per cent for fund administration and fiduciary responsibilities which will be provided in advance on the basis of Programme Documents budgets approved by the Policy Board.

UN Resident Coordinators

The UN-REDD Programme will be supported by UN Resident Coordinators in their strategic leadership of the UN Country Team and relationships with national authorities. The UN Resident Coordinator will provide ongoing oversight to the joint programme at the national level, ensuring the participating UN organizations are meeting their obligations. The Resident Coordinator is entrusted with supporting the overall programme design under the government's leadership, ongoing programmatic oversight of the UN-REDD activities and UN coordination with the National REDD Office where such exist. The Resident Coordinator also facilitates ongoing monitoring and evaluation of UN-REDD activities in conformity with UN standards. On receipt of consolidated country level reports, the Resident Coordinator will provide an overall assessment of the programme's progress and results. He/she will also facilitate ongoing monitoring and evaluation of Fund-supported activities in conformity with UN standards and any guidance provided by the UN-REDD Technical Secretariat or Policy Board.

Section 6. Tanzanian Management Arrangements

National REDD Task Force

A National REDD Task Force has been established in Tanzania, with 8 members including the Vice Presidents Office (Environment) who are responsible for Climate Change issues in Tanzania, and the Forestry and Beekeeping Division of the Ministry of Natural Resources and Tourism who are the managers of REDD in Tanzania. This National Task Force is facilitated by the Institute of Resource Assessment at the University of Dar es Salaam who have been funded by the Royal Norwegian Embassy. The Task Force is responsible for delivering a national REDD strategy and framework, and for coordinating activities related to REDD in Tanzania. This includes the proposed donor support from UN REDD, the Norwegian Government (via the Embassy and NORAD in Oslo), and the Forest Carbon Partnership Facility of the World Bank.

Proposed financial and technical management arrangements for UN REDD Programme

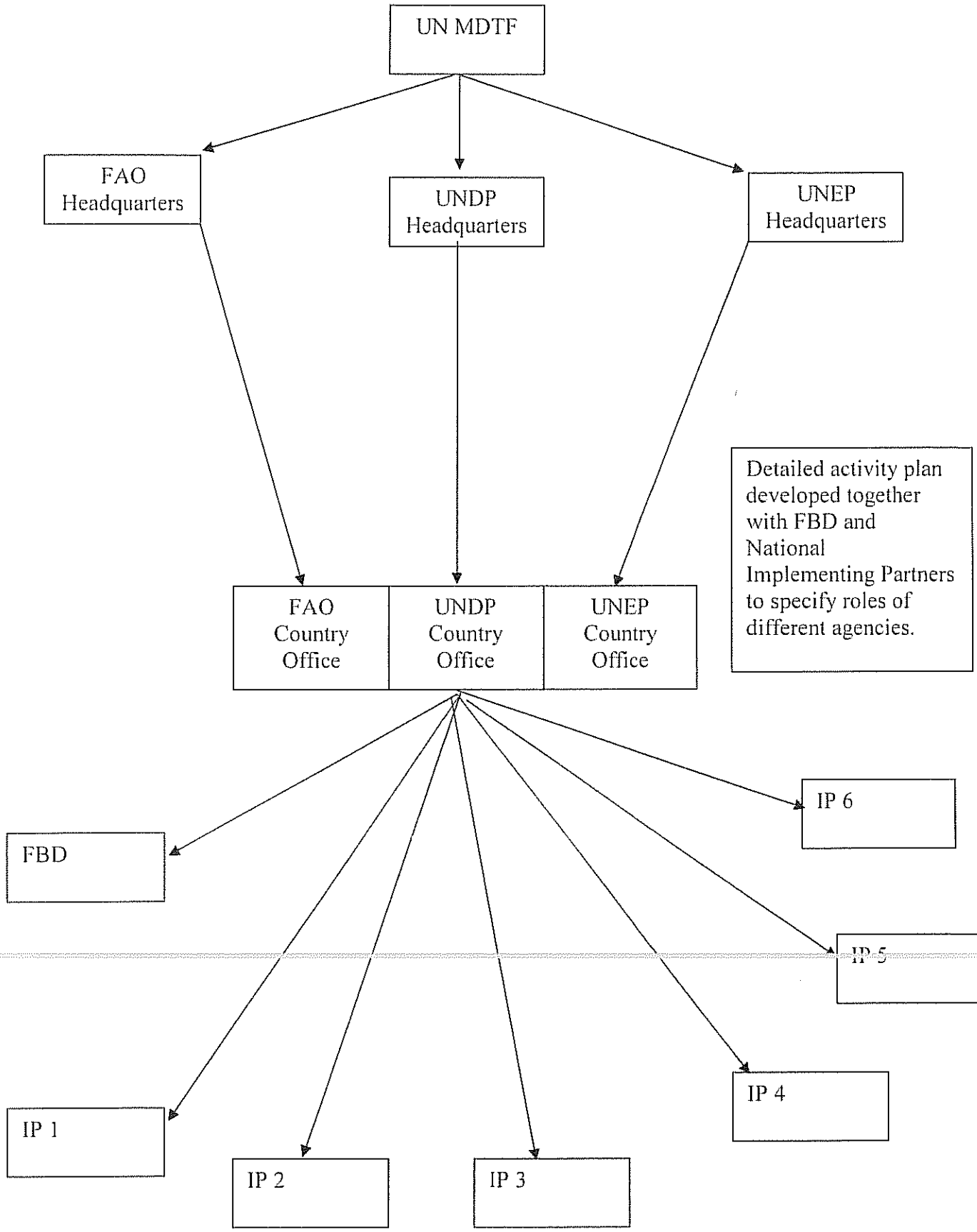
The UN-REDD Collaborative Programme utilizes the 'pass-through' modality for fund management (see below graphic illustration). Participating UN organizations, in this case FAO, UNDP and UNEP, assume full programmatic and financial accountability for the funds received from the Administrative Agent.

The following is the proposed financial and technical management mechanism for Tanzania, based on extensive discussion in Tanzania, according to how the One UN programme works in Tanzania, and according to a review of the overarching UN REDD MOU.

Funds are provided from the UN Multi-Donor Trust Fund (MDTF) in New York to the three UN Agencies involved with UN REDD (UNDP, UNEP and FAO).

Each UN Agency would be responsible for transferring funds from its own allocation to implementing partners and report back to MDTF. This is the pass through mechanism and was agreed after discussions between the three UN agencies.

Structure of funding flow (IP = Implementing Partner)



Participating UN Organizations shall be entitled to deduct their indirect costs on contributions received according to their own regulations and rules, taking into account the size and complexity of the particular programme. Indirect costs will not exceed 7 per cent of the joint programme budget. These costs cover general oversight, management, and quality control, in accordance with its financial regulations and rules. Specialized service delivery costs for programme and project implementation may be charged directly to the joint programme, in accordance with the respective Participating UN Organizations' policies.

Each Participating UN Organization will use the funds disbursed to it by the Administrative Agent from the UN-REDD Programme MDTF to carry out the activities for which it is responsible as set out in this document as well as for its indirect costs. The Participating UN Organizations will commence and continue to conduct operations for the UN-REDD Programme as set out in the UN-REDD MOU and as instructed by the UN-REDD Policy Board. The Participating UN Organizations will not make any commitments above the approved budgets, as amended from time to time by the Policy Board. If there is a need to exceed the budgeted amounts, the Participating UN Organization concerned will submit a supplementary budget request to the UN-REDD Policy Board, through the UN-REDD Secretariat.

To ensure a true joint implementation of the programme a "Programme Management Committee" will be established in Tanzania that will include representatives of FAO TZ CO, UNDP TZ CO, UNEP (Nairobi) and Government representatives. In Tanzania this collaboration will be facilitated due to the fact that UNDP, UNEP and FAO have a MOU for collaborative working under the Joint Environment Programme for Tanzania.
A detailed operational workplan and detailed budgets for each activity will be developed during the inception period. This process will involve the three UN REDD agencies working in Tanzania and the government (Forestry and Beekeeping Division and Vice Presidents Office – Environment).

Staffing

The UN REDD programme will employ Technical Advisory Staff to assist government and other implementing partners to deliver the work. It is envisaged that Technical Advisory assistance will be provided on the following issues:

1) Overall programme oversight and linkage to the REDD process and requirements globally.

2) Economic calculations required to determine the feasibility of REDD in Tanzania

3) The requirements of MARV in Tanzania and the establishment of Reference Emission Levels

In addition to these technical inputs the programme will also hire a UNDP Programme Assistant who will help manage the project, provide relevant reports, develop Terms of Reference for consultants with others involved with project and assist the contract process within UNDP.

These positions are included in the budget for the programme, are outlined in the activity matrix, and are supported by Terms of Reference that are within the Annexes.

Section 7: Monitoring, Evaluation, Reporting

Financial Monitoring

Funds used by the Participating UN Organization shall be subject to internal and external audit as articulated in their applicable Financial Regulations and Rules. In addition, the Technical Secretariat will consult with the Participating UN Organizations on any additional specific audits or reviews that

may be required, subject to the respective Financial Regulations and Rules of the Participating UN Organizations. Participating UN Organizations will provide a summary of their internal audit key findings and recommendations for consolidation by the MDTF Office and submission to the Policy Board and National REDD Committee as applicable. The use of funds allocated to Implementing Partners will be reported back to the relevant UN agency charged with responsibilties for those funds using relevant reporting mechanisms.

Technical monitoring

The Government, and the Participating UN Organizations, shall jointly conduct scheduled/annual planning and review meetings for all activities covered in the results framework, monitoring and evaluation plan and work plans covered by this Joint Programme. This will include an assessment of the risks and assumptions to determine whether they are still holding.

Evaluation

The Technical Secretariat for UN REDD will establish an Evaluation Plan which ensures that all programmes supported by the UN-REDD Programme will undertake a final evaluation, which will assess the relevance and effectiveness of the intervention, and measure the development impact of the results achieved, on the basis of the initial analysis and indicators described at the time of programme formulation. Furthermore, the Technical Secretariat from time to time shall lead reviews for programmes as necessary.

Reporting

The MDTF Office in New York (Administrative Agent) will provide regular updates on the financial status of the MDTF to the Policy Board, for review and action as appropriate.

Participating UN Organizations in receipt of UN-REDD resources will be required to provide the Administrative Agent with the following statements and reports:

- Narrative progress reports for each twelve-month period ending 31 December, to be provided no later than two months after the end of the applicable reporting period;
- Annual financial reports as of 31 December each year with respect to the funds disbursed to it from the Joint Programme Account, to be provided no later than three months after the end of the applicable reporting period;
- A final narrative report and financial report, after the completion of all Joint Programme activities financed from the UN-REDD MDTF, to be provided no later than 30 April of the year following the financial closing of Joint Programme activities;
- A final certified financial statement, to be provided no later than 30 June of the year following the financial closing of Project activities.

The Administrative Agent shall prepare consolidated narrative progress and financial reports consisting of the reports referred to above submitted by each Participating UN Organization, and shall provide those consolidated reports to the respective Resident Coordinators and subsequently to the UN-REDD Policy Board through the Technical Secretariat.

Subsequently, in accordance with the MOU and the SAA, the Administrative Agent will submit consolidated narrative and financial reports to all UN-REDD Programme donors. Agreed standard UNDG financial and progress reporting formats will be utilized. The Administrative Agent will also submit to donors a certified annual financial statement (Source and Use of Funds).

