



## PROJECT DOCUMENT

Republic of Tanzania

United Nations Development Programme

Global Environment Facility

Extending the Coastal Forest Protected Area Subsystem in Tanzania

PIMS No: 2760 Proposal ID: 00058855, Project ID: 00073328

**Brief Description:** The Eastern African Coastal Forests (Kenya, Tanzania and Mozambique) have been recognized as a distinct Global Hotspot for the Conservation of Biodiversity on account of high levels of both endemism (plants and several animal taxa) and species richness, both within and between the many constituent small forest patches. This fragmentation into many (>100) distinctive (in terms of substrate, moisture and so diversity) patches, averaging <500 ha compounds the conservation challenge for this region. The lack of timber, distance from tourism routes, and limited water catchment function, prevents the use of most existing PES mechanisms (although carbon via REDD does offer some opportunity). Forest patches support soil development and hence there is conversion pressure to cultivate forest soils instead of the sandy low clay and low fertility soils elsewhere in the coastal area.

Government and WWF in the region have prioritized the Coastal Forest Eco-Region, developed an approved Conservation Strategy at national levels, and created a functional Coastal Forest Task Force to oversee the Strategy. GEF supports this Conservation Strategy in Kenya (PIMS) and has funded the development of this FSP, covering both mainland Tanzania and Zanzibar (note they have totally different forest institutions with separate and different legal frameworks).

Coastal closed forest patches are surrounded by a matrix of different woodland, wooded grassland and cultivation areas. Woodlands (eastern dry miombo / coastal savanna) have valuable timber trees which led to massive external logging pressure earlier this decade. This problem led to strengthening forest management, and especially local community involvement through Participatory Forest Management (PFM). Woodlands offer connectivity and buffer zone functions within forest landscapes. Historically Coastal Forests with little or no timber or water values have been low priority for government investment, and reserve management, which was transferred to district mandates in the 1970s is grossly underfunded and understaffed. Despite the large number of reserves, several large forest patches with important biodiversity values remain unprotected.

This project works with Government, largely through the forest sector, WWF and other NGOs; to strengthen overall conservation and management of the Coastal Forests of Tanzania, focusing on both Zanzibar and three priority landscapes in south-eastern Tanzania. The project is designed to run for four years through National Execution Modalities, with government sub-contracting WWF to undertake some specific functions. The project will increase the extent of Protected Areas, upgrade key areas to higher status and seek innovative funding mechanisms for the Hot-Spot. Carbon offers some opportunity for such funding.

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# Abbreviations and Acronyms

ABS	Access and Benefit Sharing
AG	Attorney General
APR	Annual Project Report
ASCA	Accumulated Savings and Credit Association
CARE	CARE International (Tanzania Office), an international NGO
CBD	Convention on Biological Diversity
CBFM	Community Based Forest Management
CBNRM	Community Based Natural Resource Management
CBO	Community Based Organization
CEPF	Critical Ecosystem Partnership Fund
CF	Coastal Forests
CIA	Central Intelligence Agency
CITES	Convention on International Trade in Endangered Species
CoFMA	Community Forest Management Agreements/ Areas
COP	Conference of the Parties
CPB	Cartagena Protocol on Biosafety
CSO	Civil Society Organization
CoT	Commission of Tourism
DANIDA	Danish International Development Agency
DCCFF	Department of Commercial Crops, Fruits and Forestry
DED	District Executive Directors
DoE	Department of Environment
DFMR	Department of Fisheries and Marine Resources
DFO	District Forest Officer
DoLR	Department of Lands and Registration
DNRO	District Natural Resource Officer
DPSC	District Project Steering Committees
EAME	East Africa Marine Ecoregion
EAMCEF	Eastern Arc Mountains Conservation Endowment Fund
EAP	Executive Agencies Programme
EIA	Environmental Impact Assessment
EMA	Environmental Management Act
FANNIDA	Finnish International Development Agency
FBD	Forestry and Beekeeping Division
FR	Forest Reserve
FSP	Full-Sized Proposal
FSU	Forest Surveillance Unit
FT	Frontier-Tanzania
GEF	Global Environment Facility
HBS	Household Budget Survey
IAs	Implementing Agencies
IBAs	Important Bird Areas
ICZM	Integrated Coastal Zone Management
ICD	Integrated Conservation and Development
IGA	Income Generating Activities
IUCN	International Union for the Conservation of Nature and Natural Resources
IUCN-EARO	IUCN East Africa Regional Office
JCBCP	Jozani-Chwaka Bay Conservation Project

JFM	Joint Forest Management
JUMMUMI	Jumuiya ya Upandaji Mikoko Micheweni (Micheweni Mangrove Planting Society)
JCBNP	Jozani-Chwaka Bay National Park
JFM	Joint Forest Management
KVTC	Kilombero Valley Teak Company
LAFR	Local Authority Forest Reserve
LGAs	Local Government Authorities
LPG	Liquefied Petroleum Gas
LNG	Liquefied Natural Gas
MAI	Mean Annual Increment
M&E	Monitoring and Evaluation
m <sup>3</sup>	Cubic Metre
MACEMP	Marine and Coastal Environment Management Project
MALE	Ministry of Agriculture, Livestock and Environment
MANREC	Ministry of Agriculture Natural Resources, Environment and Co-operatives
MCP	Mpingo Conservation Project
MDAs	Ministries, Departments and Agencies
METT	Management and Effectiveness Tracking Tool
MICA	Misali Island Conservation Association
MKUKUTA	Mkakati wa Kukuza an Kupunguza Umaskini Tanzania (National Strategy for Growth and Reduction of Poverty)
MKUZA	Makakati wa Kukuza Uchumi Zanzibar (Strategy for Growth and the Reduction of Poverty)
MoFEA	Ministry of Finance and Economic Affairs
MOU	Memorandum of Understanding
MJUMITA	Mitandao ya Jamii ya Usimamizi wa Misitu Tanzania (Community Network in Forest Conservation in Tanzania)
MNRT	Ministry of Natural Resources and Tourism
MNRT/FBD	Ministry of Natural Resources and Tourism/Forestry and Beekeeping Division
MS (RASU)	Ministry of State, Regional Administration and Special Units
MSP	Medium-Sized Proposal
MWECL	Ministry of Water, Construction and Lands
NAFOBEDA	National Forestry and Beekeeping Database
NEAP	National Environmental Action Plan
NEMC	National Environmental Management Council
NGERANECO	Ngezi Natural Resources Conservation Organisation
NORAD	Norwegian Agency for Development Co-operation
NPAB	National Protected Areas Board
NPAN	National protected Areas Network
NPSC	Natural Project Steering Committee
NSGRP	National Strategy for Growth and Reduction of Poverty
PAs	Protected Areas
PFM	Participatory Forest Management
PSRP	Public Sector Reform Programme
REDD	Reduced Emissions from Deforestation and Forest Degradation
RGoZ	Revolutionary Government of Zanzibar
SE	Southeast
SEE	Society for Environmental Exploration
SMOLE	Sustainable Management of Land and Environment
TANAPA	Tanzania National Parks

TFCG	Tanzania Forest Conservation Group
TFCMP	Tanzania Forest Conservation and Management Programme
TFS	Tanzania Forest Service
TPR	Tripartite Review
TZS	Tanzanian Shillings
UN	United Nations
UNCCD	United Nations Convention to Combat Desertification
UNDP	United Nations Development Programme
UNFCCC	United Nations Framework Convention on Climate Change
UNEP WCMC	United Nations Environment Programme World Conservation Monitoring Centre
USD	US Dollars
UTUMI	Umoja wa Utunzaji wa Mimitu (Danish Forest Management Program)
UWAMBALI	Umoja wa Wavuna Mbaao Kilwa (Kilwa Timber Harvester Association)
VECC	Vitongoji Environmental Conservation Club
VLFR	Village Land Forest Reserve
VNRC	Village Natural Resource Committee
VPO ODoE	Vice Presidents Office, Department of Environment
WCST	Wildlife Conservation Society of Tanzania
WWF	World Wide Fund for Nature
WWF-EARPO	World Wide Fund for Nature - East Africa Regional Programme Office
ZIPA	Zanzibar Investment Promotion Authority

# Background to the Coastal Forests of Eastern Africa

1. Despite the early recognition of the biodiversity values of the Coastal Forests by German botanists who described localised endemic species in the period 1890 – 1910 (a few of these have not been recollected and are feared extinct); there was little concern for conservation beyond reservation to protect timber and fuel-wood resources, there being little large scale catchment value. The 1980s saw a resurgence of biodiversity description. The documentation required for the 1992 Convention of Biological Diversity (Country Assessment and Strategy and Action Plan) formally recognized the Coastal Forests as a centre of diversity and endemism. The biological and socio-economic importance of the Coastal Forests was also highlighted in the Tanzania Forest Action Plan, produced in 1988.
2. In the 1999 Hotspots analysis by Conservation International, the Coastal Forest Mosaic, together with the adjacent Eastern Arc Mountains was recognized as one of the 25 Global Biodiversity “Hotspots” characterized by exceptional levels of biological diversity and species endemism.<sup>1</sup> This Hotspot ranked first among the Global Hotspots in terms of the number of endemic plant and vertebrate species per unit area and eighth (globally) in terms of levels of threat.<sup>2</sup> The revised (2004) version of that analysis identifies the Coastal Forests as a Hotspot in its own right.<sup>3</sup> The Coastal Forest habitat mosaic is also recognized as globally important in analyses of endemic bird species (Birdlife International)<sup>4</sup> and overall animal and plant species values (WWF).<sup>5</sup> Twelve Important Bird Areas (IBAs) are recognized in the Coastal Forests of Tanzania.<sup>6</sup> Despite being one of the first of the world’s “Global Biodiversity Hotspots”<sup>7</sup> Coastal Forests are much less well known than East Africa’s montane forests, and so their conservation status is described in some detail in this proposal.
3. The terms coastal and forest are important to define in this proposal. “Coastal” means the area lying over sedimentary rocks of the coastal plain and plateaux, to the east of the older basement complexes inland. “Forest” is closed-canopy woody vegetation over 8m tall. The Coastal Forests in this context are not mangroves. Today the eastern Africa coastal strip is mapped by scientists as a Moist Savannah – Forest Complex, but the forest has largely gone. Within this complex there is a wide range of floristic associations with considerable endemism, including different forest types. What we see today is the remains of a once more widespread set of different forest covers along the eastern seaboard. There are stretches of coast that are always moist, with higher plateaux and hills that attract the rain. It is especially these strategically placed plateaux and hills that are rich in biological diversity and endemics.
4. The Coastal Forests of Eastern Africa epitomize the difficulties of maintaining biodiversity values in the tropics, in that they show virtually all of the conservation problems faced by conservation planners and protected area managers. The Coastal Forests are:

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<sup>1</sup> Mittermeier, R.A., Myers, N., Mittermeier, C.G., 1999. Hotspots: earth’s biologically richest and most endangered terrestrial ecoregions. CEMEX. *Conservation International*, Agrupacion Sierra Madre, Mexico City, Mexico.

<sup>2</sup> Brooks TM, Mittermeier RA, Mittermeier CG, da Fonseca GAB, Rylands AB, Konstant WR, Flick P, Pilgrim J, Oldfield S, Magin G, Hilton Taylor C. 2002. Habitat loss and extinction in the hotspots of biodiversity. *Conservation Biology* 16:909-923.

<sup>3</sup> Mittermeier, R.A., Robles Gil, P., Hoffmann, M., Pilgrim, J., Brooks, T., Mittermeier, C.G., Lamoreux, J., da Fonseca, G.A.B., 2004. Hotspots revisited: Earth’s biologically richest and most endangered terrestrial ecoregions. CEMEX, Mexico City.

<sup>4</sup> Stattersfield, A.J., Crosby, M.J., Long, A.J. Wedge, D.C., 1998. Endemic bird areas of the world: priorities for biodiversity conservation. *BirdLife Conservation Series* no. 7. BirdLife International, Cambridge.

<sup>5</sup> Burgess, N., D’Amico Hales, J., Underwood, E., Dinerstein, E., Olson, D., Itoua, I., Schipper, J., Ricketts, T., Newman, K., 2004. Terrestrial ecoregions of Africa and Madagascar: a continental assessment. Island Press, Washington DC. Pp. 550.

<sup>6</sup> Baker, N. & E. Baker. 2002. Important Bird Areas of Tanzania: A First Inventory. Wildlife Conservation Society of Tanzania, Dar es Salaam, Tanzania.

<sup>7</sup> See Conservation International

- Small, and highly fragmented, consisting of many (over 150) separate forest patches, most of which are less than 500 ha in size, and little protected by government agencies.
  - Surrounded by impoverished rural communities with a growing demand for farmland and forest resources.
  - Individually distinctive, with high local forest endemism and a great array of different plant communities.
  - Without the national level 'hard' resources such as commercial timber or water catchment, that would allow species resources to piggy back on their continuation.
5. In the 1990s it was estimated that there were at least 103 recognized Coastal Forest patches in Tanzania (i.e. with names, other smaller patches are less well known). These were grouped into 8 distinct priority landscapes, including Zanzibar<sup>8</sup>. It was also estimated that closed canopy forest extends over 4 km<sup>2</sup> in Somalia, perhaps as much as 1,050 km<sup>2</sup> in Kenya, at least 1,000 km<sup>2</sup> in Tanzania and at least 4,180 km<sup>2</sup> in Mozambique.
  6. More recent studies using remote sensing technology indicated that in 1980 the Coastal Forests of Tanzania covered an area of 6,724.86 km<sup>2</sup>. However due to deforestation, as outlined in table 2, by end of 1990 the area of Coastal Forests had been reduced to 6,336.77 km<sup>2</sup> with an estimated loss of 388.09 km<sup>2</sup> within the decade.<sup>9</sup>
  7. Protected Areas (PAs) provide the principal method for protecting areas of significant biodiversity in Tanzania, and this is the key strategy laid out in the BSAP and National Environmental Action Plan (NEAP) documentation, and explicitly stated in recent National Forest Policy (1998) and law – such as the Tanzania Forest Act (2002). The Coastal Forests were singled out as priority areas for conservation. However, whilst Tanzania's PA estate is huge, relatively little of the Coastal Forest (CF) resource is adequately protected. Forests in Tanzania, including Coastal Forests, have been protected by the Forestry and Beekeeping Division of Government, through a network of Forest Reserves.<sup>10</sup> Two forests were recently incorporated into a mainland National Park (Sadaani), and Zanzibar created a National Park and Nature Reserve for two more. The Tanzanian mainland is considering four areas as potential Forest Nature Reserves, and some 78 patches are administered by district authorities as Forest Reserves (FRs). More than 20 distinct patches are still not protected, including areas of recognized endemism and areas which increase connectivity between reserved patches.
  8. Past management of Forest Reserves was not always biodiversity friendly (e.g. planting the core of perhaps the richest patch of Coastal Forest, Rondo Plateau FR, with exotic pine in 1952). In 1977 Forest Reserves with no national catchment or timber values (i.e. most of the Coastal Forest patches) were passed to districts to manage as part of Tanzania's decentralisation process, with fewer staff, less funds and little conservation interest or capacity. Districts manage both the timber-rich woodlands around the BD rich forests, and the forest patches.

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<sup>8</sup> Burgess, N.D. & Clarke, G.P. (eds.). *Coastal Forests of Eastern Africa*. IUCN Forest Conservation Series. 434pp. Cambridge & Gland: IUCN.

<sup>9</sup> Burgess, N.D. and Clarke P. 2008. Towards a Protected Area network in the Coastal Forests ecoregion of Tanzania: analysis and recommendations. WWF Tanzania

<sup>10</sup> In 2006, as part of initial discussions on Coastal Forest Conservation, Tanzania prioritised many Forest Reserves of biodiversity importance as "Protected Areas" to WCMC/UNEP, and assessed as category 4 on the IUCN criteria.

# PART I-A: Situation Analysis

## 1A.1 Environmental Context

9. Most Coastal Forests are located up to 500 m above sea level, although in Tanzania they can occur to over 1,000 m on isolated hills, for example on the Rondo Plateau in Southeast (SE) Tanzania. Climatic conditions are believed to have been relatively stable for the last 30 million years, although variation from year to year can be considerable, leading to droughts or floods.<sup>11</sup>
10. Rainfall ranges between 2,000 mm/year (Pemba) and 700 mm/year (parts of southern Tanzania/ northern Mozambique). There are two rainy seasons (long, April-June; short, November-December) in the north, but only one (November to April) in the south. Dry seasons can be severe, with widespread fire, and El Niño effects can be dramatic in changing rainfalls.

## 1A.2 Global Significance of Biodiversity of the Coastal Forest habitat

11. Tanzania contains parts of three distinct *forest-based* global “hotspots for biodiversity.”<sup>12</sup> These are the Eastern Arc Montane Forests (95% in Tanzania), the Albertine Rift Forests (5% in Tanzania) and the Coastal Forests (CF) shared with Kenya and Mozambique, with 40% in Tanzania. This proposal specifically addresses the Coastal Forests Hotspot, arguably the most threatened of all such hotspots on earth.<sup>13</sup> Endemism is extremely high, over 50% in animal taxa of restricted mobility, and approaching 25% in woody plants. Coastal Forests in Tanzania exist as numerous separate small fragmented forest patches on a variety of substrates each with a distinct set of taxa, many of narrow endemism.
12. The Coastal Forests and the adjacent Eastern Arc forests share some widespread African forest species, which has resulted in the distinction between the two forest types becoming a matter of debate.<sup>14</sup> The altitudinal separation is generally placed around 500-800 m, but varies according to local ecological conditions.<sup>15</sup> A gradation between the two forest types is found on the East Usambara, Udzungwa and Nguru mountain ranges. Other Coastal Forests are not contiguous with mountain forest habitats and are separated from the mountains by many kilometers of coastal variants of drier Zambeziian “miombo” woodland, or by cultivation.

## 1A.3 Biological Values of the Coastal Forests of Tanzania

13. Systematic field studies to identify and document patterns of biodiversity distribution, endemism and threats within the Coastal Forest Mosaic were initiated in 1989 by Frontier Tanzania and Birdlife International, in collaboration with the Wildlife Conservation Society of Tanzania, the University of Dar es Salaam and the University of Copenhagen. These studies, together with all earlier research, have been summarized in the book ‘Coastal Forests of Eastern Africa’,<sup>16</sup> and that compendium has been updated to

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<sup>11</sup> Axelrod, D.I. & P.H. Raven. 1978. Late Cretaceous and Tertiary vegetation history of Africa. In *Biogeography and Ecology of Southern Africa*. M.J.A. Werger, ed.. Dr. W. Junk Publications, The Hague.

<sup>12</sup> Global Hotspots first described by Myers and Conservation International; CF were part of the original 25 areas.

<sup>13</sup> In terms of remaining forest cover, as a proportion of past cover; and numbers of endangered taxa per ha of the remaining forest. See details in Burgess and Clarke’s book on the Coastal Forests of Eastern Africa (2000), and WWF’s Strategy on Coastal Forest Eco-Region of East Africa (2006). This strategy was part of an earlier PDF A process on Coastal Forests. Other GEF projects address the Eastern Arc, and the Albertine Rift Forests in East Africa

<sup>14</sup> Lovett, J.C., Rudd, S., Taplin, J., Fridmodt-Moeller, C. (2000). Patterns of plant diversity in Africa south of the Sahara and their implications for conservation management. *Biodiversity and Conservation* 9; Clarke, G.P., Vollesen, K. & Mwasumbi, L.B. (2000). Vascular plants. Chapter 4.1 and Appendix 3 in Burgess, N.D. & Clarke, G.P. (eds.). *Coastal Forests of Eastern Africa*. IUCN Forest Conservation Series. 434pp. Cambridge & Gland: IUCN.

<sup>15</sup> Burgess, N.D. & Clarke, G.P. (eds.). *Coastal Forests of Eastern Africa*. IUCN Forest Conservation Series. 434pp. Cambridge & Gland: IUCN.

<sup>16</sup> See Burgess, N.D. & Clarke, G.P. (eds.). *Coastal Forests of Eastern Africa*. IUCN Forest Conservation Series. 434pp. Cambridge & Gland: IUCN.



some extent by WWF (WWF 2006) using the results of surveys coordinated by the Tanzania Forest Conservation Group, WWF and the University of Dar es Salaam.<sup>17</sup> The Coastal Forest book revealed the complex and disjunct patterns of endemism and species distribution within the Coastal Forest domain that underscore the need for well chosen conservation interventions.

14. The Coastal Forest mosaic of eastern Africa is now recognized as an area of major conservation importance on the African continent. White<sup>18</sup> described the vegetation of Africa and recognized the Zanzibar-Inhambane Regional Mosaic, and estimated that it possessed 'at least several hundred' endemic plant species. This total was upgraded by Clarke (1998)<sup>19</sup> and Clarke et al. (2000)<sup>20</sup> to over 1356 species allowing the area to be upgraded to a regional centre of plant endemism, and re-labelled as the Swahilian Regional Centre of Endemism. Today the Coastal Forests of Eastern Africa are recognized as a globally important conservation priority by BirdLife International, WWF and Conservation International. A hotspot is a terrestrial area with at least 0.5%, or 1500 of the world's ca. 300,000 spp. of vascular plants, and that has lost at least 70% of its primary vegetation. 34 hotspots have been identified globally.<sup>21</sup>
15. Current data indicate that the Coastal Forests Hotspot contains over 4,000 plant species in more than 1,000 plant genera, of which around 1,750 plant species and 27 genera are endemic. The forest habitat is the most biologically valuable and contains at least 554 forest-dependant endemic plant species, with 17 of the 27 described endemic genera confined to forest habitats<sup>22</sup>. Non-forest vegetation types cover 275,000 km<sup>2</sup> of land (0.3 regional endemics plants per 100 km<sup>2</sup> of habitat), Coastal Forests cover a total of 6,200 km<sup>2</sup> (15.3 regional endemics per 100 km<sup>2</sup> of habitat).<sup>23</sup> It is the forest patches that have the highest biodiversity importance per unit area. A substantial proportion of the endemic plants are confined to single forests (for example, the Rondo Forest area in southern Tanzania has at least 60 strict endemics, the small Litipo Forest, also in southern Tanzania, has at least 30 strict endemics).
16. These forest patches are also important in terms of vertebrate diversity and endemism. Birds are represented by 638 species, of which 14 species are endemic to the Coastal Forest hotspot. Some 201 mammal species are recorded from this hotspot, of which 14 are endemic (including four undescribed shrews). Among other terrestrial vertebrates, some 247 reptiles are recorded, 132 species are endemic or near-endemic to the hotspot.<sup>24</sup> There are 72 amphibian species, of which seven are endemic in Tanzania: A new species of *Kassina* has recently been found in the Jozani Forest on Zanzibar. While the endemism within vertebrates is impressive, rates of endemism are even higher in invertebrate groups such as millipedes (80% of all the forest species) and molluscs (68%).<sup>25</sup>
17. Narrow ranges and disjunct distributions typify the endemic species, for example among birds and plants.<sup>26</sup> There is also a huge turnover of species between forest patches, especially in the less mobile species. Forests that are only 100 km apart can differ in 70% of their millipedes,<sup>27</sup> and in 80% of their plants.<sup>28</sup> The

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17 Harrison, P.J., (2006) .Socio-economic Study of Forest-Adjacent Communities from Nyanganje to Udzungwa Scarp: A Potential Wildlife Corridor. Tanzania, WWF Tanzania

18 White, F. 1983. The vegetation of Africa. A descriptive memoir to accompany the UNESCO/AETFAT/UNSO Vegetation Map of Africa. Paris, UNESCO

19 Clarke 1998. A new regional centre of endemism in Africa. Chapter 4, pp. 53-65 in Huxley, C.R., Lock, J.M. & Cutler, D.F. (eds.). *Chorology, Taxonomy and Ecology of the Floras of Africa and Madagascar*. Kew: Royal Botanic Gardens.

20 See Burgess, N.D. & Clarke, G.P. (eds.). *Coastal Forests of Eastern Africa*. IUCN Forest Conservation Series. 434pp. Cambridge & Gland: IUCN.

21 Myers, N., R.A Mittermeier, C.G. Mittermeier, G.A.B. da Fonseca & J. Kent 2000.

22 Further taxonomic revisions and study might raise this figure to some 800 forest-dependant endemic species and 40 endemic genera (Clarke, G.P., Vollesen, K. & Mwasumbi, L.B. (2000). Vascular plants. Chapter 4.1 and Appendix 3 in Burgess, N.D. & Clarke, G.P. (eds.). *Coastal Forests of Eastern Africa*. IUCN Forest Conservation Series. 434pp. Cambridge & Gland: IUCN.).

23 See Burgess, N.D. & Clarke, G.P. (eds.). *Coastal Forests of Eastern Africa*. IUCN Forest Conservation Series. 434pp. Cambridge & Gland: IUCN.

24 Broadley, D.G. & K.M. Howell. 2000. Reptiles. In Burgess, N.D. & Clarke, G.P. (eds.). *Coastal Forests of Eastern Africa*. IUCN Forest Conservation Series. 434pp. Cambridge & Gland: IUCN.

25 See Burgess, N.D. & Clarke, G.P. (eds.). *Coastal Forests of Eastern Africa*. IUCN Forest Conservation Series. 434pp. Cambridge & Gland: IUCN.

26 Ibid

27 Hoffman, R.L. 2000. Millipedes. In Burgess, N.D. & Clarke, G.P. (eds.). *Coastal Forests of Eastern Africa*. IUCN Forest Conservation Series. 434pp. Cambridge & Gland: IUCN.

28 Burgess, N.D. & Clarke, G.P. (eds.). *Coastal Forests of Eastern Africa*. IUCN Forest Conservation Series. 434pp. Cambridge & Gland: IUCN.

flora has affinities with West Africa, suggesting an ancient connection with Guineo-Congolian lowland forests.<sup>29</sup> There is a connection with Madagascar, stressing Gondwanaland connections. Endemism is mainly residual rather than recent.<sup>30</sup>

18. Current understanding of biological importance within the Coastal Forests focuses on Kenya and Tanzania, and, at a finer scale, two important centres of endemism can be recognized. The first straddles the border between Kenya and Tanzania - the 'Kwale-Usambara' local centre of endemism, while the second is in southern Tanzania - the 'Lindi' local centre of endemism.<sup>31</sup> (The conservation needs of the first centre are being addressed as part of the KENYA GEF MSP on Coastal Forest Management in the "Kwale District"; and the Lindi centre is a focus of this proposal).
19. In Tanzania eight priority landscapes for conservation intervention have been identified, based on their biological importance: (1) Usambara Lowlands, (2) Rondo/Litipo/Noto Plateaux, (3) Matumbi/Kichi Hills, (4) Pande/Pugu/Ruvu, (5) Eastern Slopes of Uluguru Mountains, (6) Jozani/Ngezi, (7) Kiono/Zaraninge, (8) Mlola (Mafia Island). For this proposal, landscapes for conservation action were chosen from this list of eight possibilities; against the following criteria: (i) importance for conserving globally threatened biodiversity; (ii) significance of forest resources (area and quality) currently or potentially managed under a variety of reserve types (national, district and village reserves); (iii) degree of threat; (iv) community commitment to adoption of joint management practices and capacity to mobilize participation; and, (v) presence of potential implementation partners and history of working in the area. These landscapes are listed in the following table; the focus of this project is shaded grey.