Table 7: Tanzania UN REDD Joint Programming Monitoring Framework (JPMF)

Tanzania –Country Action						
Expected Outcomes	**Expected Outputs**	**Indicators**	**Means of Verification**	**Collection Method**	**Responsibilities (Lead Agency)**	**Risk and Assumptions**
1. National governance framework and institutional capacities strengthened for REDD						
	1.1 A Policy Framework for REDD is in place.	Agreed Policy Framework exists; REDD Framework incorporated into Policy	Results of Stakeholder engagement; Production of new Forest Policy	Assess Stakeholder Participation Plan; Assessment of new Policy	UNDP	Strong stakeholder participation and technical assistance required
	1.2 Cross-sectoral institutional and individual capacities built to deliver the REDD production chain	Training Programme Produced; Training of Trainers provided	Level of capacity in REDD methodologies increased	Assess training materials; assess level of understanding of trainees	UNDP	Complex training methodologies required; risks of limited understanding
	1.3 FBD has greater capacity to develop and implement the national REDD Strategy in collaboration with other partners	Capacity of FBD to undertake REDD increased	Technical Assistance provided; equipment provided	Assess outputs of Technical Advisor; Inventory of Equipment	UNDP	Technical Advisor operating at sufficient capacity
	1.4 Cost curves for REDD in Tanzania established	Stakeholders understand and produce cost curves methodologies	Group established; cost benefit categories agreed	Assess outputs of cost curves group; assess stakeholder capacity	UNDP	Complex economic training required on cost curves
	1.5. Management oversight for JP provided	Programme management input provided from UNDP	Purchase of equipment. Staff support to team	Materials supplied on time. Person in post	UNDP	Capacity exists to provide this service
2. Increased capacity for capturing REDD elements within National Monitoring, Assessment, Reporting and Verification Systems						
	2.1: A system for REDD information synthesis and sharing established at FBD and linked to NAFOBEDA.	REDD related studies collated and analysed; system created	Clearing house of REDD studies exists	Database of REDD studies; methodologies understood	FAO	Thorough collection and analysis of REDD studies required
	2.2 Training provided to forest staff on monitoring, reporting and verification (MRV)	Training modules developed and delivered	Level of understanding of MARV increased	Assess level of understanding on MARV in trainees	FAO	Precise training methods and training are delivered
	2.3 Forest degradation indices provided for forest landscapes	Forest degradation impacts assessed and equipment available	Impacts of forest degradation incorporated into forest inventories in pilot districts	Assessment of forest inventories; assess equipment in use	FAO	Complex training on forest degradation indices required

Tanzania –Country Action						
Expected Outcomes	**Expected Outputs**	**Indicators**	**Means of Verification**	**Collection Method**	**Responsibilities (Lead Agency)**	**Risk and Assumptions**
	2.4 Mapping of co-benefits (overlay biodiversity, poverty)	Availability of maps of co-benefits and available carbon data	Maps referred to in national REDD framework documentation and utilized within capacity building	Copies of REDD framework documentation	FAO	Strong coordination with the various initiatives for establishing national carbon stocks
3. Improved capacity to manage REDD and provide other forest ecosystem services at district and local levels						
	3.1 Decentralized REDD Governance Framework developed and tested in pilot districts	Participatory process on resource management practices completed	District officials understand and agree on best practices in resource management and governance	Assess capacity of district officials in understanding governance framework	UNDP	Participatory process required in bringing up levels of capacity in district officials
	3.2 Payment distribution system outlined	REDD payment options identified and proposed	REDD Payment distribution scheme exists and is agreed upon	Assess documentation on REDD payment options	UNDP	Strong participation required in identifying payment options
	3.3 REDD payments combined with payments for non-carbon services	Economic values of non-carbon services are understood and incorporated	Payment scheme action plan exists detailing REDD and non carbon services	Assess documentation; challenges and opportunities understood by stakeholders	UNDP	Clear training provided on linking REDD payment scheme with non carbon services
4. Broad based stakeholder support for REDD in Tanzania						
	4.1. Improved awareness of REDD at national level	National awareness raising campaign carried out	Widespread increased awareness of REDD countrywide	Analysis of media, government and NGO responses	UNEP	Effective campaign strategy delivered in practice
	4.2. Broad consensus built with forest communities regarding the REDD Framework	National and regional workshops provided; community opinions gathered	Workshop minutes assessed; information provided on pilot community opinions towards REDD	National, regional and community documentation of consensus building approaches assessed	UNEP	Participation of national regional and community level stakeholders is essential; elite capture avoided

Section 8. Legal Context or Basis of Relationship

The Participating UN Organizations (FAO, UNDP and UNEP) have signed a Memorandum of Understanding (MOU) to implement the UN-REDD Collaborative Programme, which came into effect on 20th June 2008 and ends 20th June 2012.

This Joint Programme document is consistent with the cooperation/assistance agreements signed by the lead UN agencies involved in this programme with the Government of Tanzania. For the UNDP, this Document is pursuant to the Country Programme Action Plan and the Standard Basic Assistance Agreement (SBAA) it signed with the Government of Tanzania. All provisions in the SBAA therefore apply to this document. Consistent with Article III of the SBAA, the responsibility for the safety and security of the implementing partner and its personnel and property, and of UNDP"s property in the implementing partner's custody, rests with the implementing partner.
The implementing partner shall:

- put in place an appropriate security plan and maintain the security plan, taking into account the security situation in the country where the project is being carried; and
- assume all risks and liabilities related to the implementing partners security, and the full implementation of the security plan.

The **UNDP** reserves the right to verify whether such a plan is in place, and to suggest modifications to the plan when necessary. Failure to maintain and implement an appropriate security plan as required hereunder shall be deemed a breach of this agreement.

On the part of the **FAO**, this document is consistent with the basic agreement with Government of Tanzania as indicated in the exchange of letters between the Government of Tanzania and FAO. The FAO Representative shall represent the Organization in Tanzania, and shall be responsible within the limits of the authority delegated to him/her, for all aspects of the Organization's activities in the country. In the effective performance of his/her functions, the FAO representative shall have access to appropriate policy and planning levels of Government in the agriculture, fishery and forestry sectors of the economy, as well as, to central planning authorities. He/she shall maintain close liaison with the Government's coordinating agency for external assistance and thereby serve to keep all the appropriate Government agencies fully informed on all aspects of the policies and procedures of FAOs programme in Tanzania.

For **UNEP**, in line with its position as a non-resident agency with a global mandate for technical cooperation and capacity building, the signed Joint Programme document shall be the legal basis of UNEP's relation with the Government of Tanzania within the context of this programme. UNEP will work in close coordination with the programme management team.

The Participating UN Organizations agree to undertake all reasonable efforts to ensure that none of the funds received pursuant to UN-REDD are used to provide support to individuals or entities associated with terrorism and that the recipients of any amounts provided by Participating UN Organizations do not appear on the list maintained by the Security Council Committee established pursuant to resolution 1267 (1999). The list can be accessed via http://www.un.org/Docs/sc/committees/1267/1267ListEng.htm. This provision must be included in all sub-contracts or sub-agreements entered into under this programme document.

Section 9. Work plans and budgets

The outline work plan and budget of this Joint Programme have been developed jointly by the three Participating UN Organizations and the Government of Tanzania (see workplan below).

The work plan details the expected outcomes, outputs and general activities to be carried out within the programme, the implementing partners, timeframes and planned inputs from the Participating UN Organizations. At this point the budget is indicative only as further work will be required to make it operational.

Inception period

When this National Joint Programme document is approved, an inception period will be undertaken. During the inception period a detailed workplanning and budgeting process will be undertaken with the three UN agencies and the government of Tanzania. This process will result in a detailed implementation plan and fine-scale budget that will detail who will implement each of the activities. This may be the UN agencies themselves, the government (different departments) or other Implementing Partners (such as consultants, universities or NGOs). By undertaking this process the project will be made operational and agreed in detail with the government. The operational plan that is produced will then guide the implementation, management and reporting on the projects work.

Work Plan for UN REDD Joint National programme for Tanzania

Outcome 1: National Governance Framework and institutional capacities strengthened for REDD									
UN organization-specific Annual targets	UN organization	Activities	TIME FRAME			Implementing Partner	PLANNED BUDGET		
			Sept-Dec 2009	Jan - Dec 2010	Jan - Aug 2011		Source of Funds	Budget Description	Amount
JP Output 1.1: A policy framework for REDD is in place									
Un Agency	***UNDP***	1.1.1 Using examples from forest management in Tanzania, propose ways to implement REDD				**FBD / VPO**	**UN REDD**		**$40,000**
		1.1.2. Support FBD to finalise and promote to stakeholders the National REDD Strategy and Framework				**FBD / VPO**	**UN REDD**		**$40,000**
	UNDP	1.1.3. Support National REDD task force to clarify the ownership of carbon and emissions reductions under Tanzanian law				**FBD / VPO**	**UN REDD**		**$35,000**
		1.1.4 Define how stakeholders will participate in the REDD process, building on existing policies, laws, and implementation experience.				**FBD / VPO**	**UN REDD**		**$35,000**
	UNDP	1.1.5 Develop materials for marketing REDD, covering different market scenarios (voluntary, retail or fund-based approaches)				**FBD / VPO**	**UN REDD**		**$60,000**
		1.1.6. Support FBD to finalise, print and distribute the new Forest Policy incorporating issues relating to the implementation of REDD				**FBD / VPO**	**UN REDD**		**$30,000**
JP Output 1.2: Cross sectoral institutional and individual capacities built to deliver the REDD production chain									
Un Agency	***UNDP***	1.2.1 Develop train the trainers materials to enhance capacity of Forestry Officers at national and district levels (covering REDD business and contract models, sustainable use oversight, enforcement, policing, reporting, survey/ monitoring work, participatory management)					**UN REDD**		**$130,000**
		1.2.2 Deliver a training programme that covers (a) potential REDD methodologies proposed to SBSTA (Carbon Stock Approach; dual markets approach, Stock-Flow Approach, etc.), (b) EIA/ SEA; and (c) social and biodiversity safeguards					**UN REDD**		**$180,000**
JP Output 1.3 FBD has greater capacity to develop and implement the national REDD Strategy in collaboration with other partners									

Un Agency	***UNDP***	1.3.1. Build the capacity of FBD to undertake REDD functions in Tanzania (planning, monitoring and enforcement).					**UN REDD**		**$270,000**
		1.3.2. Provide technical advisor to assist FBD staff to implement the REDD Production chain (planning, monitoring, enforcement)					**UN REDD**		**$180,000**
	UNDP	1.3.3. Provide Technical Advisor to assist FBD staff on MARV					**UN REDD**		**$170,000**
		1.3.4 Provide essential equipment to the newly formed REDD Unit within FBD (computers, desks, etc)					**UN REDD**		**$80,000**
JP Output 1.4 Cost curves for REDD in Tanzania established									
Un Agency	***UNDP***	1.4.1. Agree methodologies to be used to calculate the costs of REDD, including opportunity costs.					**UN REDD**		**$20,000**
		1.4.2. Calculate costs and benefits of REDD in Tanzania and assess the distribution of these costs and benefits (social, private, budget, etc)					**UN REDD**		**$30,000**
		1.4.3. Build capacity of stakeholders to understand the methodology and participate in the costs and benefits analysis					**UN REDD**		**$80,000**
		1.4.4. Develop a REDD cost curve for Tanzania plotting abatement costs against abatement potential for different land uses (protected areas, production forests, village lands, etc), and including deforestation drivers					**UN REDD**		**$70,000**
		1.5 Management support and inception process							**$200,000**
Outcome 2: Increased capacity for capturing REDD elements within national Monitoring, Assessment, Reporting and Verification systems									
UN organization-specific Annual targets	UN organization	Activities	TIME FRAME			Implementing Partner	PLANNED BUDGET		
			Sept - Dec 2009	**Jan - Dec 2010**	**Jan - Aug 2011**		Source of Funds	Budget Description	Amount
JP Output 2.1: A system for REDD information synthesis and sharing established at FBD and linked to NAFOBEDA.									
Un Agency	***FAO***	2.1.1. Develop a FBD clearing house through collection of all REDD related studies consultancy reports/ findings					**UN REDD**		**$50,000**

		2.1.2. Identify the needs and feasibility for MARV at the various levels of the REDD supply chain					UN REDD		$70,000
	FAO	2.1.3. Study to collect and analyse the existing methodologies and options for carbon accounting for Tanzania					UN REDD		$80,000
JP Output 2.2 Training provided to forest staff on monitoring, reporting and verification (MRV)									
Un Agency	FAO	2.2.1 Develop training modules on remote sensing, GIS and data interpretation					UN REDD		$50,000
		2.2.2 Deliver training on remote sensing, GIS and data interpretation					UN REDD		$70,000
		2.2.3 Deliver training on IPCC good practice guidance					UN REDD		$80,000
JP Output 2.3 Forest degradation indices provided for forest landscapes and capacity building for establishment of REL									
Un Agency	FAO	2.3.1 Assess forest degradation on the ground linked to remote sensing data in a FRA 2010 RSS sample tile					UN REDD		$140,000
		2.3.2. Assess impact of degradation on carbon storage across the land cover types of Tanzania					UN REDD		$100,000
	FAO	2.3..3. Assess complete carbon stocks for various land cover types					UN REDD		$130,000
		2.3.4. Overlays of impacts of degradation on forest carbon added to the forest inventory in pilot districts.					UN REDD		$100,000
		2.3.5. Purchase training equipment					UN REDD		$50,000
		2.3.6. Training provided on degradation assessment methodology and REL					UN REDD		$80,000
JP Output 2.4 National maps inform delivery of the REDD Framework									
Un Agency	FAO	2.4.1 Develop national maps of carbon storage and changes in carbon stocks based on available data					UN REDD		$80,000
		2.4.2 Overlay carbon and biodiversity data to produce maps for the entire country					UN REDD		$80,000
		2.4.3. Predict future carbon distribution under climate change and development scenarios.					UN REDD		$140,000