**Table 1: Coastal Forest Landscapes**

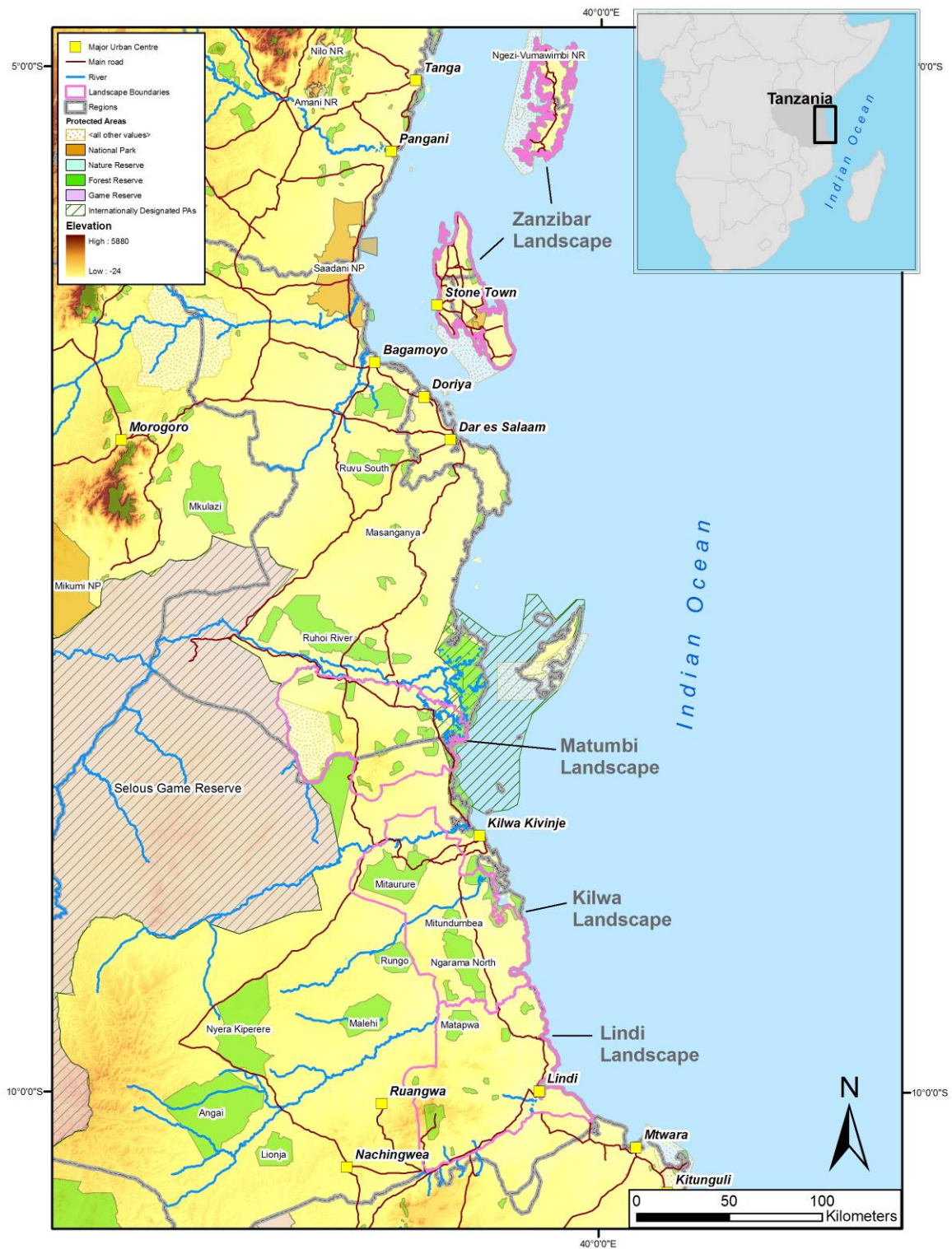
	<b>Landscape Name</b>	<b>Country</b>	<b>Other Past / Present Donor Support</b>
1	Arabuko-Sokoke	Kenya	USAID and others
2	Kwale –Usambaras	Ken – Tanzania	GEF (Kenya); FINNIDA Tanzania
3	Genda-Genda	Tanzania	WWF
4	Pande/Pugu/Ruvu	Tanzania	CARE / Norway
5	Matumbi / Kichi Hills	Tanzania	WWF UK
6	Kilwa	Tanzania	WWF Denmark
7	Rondo Plateaux	Tanzania	WWF; WCST
8	Zanzibar – Unguja	Tanz – Zanzibar	CARE
9	Zanzibar – Pemba	Tanz – Zanzibar	CARE

20. The Kilwa landscape was added to the list of landscapes during the Project Preparation Grant (PPG) process for this project, as detailed fieldwork, mapping and analysis confirmed its importance and distinction from the Rufiji - Matumbi Hills to the north and Rondo Plateau to the south. A general map of the coastal region of Tanzania, showing location of protected areas is presented as Figure 1 below. Note the larger Forest Reserves are woodland, not forest. The Landscapes are summarized below.

29 Lovett, J.C. & S.K. Wasser, eds. 1993. Biogeography and Ecology of the Rain Forests of Eastern Africa. Cambridge University Press, Cambridge, Burgess, N.D. & Clarke, G.P. (eds.). *Coastal Forests of Eastern Africa*. IUCN Forest Conservation Series. 434pp. Cambridge & Gland: IUCN.

30 See Burgess, N.D. & Clarke, G.P. (eds.). *Coastal Forests of Eastern Africa*. IUCN Forest Conservation Series. 434pp. Cambridge & Gland: IUCN.

31 Burgess and Clarke, 2000; Clarke G.P. 2001. The Lindi local centre of endemism in SE Tanzania. *Systematics and Geography of Plants*, Vol. 71, No. 2, Plant Systematics and Phytogeography for the Understanding of African Biodiversity: Prins, E., and Clarke, G.P. 2007. Discovery and enumeration of Swahilian Coastal Forests in Lindi region, Tanzania, using Landsat TM data analysis. *Biodiversity Conservation* 16:1551-1565.



**Figure 1 – Map of South-eastern Tanzania Showing Four Priority Landscapes outlined in pink**





23. *The Kichi Hills:* The Kichi Hills lies to the west of the Matumbi hills but they are connected by a forest belt that is now partially included in the Kichi Hills Local Authority Forest Reserve (2003), and the Ngarambe-Tapika Wildlife Management Area. Part of the closed forest on the Kichi Hills remains unprotected.
24. *Biodiversity Flora:* 322 species of plants have been recorded in the landscape. Of 554 plant species considered endemic to the Coastal Forests, 55 have been recorded from the landscape. The southernmost population of the African Violet *Saintpaulia ionantha* is found in Kiwengoma FR, much further south than other populations. *Fauna:* Levels of faunal endemism within the Matumbi landscape are high. There are seven Coastal Forest species endemic to the landscape and 13 broader Coastal Forest endemics.

### **The Kilwa Landscape**

25. *Background* The Kilwa landscape lies within Lindi Region (Figure 3). It is dominated by two elongated plateaus running parallel to the coast some 40 km and 60 km inland between the Matumbi Hills to the north and the wide Mbemkuru valley to the south. The western (inland) of these is known as the Mbarawala Plateau while the Ruwawa Plateau is located towards the coast. The altitude of the landscape ranges from 15 m to 480 m.
26. Prins and Clarke summarise the landscape as follows: ‘In Kilwa District it is still possible to observe a distinct series of vegetation bands running parallel with the coast. Progressing from inland towards the coast, we were able to observe a general trend towards increasing vegetation density, going from open woodland (mainly miombo), to denser miombo, *Brachystegia* forest, scrub forest and then Coastal Forest on the series of hills that run along the coast.<sup>32</sup> These hills, which are situated approximately 30 km inland of the coast, form a discontinuous chain in SE Tanzania.<sup>33</sup> Some of the vegetation types found within the landscape include: scrub forest, dry evergreen forest, *Brachystegia* woodland, riverine forest, wooded grassland and coastal thicket. The lowland areas have deep, leached sandy soils derived from terrestrial sands, gravels, calcretes and laterites of Miocene to Pleistocene age. The escarpments have a mixture of ancient coral rag and sandy loam and clay soils.
27. The Ruwawa (including Ngarama N & S and Mitundumbea FRs) and Mbarawala (including Pindirola FR) plateaus contain the bulk of the Coastal Forests. On the westerly landscape boundary is Rungo FR and the east is delineated by Ngarama North FR and Ngarama South FR, Mitundumbea FR and Uchungwa or Namatimbili/Namateule, a large area of ungazetted forest. To the east of the plateaus on the coastal plain there are areas of coastal thicket and dry forest as well as woodlands. Miombo woodland is present outside of forest areas in all the reserves. These are important sources of the commercial timber trees *Pterocarpus angolensis* and African Blackwood *Dalbergia melanoxylon*. SE Tanzania is one of the most important sources of African Blackwood, which was heavily extracted from the Miturure FR during the late 1980s.<sup>34</sup>

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32 Prins, E., and Clarke G.P. 2007. Discovery and enumeration of Swahilian Coastal Forests in Lindi region, Tanzania, using Landsat TM data analysis. *Biodiversity Conservation*. **16**:1551-1565.

33 Clarke, G.P. (2001). The Lindi local centre of endemism in SE Tanzania. *Systematics and Geography of Plants* **71**: 1063-1072.

34 Ball, S.M.J. 2004. Stocks and exploitation of East African blackwood *Dalbergia melanoxylon*: a flagship species for Tanzania's miombo woodlands? *Oryx*



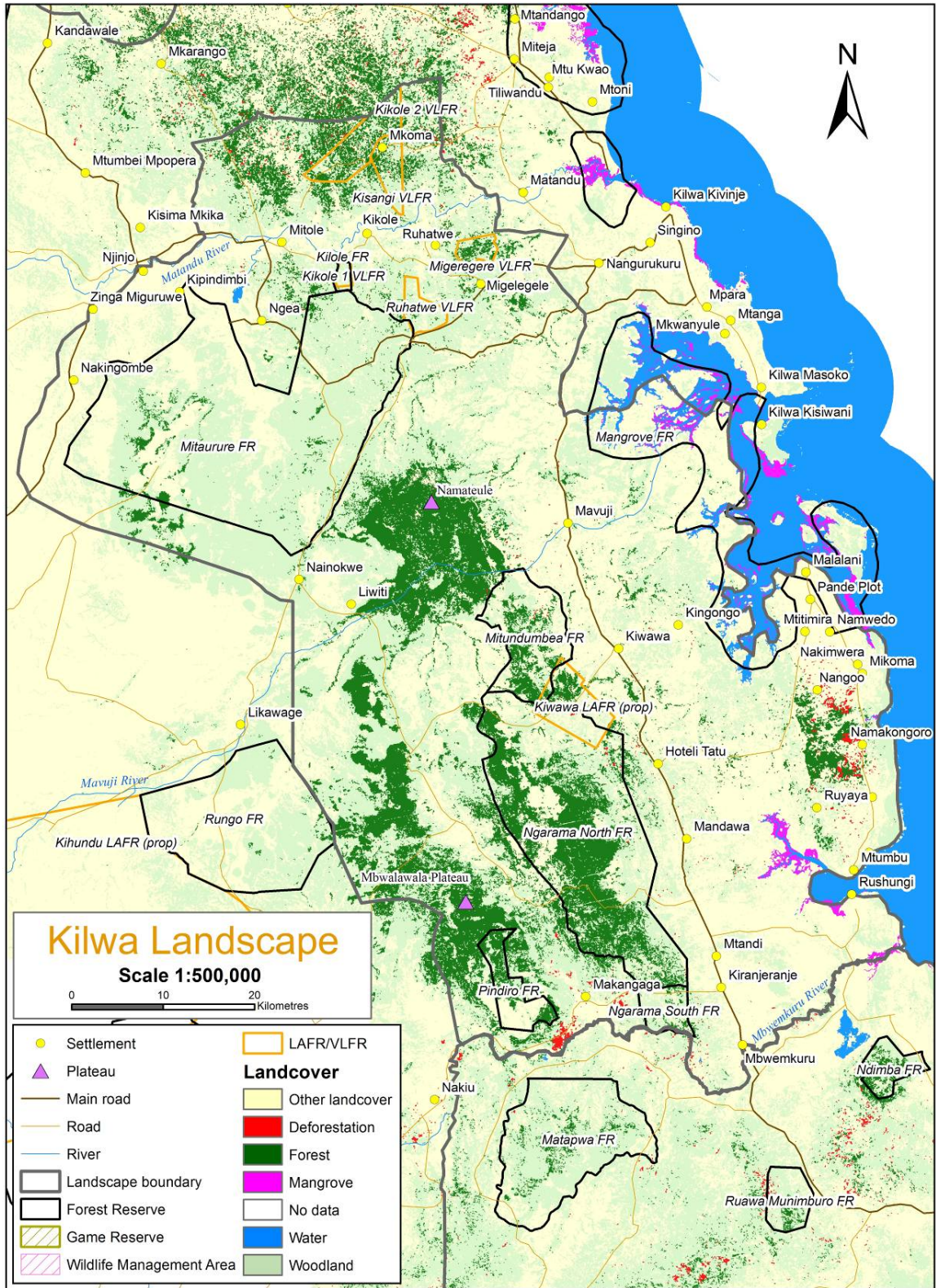


Figure 3 – The Kilwa Landscape

28. *Biodiversity* The biological importance of these forests is still poorly known, but the few studies which have been carried out indicate that the area may be rich in endemic and restricted range species. Seeds of the tree *Karomia gigas* have been found in a tiny patch of forest in the Mitundumbea FR – the species was thought to be extinct after the only known individual tree in Kenya was chopped down in 1983. A rapid botanical survey of the Uchungwa forest (otherwise known as Namatimbili/Manateule) by the Tanzania Forest Conservation Group (TFCG) found the tree *Erythrina schliebenii*, thought to be extinct from its original collection locality beside Lake Lutamba near Lindi following repeated efforts to try to rediscover it. Further collections may well discover African Violets in the Rudadonga gorge system, given its similarity to the now deforested limestone gorges at Tanga where the genus *Saintpaulia* was first collected, as well as the proximity to the African Violet populations in the Kiwengoma forest in the nearby Matumbi Hills. There are six plants that are strictly endemic to the Kilwa Landscape.<sup>35</sup> A further 11 species can be considered Coastal Forest near-endemics as they have also been recorded from the neighbouring Eastern Arc Mountains.

### The Lindi Landscape

29. *Background* The Rondo/Litipo/Noto/Chitoo Plateau landscape is found within Lindi District of Lindi Region (Figure 4). In the past (1950-1980) the Rondo Plateau forest was an important center of wood extraction, wood processing, and plantation forestry. These activities ceased in the 1990s, but have resumed in the past few years. The Rondo/Litipo/Noto/Chitoo Plateau includes over 15,000 ha of land within gazetted forests, of which 3,000 ha is natural closed canopy forest. Rondo FR covers 14,060 ha of both plantation and natural forests, located on the Rondo/Mwera Plateau at 880 m.a.s.l. Unprotected forests in the Mchinjidi, Mtandi, Mihima and Nanyolyo valleys on the slopes of the plateau act as a buffer zone to the Rondo forest. Litipo FR covers around 1,000 ha of forest close to Lake Lutamba. Makangala FR of 1,000 ha of woodland and scrub is located between Rondo and Litipo reserves. The Noto Plateau and Chitoo FR lie approximately six kilometers northwest of Litipo FR (Lindi district, Lindi region). Chitoo FR covers about 865 ha and the adjoining Noto plateau supports a smaller area of unprotected forest.
30. Noto Plateau and Chitoo FR are characterized as dry evergreen forest, with a well-developed canopy at 12 meters and emergent species to 20 meters. The dominant species in the best preserved areas of Chitoo is *Cola clavata*, while *Scorodophloeus fischeri* is common in the remaining Noto forests. Other trees include *Bombax rhodognaphalon* and *Newtonia* spp. Species that are common on the plateau edge include *Azelia quanzensis*, *Manilkara sulcata*, *Milicia excelsa* and *Euphorbia* spp. The Rondo plateau FR formerly contained large numbers of enormous emergent Mvule *Milicia excelsa*, but these were heavily logged from the 1950s onwards and much of the area was stripped of all large trees. Logging stopped in the 1980s, and since that time there has been significant regeneration of forest within the reserve, including within the areas that were replanted with Mvule. Small isolated patches of forest are also found on slopes of the plateau outside the reserve, but the status of these areas is not known.

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<sup>35</sup> Prins, E. & Clarke, G.P. (2007). Discovery and enumeration of Swahilian Coastal Forests in Lindi region, Tanzania, using Landsat TM data analysis. *Biodiversity and Conservation* **16**:1551-1565; also Clarke, G.P. (2001). The Lindi local centre of endemism in SE Tanzania. *Systematics and Geography of Plants* **71**: 1063-1072.



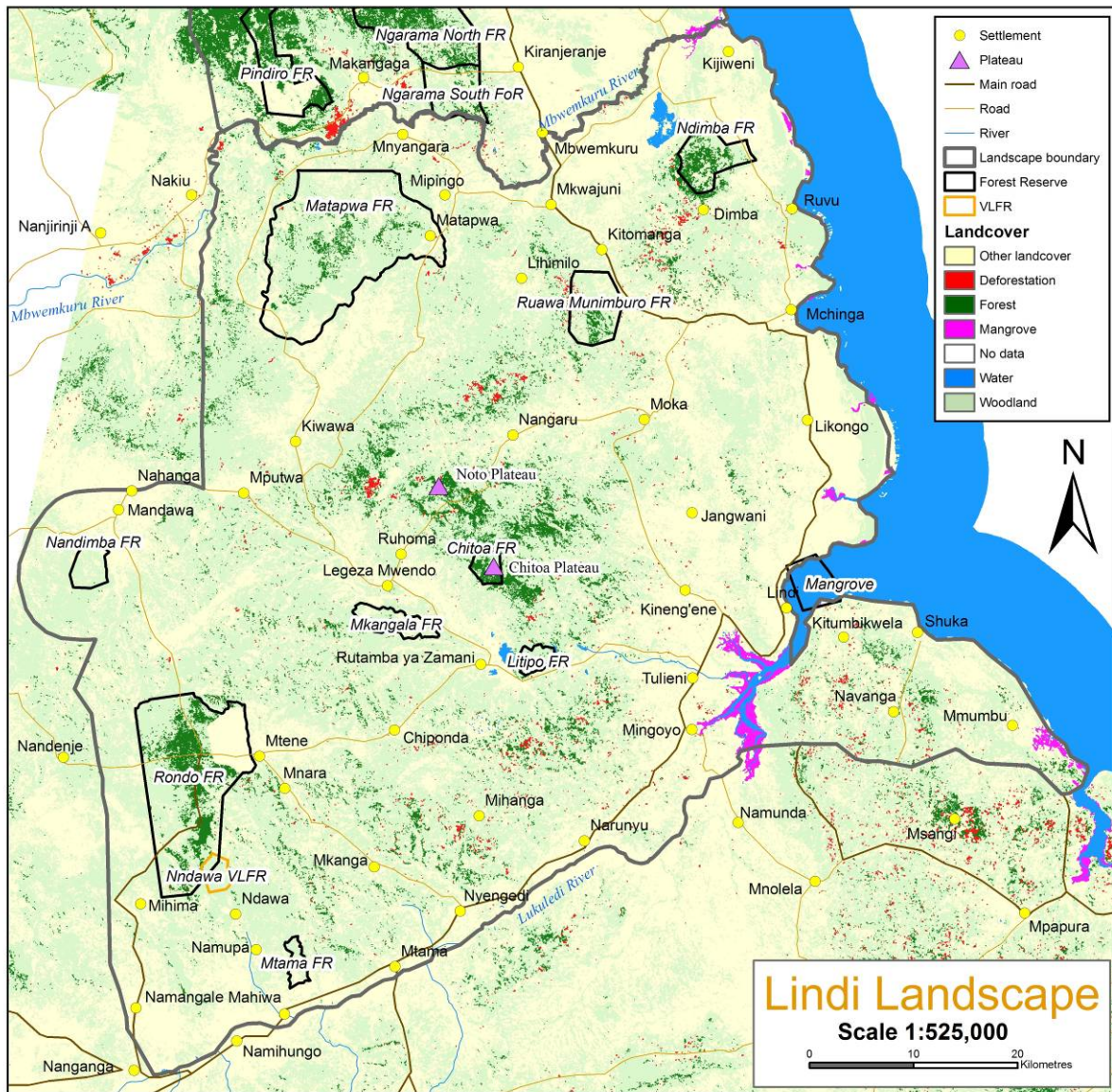


Figure 4 – The Lindi Landscape

31. **Biodiversity.** The forest landscape of Rondo/Litipo/Noto/Chitoo Plateau is a very important centre of endemism. There are two endemic and two near-endemic plant genera and ca. 60 endemic plant species in Rondo and one near-endemic genus and 16 endemic species in Litipo. This is a higher total than in the East Usambara Mountains, which is widely known as an important centre of plant endemism. Endemic vertebrates comprise three species of reptile (*Melanoseps rondoensis*, *Scolecoseps litipoensis*, *Typhlops rondoensis*). Near-endemic vertebrates comprise a species of bushbaby *Galagoides rondoensis* (also 2 other forest sites), a bird *Batis reichenowi* (also some other forests in the area), a distinctive sub-species of bird *Stractolaema olivacea* spp. *hylophona*, and two reptiles (*Chirindia rondoensis* and *Chirindia ewerbecki*). The invertebrates have not been well studied, but for the butterflies there are at least two endemic species.

### The Zanzibar Landscape

32. **Background.** The Zanzibar landscape includes numerous small islands and two large ones: Unguja (the main island, informally referred to as "Zanzibar"), and Pemba (Figure 4). The biodiversity priority landscapes and ecosystems of Zanzibar are high forests covering 98,329 ha, coral rag forests covering



6,119 ha and 20,000 ha of mangroves. The Protected Area System includes the Jozani-Chwaka Bay NP (5,000 ha), Kiwengwa-Pongwe FR (3,325 ha), Ngezi-Vumawimbi NR (2,900 ha), Ras Kiuyu FR (270 ha), Masingini FR (566 ha) and Msitu Mkuu FR (180 ha). In addition, 20,000 ha of mangrove forests have been put under conservation management.

33. Other terrestrial areas of Zanzibar, including Coastal Forest and thicket, have been identified as potential protected areas including: The establishment of the Pemba Channel Conservation Area which will also include Misali Island Conservation Area under the framework of Marine and Coastal Environment Management Project (MACEMP), funded by the World Bank; The forests of Muyuni – Kizimkazi and Jambiani are proposed to be forest reserves and together with Ras Kiuyu and Msitu Mkuu forest reserve in Pemba shall be incorporated in the protected areas system of Zanzibar. The survival of species in the protected areas depends on the interconnectivity of these forest patches through corridors. The government has therefore sought to involve communities in forest management arrangements for these corridors. This approach allows for community participation in forest protection and management while at the same time supporting the communities' livelihoods.

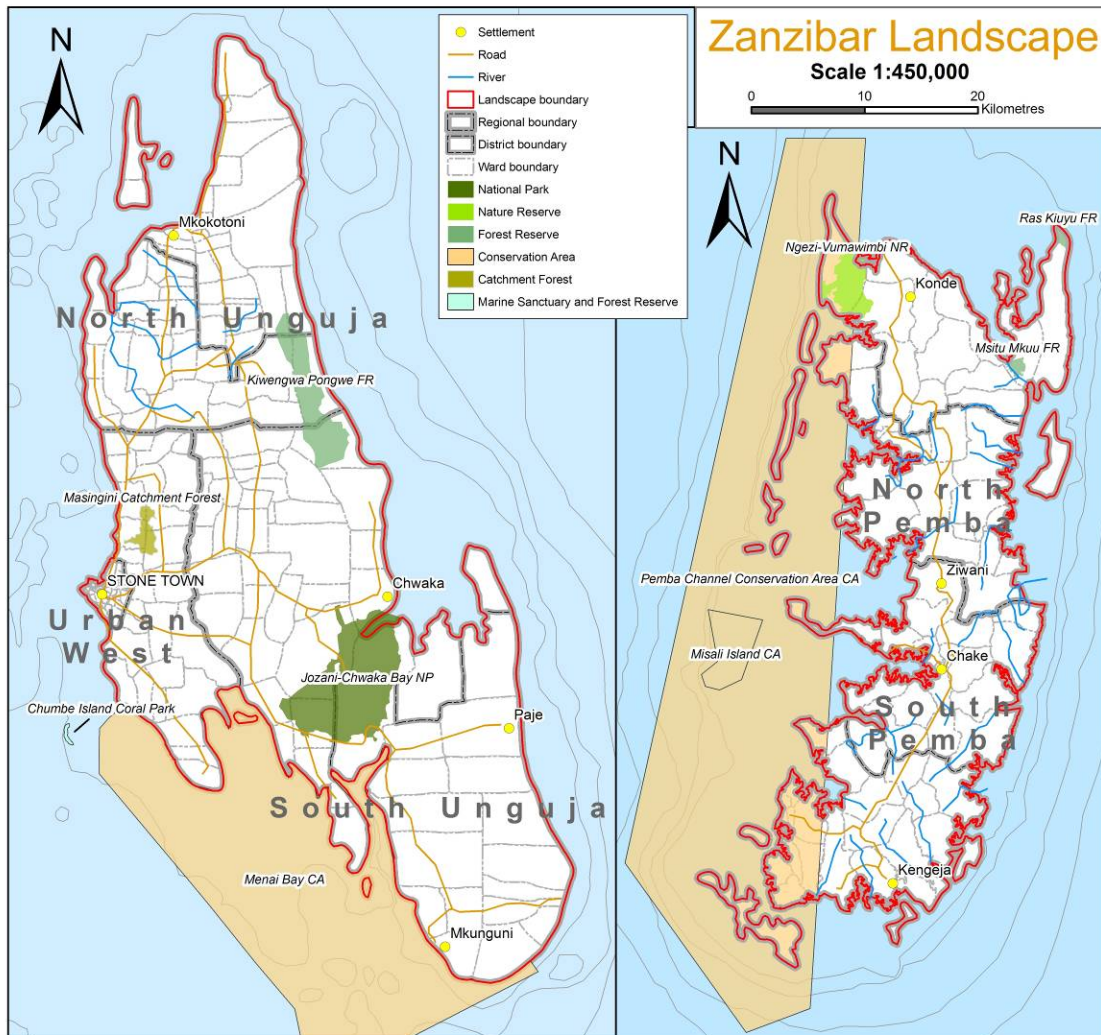


Figure 5 – The Zanzibar Landscape

34. *Biodiversity* The most significant biodiversity within the Zanzibar landscape includes endemic plant species and subspecies such as *Aloe pembana*, *Erica mafiensis* and *Dypsis pembana*, endemic mammal species such as *Procolobus kirkii*, *Pteropus voeltzkowi*, *Cephalophus monticola pembae* and *Cephalophus*

*adersi*. Endemic bird species on Pemba Island include Pemba green pigeon *Treron pembaensis*, Pemba scops owl *Otus pembaensis*, Pemba white-eye *Zosterops vaughani*, Pemba sunbird *Nectarinia pembae*. Zanzibar Island has some endemic bird sub-species – for example *Tauraco fischeri zanzibaricus*. *Phelsuma abbotti*, *Lygosoma pembanus* and *Leptotyphlops pembae* represent the endemic reptiles and *Cassina jozani* represents the endemic amphibians.

## 1A.5 Amount of Forest Cover in Coastal Tanzania

35. A forest change map for the Coastal Forests of Tanzania uses Landsat imagery to assess forest area in 1990 and 2000, and calculates the area of forest lost over this decade.<sup>36</sup> Data show that 388 km<sup>2</sup> of forest or similar habitat types were lost, from an initial estimate of 6,725 km<sup>2</sup> of forest in 1990. This estimate is higher than those developed from ground survey approaches, and may be somewhat of an overestimate of the total area of forest cover, as it is difficult to distinguish between forest, scrub forest and thicket from satellite images. However, the calculation is based on a repeatable methodology and can therefore be updated in the future. This analysis shows that the highest annual areas of forest loss were found in Mtwara Rural, Lindi Rural, Rufiji and Kilwa Districts. In total these districts have lost 239.15 km<sup>2</sup> of forest habitat (Table 2). In some Districts the rate of forest clearing has probably accelerated since 2000. This is, however, likely to have affected the same districts as are indicated in Table 2.