		2.4 4. Provide training and capacity building for carbon mapping and overlays with co-benefits					**UN REDD**		**$100,000**
Outcome 3: Improved capacity to manage REDD and provide other forest ecosystem services at district and local levels									
UN organization-specific Annual targets	UN organization	Activities	TIME FRAME			Implementing Partner	PLANNED BUDGET		
			Sept - Dec 2009	**Jan - Dec 2010**	**Jan - Aug 2011**		Source of Funds	Budget Description	Amount
JP Output 3.1 Decentralized REDD Governance Framework developed and tested in pilot districts									
Un Agency	***UNDP***	3.1 1 Assess best practice in existing village governance systems as potential mechanisms for implementing REDD and propose mechanisms to REDD Task Force					**UN REDD**		**$60,000**
		3.1 2. Assess where REDD management could fit into District and Village Land Use planning and make recommendations to REDD Task Force					**UN REDD**		**$70,000**
	UNDP	3.1 3. Undertake limited piloting of REDD implementation mechanism in 3 districts and learn lessons					**UN REDD**		**$170,000**
JP Output 3.2 Payment distribution system outlined									
Un Agency	***UNDP***	3.2 1 Test different payment distribution options for REDD and make recommendations to REDD Task Force					**UN REDD**		**$50,000**
		3.2 2. Develop proposed payment mechanisms and prepare outline contracts for REDD payments in Tanzania					**UN REDD**		**$50,000**
JP Output 3.3 REDD payments combined with payments for non-carbon services									
Un Agency	***UNDP***	3.3 1 Propose mechanisms for bundling payments for non-carbon services (water, biodiversity, adaptation) to REDD to deliver a higher premium REDD credits					**UN REDD**		**$70,000**
		3.3 2 Develop, agree and start to test plan for combining REDD finance with other sources of carbon markets (e.g. CDM, adaptation) and non-carbon finance (i.e. water) in two pilot landscapes (Uluguru, East Usambara).					**UN REDD**		**$80,000**
Outcome 4. Broad based stakeholder support for REDD in Tanzania									

UN organization-specific Annual targets	UN organization	Activities	TIME FRAME			Implementing Partner	PLANNED BUDGET		
			Sept – Dec 2009	**Jan – Dec 2010**	**Jan – Aug 2011**		Source of Funds	Budget Description	Amount
JP Output4 1. Improved awareness of REDD at national level									
Un Agency	***UNEP***	4.1.1 Undertake awareness raising campaign at national level on the potential for REDD and how it might reduce carbon emissions					**UN REDD**		**$160,000**
		4.1.2 Exchange information with other 8 UN REDD pilot countries					**UN REDD**		**$40,000**
JP Output 4.2. Broad consensus built with forest communities regarding the REDD Framework									
Un Agency	***UNDP***	4.2.1 Collect local peoples perspectives on the potential for REDD and the likely benefits, costs and challenges.					**UN REDD**		**$70,000**
		4.2.2 Provide targeted messages to commuities on the potential for REDD to improve forests and livelihoods					**UN REDD**		**$130,000**
Total Planned Budget									**$4,000,000**
Including*	**Total UN organization 1: US$ 2.4 million (UNDP, includes programme oversight)**								
	Total UN organization 2 : US$ 1.4 million (FAO)								
	Total UN organization 3 : US$ 0.2 million (UNEP)								

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Annex 1. Outcome of UN REDD coordination meeting, FBD, 28th July 2009

Present:
Dr. Felician Kilahama – FBD - Chair
Soren Dalsgaard (FAO/FBD)
Pius Yanda (IRA/UDSM)
Patrick Ndaki (VPO)
Elifuraha Laltaika (Indigenous people)
Christognusr Haule (FBD)
Gerald Kamwenda (TFCMP/FBD)
Edward Kilawe (FAO)
Gertrude Lyatuu (UNDP)
Simon Milledge (Norwegian Embassy)
Ivar Jorgensen (Norwegian Embassy)
Neil Burgess (Consultant)

Question 1. Forest Carbon Partnership Fund (World Bank)

It was confirmed that T :

- The FCPF R-PIN was prepared for Tanzania and has been accepted
- Tanzania is not expecting money, but will participate as a coordination and learning process.
- The Tanzania National REDD strategy will be a preparedness plan. It will include the elements of the R-PLAN as required by the FCPF. As there is close cooperation between all players in Tanzania, there should be no problem to cover all the issues that are needed to make the RPLAN and National framework.
- The R-PLAN has a deadline for January 2010. Government intends to submit and have relevant discussions with stakeholders.

2) IRA Studies in relation to UN REDD studies

- It was confirmed that IRA is funding a number of specific studies, including a review of policies, benefit sharing mechanisms, etc. As there will be gaps in studies that are completed it was agreed that UN REDD money is still to fill remaining gaps in knowledge

3) Involvement of local / indigenous communities

- The representative of the indigenous peoples of Tanzania clarified that five groups of people in Tanzania meet the definition of an indigenous community (Masaai, Barabaig, Hadza, etc). These are mainly pastoralist or hunter-gatherer peoples, but not including Sukuma.

- Other Tanzanian members of the meeting considered that most other ethnic groups of people living in Tanzania were also 'indigenous'. This is not the same situation as in South America where Spanish and Portuguese people came and largely took over the country. Most people at the meeting preferred the term 'forest dependant community' or 'local people' over indigenous people. This is a similar situation to that in Zambia.

- The representative of the indigenous peoples of Tanzania is a member of the UN REDD Policy Board, and is a member of the IP group for Africa.
- Overall it was agreed that there is a need for further engagement of indigenous communities in Tanzania in the UN REDD (and general REDD) processes for Tanzania, especially as they are marginalised in many ways. Key recommendations were:

  National REDD Task Force. Needs to involve someone from indigenous peoples groups. UN REDD guidance says that there should be 2 representatives. Currently the Task Force has 8 members, and more could be added.

  Commissioning studies. Indigenous people should be involved in the studies, to gather their perspectives. Need further consultation to involve them in reviewing the REDD document and and providing their inputs. There is a budget in the UN REDD proposal for this work.

Consultation. UN REDD document needs to emphasize the need to get inputs from local people and indigenous people so that it is really well specified. Yanda replied that the consultation on the national strategy will involve the various zones around Tanzania. He will ensure that local communities and indigenous people will be involved.

4) Norwegian Embassy funding

Not much update on the funding situation as only the USDM IRA contract has been operationalised so far. Others are under a review and evaluation process.

5) Materials ready for Copenhagen meeting

- Showcasing materials for Copenhagen. Norwegians are probably funding the local consultancy Kilimanyika and a local NGO Tanzania Natural Resources Forum (TNRF) to assist the Task Force to pull things together. Need to work really closely together. Planned to have a Tanzania side event at Copenhagen. 3-4 presentations highlighting different issues – maybe leaflets and posters. 1 month before Copenhagen to have something for the Tanzanian audience. Proposed map of Tanzania with carbon layer – blowing out some details for other regions (e.g. Eastern Arc).

- UNEP WCMC mapping. Was explained – there is funding from UNEP global allocation for REDD and also in the UN REDD proposal. FBD wanted it all harmonized. Pius Yanda wanted the work to be done in collaboration with UDSM / IRA and SUA. This was regarded as important to make the relevant links to Tanzania and to the Tanzanian REDD Task Force and to ensure that Tanzania felt ownership of the resulting products.

Annex 2. Partner REDD projects

Global Objective: An international mechanism to provide incentives for REDD is included in a post Kyoto regime

Country Objective
UN Tanzania Joint Programme: Outcome 4: Increased Funding for Environment Management from International Environment Funding Mechanisms

Outcome 1: National Governance Framework and institutional capacities strengthened for REDD

Partner Baseline

Activities	Lead Agency	Funding Source	Scope
Development of R-PIN to FCPF	FBD	FBD	National
Task Force for facilitating development of national REDD strategy	IRA (for FBD and VPO)	Norway	National
National REDD Secretariat and coordination mechanism	IRA (for FBD and VPO)	Norway	National
Vocational training for forest institutions	Olmotonyi/ SUA	Norway	National
Financial management services	To be determined	Norway	For Norwegian funded projects
Tanzanian REDD showcase in Copenhagen	REDD Task Force	Norway	National
World Resources Institute	Underlying drivers of deforestation	Norway (NORAD)	Several countries
World Agrofrestry Centre – ICRAF	Policy and capacity building regarding REALU – Reduced Emission in Any Land Uses	Norway (NORAD)	Several countries
International Union for Conservation of Nature (IUCN)	Policy; REDD readiness targeting national negotiators/ private sector	Norway (NORAD)	Several countries
International Institute for Sustainable Development (IISD)	Capacity building for negotiators, inputs to COP 15/ UNFCCC	Norway (NORAD)	Several countries
International Institute for Environment and Development (IIED) & UMB	Potential and possible poverty- and sustainable development impacts of REDD	Norway (NORAD)	Several countries
Forest Trends & Katoomba Group	Global carbon markets and the 'incubator' approach	Norway (NORAD)	Several countries
Center for International Forestry Research (CIFOR)	global analysis of policy issues for policy makers	Norway (NORAD)	Multiple countries

Outcome 2: Increased capacity for capturing REDD elements within national Monitoring, Assessment, Reporting and Verification systems

Partner Activities	Lead Agency	Funding Source	Scope
Research and training programme: climate change impacts, mitigation and adaptation.	SUA UDSM Ardhi TMA	Norway	National
Assessment of carbon footprint of the HASHI project	DASS	Norway	Shinyanga
National Forest Inventory	FBD	Finland/ FAO	National
Development of a carbon accounting system for Tanzania (MARV)	SUA FBD Clinton Foundation Australian Department of Climate Change	Norway Ford Foundation (see links to UN REDD / FAO)	National
Forest biomass calculations	Woods Hole Institute / SUA	Not known	National
Valuing the Arc- carbon mapping using	WWF	UK Government	Eastern Tanzania

INVest tool	TNC UK / USA Universities UNEP-WCMC	UK/US Charities	
Establishment / testing of Trust Fund / REDD financial arrangements	To be determined	Norway (not in 2009)	National

Outcome 3: Improved capacity to manage REDD and provide other forest ecosystem services at district and local levels

Partner Activities	Lead Agency	Funding Source	Scope
Reducing forest degradation in threatened forest areas	FBD ICRAF WWF CARE	UNDP/ Global Environment Facility / German Government	Coastal Forests in Tanzania and Zanzibar; Mt Kilimanjaro; Western Miombo woodlands; Eastern Arc Mountains Nature Reserves

Outcome 4. Broad based stakeholder support for REDD in Tanzania

Partner Activities	Lead Agency		Scope
REDD Readiness Report/ Inputs to the development of a National REDD Strategy	DASS University of Life Sciences. Norway	?	National
Cross cutting knowledge management / awareness raising work	To be determined	Norway	

Annex 3. Notes from a CSO meeting on UN REDD programme in Tanzania at UNDP Office on the 5th March 2009

The following statements were made by CSO organizations with regard to their work on climate change and forest conservation in Tanzania.

Tanzania Natural Resources Forum (TNRF) –NGO working on good governance of natural resources. Work through thematic issues. Prepare policy briefs and provide lessons learned back to the communities. TNRF distributed in the north, west, and even the south. Demand driven. Working groups on pastoralists, wildlife and forestry. The forest group also has different areas of work; 4 projects currently. A campaign on illegal logging. Smaller group working on carbon and PES. And another looking at biofuels and access to land. PES / carbon group. Benefit sharing is a central issue. Communities need to see benefits. Material is on the website.

WWF – TPO. Involved in Valuing the Arc Project, assessing ecosystem services and payments. Also working with CARE on another PES project – water in the Ulugurus. Also involved in 40 villages supporting CBFM especially VFR. Udzungwa, Kilwa/Rufiji and East Usambara. Also supporting JFM in Kilwa. Supporting certification in 38 villages, and 12 have their certificates. Spread in the same areas as above. Also have a project in CSOs – building local CSO to advocate on natural resources governance. Also supporting FSC process in Kilwa with Mpingo project as well as Rufiji. Also facilitating a nationwide process. WWF also involved in a Dar charcoal project, starting up, aiming at three issues – advocate for sustainable charcoal production, fuel switching and efficiency. Also assessment of three forest projects on their potential for REDD; Udzungwa, Kilwa/Rufiji and East Usambara. Is also developing a proposal on the same areas for the Norwegians REDD funding. Also supporting data collection of adaptation in the mangroves of the Rufiji Delta.

ESD – KemCo. Interest in REDD in Tanzania is the same as the WWF mentioned project – Dar charcoal project. A sustainable charcoal project targeting 8 villages that combines land use planning, tree planting, marketing etc. Critical to deliver carbon credits to the community so that they are a reason to change. Payments have to be in advance. Challenge to commercialise the credits (voluntary in general). Lots of credits that cannot be sold at the present time. Difficult to scale up and provide guarantees to the communities. Work is at the pilot scale at the present time. In Kisarawe, where there are a number of villages with developed land use plans. Also marketing briquettes as a substitute to charcoal in Dar es Salaam. Have convinced 300,000 households to switch and 100 institutions, which should reduce dependence on charcoal.

Wildlife Conservation Society of Tanzania (WCST). Society is involved in a number of projects. Include work on PFM in Uluguru North FR. Organising the communities to enter into agreements. Preparation of management plans. Resource Assessments. JFM in these catchment forests is actually a non starter as there are no benefits and the communities are being asked to do work in return for few returns. Communities are discouraged and not interested in JFM unless they can benefit. On the other hand the CBFM process is likely to work and gives them decisions over their own land. Landuse plans in the Selous Niassa corridor being developed. Also providing training. Heavily involved with environmental education – and REDD will need a lot of input at the community level. Communities will need to understand the benefits and the consequences. And participated in Kibaha in the preparation of the REDD strategy for the country. Developing a pilot proposal (concept note) and has already submitted to FBD and the Norwegians for Kazimzumbwe and Pugu. Need to focus on issues that many people want to understand – mechanism and process for benefit sharing is key. No transparent mechanisms are available and many things fail in TZ because of this. Marketing for the villages is also a tricky issue. Community monitoring is also important.