**Table 2. Forest change in the coastal districts of Tanzania from 1990-2000**

Eastern Tanzania Districts	Total area (km <sup>2</sup> )	Area ~1990 (km <sup>2</sup> )	Area ~2000 (km <sup>2</sup> )	Total forest loss (km <sup>2</sup> )	Forest loss %	Forest loss km/year
Mtwara Rural	3859.63	329.35	217.00	112.34	-34.11%	-12.48
Lindi Rural	6315.04	315.90	265.23	50.67	-16.04%	-5.63
Rufiji	12438.37	1414.93	1385.40	29.53	-2.09%	-4.22
Kilwa	11753.47	1399.53	1354.47	45.05	-3.22%	-4.10
Ruangwa	1381.46	21.42	19.86	1.56	-7.28%	-0.17
<b>TOTAL</b>	<b>35747.97</b>	<b>3481.13</b>	<b>3241.96</b>	<b>239.15</b>	<b>-0.6274</b>	<b>-26.6</b>

## 1A.6 The Current Protected Area and Reserve Network for the Coastal Forests

36. A recent analysis by United Nations Environment Programme World Conservation Monitoring Centre (UNEP-WCMC) for the Convention on Biological Diversity (CBD) Conference of the Parties (COP) 9 in Germany shows that the Northern Zanzibar-Inhambane Coastal Mosaic ecoregion (Kenya and Tanzanian Coastal Forests) has just 4.3 % of the remaining forest habitat protected within International Union for the Conservation of Nature and Natural Resources (IUCN) I-IV coded protected areas. This is below the 10% target and as such justifies additional GEF investment in the area to assist the countries to improve protected area coverage. This is particularly the case as the Eastern African Coastal Forests are a global conservation priority. Details of the protected area estate are outlined below.

### A) Forest Areas that are internationally recognised as protected areas

37. Tanzania (mainland and Zanzibar) has some forest areas coded as protected areas according to the IUCN protected area criteria and categories.<sup>37</sup> **National Parks:** On mainland Tanzania Saadani NP (an IUCN category II protected area) contains over 30 sq km of Coastal Forest. Unguja has conserved an important area of Coastal Forest / swamp forest within Jozani – Chwaka Bay National Park (an IUCN category II) in

<sup>36</sup> Sokoine University of Agriculture and Conservation International, working with technical input from WWF and Tanzania Forest Conservation Group

<sup>37</sup> <http://www.wdpa.org>

2004; this covers 50 sq km and contains 14 sq km of forest habitat (and 30 sq km of thicket) that supports the majority of the global population of the Zanzibar red colobus monkey. The Park is managed by Ministry of Agriculture through the Department of Commercial Crops Fruit-trees and Forests (DCCFF), under a different set of laws and regulations to those that operate on mainland Tanzania. Game Reserves: The huge (4,400,000 ha) Selous Game Reserve (an IUCN category IV protected area) contains some Coastal Forest habitats on its eastern margins. Marine Parks: The Mafia Island Marine Park (IUCN category VI protected area) covers a variety of marine and coastal habitats, including an area of Coastal Forest Mlola (100 ha) that was previously a proposed Forest Reserve. Coastal thicket habitats are also found within the Mnazi Bay Marine Park in Mtwara and islands off Dar es Salaam. Private reserves: These include the tiny protected area of Chumbe Island Marine Park which contains coral rag thicket and has been classified as an IUCN category II protected area. It covers only 100 ha of land and sea.

## **B) Other Reserves that are not internationally recognized as Protected Areas**

38. Forest Nature Reserves - The only Nature Reserve within the Coastal Forests region is on Pemba Island, where the Ngezi-Vumawimbi Nature Reserve was gazetted in 2007 with 2,000 ha of lowland forest habitat, it is managed by the DCCFF. Forest Reserves (national, local authority and village) No Forest Reserve in the coastal region of Tanzania have as yet been assigned an IUCN protected area category. Many will not meet the definition of a protected area (established and managed for biodiversity conservation), although some will (Burgess *et al.*, 2007). Coastal regions of Tanzania contain at least 166 Forest Reserves in lowland areas, which cover 1,191,000 ha of land (Figure 4). Of this total area, almost 960,000 ha were earlier coded as 'production forest' for sustainable utilization. Some 231,000 ha were coded as protection forest, primarily for water catchment and habitat conservation purposes. These categories are little used today.
39. Most (146) of the 166 Forest Reserves in the coastal regions of **mainland** Tanzania are coded in the national list of Forest Reserves (latest from 2000) as National Forest Reserves and hence their management by districts is supposed to be overseen by the Forestry and Beekeeping Division (FBD) directly. However in practice these reserves have never had management or funding inputs from FBD and budgets and staffing levels are extremely low, an exception being the Rondo Forest Plantation that has moderate resources.
40. Another 20 Forest Reserves on the mainland are gazetted as Local Authority Forest Reserves. These are managed by the District Natural Resource Departments (see Table 3). They can be managed for protection (a minority) or for sustainable harvesting (the majority). These reserves receive few resources for management from the District Authorities, but are supposed to generate revenue for the District.
41. In recent years further areas of forested land have been protected as Village Forest Reserves under the authority of the village government (Table 3). The location and area of these reserves (<100 in coastal Tanzania) is now as well catalogued as for the officially gazetted reserves. However, there still remain large Coastal Forest patches on the Matumbi Hills and also further south in Kilwa District, e.g. the Uchungwa/Namateule forest and forest on the Noto and Mbwalawala plateaux which have no formal protection. Despite the low levels of management input into most Forest Reserves in Tanzania, their boundaries are usually respected and encroachment into the reserves is rare. Illegal logging is however widespread.

**Table 3. National, Local Authority and VLFs in Coastal Mainland Tanzania**

Regions	Nat FR	LA FR		Proposed FR	Productive FR (ha)	Protective FR (ha)
Pwani (Coast)	46	4	6	2	302,841.7	64,324.7
Dar es Salaam	13	0	0	0	0.0	4,503.9
Lindi	27	3	0	5	542,042.6	82,455.5
Mtwara	5	8	0	6	56,356.6	17,812.2
Tanga	55	5	1	1	58,654.8	62,488.7
<b>Totals</b>	<b>146</b>	<b>20</b>	<b>7</b>	<b>14</b>	<b>959,895.7</b>	<b>231,585.0</b>

42. Within the **Zanzibar** landscape, Forest Reserves are found on Unguja and Pemba Islands. There are four Forest Reserves in total (Kiwengwa-Pongwe, and Masingini catchment forest on Unguja, and Misitu Mkuu and Ras Kiuyu on Pemba), that cover areas of coral rag thicket and high forest. They protect some of the best remaining habitat areas on these islands and are managed by the DCCFF.

### C) The Coastal Forest Protected Area Network.

43. There is no system or network in the real sense, each individual PA is managed (if managed at all) in an individual ad-hoc way. There is no functional Coastal Forest System “office” or database in Forestry Headquarters at national, regional or district level. This was the case for other forest systems in the past (e.g. the Catchment Forests and Mangrove Forests), however the scale of resource values in terms of timber, poles, water and other values necessitated the creation of such sectoral offices and programmes (supported by donors, e.g. Norway, Germany, Finland). However, over the last fifteen years national and global civil society have argued for equal attention for Coastal Forests, which are of immense global biodiversity value – but have much lower resource values at national level (CF are poor in commercial timber and catchment values).
44. Most catchment (montane, e.g. Eastern Arc) forests were brought back under the national jurisdiction over twenty years ago. Coastal Forests remain under individual district management – ostensibly on behalf of national government. Investment has been limited; funds are minimal and field staff almost non-existent. There is no system planning or monitoring, and no management – conservation plan at national, landscape or PA level. There is no business planning, with little estimation of required costs to meet conservation challenges or elaboration of fund raising.

## 1A.7 Socio-Economic Context

45. The social setting of the remaining forest patches varies dramatically along the coastline, with significant repercussions to the forests. Some forest patches are found within large protected areas and are little threatened (e.g. within the Selous Game Reserve or Sadaani National Park in Tanzania). Some others are simply remote and thus largely hitherto unthreatened (e.g., some of the forests of northern Mozambique and northern Kenya). Many others are found within government Forest Reserves managed by District authorities, and surrounded by variable densities of rural people who use natural resources to survive. The most extreme pressures on Coastal Forest habitats are found in forests closest to major cities, particularly Dar es Salaam. Some forests, e.g. Pugu, Kazimzumbwi, Vikindu and Pande, are being engulfed within the rapidly expanding Dar es Salaam urban metropolis.
46. As with other parts of rural Tanzania, people are mainly poor<sup>38</sup> semi-subsistence farmers practicing shifting cultivation, and growing a number of tree crops (cashew, coconut and mango). On Zanzibar there

<sup>38</sup> Fieldwork during the PPG in Kilwa District showed that simple indices of poverty were extremely high (e.g. the % children with shoes, % of houses with roofing sheets, and levels of girl school enrolment). This baseline will be followed up in start-up of project.

are significant areas of spice plantations which provide a semi-forest habitat. Coastal communities in rural areas pursue diverse livelihood strategies combining agriculture, fishing, tree cropping and use of forest products. Subsistence cultivation of cassava and maize is the main economic activity in the rural areas of the coast, while forests and woodlands provide a wide range of wood and non-wood products for local use and income-generation. Communities obtain a wide range of food products from forest areas including fruit, tubers, honey, mushrooms and wild animals and birds (bush meat). Other non-wood forest products include fibre for ropes, mats and wall coverings, fodder for livestock and medicinal plants.

47. Some of the local people in the coastal regions are also involved with logging (often illegal under current regulations) and charcoal production. Both have been increasing rapidly over the past decade, but the majority of the benefits accrue to traders and, in the case of the round wood logging, those involved with exporting the logs to the Far East. Poverty and the consequent subsistence reliance on “free” forest resources drives much of the forest degradation in the coastal zone.
48. Fuel wood is the primary energy source in rural areas, whilst charcoal dominates as the major household heat energy in the urban areas and also as a secondary source of income in rural areas. Coastal Forest wood is also used for building poles and construction timber, household tools and utensils, and carvings and furniture. More recently, a few communities have begun generating income from non-wood forest products such as butterfly farming and forest based tourism.
49. Surveys conducted by TRAFFIC in 2007 in ten Coastal Forests ranging from the vicinity of Dar es Salaam to the southern boundary of Rufiji District during 2005 revealed a variety of human-induced disturbance, with widespread tree cutting for timber. Over two-thirds (68%) of all trees with a defined minimum harvestable diameter (according to the *Forest Regulations of 2004*) were cut below legal requirements; moreover, for several species, none of the tree stumps reached the officially required legal minimum DBH measurements.<sup>39</sup> Here lies a two-sided problem, one of illegal logging and the other of sustainability; it is apparent that loggers predominantly harvested undersize specimens since most large trees had long since been removed.
50. Tanzania has committed to the Millennium Development Goals, two of which relate to reducing absolute poverty and the number of people going hungry. The Government of Tanzania prepared a progressive Poverty Strategy Reduction Paper (MKUKUTA) which highlights the link between good environmental governance and poverty – with natural resources being a fall-back resource used in times of greatest poverty and also contributing materially to livelihoods in the coastal areas.
51. MKUKUTA is based on the achievement of three major clusters of broad outcomes for poverty reduction, namely: (i) growth and reduction of income poverty; (ii) improved quality of life and social well being; and, (iii) good governance and accountability. Furthermore, NSGRP or MKUKUTA recognizes that poverty is largely a rural phenomenon and that the rural poor depend solely or largely on natural resources.
52. There is a two-way linkage between natural resources and the poor. Forests act as a safety net for the extremely poor, providing them with free resources for survival. Recent studies have shown that 40 percent of total household consumption in some rural areas is accounted for by forest and woodland products such as honey production, firewood, construction material, wild fruit and other foods.<sup>40</sup> Sustainable management of forest resources is therefore essential in any Poverty Reduction Strategy, as is full stakeholder involvement in the design and implementation of forest management plans. The second PRS document (MKUKUTA) captures the contribution of natural resources to economic development much

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<sup>39</sup> Milledge, S.A.H, Gelvas, I.K, & Ahrends, A. (2007) *Forestry, Governance and National Development: Lessons Learbed from a Logging Boom in Southern Tanzania*. TRAFFIC East/Southern Africa/Tanzania Development Partners Group/Ministry of Natural Resources and Tourism. Dar es Salaam, Tanzania. 252pp

<sup>40</sup> A point noted in Tanzania's Poverty Reduction Strategy Paper.

more fully, and this project will therefore fall within the framework for implementation of the poverty reduction strategy.

53. Tanzania was a one-party state with a socialist mode of development from independence in 1961 until the mid 1980s. Despite a substantial influx of foreign aid, the economy did not prosper. Beginning in 1986, the Government began to liberalize its control of the economy and to encourage participation in the private sector. Economic growth is most evident in Dar es Salaam. Although the figures look good, Tanzania's economy is still donor-dependent, the external debt is over USD 8 billion, and debt servicing absorbs 40% of government expenditure.<sup>41</sup> Tanzania remains among the world's poorest nations with per capita income under USD 300, and the percentage of the population earning less than USD 1.00 a day is around 50%. Annual population growth rates have slowed, but remain around 2.8% resulting in a population-doubling period of 25 years. Life expectancies are low (50 years), and infant mortality rates are high (98 per 1,000 births). Improvements in national macroeconomic indicators mean little to the average rural citizen, as most benefits accrue at the top. In addition, population growth and inflation both dilute the effects of economic growth and sometimes exceed it. Most coastal people survive through subsistence agriculture (mainly cassava and maize), supplemented by tree crops (mangoes, cashew, coconuts and citrus), small livestock (mostly goats and chickens) and fishing if resources are available nearby. Small-scale trading is common.
54. The nature of the biological resource (small forest patches a long way from urban centres with poor road networks) has meant there is little tourism opportunity (apart from sites in Zanzibar where Jozani NP is 25km from Stone Town on a tarmac road). Minor opportunities for bird tourism and back packing do exist, longer term initiatives could partner with superb but distant coastal and cultural attractions, such as Kilwa<sup>42</sup>.