Tanzania Forest Conservation Group (TFCG). Is working on various REDD related projects, with a large funding application under consideration at the Norwegian Embassy. They have also been working for many years on community based forest management in the Eastern Arc and Coastal Forests regions. These mechanisms are highly likely to be a part of the implementation mechanism for the UN REDD work in Tanzania. TFCG also has relevant policy, advocacy and education capacity and produces useful magazines and other materials that help inform the policy process.

TATEDO. Sustainable development NGO been in existence for 70 years. Energy efficient technologies. In 9 different regions and 33 Districts. Focus on communities and the local people. Promotion and dissemination of energy efficient technologies. Capacity building, training etc. Wood fuel technologies that include wood and charcoal stoves. Aim to reduce pressure into natural forest. Also have tree planting for local use. Improved methods to make charcoal, all aiming to reduce pressure on the natural forest. One EU project and one Norwegian project, second on learning from the past interventions. Technology developed and the demand created but then no supply. Now trying to find private sector to help scale up the technology and provide to those who need it. Saw dust briquette is one of the products, for an institutional market. Can reduce costs and re-use materials. Also have energy efficient stoves; building them into houses into Hai district. Will reduce a lot of CO2 emissions through the use of these improved stoves, trying to get funding from

voluntary carbon markets. Projects contribute on marketing and fund management parts of the REDD production chain. Work with several stakeholders at the grass roots level.

A2N. NGO with members nationally. Its aim is empowerment of communities for sustainable livelihood. Aim at capacity management especially participatory management. Entry point is building capacity of communities. Also supporting farmers economic groups. Through collaboration with ILO also involved with the elimination of child labour – especially in the tobacco areas. Poverty is a major issue and also develop IGA activities. Also work on information management and access to information. But the platform is a challenge. Need methods that work at the local level. Also support community projects ; including a combating land degradation project in Kisarawe district at primary school and village levels. And now work on wood saving stoves. Can do capacity building, awareness and training of farmers. Access to information is also important. Need to continue work on land degradation.

Robert Otsina. Development Associates. Consulting and implementation company. Natural Resources and Agriculture. Provide training in many areas. Assessment of carbon in trees and also in the soil. Monitoring and evaluation. Services to communities mainly. Specifically have done projects on baseline of carbon in Ruvu N FR, including community involvement. Also working in Shinyanga – trying to assess if REDD can be implemented in that area. Practical issues that need to be addressed in ngitiri individual peoples forests. Now might be able to get the benefits of saving their forests – could be a good demonstration site for REDD. Challenges of benefit sharing. If no benefits, forget about REDD. Also involved with writing TZ REDD readiness document. Also involved in the preparation of the R-PIN (World Bank carbon financing issues). IRA will try and bring this together. Also now working with Katoomba Group and Foest Trends looking at the institutional and legislation gaps. Land use. Ownership. Payment mechanisms. Who is going to pay for this. Now mostly looking a governments. Mechanisms need to work after the Norwegian money ends. Also developing a proposal with TATEDO to see how areas like Shinyangi and Babati areas can inform REDD in Tanzania. Also want to look at leakages, firewood, charcoal, agriculture, etc.

IUCN. Past and ongoing work in the Rufiji District. Within PFM but also more generally. IUCN is working also on the mangroves for the future project. In various countries IUCN is supporting participatory REDD strategy development processes. Also proposed to provide technical assistance to different proposals that are being submitted to the Norwegian government. FAO and IUCN supported 8 villages in Rufiji, assisted them to development forest man plans, participatory resource assessments, agreements, and monitoring in the Nguburuni FR. Barriers and guards have been put in place.

MJUMITA. NGO established in year 2000. Has 5000 members from 74 CBO on the Tanzania mainland. Main activities – coordination of activities across the network. AGM. Workshops. Networking activities. Also invite the FBD to these meetings. Also policy and advocacy, wildlife policy, land policy, costs and benefit sharing for PFM. Second point of policy and advocacy is the signing of the JFM agreements. Hope that the agreements will be signed. Up to now, they are not signed by FBD. IGA activities such as beekeeping are encouraged. Partners are MS Tanzania, TNRA, WWF. A coalition of at least 5 NGOs that try to come together to discuss forest related issues. Capacity building is funded by WWF. Also strongly linked to TFCG. Proposal developed with TFCG to the Norwegian Embassy. Is also among the task force that is involved in the carbon trade issues, last met in February 2009. African Action Plan for REDD and have identified gaps. Also food security and climate change.

Agenda. NGO that was started in 1994. Sustainable development in development. Has been NGO since 1997. Lots of activities in climate change, NR management. Are working on the fisheries sector, and planning to work on forestry and livestock. Mainly worried about land contamination issues. Have a capacity building programmes funded by WWF. Also formed a small network with other CSOs. Also participating in capacity building work with EIA and WCST. Staff will be enhanced. No projects in forest as such. Chemicals are the big issue for them.

TASONABI. Over 100 members with MSC and above mainly. Trying to make science relevant to the rural area in a simple way. REDD has been working in Mtwara development corridor – particularly the Liwale District. Have facilitated land use plan in 13 villages. Have also facilitated developing a forest management association. Due to lack of capacity have faced a problem of fire. Villages developed 157,000 ha of forest that is currently being heavily degraded. Financing activities in Liwale is a major problem. Forest is being degraded by Chinese loggers and others. A concept note is under preparation for the Norwegian govt. There is a lot of forest, can be managed, is land use plans and certificates, lack technical capacity to implement

Annex 4. Response to Technical Comments

Comments received on the UN REDD proposal from a) UN REDD Board, b) UNDP (Tim Clairs), c) FBD (Evarist Nashanda), d) FAO (Soren Dalsgaard and Edward Kilawe) and e) UNEP (Niklas Hagelberg).

UN REDD Board.

Comments	Response
How realistic is the duration of the proposed UNREDD programme. Explore extending the duration to 18-24 months	It was agreed at the UN REDD board meeting in Montreaux to extend the period to 24 months. In Tanzania in July 2009 it was agreed that the start date would be the 1 September 2009 and that the programme would run for 2 years from that date.
Better articulation of the linkages with other REDD initiatives in Tanzania	It was reported to the UN REDD board that an inventory of all REDD initiatives in the country had been done and these will be reflected in the final UNREDD document. In Tanzania in July 2009 the matrix was updated on discussion with IRA, the Norwegian Embassy and FBD. The revised coordination matrix covering all known initiatives is included as an Annex to the final UN REDD proposal.
Establish fund management arrangements	The fund management arrangements were clarified between UNDP, FAO and UNEP during the July mission to Tanzania. And then through discussion with the Government representatives. The agreed fund management arrangements are proposed in detail in the NJP, including a diagram that shows how funds could flow.

Tim Clairs – UNDP leader for REDD

Comments	Response
1. Fund distribution arrangements a. FAO (corporately) and UNEP have agreed to apply the HACT process for UN-REDD National Programmes. For FAO, this has been confirmed by Tiina Vahanen (Edward, you can confirm with Tiina). b. Therefore we need to demonstrate that macro and micro HACT assessments have been applied. Am sure Gertrude can guide this process and also put Neil in contact with HACT experts within the UN country team. But I attached some guidance c. In addition to all 3 UN Agencies agreeing to apply HACT, all 3 UN Agencies have agreed to apply the same cash transfer modality i.e. all will use direct cash transfer, or direct payment etc. Won't have a situation where UNDP uses direct UN Agency implementation and UNEP uses direct cash transfer d. As the attached UN-REDD Fund Management Guidance sets out, we are looking to go beyond the consistent application of HACT – especially in a One UN pilot country like Tanzania. There is strong interest in achieving a "common financial interface" whereby all the National Programme funds are transferred to the implementing partner(s) through one UN Agency. This is not strictly a "pooled approach" – because the funds are released from the UN-REDD MDTF only via the pass-through approach (meaning they are distributed to the 3 UN Agencies). But what could happen	The issue of fund distribution arrangements was discussed in detail in Tanzania involving members of UNDP and FAO in Dar es Salaam, and remotely with UNEP in Nairobi. The proposed mechanism was also discussed with the Government representatives. The mechanism proposed in Tanzania is outlined in detail in the proposal, but is based to be the modalities used in other UN programmes in Tanzania. In particular the approach is based on the agreements forged when creating the One UN Programme 'Joint Programme on the Environment' in Tanzania, which operates on the basis of an MOU between UNDP, FAO and UNEP. In general this was the most problematic part of the mission to Tanzania, taking up a significant portion of the available time and effort. At the end of the day the mission team proposed the mechanism that would be acceptable to the UN agencies leadership in Tanzania., and to the Government as well. If these modalities turn out not to be acceptable, significant further work will be required to resolve this issue.

is the 3 UN Agencies could agree to "reunite" the funds at the country level and transfer to the counterpart implementing partner is a "common" (or pooled) manner. e. One option is to use the existing One UN joint programme for Environment in Tanzania. A mechanism will have to be established whereby despite UNDP acting as the Managing Agent, the 3 UN Agencies can still be substantively responsible for the funds – as the 3 UN Agencies are accountable to the UN-REDD MDTF Office, not the Managing Agent. This can be achieved if there is the desire among the UN Agencies in-country.	
2. Coordination with initiatives receiving funding from Norway through Norad a. I attach a list of Norad funding. Those involving Tanzania need to be covered. b. Important to make contact with these initiatives in advance of the mission and organize to meet their representatives in Dar	We have been through the matrix of projects funded directly by NORAD and the following projects have relevance to Tanzania, or mention Tanzania directly: a) Center for International Forestry Research (CIFOR) – global analysis of policy issues for policy makers b) Forest Trends & Katoomba Group – global carbon markets and the 'incubator' approach c) International Institute for Environment and Development (IIED) & UMB - potential and possible poverty- and sustainable development impacts of REDD d) International Institute for Sustainable Development (IISD) - Capacity building for negotiators, inputs to COP 15/ UNFCCC e) International Union for Conservation of Nature (IUCN) - Policy; REDD readiness targeting national negotiators/ private sector f) World Agrofrestry Centre – ICRAF - Policy and capacity building regarding REALU – Reduced Emission in Any Land Uses g) World Resources Institute - underlying drivers of deforestation Efforts were made to contact all these projects and to seek further clarification on what they will be funding. Results were included in the coordination matrix and this was shared with the IRA REDD coordination unit for posting on the web site www.tzredd.org
3. Coordination with Other initiatives such as Clinton a. I am still waiting for information from the Clinton Initiative b. This is particularly important in relation to C-MRV and to clarify what is expected of UN-REDD re REL	The UN REDD team could not physically meet with staff from the Clinton Foundation and it remains unclear what work they will be doing in Tanzania. They tried to get fundig from the Norwegian Embassy for their proposed work to develop a carbon accounting system for Tanzania, which would include the calculation of the Reference Emission Levels (REL) for the country. This proposal was not passed for further review. As the calculation of REL is a critical part of the REDD readiness package, FAO proposes to revise the UN REDD proposal to include issues of training and establishing the REL for Tanzania over the coming 2 years. This will be based on work on the ground and using remote sensing approaches and both available and newly collected data.
4. Coordination with initiatives funded by the Norwegian Embassy a. You are better placed to be aware	Detailed discussions were held with the IRA facilitation unit, members of the Government Task Force, and the Norwegian Embassy. The projects to be funded by the Norwegians and

than me	the workplan for the Norwegian work have been compiled by IRA and have been made available on www.tzredd.org Some updating of the UN REDD proposal was made as a result of these discussions, for example agreeing to change the emphasis of some activities that are covered elsewhere, or agreeing that they might cover a larger area of land, broader set of forest types, etc. These changes were made after discussions and reflect the best available understanding at the present time. Final resolution of these issues can only occur when the UN REDD and Norwegian Proposals are accepted and there is an inception period for the UN REDD proposal. At that time, full harmonization will be possible.
5. Coordination with FCPF a. You have seen that WB/FCPF mission has now been postponed until Sept. b. There is still uncertainty on how Tanzania intends to proceed with the FCPF. This needs to be clarified and set out in the National Programme document c. FCPF is of the understanding Tanzania is not going to request financial assistance from FCPF (i.e. not going to request $3.6m available to FCPF countries) d. But not clear if Tanzania intends to submit a R-PP to FCPF anyway e.	This was discussed with IRA and FBD in Tanzania. The World Bank representative (Christian Peter) was not in country at the time of the mission. Information gathered was as follows: a) The national Tanzanian strategy and action plan being developed for REDD in Tanzania (coordinated by IRA and funded by Norway) is compiling the same material as is required for the FCFP RPLAN and aims to finish this by the end of 2009 to meet the relevant deadline. b) Tanzania is eligible for FCFP funding, but it not likely to receive these funds due to the high levels of other funding that are available for REDD in that country. c) Even without funding, Tanzania wishes to continue to be part of the FCPF process to be able to learn from other countries. It will also continue to develop the materials and attend the meetings.
6. Update of engagement with forest-dependent communities a. Important for mission to meet with Elifuraha Laltaika to get his impressions from the Policy Board b. Meet with local stakeholder representatives and ensure they contribute to the process of finalizing the national programme document. Include in mission schedule. c. Need to ensure the National Programme is in-line with the UN-REDD Engagement Guidance (attached). This may take some thinking – with the RC – on how the concept of Free, Prior Informed Consent (FPIC) is going to be operationalised in Tanzania d. Consider the possibility of including national UNVs in the workplan/budget as a means of engaging with local stakeholders	The UN Team met with Elifuraha on Tuesday 28th July. His main concerns with regard to REDD in Tanzania were: a) Consultation with indigenous communities during the readiness process. b) The need to include a representative of indigenous people on the REDD Task Force c) Indigenous people should be consulted in the UN REDD and any other REDD process, in particular to gather their hopes and fears about how REDD might operate. In general the Team and the Tanzanian members of meetings where the concept of indigenous people was debated were of the opinion that the issue of indigenous people is less relevant in a country like Tanzania than the concept of forest dependent communities or 'local people'. That is because of the multiple ethnic groups living in Tanzania, all of whom have been in the country for thousands of years, sometimes many thousands. However, it was accepted that some groups living in Tanzania (pastoralists and hunter gatherers in particular) are more marginalized by the laws of Tanzania than other groups, and hence their interests do need special attention in any REDD process in the country. The team also met with members of WWF and the local NGO WCST. These meetings gathered some further inputs which were used to update and modify the UN REDD document – particularly in regard to coordination with potential Norwegian Funding that might be received by these NGOs. This consultation is in addition to the CSO meetings that were

	held under thee UN REDD programme in April 2009 and which are included in the Annexes to this proposal.
7. Include a sufficient Inception Phase in the workplan a. There will be a need to work through a number of issues once the programme is up and running – such as revalidating the programme with local stakeholders and sorting out the mechanics of the fund transfer modalities. The inception period will also be critical for operationalising the UN-REDD Engagement Guidance	The workplan and the text of the NJP has been updated to include an inception phase. This is regarded as essential to allow the general work plan and budgets to be fully developed as a collaboration and with agreement of the various government agencies involved in this programme. The development of this detailed workplan would also entail making detailed budgets and specifying the Implementing Partners to deliver the work. Once that is agreed then the programme can be easily operationalised.
8. Think of what the National Programme can achieve/deliver by Copenhagen. Articulate clearly in the workplan	We discussed in detail with IRA and the Norwegian Embassy the issue of products and materials that can be made available to the COP 15 meeting in Copenhagen. There are well developed plans in place in Tanzania to pull together materials to be taken to Copenhagen and for a separate Tanzania COP side event to be held there. A consultancy company Kilimanyika contracted through IRA is likely to provide support to the government to put in place the required materials for this event. The work proposed by UNEP (via UNEP-WCMC) on developing mapping outputs in time for Copenhagen was also reviewed and discussed, and the need to harmonise the UNEP REDD (global) and the UN REDD (national) mapping work was highlighted. Some work to achieve this coordination was completed, but further work will be required during the UN REDD inception period. For the work supported by UNDP to FBD a detailed 3 months work plan (September to December) has been developed to deliver some training and capacity building benefits, and to establish the REDD unit within FBD. This may also be something that can be highlighted in Copenhagen as it will be a tangible product.

Evarist Nashanda, FBD

Comments	Response
a) Preparations of National REDD Strategy of which the National REDD Frame work was finalised and quite a number of activities are on-going; - Engaging NGOs in the implementation of REDD pilot projects where REDD experiences and lessons will be learned and contribute to the National REDD Strategy and its implementation - REDD in-depth studies were identified and some institutions are being engaged to undertake the studies - GoT, Roral Norwegian Embassy and the REDD Task Force Secretariat are in the process of preparing for Tanzania REDD Showcasing in Copenhagen towards end of 2009. The workplan for the Strategy development is quite clear and is financed by RNE through IRA-UDSM	Discussion with FBD and the IRA coordination unit provided further clarification of the relationship between the work of the National REDD strategy development and that of the UN REDD proposal: a) The national REDD strategy is funded and will be finalized by 2010; draft by 31st December 2009. b) Lessons will be learned from the NGO pilot projects through workshops and also in coming years through formal lesson learning approaches (such as a targeted research project). c) A series of in depth studies are being funded, including policy analysis and costs and benefits of REDD (which are included in the UN REDD proposal as well.) It was decided that when the UN REDD proposal is accepted, harmonization between these overlapping activities would be undertaken in the inception period; but in general that the UN REDD activities should be retained and the additional funding used tin increase the scale and scope of the work – for example to expand work to

	mapping, testing payment mechanisms, and community level monitoring were identified as being potential ways for Tanzania to showcase its work related to REDD. The UN REDD proposal contains a relevant activity and budget to cover pulling together these actions. This is in addition to funding that is available from the Norwegian Embassy. However, harmonisation is still needed with the funding provided to IRA for the same activity. e) Verifiable and concrete outputs. The UN REDD team has revised the activities in the proposal and has made the activities more concrete in terms of working with FBD to deliver defined products that will help the country move towards implementing REDD. The number of consultant reports and studies has been reduced. Significant changes have been made to the proposal in this regard.

Edward Kilawe (FAO)

I support earlier comment from Gertrude that we should somehow shorten the 'notes' in Annexes	This has been done
we should try to have a forward memo for pro doc which explain the major work that has been done during the UN REDD mission	This has been done
I suppose Tim will send you the text for fund management arrangement that you should adapt in the document (the matter has been now almost closed and the approach for channeling funds has been proposed).	This has been added
There is one area which is still largely with vague plan in terms of what the programme will provide to Forestry Division (ref. 1.3.1, 1.3.2- TA – for programme, 1.3.3- TA for MARV, 1.3.4 in the framework document/work plan), we have often changed these in the NJP but we have not been clear enough (corresponding annexes for this outcome are not complete -TA for programme, TA/national support for MARV and provision list of equipment).	This is hard to address as the main TA position has been advertised and shortlisted. How the other TA work and UN assistance work should be included in the project document is, indeed, somewhat unclear. It was the view of the consultant that this can only be addressed by the UN agencies themselves, or during the inception period. Hence this was left as a pending item in this proposal.

	cover a larger area of land, a greater number of forest types, more detailed assessment of policies, etc. Achieving this goal will require some coordination in the operationalisation phase of the work. d) Materials to be finalized by Copenhagen – the government has put in place a mechanism to gather examples of materials to be taken to Copenhagen, for example its work on Ngitiri conservation, the positive forest impacts of PFM, and the project impacts of WWF, TFCG and Sokoine University on improving forest condition and capture and storage of carbon. Various maps and posters are also proposed to be prepared.
b) UN-REDD Programme support to Tanzania As far as I can remember the UN-REDD was requested to support TZ for REDD readiness. First and second missions visited TZ and the resultant of these mission was a UN-PD support programme. As a representative of FBD I was part of this work though most of the concepts were new to me. My understanding from the PD is that UN-REDD (UNDP, UNEP and FAO) will support capacity building in all aspects of National REDD Production Chain, some important items are; - Carbon accounting system- ie setting up of national permanent carbon measuring plots embedded within National Forest Monitoring and assessment of FBD programme/project and set-up National Reduced Emission Levels- My understanding is that this activity is under FAO and 30th July- 2nd Aug 2009 there was an inception workshop were FAO were fully represented - Setting- up FBD well equipped GIS unit with GIS/mapping facilities and well trained personnel short and long term(FBD has already allocated Catchment Forest and Mangrove building for GIS Unit as a response to this). I presume this is all about monitoring and will be under UNEP - Build Capacity in terms of Awareness Raising and education, marketing and negotiating skills, study on Costs- Benefits of REDD in different land-uses etc etc I think these will be under UNDP - It was also agreed that UN-Programme will assist in gathering information for showcasing in the coming CoP 15 and was termed `"quick start" activities. I believe UN-REDD can do this very quickly. The issue here is to liaise with TF, Embassy and the Secretariat. So in conclusion UN-REDD mission to TZ (22nd-30th) should really focus on to revised PD which will to come up with verifiable and concret out puts and not consultants reports as I can see each of the budget-line in the programme there is a consultant work. I am not raelly saying we dont wants consults but what I am refering here is the ToR and the out-puts. What we really need is to build capacity of individual Tanzanians and the capacity of relevant Institutions on REDD aspects.	With regard to the points raised by FBD the UN REDDTeam has revised the proposal in the following ways: a) carbon accounting system and national permanent carbon measuring plots. With regard the development of a carbon accounting system for Tanzania the team is aware of the proposed work of the Clinton Foundation to develop a carbon accounting system for Tanzania. Work on this does not seem to be happening and in this regard, this work could be part of MARV activities led by FAO. - With regard to the system of plots; the UN REDD team are aware of the work being coordinated by Sokoine University of Agriculture on establishing carbon storage and sequestration plots in various vegetation types across Tanzania (mainly in the East so far). This work is funded by Cambridge University, Eastern Arc Trust Fund, German Climate Change Initiative and there is a proposal with the Norwegian Embassy as well. The proposal notes this development and makes suggestions on how this can be coordinated. Meetings were held with Prof Munishi, Prof Malimbwi and Prof Madoffe of SUA and Dr Nshubemuki and Mr Mbwambo of TAFORI to gather their experience of this issue and to be aware of what is being done. Relevant work was added to the coordination matrix. b) Setting up a GIS unit at FBD. Discussions were held with GIS staff at SUA and the need for materials and equipment and training for FBD staff was clarified with Mr Haule from FBD. The UN REDD budget includes activities to establish the GIS unit and provide the relevant training for FBD staff. c) Building capacity at FBD. The UN REDD proposal includes activities and budget lines to help build FBD capacity in the issues relevant to REDD. It also includes activities and budget lines to accommodate consultant and technical inputs to assist FBD in these tasks. Some slight changes were made to the activities in response to this comment. d) Gathering information to showcase at COP 15. Discussions were held with NGOs and with staff from SUA and TAFORI. A considerable number of activities around PFM, remote sensing, forest change analysis, carbon

Annex 5. Detailed initial three month operational budget for the Forestry and Beekeeping Division in Tanzania

	UN-REDD Detailed costs per activity - FBD Three months Action Plan						
UN REDD activities		**Sub-Activity**	**Item**	**Unit**	**Number of Units**	**Cost per Unit (US$)**	**Total cost (US$)**
1.2.1	1	Develop training REDD materials (costomisation of the Global ones?)	Consultant	Lump sum			16,000
1.2.1	2	Assess capacity and training needs in seven Publicity and Extension zones	Perdiem (22 nights including on transit) for 3 FBD officers	Days	66	62	4,092
			Perdiem (22 nights including on transit) for one driver	days	22	35	770
			Costs for Secretariat	Persons	3	150	450
1.2.2	3	Conduct Training of trainers of 30 Publicity and Extension officers from FBD HQ and 7 publicity and Extension zones	Conference facilities for six days	Participants	180	20	3,600
			Perdiem (9 DSAs including on transit)	Participants	270	62	16,740
			Transportation (return-bus tickets) - Dar participants	Participants	9	31	279
			Transport reimbursment (return-bus) - Outside Dar participants	Participants	21	96	2,016
			Costs for Secretariat	Persons	3	150	450
1.2.2	4	Transport costs (travelling costs, when given tickets not Fuel)	Transport (Fuel)	Litres	9500	1.2	11,400
1.2.2	5	Purchase various stationeries	Stationeries	Lump sum			1,500
1.2.2	6	Facilitating communication (Airtime costs)	Airtime Voucher	Each	100	10	1,000
		Sub-Total					**58,297**
1.3.3	7	Install local communication network in Mpingo House (Internet facilities, Telephone network, Fax)	Installation of internet facilities - mpingo house	Lump sum			6,000
			Installation of telephone and Fax network - Mpingo house	Lump sum			5,000
1.3.3	8	Support FBD-REDD Unit with 5 desk top computers	Purchase of computers (Desktop)	Computer	5	1100	5,500
1.3.3	9	Support FBD-REDD Unit with 3 Laptops for Economist, Lawyer and one Forest Officer (Recruited)	Purchase Laptops computers	Laptops	3	2500	7,500
1.3.3	10	Support FBD-REDD Unit with one Heavy duty coloured printer	Purchase Heavyduty coloured printer	Printer	1	4000	4,000