## ***1A.8 Policy and Legislative Context for the Management of Biodiversity***

55. Environmental management in Tanzania is complex, multi-sectoral and cross-sectoral; it requires a holistic approach and multi-level operation. There is a strong policy framework for environmental management and for biodiversity conservation in Tanzania. Environmental concerns are embedded in the constitution of the United Republic of Tanzania, where article 27 (1) states that, "*Every person has the duty to protect the natural resources of the United Republic of Tanzania, the property of the state authority, all property collectively owned by the people, and also to respect another person's property*". The 2025 country's vision overall goal specifically includes; 'sustainable development endeavours, on intergeneration equity basis, such that the present generation derives benefits from the rational use of natural resources of the country without compromising the needs of future generations'.
56. The environmental laws of mainland Tanzania and Zanzibar differ and are separated here:
57. **On Zanzibar** there are two relevant laws that relate to the implementation of this project: The Environmental Management for Sustainable Development Act, 1996. Part 1 to the Zanzibar Government Gazette Vol CVI No 5743 of 31<sup>st</sup> May 1997. The Forest Resources Management and Conservation Act No 10 of 1996. Part 1 to Zanzibar Government Gazette Vol. No. 5769 of 6<sup>th</sup> December, 1997. These laws provide the basis for developing a network of protected areas, and in recent years there have been important additions to the protected area network of Zanzibar, including the Jozani National Park (2004) on Unguja.
58. The mandate of the Department for Commercial Crops, Fruits and Forestry in Zanzibar is clearly stated in the National Forest Policy of 1995 and partly in the Agricultural sector policy. The department is

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<sup>41</sup> Much foreign debt was cancelled in June 2005, providing some 25% of additional government operational funding per annum.

<sup>42</sup> Project development has liaised with the GEF WB project "MACEMP" about such partnership.

instructed to 'Protect, conserve and develop forest resources as well as to promote sustainable development of the agricultural sector for the social, economic and environmental benefit of present and future generations of the people of Zanzibar'.

59. The Department of the Environment is governed by the Environmental Policy of 1992, which is currently under review. The aim of the policy is stated as to ensure that the economic development is accompanied by proper environmental management, so that Zanzibar's natural heritage is passed on undiminished to future generations.
60. The National Protected Areas Board (NPA Board) has been established as a consultative authority to provide policy guidance in the designation, management and coordination of protected areas system in Zanzibar. The Board draws members from various disciplines, including environment, forestry, fisheries, local government, finance, women groups, tourism and trade as well as a number of prominent Zanzibar scientists. In undertaking its duties, the newly constituted Board is seriously constrained by the lack of appropriate expertise, facilities and equipment within Zanzibar. The Board itself has inadequate experience, and few linkages with other regional and international networks. The suspension of the operations of the NPAB has rendered the integration and coordination of biological diversity protection efforts, between marine and terrestrial resources unachievable. There is a clear need to strengthen the networking of Zanzibar protected areas experts with those of its outside world.
61. On mainland Tanzania the Tanzanian National Environmental Action Plan (United Republic of Tanzania 1994) identified six major environmental problems: land degradation; lack of accessible, good quality water for both urban and rural inhabitants; pollution; loss of wildlife habitats; deterioration of marine and freshwater systems; and deforestation. The National Environment Policy (1997), as an umbrella instrument, defines in broad terms the sectoral obligations and requirements for biodiversity conservation. This policy aims "to achieve sustainable development that maximizes the long-term welfare of both present and future generations of Tanzanians".
62. In response to environmental problems, Tanzania has made considerable progress in achieving sustainable environmental management through putting in place Environmental Management Act No. 20 of 2004 (EMA, 2004) and the National Strategy for Growth and Reduction of Poverty (NSGRP, 2005) in which environmental issues have been mainstreamed. In addition, the National Environmental Action Plan, 2006 (NEAP), Local Government Reforms Programme-2001, National Development Vision 2025 and sector specific policies, legislations, programmes and strategies do all reflect important environmental management issues.
63. The Biodiversity Strategy and Action Plan of 2001. The government of Tanzania, being a signatory to the CBD Convention since 1992, developed a National Biodiversity Strategy and Action Plan in 2001 as an obligation to the country as Contracting Party. The NBSAP is guided by the overall vision which is to build a society that values all the biodiversity richness using it sustainably and equitably while taking the responsibility for actions that meet both the competing requirements of the present and the legitimate claims of the future generations
64. The Government of Tanzania is also committed to related conventions such as Convention on International Trade in Endangered Species (CITES), United Nations Convention to Combat Desertification (UNCCD) and United Nations Framework Convention on Climate Change (UNFCCC) for the conservation and sustainable utilization of biological diversity.
65. The Forest Policy of Tanzania (1998) establishes a framework for the conservation of biological diversity through participatory forest management, decentralization and privatization and recognizes the roles of local communities and the private sector in managing forest resources. Implementation of the Forest Policy is through the National Forest Act (2002) and the National Forest Programme of the Ministry of Natural Resources and Tourism (2001).

66. The National Forest Programme was launched in 2001 and aims to reduce poverty through increasing employment in forest based industries by 25% by 2010 and increasing the income generated from forest resources and services that is retained by local communities by 20% by 2010. The Tanzania Forest Conservation and Management Programme (TFCMP) have been financing implementation of the National Forest Programme and the institutional strengthening of national forestry sector agencies and institutions. Implementation is being carried out through partnerships involving local government, communities, civil society and the private sector.
67. In line with the Forest Policy, the Forest Act and the Village Land Act (1999), the Ministry of Natural Resources and Tourism issued Guidelines for Community-Based Forest Management (2001) to provide practical guidance to its staff and to district and village authorities for implementation. The Guidelines drew heavily on the ten years of FBD and WWF experience (1991-2001) in implementing projects within the coastal zone. The Guidelines make clear that the target population for community-based forest management is populations living within and adjacent to the forest domain. The establishment of joint management committees (village and sub-village level) and joint management agreements are promoted.
68. A Participatory Forest Management approach allows villages to control the rate of environmental degradation. Granted appropriate user rights and security of tenure as incentives for sustainable forest management, local communities are likely to participate actively and effectively in the conservation and management of their forest resources. Therefore, the Forestry and Beekeeping Division must designate Forest Reserve areas that will be managed as Joint Forest Management Areas. The problem at the community level in some areas is that there are no well established community based organizations (e.g. NGOs or CBOs) which are able to influence management of forestry activities.
69. By adopting a landscape approach to forest management this project will integrate the goals of biodiversity conservation with sustainable harvesting of forest products for the benefit of participating adjacent communities. Past experience in Tanzania and elsewhere has shown that increased security of resource tenure (land and trees), access to extension services, diversification of livelihood options, improved market access and revenue retention, have proven to be powerful incentives for improving participatory forest management. It is expected that the landscape approach will facilitate such integration and hence allow poverty alleviation goals to be blended with those seeking to improve conservation of Coastal Forests.

**Table 4 Summary of sector ministries with policies and Legal Acts supporting CFs**

<b>Ministry/department</b>	<b>Policies</b>	<b>Legal Acts</b>
Ministry of Natural Resources and Tourism with:		
a. Forestry and Beekeeping Division	National Forest Policy (1998)	Forest Act No. 14 of 2002



<b>Ministry/department</b>	<b>Policies</b>	<b>Legal Acts</b>
b. Beekeeping Division	National Beekeeping Policy (1998)	The Beekeeping Act No.15 of 2002.
c. Wildlife Division	National Wildlife Policy (2007)	The Wildlife Conservation Act, 1974
		Wildlife Conservation (Wildlife Management Areas) Regulations, 2002.
d. Tourism Division	National Tourism Policy (1999)	Guidelines for Coastal Tourism Development in Tanzania, 2003
e. Fishery Division	National Fisheries Sector Policy and Strategy Statements (1997)	Fisheries Act No/ 22 of 2003
Ministry of Lands and Settlement	National Land Policy (1997)	Land Act No. 4 of 1999
		Village Land Act No. 5 of 1999
		The Land Dispute Courts Act No. 2 of 2002.
Ministry of Agriculture, Food Security and Cooperation	Agriculture and Livestock Policy (1997)	Veterinary Act, 2003 and Animal Diseases Act, 2003.
Ministry of Water and Irrigation	National Water Policy. (2002)	
Ministry of Energy and Minerals	National Energy Policy (2003)	
	National Mineral Policy (1997)	
Ministry of Community Development, Gender and Children	Women and Gender Development Policy (2000)	The Community Service Act No. 6 of 2002 and Community Service Regulation No. 87 of 2004
	National Strategy for Gender Development (2005)	
	Rural Development Policy (2003)	
Ministry of Science, Technology and Higher Education	National Science and Technology Policy (1996)	
Vice President's Office	The National Policy on NGOs 2001	The Environment Management Act No. 3 of 2004.
	National Environmental Policy (1997)	
	Integrated Coastal Environment Management Strategy (2003)	
Ministry of Livestock Development & Fisheries	Livestock Policy (2006)	

Ministry/department	Policies	Legal Acts
Ministry of Industry and Trade	National Trade Policy (2003)	
	Small and Medium Enterprise Development Policy (2003)	Employment Promotion Services. Act No. 9 of 1999
Ministry of Works	Construction Industry Policy (2003)	
Ministry of Communications and Transport	National Information and Communications Technologies Policy (2003)	Public Roads Act No. 12 of 2002

## 1A.9 Participatory Forest / Natural Resources Management

### Joint Forest Management (JFM)

70. JFM is where local people and FBD or District Natural Resources offices have formed an agreement over the management of a particular Forest Reserve, or a part of it. The roles and responsibilities of the community and the government authorities should be clear and there is some evidence from the Coastal Forests (and other forest types in Tanzania) that the condition of the forest within Forest Reserves under JFM agreements is better than in reserves where there is no community involvement.<sup>43</sup> Within the relevant regions of Tanzania well over 100 villages are involved with JFM, covering at least 200,000 ha of reserved land (Table 3).

**Table 5. Status of Joint Forest Management in Regions containing Coastal Forest**

Region	Districts Counted	Number of NFRs	Number of LAFRs	Protection Forests	Production Forests	Number of Villages	JMAs signed or pending signing	Total Area (ha)
Tanga*	7	47	11	49	42	130	37	<b>43,483.9</b>
Lindi	4	5	2	4	5	43	0	<b>119,237.3</b>
Pwani (Coast)	8	10	0	5	5	72	0	<b>115,612.0</b>
Mtwara	1	2	0	2	0	15	0	<b>9,052.0</b>
	<b>20</b>	<b>64</b>	<b>13</b>	<b>60</b>	<b>52</b>	<b>260</b>	<b>37</b>	<b>287,385.2</b>

\* only one of these Districts is relevant to the Coastal Forests area, and even in that District (Muheza) the JFM agreements also include montane forests.

### Community Based Forest Management (CBFM)

71. **CBFM** is where communities manage the forest resource within their village lands, with advice and assistance from the District Forest Officer as requested. Within the relevant regions of Tanzania there are over 70 villages participating in CBFM schemes, covering over 250,000 ha of forested land (Table 4). In

<sup>43</sup> Blomley .T, Pflieger K., Isango J., Zahabu E., Ahrends., A.& Burgess, N. (2008) Seeing the Wood for the Trees: an Assessment of the Impact of Participatory Forest Management on Forest Condition in Tanzania. *Oryx*. Cambridge, UK

many cases the boundaries of these CBFM forest areas are not well known, and may not be mapped. That has made it hard to add these areas to the maps of the proposed intervention landscapes – and this is a priority activity for the main project to address.

**Table 6. Status of Community Based Forest Management in the Regions containing Coastal Forest in Tanzania**

Region	Districts Counted	Number of villages	VNRC Established	Number VLFRs	Gazetted VLFRs	Total Area	Facilitators
Tanga*	4	94	93	22	1	12,390.7	EUCAMP, TFCG, WWF
Lindi	4	31	25		0	145,405.8	UTUMI, PFM
Pwani (Coast)	6	20	19	19	2	57,401.0	REMP, WWF, TFCG
Mtwara	1	25	24		0	73,121.0	Data from 2002
<b>Totals</b>	<b>15</b>	<b>170</b>	<b>161</b>	<b>41</b>	<b>3</b>	<b>288,318.5</b>	

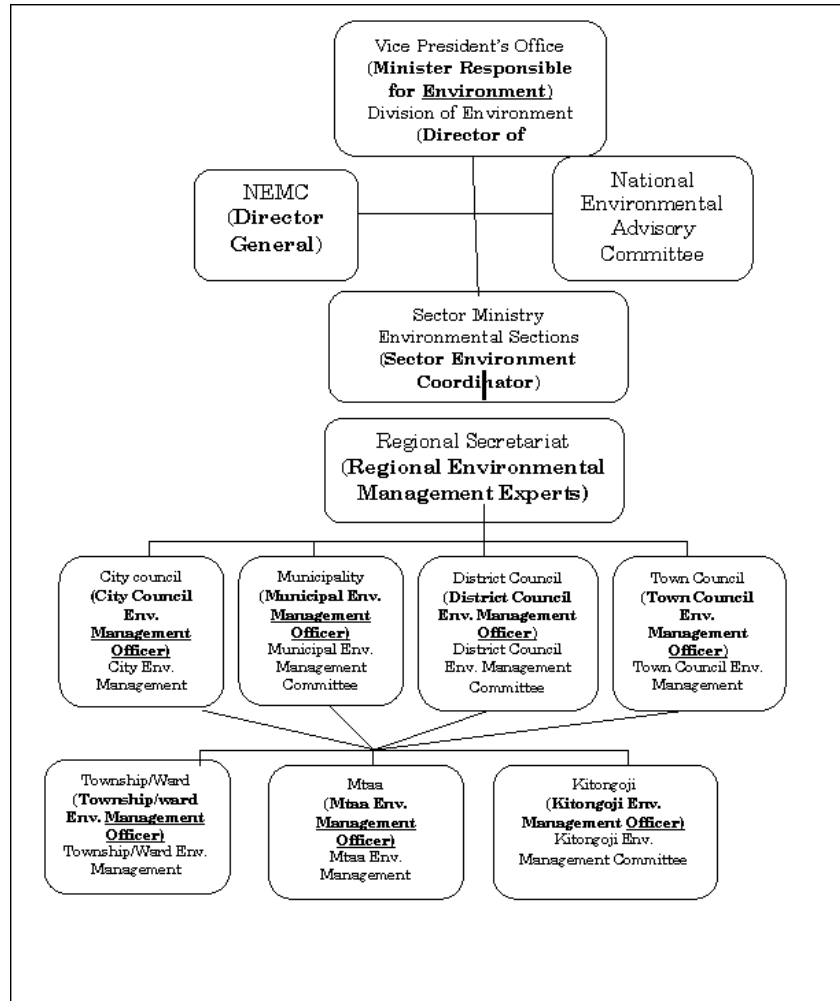
\* only one of these Districts is relevant to the Coastal Forests area, and even in that District (Muheza) the JFM agreements also include montane forests.

### ***1A.10 Institutional Context for Coastal Forests***

72. Policy and programme coordination is achieved through numerous inter-sectoral bodies, involving Ministries and departments, NGOs and civil society and the private sector.

#### **Tanzania Mainland**

73. **Government Institutions.** The Environmental Management Act, 2004 (EMA) has been enacted by the Parliament in order to provide for legal and institutional framework for sustainable management of the environment and natural resources in implementation of the National Environmental Policy. The act is a comprehensive management act that includes provisions for institutional roles and responsibilities with regard to environmental management; environmental impact assessments; strategic environmental assessment; pollution prevention and control; waste management; environmental standards; state of the environment reporting; enforcement of the act; and a National Environmental Trust Fund. EMA, 2004 confers the type B functions to the Ministry Responsible for Environment, which is the Vice President's Office. While type A functions are given to the Ministries, Departments and Agencies (MDAs) and Local Government Authorities.
74. EMA also gives National Environmental Management Council (NEMC) mandates to undertake enforcement, compliance, review and monitoring of Environmental Impacts Assessments, research, facilitate public participation in environmental decision-making, raise environmental awareness and collect and disseminate environmental information.
75. **Transformation of FBD into Agency (Tanzania Forest Service)** The Public Sector Reform Programme (PSRP) aims at the transformation of Public Sector structures, systems and practices based upon a fundamental reappraisal of the roles and functions of the Government. The main purpose of PSRP is to create an efficient public service that will deliver better services to the population of Tanzania. The programme aims at ensuring that those engaged in reforming the Public Service have the capacity, motivation and means to dramatically change the way the public service performs.



**Figure 6: Diagram to show the Institutional Framework for Environmental Management in Tanzania**

76. As an essential component of the PSRP, the government established the Executive Agencies Programme (EAP). Under this EAP, some selected functions of the departments, sections or units within Ministries involved in direct delivery of Public Service are being transformed into semi-autonomous bodies called Executive Agencies (EAs). The aim of EAP is to deliver public services more efficiently and effectively, within available resources and for the benefit of the customers, taxpayers and staff. This makes it possible for Agencies with responsibility for conducting some of the executive functions of the government to operate outside the traditional bureaucratic norms of the government and to use, to some extent, commercial style, financial management, accounting and practices in running their operations.
77. The Forestry and Beekeeping Division (FBD) under the Ministry of Natural Resources and Tourism is one of the government departments that have been undergoing the transformation process since January 2002 to-date to become the Executive Agency called Tanzania Forest Service (TFS). The main purpose of establishing TFS is to improve the delivery of public services related to carrying out of core functions of forestry and beekeeping, which are currently undertaken by the FBD of the MNRT.
78. The aspects of TFS creation and operation as a semi-autonomous government Executive Agency are supported by the Executive Agency Act No. 30 of 1997, the National Forestry and Beekeeping Policies (1998), the Forest Act No. 14 of 2002 and the Beekeeping Act No. 15 of 2002. Under this legislative framework, TFS, like any other established Agencies is still part of the machinery of the government. The Agency has not yet been approved by the Minister responsible for Natural Resources and Tourism who has

legal mandate to approve operationalisation of the TFS. However, in January 2009, this delay was overcome and TFS is expected to become a reality in 2009.

79. **Civil Society (NGOs and CBOs).** Tanzania has a large number of environmental and conservation Non Governmental Organizations (NGOs), many of which have been or are involved in environmental management, including forestry-related activities. Their interventions have complemented on-going government conservation and development initiatives and have greatly assisted the government during periods when donor funding was difficult to get for the government institutions. NGOs provide significant complementarities to government institutions.
80. GEF support through a PDF-A grant enabled the organization of a national stakeholders' workshop to identify site priorities, threats to the forest environment and root causes, and to identify the strategic approach that has been adopted for this project. The FBD, DCCFF and WWF have identified potential key partner NGOs with experience in working with primary beneficiaries who could participate in project implementation.
81. International environmental and conservation NGOs working in Tanzania's coastal area include; World Wildlife Fund - East Africa Regional Programme Office (WWF-EARPO); CARE International (CARE); IUCN East Africa Regional Office (IUCN-EARO). Among the Community-Based Organizations (CBOs) are Korogwe Development Environmental Protection Association; Morogoro Environmental Conservation Action Group; Sigi River Conservation Society - Tanga and Usambara Environment Conservation Organization and Mitandao ya Jamii ya Usimamizi wa Misitu Tanzania (Community Network in Forest Conservation in Tanzania) (MJUMITA). Many of these are relatively new and need testing and capacity building, but they have the virtues of being on-site and rooted mostly in the local communities. These Civil Societies (NGOs & CBOs) possess diverse experience, expertise and capacity in fields relevant to the implementation of environmental objectives. The nature and the independent role they play is a major attribute and precondition of real participation.
82. WWF has been facilitating the development of a strategy for the conservation of Tanzanian Coastal Forests since 2002. It identifies all the highest biodiversity sites in the coastal regions, looks at the policy and legal environment, the threats to the various forests and the degree to which sites are protected. The document identifies a number of thematic issues and conservation targets to be implemented over the coming decade. One of the elements of the plan is to review and improve the protected area status of Tanzanian Coastal Forest sites. This project aims to work with this strategy and seek to further its implementation through the Forestry and Beekeeping Division of the Ministry of Natural Resources and Tourism.

**Table 7: Primary NGOs involved in Biodiversity Conservation on the Tanzania Mainland**

NGOs	Roles & Responsibilities	Main activities
World Wildlife Fund (WWF)	WWF supports the conservation of forest, freshwater and marine ecosystems.	WWF is working to address the conservation of Tanzania's high biodiversity forests, wetlands and marine habitats. It also seeks to improve the livelihoods of rural people and to improve the governance of natural resources in the country.. This includes field conservation work on the Coastal Forests of Rufiji, Kilwa, East Usambara and Mafia.

Tanzania Forest Conservation Group (TFCG)	TFCG supports the conservation of the forests of the Eastern Arc and Coastal Forests of Tanzania	TFCG is a Tanzanian non-governmental organization promoting the conservation of the Eastern Arc / Coastal forest biodiversity hotspot. For the last 18 years TFCH has worked to provide sustainable solutions to the problems that have driven deforestation in this unique area. TFCG is led by a voluntary committee of dedicated professionals with a commitment to forest conservation. TFCG has a long history of promoting community-based participatory forest management. TFCG currently facilitates the National Community Forest Conservation Network linking communities involved in participatory forest management. TFCG has not worked in these areas, but has considerable relevant experience from working in the Coastal Forests of Dar es Salaam and the lowland East Usambara Mountains
<u>Mpingo Conservation Project (MCP)</u>	MCP supports forest conservation activities in the Kilwa District forests	The MCP was founded in 1995, and began with a series of ecological and socio-economic research expeditions in Lindi region. MCP has had a field presence in Kilwa District since 2004 where it has been focused on supporting Participatory Forest Management activities in selected partner villages. Since 2008 it has been pioneering FSC certification amongst pilot village land forest areas. MCP is a Tanzanian NGO.
The International Union for Conservation of Nature (IUCN).	IUCN develops and supports cutting edge conservation science, particularly in species, ecosystems, biodiversity, and the impact these have on human livelihoods.	IUCN supports government, NGOs, international conventions, UN organizations, companies and communities to develop laws, policy and best-practice. It has field project activities in Rufiji District.
CARE International	CARE is creating lasting change in poor communities and put money where it is needed most.	CARE has established a long-term programme in Tanzania and is currently also involved in projects as diverse as rehabilitation of refugee affected areas, integrated conservation and development in Zanzibar, support to the Tanzania Midwives Association, sustainable household livelihood security, girls education and credit and savings schemes. In 1998 CARE Tanzania selected Integrated Conservation and Development (ICD), with Health and Education as its three core areas of program focus. CARE was involved in the implementation of the Jozani project in Unguja, Zanzibar and has a conservation programme in the Coastal Forests of Dar es Salaam area. CARE takes a household livelihood security approach to development.
Wildlife Conservation Society of Tanzania (WCST)	Conservation of fauna and flora of Tanzania for the sake of mankind.	The Wildlife Conservation Society of Tanzania was officially launched in June 1988, as a membership, non-profit making, charitable and non-governmental organization (NGO). It is a national NGO, committed to assisting in protection, restoration and conservation of natural resources (biodiversity) and environment in general. The WCST is the Birdlife International's partner in Tanzania and has been active in implementation of the national programme to identify and protect Important Bird Areas, which correspond closely with "hotspots" for other threatened and endemic flora and fauna. WCST worked in the Rondo/Litipo/Chitoba/Noto area until 1999.
<u>Frontier Tanzania (FT)</u>	Biodiversity and social surveys of forest and woodland habitats	Frontier Tanzania (FT) is a collaboration of the University of Dar es Salaam and the Society for Environmental Exploration (SEE), UK (a not for profit company). This collaboration has been responsible for much of the scientific work, documenting distribution of threatened and endemic plants and animals within the Coastal Forests and the Eastern Arc mountains. Their support will be valuable to designing locally based monitoring systems for globally significant biodiversity within the Coastal Forest mosaic. Frontier-Tanzania undertook most of the basic biodiversity and resource-use surveys in these forests in the 1990s, and has also been recently working in the Coastal Forests close to Dar es Salaam

83. The **Private sector**, particularly within plantation forest plays a major role in reducing the stress on natural resource use and the environment. The involvement of the private sector in industrial plantation management is expected to reduce the financial and institutional burden of plantations on the public sector, and is expected to lead to improvements in the efficiency of production and management. A clearer long term commitment to the private sector with respect to plantation development will improve the climate for investment and reinvestment in the wood products and processing industry, and will lead to greater employment and income generating opportunities.
84. Tree planting by the private sector is encouraged in order to increase supply of wood and other forest produce and at the same time enhance environmental conservation. The private sector initiatives and performance in tree planting is progressively increasing. For example, Kilombero Valley Teak Company (KVTC) operating in Ulanga and Kilombero Districts has established many nurseries for *Tectona grandis*.

## Zanzibar

85. **Government Institutions:** In Zanzibar, the institutional set up is largely based on a civil structure that includes ministries (division, departments) dealing with different sectors of society and the economy. The Ministry of Agriculture, Livestock and Environment is the major institution with enormous responsibilities on Coastal Forests and biological diversity conservation. This Ministry houses three major technical departments that have responsibilities to oversee natural resources and environmental matters. The department of Commercial Crops, Fruits and Forestry (DCCFF) is the central department responsible for Coastal Forests and the Forest protected areas. Other notable departments that have stakes in Coastal Forests management and biodiversity include the department of Fisheries and Marine Resources and the Department for Environment. The Ministry of Tourism, Trade and Investment, Ministry of Water, Construction, Energy and Lands are also key institutions as far as the management of Coastal Forests in concerned.
86. While the National Forest Policy articulates and gives the due priority on conservation of resources, the current structure of the DCCFF set up does not augment the policy. The Department of Commercial Crops, Fruits and Forestry lacks a conservation wing and consequently lacks Conservation cadre. Consultation with community committees (VCCs) having forest management agreements (CoFMAs) with DCCFF have revealed a lack of an oversight support and even follow up from the latter. This de-link has been associated with inadequate decentralization of agricultural extension services whereby a subject matter specialist was supposed to come from the respective district.
87. Local government reforms have been in the reform agenda of the Zanzibar government for some time now. Notwithstanding, the reforms have been delayed due to financial constraints. The current setup is mandating the Local Government Agencies to provide social-economic services within the confined locality. The nature of environmental conservation problems prevailing Zanzibar call for strong capacity of the local government authorities to act locally. Further, local governments should recognize essential linkages between the communities on the best practices of environmental protection by ensuring the sustainable use of natural resources.
88. Local government institutions, districts and *Shehias*, interface directly with rural communities and are important partners in protected areas management. The districts are the power house of governance, law enforcement and conflict management. Further, the current extension system is based at district level wherefrom the subject matter specialists operate. *Shehias* organise community members to form Community conservation committees that operate at the lowest level of resources management and ownership.

89. An institutional capacities analysis has shown an acute need for capacity building for both governmental and non-governmental institutions that have mandates, stakes or interests in sustainable management of Coastal Forests resources. The project, therefore, plans to respond with a comprehensive capacity building approach. Diversifying sources of funds for Protected Areas management, training needs assessment would be conducted, training programme prepared and implemented for all stakeholder institutions.
90. **Civil Society (NGOs and CBOs)** Zanzibar has a large number though relatively young Non-Governmental Organisations and Community Based Organisations that have keen interest in biodiversity conservation. Their interventions have complemented ongoing government conservation and development initiatives around the protected areas. The most notable NGOs and Community Based Organizations that have had remarkable successes in resources conservation include CARE, WWF and TFCG.