1.3.3	11	Support FBD-REDD Unit with one Heavy duty Photocopier machine	Purchase Photocopier machine	Photocopier	1	4000	4,000
1.3.3	12	Partitioning of REDD unit space provided by FBD	Partitioning materials and Labour charge	Lump sum			1,230
		Sub-Total					**33,230**
		Sub-Activity	**Item**	**Unit**	**Number of Units**	**Cost per Unit (US$)**	**Total cost (US$)**
1.2.2	13	Conduct REDD Training Workshop to 30 FBD Schedule officers and MNRT Directors	Conference facilities for 3 days	Participants	126	20	2,520
			Perdiem (5 DSAs) for 5 MNRT Directors and 30 FBD Schedule officers	Days	150	62	9,300
			Perdiem (5 DSAs) for one secretary and 6 drivers	Days	30	35	1,050
			Transport reimbursment	Participants	36	31	1,116
			Costs for resource persons	Persons	2	200	400
			Costs for Secretariat	Persons	6	150	900
1.2.2	14	Conduct one day Training Workshop to Permanent Secretaries of related Ministries and Parliamentary Permanent Committee for Land, Natural Resources and Environment	Conference facilities for one day	Participants	53	52	2,756
			Perdiem (3 DSAs including on transit) for 32 Hon. members of Parliament	Days	96	62	5,952
			Transport reimbursment Dar participants	Participants	10	62	620
			Seating Allowances	Participants	41	50	2,050
			Transport reimbursment (Fuel) - Outside Dar participants	Litres	15,500	1.2	18,600
			Costs for resource persons	Persons	2	200	400
			Costs for Secretariat	Persons	6	150	900
4.2.2.	15	Support 3 FBD staff to attend World Forest Congress in Argentina where REDD will be discussed	Tickets and allowances for travels outside the country	Lump sum			20,000
		Sub-Total					**66,564**
		Grand Total					**158,091**

Annex 6: Terms of Reference / Job description for UN REDD Technical Advisor (UNDP)

UNITED NATIONS DEVELOPMENT PROGRAMME
JOB DESCRIPTION

I. Post Information	
Post Title: Environmental Specialist (Economics-UN-REDD) **Post Number: 00043023** **Encumbered by: Vacant** **Organizational Unit: RBA/UNDP/Tanzania** **Supervisor/ Grade: P.5 (Deputy Country Director – Programme)** **Post Status: *Project*** **Source of Funding: UNDP1-04000-TZA-38205-001981-00012-TZA10-00056467 (Activity 4)**	**Current Grade: L.4** **Proposed Grade: N/A** **Approved Grade: L.4** **Post Classified by: ODBU** **Classification Approved by: ODBU**

II. Organizational Context

Under the supervision of the Deputy Country Director; the Environmental Specialist (Economics-UN-REDD), will primarily be responsible for Policy Advice in the areas of Climate change and Natural Resources Management to national counterpart on behalf of the UN. The work will also include coordination and technical inputs to the Government/UN Joint Programmes within the Environment & energy portfolio. During the first year, the Environmental Specialist will be responsible to deliver UN-REDD programme of work in Tanzania in consultation with government and other in-country stakeholders. The advisor will form an integral part of the Energy & Environment team and therefore contribute to ongoing biodiversity conservation and management of ecosystems; natural resources; climate change adaptation and mitigation programmes under implementation and formulation. The incumbent will provide a primary linkage to partnerships in the CO in the area of energy and environment starting with Joint programmes as well as providing strategic technical advice of the environment and energy portfolio within UN Agencies, Development Partners and Government officials to successfully deliver quality advice.

III. Functions / Key Results Expected

Summary of key functions:

- Ensure timely and quality Policy Advice to national counterparts and UN senior management in the area of UNREDD, Natural Resources Management and Climate change;
- Ensure smooth coordination and management oversight of the Government/UN Joint Programmes including strategic reviews including MKUKUTA/MKUZA;
- UN/Government in Tanzania successfully implements a portfolio of UN-REDD pilot programmes and projects;
- Ensure UNDP CO is widely engaged in Tanzania, across the region and within the UN-REDD community for its strategic technical advice;
- Provides strategic guidance to the government, local & international NGOs, Academic institutions, private sector, development partners and other UN Agencies .

In collaboration with the Designated leader of the REDD process in Tanzania, the Environmental Specialist ensures the strategic policy guidance in the practice area focusing on achieving economic tools (such as cost curves calculation).The Adviser will therefore:-

- Review existing models that have attempted to estimate REDD costs (at global and regional) levels and

assess applicability to Tanzania;

- Establish and agree categories of REDD costs in Tanzania and determine who will incur the costs (social, private and budgetary costs etc);
- Identify critical uncertainties;
- Consider establishing an independent group to advise on the methodology(ies) to be followed to estimate the costs of REDD in Tanzania;
- Build capacity of REDD stakeholders to understand the methodology(ies) and participate in the cost analysis;
- Contribute to development of various range of monitoring tools such as an initial REDD cost curve for Tanzania, plotting abatement costs (in $ per tCO_2e) against abatement potential (in $MtCO_2e$). Abatement 'levels', or opportunities, should be differentiated in terms of land-use as per the McKinsey example.

The Environmental Specialist will facilitate establishment of mechanisms for benefit sharing including payment distribution system through the following process:

- Assess the extent of intergovernmental fiscal transfers, in terms of the efficiency of allocation of financial resources for decentralized public services and its impact on overall macro-stability on one part and social equity on the other part;
- Identify the risks and elements in designing a payment distribution system that is transparent, adequately compensates agents that incur losses as a result of changed forest-resource use, and rewards good performance;
- Consider the options for payment distribution mechanisms, within and outside existing government fiscal transfer mechanisms, and other service delivery mechanisms;
- Support transformations to sustainability for the long term within the local context of options and aspirations;
- Assess the fund management options for a national REDD mechanism, including government controlled, privately controlled, on-shore and off-shore.

The Environmental Specialist will also be involved in generating, managing and stimulating the uptake of knowledge to ensure that:

- UNDP CO is widely recognized in Tanzania and across the region and within the UN-REDD community for its strategic leadership and quality policy advice on environmental related issues;
- Provision of technical advice on strategies, policies and plans related to delivery of practice advisory, knowledge and learning services;
- Establishment of ways for collaboration with potential partners, resource mobilization for strategic environmental programmes specifically focusing on adaptation and mitigation to climate change;
- Knowledge building and sharing on management of strategic environmental programmes in the CO, contribute to capacity building, synthesis of lessons learnt/best practices, contributions to documentation of lessons and participate in UNDP knowledge networks and communities of practice.

The Environmental Specialist will participate in coordination mechanism(s) for development partners involved in environment work in the Country, and other REDD programmes supported in Tanzania (Norwegian, German and Finnish Governments as well as Clinton Foundation) - including the following:

- Provide technical assistance as necessary for strategic capacity building efforts in the environment and energy based on assessment and upon request from the Government of Tanzania;
- Participate in Programme Steering Committees and EWG on behalf of the UN as appropriate;
- Engagement with the DPG environment and Climate change;
- Focal point for Joint Environmental Programmes managed by UNDP Country Office;
- Contribute to the Government policy dialogue and reviews processes.

IV. Impact of Results

Key results and expected impact:

- The Government of Tanzania, local & NGOs, Academic institutions, private sector, fully participate in programmes on climate change adaptation and mitigation as well as a source of innovative environmental, economic and financial ideas
- UN/Government in Tanzania successfully implements a portfolio of UN-REDD pilot programmes and projects

V. Competencies

Corporate Competencies:
Given the complex, technical and innovative nature of the climate change and UNREDD programme in particular the position will require: advanced skills and extensive experience in natural resources economics; environmental mainstreaming in developing countries and an understanding of the global climate agenda. The post will require significant experience with both governments and the private sector; entrepreneurial and business skills; strong communication and advocacy skills; and extensive experience with project development, implementation and management.

Leadership & Management:
- Strong vision, entrepreneurial and leadership skills;
- Good judgment and decision-making skills.
- Ability to coordinate and work in teams

Professionalism:
- An understanding of the workings of joint programmes and the REDD approach within the global climate change debate and what will be feasible in the African continent & specifically for Tanzania.
- Demonstrated ability to work effectively with private sector, NGOs and government, communicate and negotiate effectively, and bridge differences between them
- Excellent negotiation skills and ability to persuade and influence others to reach agreement on complex ecosystem, land and natural resource issues;
- Demonstrated experience in the design, implementation and oversight of projects and programmes.
- Strong ability to train and build capacity of others on fundamental and innovative approaches and concepts

Planning and Organizing:
- Proven ability to plan and organize work.
- Strong problem-solving and analytic abilities and advocacy skills
- Experience with UNDP and the UN System; good understanding of UNDP programme, finance and operational procedures.
- A self-starter, able to work with minimum supervision, with sound judgment
- Ability to lead strategic planning, results-based management and reporting.
- Ability to lead formulation, implementation, monitoring of development programmes and projects.
- Ability to formulate and monitor budgets, monitor contributions and investments, monitor transactions, conduct financial analysis, reporting and cost-recovery.

Communication:
- Excellent drafting ability and communication skills, both oral and written; ability to defend and explain difficult and complex issues with respect to key decisions and positions to staff, senior officials and individuals from the private sector.
- Excellent presentation skills.

Client Orientation:
- Ability to identify needs and propose appropriate solutions as well as establish and maintain effective relationships with UNDP, government, NGOs and private sector staff and employees, as well as individual entrepreneurs.

Commitment to Continuous Learning and Knowledge Management:
- Knowledge of the concept of ecosystem services and PES
- Promotes knowledge management in UNDP and a learning environment in the office through leadership and personal example
- In-depth practical knowledge of planning and inter-disciplinary development issues.
- Actively works towards continuing personal learning and development in one or more Practice Areas, acts on learning plan and applies newly acquired skills
- Seeks and applies knowledge, information and best practices from within and outside of UNDP.

Building Trust:
- Reputation for dealing honestly and openly with issues and partners; recognized and respected by peers, clients and staff

VI. Recruitment Qualifications	
Education:	Masters degree in environmental economics, natural resources management, or related discipline
Experience:	• A minimum of seven years of post-graduate professional experience in environment/sustainable development, with knowledge of the developing world preferably including East Africa. • Demonstrated expertise in climate change and mitigation strategies desirable • Substantive knowledge of UNDP programming tools for planning, monitoring, and general knowledge of the UNDP Practice Area • Thorough understanding of the forest and biodiversity conservation issues\environment policies and governance systems in developing countries desirable • Proven ability to integrate economic thinking into donor funded environment projects. • Experience in providing policy advice on sensitive land water and natural resource issues. • Knowledge of climate change adaptation and mitigation issues
Language Requirements:	Good communication skills. Fluency in spoken and written in both English and Kiswahili.

VII. Signatures- Post Description Certification		
Incumbent *(if applicable)* Name:	Signature	Date
Supervisor Name	Signature	Date
Resident Representative Name	Signature	Date

Annex 7: Terms of Reference for UNV (Forestry) (UNDP / FBD)

Introduction

Tanzania is well placed to develop a national Reduced Emissions from Deforestation and Forest Degradation (REDD) programme, because of its:

- Stable socio-political situation and improving governance reputation;
- Confirmed REDD Readiness funding, especially via the Government of Norway, the UN-REDD process and the World Bank Forest Carbon Partnership Facility;
- Well established participatory forestry management (PFM) programme based on one of the most devolved systems of local governance in Africa[1];
- High rates of deforestation, especially in miombo woodland and coastal forests[2], and degradation (an estimated 500,000 ha of forests or woodlands are degraded annually[3]).

Apart from the global climate change mitigation effect, a successful REDD programme would result in a range of other environmental and social benefits in view of the deleterious effects of deforestation and degradation, many of them impacting disproportionately on the poor. These are issues such as reductions in the quality of hydrological services; soil erosion; loss of construction, fuel and other non-timber forest products (NTFPs) essential for rural welfare; foregone timber/NTFP income; and the loss of biodiversity, which can also impact on eco-tourism.
The UN REDD programme for Tanzania is a significant component of the initial package of funding aimed to assist Tanzania get ready for REDD. Initially for a single year (2009-2010) it is expected that the UN REDD investment in Tanzania will actually last for a number of years, building upon the findings on the initial year and the lessons learned in country and the decisions made a the COP15 of the UNFCCC meeting in Copenhagen at the end of 2009.

Problem Statement

REDD is a new concept for many in Tanzania. The national leadership authority for REDD in Tanzania in the Forestry and Beekeeping Division, working in partnership with the Vice Presidents Office (Environment). In order to get ready for REDD Tanzania has requested technical assistance from the UN REDD team. This Terms of Reference covers assistance to Tanzania on the forestry and forest carbon issues relating to REDD.

Aim

To work with the National Project Coordinator and the TA – Economics to deliver to UN REDD programme of work for Tanzania. This is envisaged as a part time position, probably amounting to 50% time over the year.

Tasks

Under the direct supervision of the Designated leader of the UN REDD process in Tanzania, the Technical Advisor - Forestry will perform the following set of tasks:

a) Work with the NPC, other FBD staff, and the FAO forest inventory expert to organise and deliver the forestry related components of the UN REDD programme for Tanzania

b) Lead on providing advice to FBD and others involved with getting Tanzania ready for REDD with regard to issues such as:

   - Available forest data for Tanzania
   - The detailed assessment of deforestation and degdradation being undertaken by FAO for FBD

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[1] Village Councils are legally vested with strong natural resource management powers over 'village lands' - the communities effectively own their Village Forest Reserves under the Community Based Forest Management model, although there seems to have been some differences in legal interpretations in the past (Blomley et al., 2008; E&SA Katoomba Group inventory 2008).

[2] According to FBD (2005), deforestation rates could be as high as 13% per annum for miombo woodlands, 7% for Eastern Africa coastal forests, and 2% for mangrove forests. It is estimated that about 91,000 hectares are lost per annum; the national deforestation rate was 1.1% from 2000-2005 according to the 2005 FAO Global Forest Resources Assessment (ftp://ftp.fao.org/docrep/fao/008/A0400E/A0400E00.pdf). Although the deforestation rate is lower for the Eastern Arc Mountains (1%), degradation is also a major problem – the average carbon loss per hectare from degradation of the Eastern Arc Mountain forest is estimated at 223 tons (FBD, 2007).

[3] National Forest Programme, 2001

- Available estimates of carbon stored in the vegetation of Tanzania
- Linkage to all other relevant forest and carbon projects working in Tanzania and relevant other countries, and feed these information back to the UN REDD core teams.

c) Assist the NPC with relevant issues related to defining the work, developing Terms of Reference, developing and managing project budgets, etc..

d) Assist the NPC to manage the Consultants employed by the UN REDD project to deliver their outputs within the specified time periods.

e) Assist the NPC to coordinate the work of the UN REDD programme in Tanzania, and participate in mechanisms that link other projects that support the government of Tanzania to be ready for REDD (Norwegian Government, German Government, Finnish Government, Clinton Foundation, etc).

Outputs

The following outputs are envisaged:

a) Input to the quarterly progress reports on the technical work of the UN REDD project in Tanzania.

b) Input to the quarterly financial report on the funding spent by the UN REDD project in Tanzania

c) Final Technical report on the forestry issues related to implementing REDD in Tanzania, including detailed recommendations on the way forward for future years of UN REDD support.

Linkages

The Technical Advisor – Forestry will be expected to link the work of the UN REDD programme to other forest related projects in Tanzania that aim to help the country become ready for REDD.

Beneficiaries

The main beneficiaries would be the Government of Tanzania, especially the FBD.

Time scale

The project will be carried out over 24 months between September 2009 to August 2011.

Duty Station

The Study station for this task will be Dar es Salaam, Tanzania

Annex 8: Terms of Reference for Technical Advisor (MARV and National Inventory) (FAO)

Introduction

Tanzania is well placed to develop a national Reduced Emissions from Deforestation and Forest Degradation (REDD) programme, because of its:

- Stable socio-political situation and improving governance reputation;
- Confirmed REDD Readiness funding, especially via the Government of Norway, the UN-REDD process and the World Bank Forest Carbon Partnership Facility;
- Well established participatory forestry management (PFM) programme based on one of the most devolved systems of local governance in Africa[4];
- High rates of deforestation, especially in miombo woodland and coastal forests[5], and degradation (an estimated 500,000 ha of forests or woodlands are degraded annually[6]).

Apart from the global climate change mitigation effect, a successful REDD programme would result in a range of other environmental and social benefits in view of the deleterious effects of deforestation and degradation, many of them impacting disproportionately on the poor. These are issues such as reductions in the quality of hydrological services; soil erosion; loss of construction, fuel and other non-timber forest products (NTFPs) essential for rural welfare; foregone timber/NTFP income; and the loss of biodiversity, which can also impact on eco-tourism.

The UN REDD programme for Tanzania is a significant component of the initial package of funding aimed to assist Tanzania get ready for REDD. Initially for a single year (2009-2010) it is expected that the UN REDD investment in Tanzania will actually last for a number of years, building upon the findings on the initial year and the lessons learned in country and the decisions made a the COP15 of the UNFCCC meeting in Copenhagen at the end of 2009.

Problem Statement

REDD is requires an accurate assessment of the status of forests in Tanzania, both in terms of the amount of remaining forest, but also in terms of the rates of deforestation and the level of forest degradation. FBD has received support from the Government of Finland for a National Forest Inventory, and that is being facilitated by the FAO team. This Terms of Reference provides additional funding to that forest inventory process to gather data that is more relevant to the needs of REDD in terms of deforestation and degradation in Tanzania.

Aim

To work with the National Project Coordinator and the TA – Forestry to deliver to UN REDD programme of work for Tanzania.

Tasks

Under the direct supervision of the Designated leader of the UN REDD process in Tanzania, the Technical Advisor – National Forest Inventory, and consultants as required, will perform the following set of tasks:

- Gather all national REDD related information, systemize it and make it accessible to user on a platform linked to NAFOBEDA.
- Identify and assess the needs and feasibility for aspects of a REDD MARV at various levels of the REDD supply chain.
- Identify and assess the existing methodologies and options for carbon accounting.

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[4] Village Councils are legally vested with strong natural resource management powers over 'village lands' - the communities effectively own their Village Forest Reserves under the Community Based Forest Management model, although there seems to have been some differences in legal interpretations in the past (Blomley et al., 2008; E&SA Katoomba Group inventory 2008).

[5] According to FBD (2005), deforestation rates could be as high as 13% per annum for miombo woodlands, 7% for Eastern Africa coastal forests, and 2% for mangrove forests. It is estimated that about 91,000 hectares are lost per annum; the national deforestation rate was 1.1% from 2000-2005 according to the 2005 FAO Global Forest Resources Assessment (ftp://ftp.fao.org/docrep/fao/008/A0400E/A0400E00.pdf). Although the deforestation rate is lower for the Eastern Arc Mountains (1%), degradation is also a major problem – the average carbon loss per hectare from degradation of the Eastern Arc Mountain forest is estimated at 223 tons (FBD, 2007).

[6] National Forest Programme, 2001

- Build the capacity of forest staff at FBD and district level for monitoring, reporting and verification of REDD related issues.
- Increase the knowledge level of the non-state stakeholders regarding data collection, monitoring and verification on REDD
- Assess forest degradation on the ground linked to remote sensing data in FRA2010 RSS sample tile(s).
- Assess impact of degradation on carbon storage across the land cover types of Tanzania.
- Assist the NPC to coordinate the work of the UN REDD programme in Tanzania, and participate in mechanisms that link other projects that support the government of Tanzania to be ready for REDD

Outputs

The following outputs are envisaged:

- A system for REDD information-sharing established and linked to NAFOBEDA.
- Capacity of FBD built and consolidated
- Lists of identified MARV data needs at all levels of the REDD production chain
- Development and testing of methodologies for:
    - identification and monitoring of land area change
    - effective payment distribution.
- Options and recommendations for national carbon accounting.
- A consistent REDD capacity building programme at national and subnational level established.
- Capacity of FBD built and consolidated within the following
    - Remote sensing, GIS and data interpretation
    - IPCC good practice guidance (linked with UNFCCC reporting)
- Improved communication with communities / land users
- Detailed field data on degradation in a sample of Tanzanian forests and woodlands, linked to the land cover map of Tanzania

Linkages

The Technical Advisor – National Forest Inventory will link the work of the UN REDD programme to that of the National Forest Inventory for Tanzania. Both are relevant to helping Tanzania get ready for REDD.

Beneficiaries

The main beneficiaries would be the Government of Tanzania, especially the FBD.

Time scale

The project will be carried out over 24 months between September 2009 to August 2011.

Duty Station

The Study station for this task will be Dar es Salaam, Tanzania

Annex 9: Terms of Reference for UN Assistant (UNDP)

Introduction

Tanzania is well placed to develop a national Reduced Emissions from Deforestation and Forest Degradation (REDD) programme, because of its:

- Stable socio-political situation and improving governance reputation;
- Confirmed REDD Readiness funding, especially via the Government of Norway, the UN-REDD process and the World Bank Forest Carbon Partnership Facility;
- Well established participatory forestry management (PFM) programme based on one of the most devolved systems of local governance in Africa[7];
- High rates of deforestation, especially in miombo woodland and coastal forests[8], and degradation (an estimated 500,000 ha of forests or woodlands are degraded annually[9]).

Apart from the global climate change mitigation effect, a successful REDD programme would result in a range of other environmental and social benefits in view of the deleterious effects of deforestation and degradation, many of them impacting disproportionately on the poor. These are issues such as reductions in the quality of hydrological services; soil erosion; loss of construction, fuel and other non-timber forest products (NTFPs) essential for rural welfare; foregone timber/NTFP income; and the loss of biodiversity, which can also impact on eco-tourism.

The UN REDD programme for Tanzania is a significant component of the initial package of funding aimed to assist Tanzania get ready for REDD. Initially for a single year (2009-2010) it is expected that the UN REDD investment in Tanzania will actually last for a number of years, building upon the findings on the initial year and the lessons learned in country and the decisions made a the COP15 of the UNFCCC meeting in Copenhagen at the end of 2009.

Problem Statement

The proposed UN REDD project for Tanzania is a time limited and demanding project that will need significant capacity to implement. Given this complexity it is proposed to employ a part time assistant at the UNDP office in Dar es Salaam to provide technical support.

Aim

To support the work of the UN REDD project in Tanzania – in particular to make its first year of implementation a success.

Tasks

Under the direct supervision of the Designated leader of the UN REDD process in Tanzania, the UN Assistant will perform the following set of tasks:

a) Assist the NPC and UN Technical Advisors (UNDP and FAO) to fulfil their allocated tasks

b) Assist with all matters relating to purchase of equipment

c) Assist with all matters relating to UN procedures

d) Assist with the development of budgets and reports

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[7] Village Councils are legally vested with strong natural resource management powers over 'village lands' - the communities effectively own their Village Forest Reserves under the Community Based Forest Management model, although there seems to have been some differences in legal interpretations in the past (Blomley et al., 2008; E&SA Katoomba Group inventory 2008).

[8] According to FBD (2005), deforestation rates could be as high as 13% per annum for miombo woodlands, 7% for Eastern Africa coastal forests, and 2% for mangrove forests. It is estimated that about 91,000 hectares are lost per annum; the national deforestation rate was 1.1% from 2000-2005 according to the 2005 FAO Global Forest Resources Assessment (ftp://ftp.fao.org/docrep/fao/008/A0400E/A0400E00.pdf). Although the deforestation rate is lower for the Eastern Arc Mountains (1%), degradation is also a major problem – the average carbon loss per hectare from degradation of the Eastern Arc Mountain forest is estimated at 223 tons (FBD, 2007).

[9] National Forest Programme, 2001

Outputs

The following outputs are envisaged:

d) Input to the quarterly progress reports on the technical work of the UN REDD project in Tanzania.

e) Input to the quarterly financial report on the funding spent by the UN REDD project in Tanzania

f) Smooth purchase of all project related equipment

g) Smooth implementation of technical assistance to support the work of the project

Linkages

The Un Assistant will support the work of the UN REDD team in Tanzania. They will be based out of the UNDP office and will link into the UN systems through that office.

Beneficiaries

The main beneficiaries would be the UN REDD team members and hence the Government of Tanzania, especially the FBD.

Time scale

The project will be carried out over 12 months between April 2009 to March 2010.

Duty Station

The Study station for this task will be Dar es Salaam, Tanzania

Annex 10: Terms of Reference for National Mapping

Introduction

Tanzania is well placed to develop a national Reduced Emissions from Deforestation and Forest Degradation (REDD) programme, because of its:

- Stable socio-political situation and improving governance reputation;
- Confirmed REDD Readiness funding, especially via the Government of Norway, the UN-REDD process and the World Bank Forest Carbon Partnership Facility;
- Well established participatory forestry management (PFM) programme based on one of the most devolved systems of local governance in Africa[10];
- High rates of deforestation, especially in miombo woodland and coastal forests[11], and degradation (an estimated 500,000 ha of forests or woodlands are degraded annually[12]).

Apart from the global climate change mitigation effect, a successful REDD programme would result in a range of other environmental and social benefits in view of the deleterious effects of deforestation and degradation, many of them impacting disproportionately on the poor. These are issues such as reductions in the quality of hydrological services; soil erosion; loss of construction, fuel and other non-timber forest products (NTFPs) essential for rural welfare; foregone timber/NTFP income; and the loss of biodiversity, which can also impact on eco-tourism.

The UN REDD programme for Tanzania is a significant component of the initial package of funding aimed to assist Tanzania get ready for REDD. Initially for a single year (2009-2010) it is expected that the UN REDD investment in Tanzania will actually last for a number of years, building upon the findings on the initial year and the lessons learned in country and the decisions made a the COP15 of the UNFCCC meeting in Copenhagen at the end of 2009.

Problem Statement

Tanzania lacks a compiled set of data on issues related to forest cover, habitat types, carbon storage within different habitats, the opportunity costs of REDD, and a generic map of where REDD is most likely to deliver on the ground. Detailed work to address many of these issues is planned under the UN REDD and FAO / Finnish Government Forest Inventory support to FBD. However, in the meantime and leading up to the 2009 meeting of the UNFCCC in Copenhagen it would be useful for Tanzania to have collected together the available information at the national scale and built capacity in the relevant types of work in collaboration with some of its trusted partners who have been working with Tanzanian institutes for many years.

Aim

The aim of this work is to bring together the available carbon and REDD relevant information that exists on Tanzania, and work in collaboration between northern and Tanzanian institutions to build relevant capacity.

Objectives

Under the direct supervision of the Designated leader of the UN REDD process in Tanzania, the project will work towards five related objectives:

f) Compile existing national GIS dataset for Tanzania and develop a master set of GIS layers for further use.

g) Build an opportunity cost layer for Tanzania, indicating areas of the country where REDD is most likely to be able to deliver enough money to change land use practices

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[10] Village Councils are legally vested with strong natural resource management powers over 'village lands' - the communities effectively own their Village Forest Reserves under the Community Based Forest Management model, although there seems to have been some differences in legal interpretations in the past (Blomley et al., 2008; E&SA Katoomba Group inventory 2008).

[11] According to FBD (2005), deforestation rates could be as high as 13% per annum for miombo woodlands, 7% for Eastern Africa coastal forests, and 2% for mangrove forests. It is estimated that about 91,000 hectares are lost per annum; the national deforestation rate was 1.1% from 2000-2005 according to the 2005 FAO Global Forest Resources Assessment (ftp://ftp.fao.org/docrep/fao/008/A0400E/A0400E00.pdf). Although the deforestation rate is lower for the Eastern Arc Mountains (1%), degradation is also a major problem – the average carbon loss per hectare from degradation of the Eastern Arc Mountain forest is estimated at 223 tons (FBD, 2007).

[12] National Forest Programme, 2001

h) Update the protected area data layer for Tanzania to include all new National Parks, Game Reserves, Forest Reserves, Wildlife Managament Areas, Village Forest Reserves and Indigenous and Community Conserved Areas

i) Compile a Tier 1 map of carbon storage in the vegetation types of Tanzania, based on available data on carbon storage from international sources and field study plots in Tanzania. This will be available as a lobbying tool at the Copenhagen meeting.

j) Collate existing data on biodiversity, livelihoods, and other co-benefits that can be mapped.

k) Overlay Tier 1 carbon, biodiversity, protected area and poverty layers and define areas where REDD represents a win-win situation for biodiversity and poverty alleviation, and where it does not.

l) Establish working partnership between GIS and carbon experts in the northern countries, and the available GIS and modelling expertise in Tanzania at UDSM and SUA.

m) Build GIS and remote sensing capacity

Outputs

The following outputs are envisaged:

h) A report that contains a set of basic maps of Tanzania that are relevant to the development of a national REDD baseline for the country (roads, population density, land cover maps, protected areas, regions, districts, wards, forest cover and forest change assessment, towns and cities)

i) A set of GIS materials that contain the data used to make the above set of maps.

j) A detailed report, including maps and tables, that brings together available information on the carbon, biodiversity, livelihoods and other mappable data across Tanzania, with estimates of carbon loss for some selected areas where detailed data exist.

k) A detailed report, including maps, that set out the methodology and initial results of an assessment of the opportunity costs across Tanzania and the areas of the country that are most likely to be suitable for REDD in terms of the funds available from REDD being higher than the value of the land for other uses.

l) A synthesis report that brings together the above and makes recommendations for how tot take the carbon baseline work for Tanzania forward.

m) Training and capacity building provided for Tanzanian GIS and carbon experts.

Linkages

The project will link to the other efforts in Tanzania to establish a carbon baseline for that country; for example the work being led by FAO and FBD on a national forest inventory, and the work proposed to be funded by the Clinton Foundation.

Beneficiaries

The main beneficiaries would be the Government of Tanzania, especially the FBD.

Time scale

The project will be carried out over 12 months between April 2009 to March 2010.

Duty Station

The work will be performed at a location of greatest competitive advantage, but will provide training opportunities to Tanzanian GIS and remote sensing specialists in Tanzania.

Annex 11: Terms of Reference for Awareness Raising

Introduction

Tanzania is well placed to develop a national Reduced Emissions from Deforestation and Forest Degradation (REDD) programme, because of its:

- Stable socio-political situation and improving governance reputation;
- Confirmed REDD Readiness funding, especially via the Government of Norway, the UN-REDD process and the World Bank Forest Carbon Partnership Facility;
- Well established participatory forestry management (PFM) programme based on one of the most devolved systems of local governance in Africa[13];
- High rates of deforestation, especially in miombo woodland and coastal forests[14], and degradation (an estimated 500,000 ha of forests or woodlands are degraded annually[15]).

Apart from the global climate change mitigation effect, a successful REDD programme would result in a range of other environmental and social benefits in view of the deleterious effects of deforestation and degradation, many of them impacting disproportionately on the poor. These are issues such as reductions in the quality of hydrological services; soil erosion; loss of construction, fuel and other non-timber forest products (NTFPs) essential for rural welfare; foregone timber/NTFP income; and the loss of biodiversity, which can also impact on eco-tourism.

The UN REDD programme for Tanzania is a significant component of the initial package of funding aimed to assist Tanzania get ready for REDD. Initially for a single year (2009-2010) it is expected that the UN REDD investment in Tanzania will actually last for a number of years, building upon the findings on the initial year and the lessons learned in country and the decisions made a the COP15 of the UNFCCC meeting in Copenhagen at the end of 2009.

Problem Statement

Whilst many people in Tanzania are aware of climate change, few people have access to detailed information about what the causes and potential impacts may be and about how to adapt to increasingly unpredictable weather. Similarly few people are aware of the issues being discussed globally and nationally in relation to Reduced Emissions from Deforestation and forest Degradation (REDD).

2009 is a particularly important year with regard to REDD. In 2009, Tanzania will develop its national REDD strategy and will participate in the UNFCCC COP 15 negotiations in Copenhagen. The goal of the COP 15 meeting is to enter into a binding global climate agreement that will apply to the period after 2012. As yet REDD has not been included in the UNFCCC. Whether, and in what form, REDD is included in UNFCCC will be determined by the COP 15 meeting. As such it is critical that Tanzania clarifies its position and potential implementation arrangements in relation to REDD and does so in a way that reflects the differing interests of its citizens. In order to achieve this it is necessary for the general public and decision-makers to be aware of the issues and the implications of pursuing different approaches. Given current low levels of awareness, it is therefore vital that there is widespread awareness raising and that there are opportunities for dialogue and consultation.

1) Aim

The aim of this project is to raise awareness and promote dialogue amongst decision makers, the media and the general public on issues related to reducing emissions from deforestation and forest degradation.

2) Objectives

The project will work towards three related objectives:

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[13] Village Councils are legally vested with strong natural resource management powers over 'village lands' - the communities effectively own their Village Forest Reserves under the Community Based Forest Management model, although there seems to have been some differences in legal interpretations in the past (Blomley et al., 2008; E&SA Katoomba Group inventory 2008).

[14] According to FBD (2005), deforestation rates could be as high as 13% per annum for miombo woodlands, 7% for Eastern Africa coastal forests, and 2% for mangrove forests. It is estimated that about 91,000 hectares are lost per annum; the national deforestation rate was 1.1% from 2000-2005 according to the 2005 FAO Global Forest Resources Assessment (ftp://ftp.fao.org/docrep/fao/008/A0400E/A0400E00.pdf). Although the deforestation rate is lower for the Eastern Arc Mountains (1%), degradation is also a major problem – the average carbon loss per hectare from degradation of the Eastern Arc Mountain forest is estimated at 223 tons (FBD, 2007).

[15] National Forest Programme, 2001

1) To raise public awareness on deforestation and forest degradation in the context of climate change and the global market for reduced emissions of greenhouse gases.
2) To promote dialogue between decision-makers on REDD and provide accurate, relevant and current information to decision makers within government on REDD and climate change so that they can make informed decisions.
3) To promote greater public dialogue on issues related to REDD in order to promote mutual understanding between stakeholders and to ensure that the voices of the rural poor are reflected in the development and implementation of the national REDD strategy.

3) Strategy and Activities

The project will be implemented through a partnership between the Forestry and Beekeeping Division and the Tanzania Forest Conservation Group. The communication work on REDD will complement the communication activities that are outlined in the communication strategy for the National Forest Programme and FBD's Participatory Forest Management programme. The work will also complement the information, education and communication strategy for the Eastern Arc Mountains. The project will work through the Communications Unit of the Forestry and Beekeeping Division including the Zonal Extension teams. Tanzania Forest Conservation Group (TFCG) will provide technical support in the development of communication materials, monitoring and in working with the mass media and Community Forest Network of Tanzania (MJUMITA).

4) Activities

Development of a communication strategy
An awareness raising strategy will be developed outlining target audiences, key messages and knowledge change objective. The strategy will be developed as part of the communication strategy for the National Forest Programme and FBD's Participatory Forest Management programme and the institutional capacity building activities outlined in the UN-REDD Programme - Tanzania Quick Start Initiative. The strategy will be developed in collaboration with the REDD Task Force Secretariat and will identify activities beyond this initial phase of the Quick Start Initiative.

Public awareness raising

Baseline and endline awareness assessments and capacity building

At the outset of the project a baseline awareness assessment and stakeholder consultation exercise will be carried out in order to document levels of awareness at the outset of the project and to identify stakeholders priority information needs. At the close of the project an endline assessment will be carried out in order to document the impact of the project. Assessments will include an assessment of awareness within the FBD Communications Department and Regional Extension Units. Training on REDD and Climate change issues will be provided to FBD staff in order to build their capacity to communicate effectively on these issues.

Extension work
The FBD zonal extension teams will provide information to rural communities on mitigation and adaptation to climate change using mobile video units, local artists and printed materials. Materials to be distributed by the extension teams will be developed by TFCG in collaboration with FBD and will include an education video and printed materials. The printed materials will include a revised edition of the simple language guide to natural resources policies to include information on Tanzania's REDD strategy.

Mass media
The project will work with the mass media to supply information on REDD to the general public. This will include developing radio programmes, newspaper articles and television broadcasts. The project will also provide training to journalists and representatives of the media houses on communicating on climate change and REDD.

Environmental education
Support the integration of learning about climate change and forest conservation into the curriculum being taught in urban and rural primary and secondary schools through teacher training and the provision of appropriate teaching materials.

Informing decision makers

Policy briefs
The project will develop policy briefs on REDD. The briefs will reflect the information needs assessment conducted at the outset of the project as well as relevant national and international developments in relation to REDD. Briefs will be circulated electronically and in hard copies and will be made available through the websites of the Forestry and Beekeeping Division and TFCG.

Seminars
The project will develop a series of powerpoint presentations to inform decision makers of recent developments in relation to REDD. Wherever possible, these presentations will be made during the regular meetings of central and local government. For example presentations will be made during District Council meetings in order to inform local government. Presentations will be made by FBD and TFCG staff.

Promoting dialogue
Dialogue between communities and government
In order to enable communities and government to enter into a dialogue over REDD, the project will provide support to the MJUMITA and TAF annual meetings as forums in which issues related to REDD can be discussed between Government, practitioners and forest adjacent communities.

Media coverage
The project will encourage a dialogue between stakeholders in the public media through interactive radio and television programmes.

5) Linkages

The project links closely with the priorities outlined in the National Adaptation Programme of Action (NAPA) 2007 of the United Republic of Tanzania.

Objective iv of the NAPA is:

- To increase public awareness to climate change impacts and adaptation activities in communities, civil society and government officials;

The project will also be informed by and link with the other components of the project being supported by UN-REDD Programme, including the communication component of the UN-REDD Programme Global Support Functions.

As outlined earlier the project also has close links with the communication strategies for the National Forest Programme and the Conservation and Management of the Eastern Arc Mountain Forests programme.

6) About TFCG

The Tanzania Forest Conservation Group has over 20 years experience in working with issues relating to forest conservation in Tanzania. Through TFCG's five programmes: advocacy, participatory forest management, environmental education, community development and research, TFCG has succeeded in rolling out innovative and high-impact solutions to the challenges facing Tanzania's forests and the people that depend on them. In particular, TFCG has been active in advocating for improved forest management and reduced deforestation throughout this period. TFCG has been at the forefront of national awareness campaigns on forest conservation including the implementation of the information, education and communication component of the recent UNDP / GEF Conservation and Management of the Eastern Arc Management project and the development of the national communication strategy for the national forest programme and the participatory forest management programme.

7) Beneficiaries

The main beneficiaries of the project will be the target 'audiences' for the communication activities including decision-makers in PMO RALG, the Ministry of Natural Resources and Tourism, Ministry of Finance and the Vice Presidents Office – Department of Environment; rural communities; communities at high risk of negative impacts from climate change including those living in coastal areas and forest management practitioners.

8) Time scale

The project will be carried out between September 2009 – June 2010.

9) Budget

US$ 180,000

10) Duty Station

The Duty Station will be Dar es Salaam, Tanzania.