**Table 8: Primary NGOs involved in Biodiversity Conservation on Zanzibar**

NGOs	Roles & Responsibilities	Activities
<b>CARE</b>	CARE is creating lasting change in poor communities and put money where it is needed most.	Jozani Chawaka Bay Conservation Project ( <u>JCBCP</u> ), Conservation of Zanzibar's Unique Flora and Fauna, Socio-economic Development around Jozani-Chwaka Bay National Park Project (PAFOW) in Unguja and Sustainable Resource Use and Community Development around Ngezi-Vumawimbi (MEMA) on Pemba.
<b>Wildlife Conservation Society</b>	WCS has been researching the conservation of the endemic mammals of Zanzibar	Research on Jozani Red Colobus and Aders Duiker on Zanzibar
<b>Misali Island Conservation Association (MICA)</b>	Development of community projects for sustainable resource use	Community conservation education in schools, Marine resources conservation awareness, Public awareness and tree planting in open areas, Rehabilitation of eroded areas, Alternative income generation activities.
<b>Jozani Environmental Conservation Association (JECA)</b>	A 'pioneer' VCC umbrella organization represents eight community conservation committees for villages around the Jozani-Chwaka Bay National Park.	Implemented many projects in relation to natural resources management and community livelihood initiatives. The latest project was enhancing natural resources conservation and the empowerment of women through dairy goats and back yard chicken keeping raising their income.
<b>Ngezi Natural Resources Conservation Organization (NGERANECO)</b>	An umbrella organization representing twelve community conservation committees from all villages around Ngezi-Vumawimbi Forest Nature Reserve in Pemba.	Raises awareness of the local villagers on the importance of sustainable utilization of natural resources in the area. Other motives include protection of Ngezi forest resources through planting more trees in the community lands and promote the ecotourism potential of the area in order to increase income from which communities could benefit.
<b>Kidike Environmental Conservation Club</b>	A community based organization aiming to conserve environment of the eastern side of Pemba and to Conserve the Pemba flying fox against indiscriminate killings.	Educate the population on the ecological importance of the Pemba flying fox; To mobilise community members on development opportunities in the area. In partnership with DCCFF, the club has constructed an information centre and has developed nature trails for ecotourism activities. Moreover, they have jointly produced interpretation materials and codes of conduct for the visitors. The club's capacity on handcraft making has been strengthened ready for prospective tourists.

91. **International NGOs** and Foundations that have worked in environmental and conservation activities in Zanzibar include the Jane Goodall Institute Tanzania, Flora and Fauna International, Ford Foundation, McKnight, CARE International and CARE Tanzania, and WWF-EARPO. The International NGOs'



engagements have entailed researches and other support to PAs or community livelihoods within and the hotspot.

92. **Private Sector.** The Zanzibar government has also partnered with the private sector entities in conservation activities. There are two small marine protected areas managed by private companies with the agreement of Zanzibar Revolutionary Government. These include Chumbe Island Coral Sanctuary, a nature reserve that is managed by Chumbe Island Coral Park, Ltd., and Mnemba Island Marine Reserve, managed by Conservation Corporation Africa. Both are islets and entail the conservation of coral reef and terrestrial wildlife.

### ***1A.11 Cross-sectoral Planning and Coordination***

93. **EACFE Task Force:** The EACFE programme has adopted an approach to implementation based on cooperation between stakeholder agencies working to achieve similar goals. Co-ordination of the implementation process for this project will be undertaken through national and ecoregional structures, linked closely to the existing government agencies. WWF has facilitated the establishment of a Regional and National EACFE Task Forces, which have been operational for 5 years. The EACFE Regional Coordinator and Secretariat, currently hosted by WWF, are tasked with coordinating and managing the activities of the Regional Task Force and National Task Forces.
94. **Regional EACFE Task Force:** The focus of the work of this task force is on the enabling environment of the ecoregion, and it is thus responsible for strategic planning, facilitating implementation, identifying potential funding sources, monitoring and evaluation, and promoting awareness. A significant function is linking activities of EACFE to other ecoregional programs and projects such as the East Africa Marine Ecoregion (EAME) Programme and Critical Ecosystem Partnership Fund (CEPF)-funded initiatives. This committee is made up of representatives of National Task Forces.
95. **National EACFE Task Forces:** These task forces, established through participatory processes, comprise members of key stakeholder agencies and prominent individuals, serving in their personal capacities. They provide advice and assistance on the implementation of the relevant Coastal Forest National Action Plans, both at the level of the priority areas and within the enabling environment, foster debate and networks, and disseminate information on the state of the eastern Africa Coastal Forests. The ratification of the Coastal Forest strategy and action plan in 2006 provided an agreed framework for all actors to work within, and this has promoted enhanced cooperation and collaborative working. These meetings are chaired by a senior Forest Officer in Tanzania, who has a mandate for conservation of the mangroves and Eastern Arc mountain forests.
96. A **Tanzania Coastal Forest Task Force** has been formed that includes representatives from key Government and NGO partners. The Task Force has set out the following field level conservation agenda for the period between 2003 and 2010, focusing on forest governance in the four proposed landscapes of global biodiversity importance identified by the Task Force.

## PART 1-B: Threats and Barrier Analyses

### *1B.1 Threats to Tanzania Biodiversity, especially Coastal Forest Biodiversity and their Root Causes*

#### Threats to the Coastal Forests

97. Degradation and loss of Coastal Forests and their associated habitats and the species that they support is a result of a wide range of natural and man-made causes interacting at different levels and intensities on the east African Coastal Forest ecosystems. An estimated 60% of natural habitats in the EACFE have been converted over time to farmland and urban areas. Stakeholders have identified three-quarters of the remaining Coastal Forest areas to be highly or very highly threatened.
98. A methodology developed by The Nature Conservancy in the USA was applied in 2006 to prioritize threats in the Coastal Forests eco-region. Threats were ranked (see Table 5 below) in terms of:
- *Area*. How wide an area does the threat affect? Will it affect the entire area or just a small part of it?
  - *Intensity*. How strong is the impact of the threat on a given piece of habitat, ecosystem service or wildlife population? Will it destroy it completely? Or will it cause only minor damage?
  - *Urgency*. How urgent is the action to deal with the threat? Is the threat occurring now? Or is it only likely to be important in future years?

**Table 9. Top Ten Ranked Threats in the Coastal Forest eco-region (WWF EARPO 2006).**

Threat	Criteria			Total	Rank
	Area	Severity	Urgency		
Conversion to agriculture	14	14	14	42	V HIGH
Increased fuel demand -charcoal, firewood	13	12	13	38	V HIGH
Infrastructure development	10	13	10	33	HIGH
Unsustainable logging (timber, poles)	12	9	12	33	HIGH
Uncontrolled fire	11	8	11	30	HIGH
Over-harvesting of wood for carving	8	7	9	24	MED
Unsustainable hunting (legal & illegal)	9	5	8	22	MED
Conversion for salt pans, aquaculture	6	11	5	22	MED
Mineral mining	5	10	6	21	MED
Adverse climate change	7	6	2	15	MED

These threats are described in more detail.

99. Expanding agriculture: This is the most important threat facing the natural habitats of eastern Africa, including the Coastal Forests. In general the soils of coastal east Africa are poor and cannot easily support settled agriculture. Coastal agriculture traditionally takes the form of short-term shifting cultivation, concentrating on food crops such as cassava and maize, along with some fruits and pulses e.g. coconut, cashew and oranges. Soils under the patches of lowland forest are more fertile than those of surrounding woodlands and hence face pressure to be converted for agriculture. Forests are furthermore easier to clear than woodland areas. Growing population pressures tend to decrease the length of fallow periods. A newly emerging threat is the establishment of large industrial plantations for the production of biofuels on the

eastern African coast. Large areas of woodland habitats have already been cleared for *Jatropha* production in Kilwa District and sugar cane plantations are also planned for the Bagamoyo area and Rufiji areas.

100. Charcoal production: Charcoal production is a major cause of habitat loss in areas close to large cities and alongside main roads. Charcoal production has heavily impacted forest areas up to 200 kilometres from Dar-es-Salaam, and is spreading ever further into the bush. Away from towns and roads this threat is much less important as local people use firewood for cooking and transport difficulties discourage charcoal production as a cash crop. The major supply routes of charcoal to Dar es Salaam are along the Kilwa, Morogoro and Pugu roads; with the Kilwa road accounting for 50% of the total supply.
101. Logging: Commercial logging of coastal woodland and forest trees, largely for the Chinese market, has moved to northern Mozambique and remote areas of south east Tanzania, as supplies closer to Dar es Salaam and Rufiji were exhausted. Logging uses pit-sawing techniques; and as well known commercial timber trees were finished, further logging has shifted to new species. Particularly heavy exploitation for round wood export has occurred in Rufiji, Kilwa and Lindi Districts of Tanzania, although this is now reduced. Some of this logging was licensed by relevant authorities, but most was illegal.
102. Climate change Predictions for climate change in eastern Tanzania suggest only moderate changes, with temperatures rising slightly and rainfall patterns tending towards an overall increase in rain, but with potentially more severe dry seasons and longer 'short rains' periods, fire will be more serious. Overall the impact of the various climate change predictions on the eastern African Coastal Forests is relatively poorly unknown, but may not be particularly dramatic (Case 2007).
103. Uncontrolled fires: Although forest fires are an occasional natural phenomenon in eastern Africa, the majority that occur currently are started by people, who use the fire to clear farmland, to drive animals for hunting, to collect honey, and to remove tsetse flies from an area. Some other fires are started accidentally, for example from cigarettes thrown from passing vehicles or by pedestrians. Fire can invade lowland Coastal Forest patches and thicket vegetation during the dry season. At this time it can be irreversibly destructive to the vegetation that is not adapted to be being burnt. Over time and with frequent and intense burning it is believed that lowland Coastal Forest and thicket vegetation is converted to more fire-adapted vegetation types similar to the Zambesian Miombo woodlands (dominated by *Brachystegia* and *Julbernardia* species). This results in a loss of the narrowly endemic Coastal Forest specialist species and their replacement by wide-ranging species typical of Miombo. The number of fires in the coastal districts of Tanzania appears to be increasing yearly (Figure 7). This is linked to human population increase and the number of fires being used to clear fields, as well as the incidence of dry years (e.g. 2003).
104. Pole harvesting and firewood collection Pole harvesting is widespread in the Coastal Forests, especially in rural areas where they are used in the construction of houses. The same is true for firewood harvesting, which is primarily conducted in the rural areas and forms a major extraction in these areas. The levels of forest damage that are caused by pole cutting or firewood harvesting are much less severe than for charcoal or timber harvesting, but in areas close to rural villages they can form a significant forest use.
105. Landscape specific threats are detailed below:

### **The Matumbi-Rufuji Landscape**

106. The Matumbi/Kichi Hills contains one of the largest blocks of contiguous forest in coastal Tanzania, with only some of the area under official protection. High among the threats to forests in the area are illegal logging, pit sawing, charcoal production, shifting cultivation, forest fires, poaching, hunting and other cultural uses.
107. Around the Kichi Hills FR there are high levels of shifting cultivation, mainly to grow rain-fed rice and cassava. The soils are nutrient poor thus requiring the farmers to shift to new areas after 2-3 years. This

has been exacerbated by the construction of a road from Utete to the gate in the Selous GR of Kingupira. There have been high levels of logging throughout the landscape, especially along the main roads between the Mkapa Bridge over the Rufiji River and Somanga, but few areas remain unaffected. There is also charcoal production and bags are sold on the main Dar to Lindi road as well as around Utete.

### **The Kilwa landscape**

108. Disturbance is most intensive close to main roads where much of the natural vegetation has been cleared to prepare agricultural land. Agriculture in the Kilwa landscape is a mixture of subsistence cultivation of cassava, maize, beans, sweet potatoes and pigeon peas. Irrigated rice is a significant cash crop close to Pindirola where there is an agricultural extension officer supporting villages to improve rice yields. There are some areas of cashew nut production. Fire disturbance as a result of shifting cultivation is also widespread.
109. There has been widespread commercial timber harvesting for *Dalbergia melanoxylon*, *Milicia excelsa* and *Pterocarpus angolensis*. Charcoal is sold in Migeregere and at the Nangurukuru roundabout. According to the Mpingo Conservation Project, charcoal production is increasing albeit still at a low level compared to areas further north. Although rates of disturbance are low at present, it is likely that as resources closer to Dar es Salaam are exhausted, so pressure will grow on the Kilwa landscape.
110. Gypsum mining occurs in forest belonging to Makangaga village between Pindirola and Ngarama Forests. There is also a biofuel project, by the Dutch company BioShape, that is planting *Jatropha*, and has begun to expand this to four areas within the landscape: near to Mavuji village to the east of the Uchungwa/Namateule forest; a proportion of northern Uchungwa/Namateule forest on Migeregere Village, near to Liwiti village land and an area to the west of Namatimbili that includes some of Uchungwa forest in the lands of Nainokwe Village.

### **The Lindi Landscape**

111. In Lindi District (12 people / km<sup>2</sup>), the rate of resource use is low relative to other Coastal Forest areas such as the Matumbi Hills. Disturbance is, however, highest within Rondo FR which reflects the higher population density on the eastern side of the Rondo Plateau. Fire remains a widespread threat across the landscape and is particularly prevalent in the wooded grassland on the western side of the Rondo Plateau.
112. Agricultural encroachment is a minor threat at present in Rondo FR (particularly around the Mchindiji River Valley), Noto Plateau (especially in the North), Chitola Plateau and Makangala. However encroachment is a major problem for Ruawa FR where at least three settlements are inside the reserve boundaries and attempts to move people out have so far failed. Threats are also relatively high on the boundaries of Ndimba FR.
113. Subsistence hunting is occurring throughout the landscape, but there is also a little commercial hunting licensed by the district. In Ruawa a potentially interesting and isolated population of bush hyrax seems to be hunted to the edge of extinction. Elephants and buffalo are hunted locally both for meat and to control threats to humans. Hyena and lion are sometimes hunted when they pose a threat. Preliminary data suggests that small antelopes (duikers) have been heavily hunted in the past and occur in low densities in Rondo, Noto, Ruawa and Ndimba. Local hunters in Rondo were seen to be trapping forest birds using glue as a form of hunting since antelope densities are so low.
114. With the growing interest in biofuel plantations, there has been interest in establishing plantations in Lindi District. Such plantations pose a particular threat to unprotected forest particularly by attracting more people to the area to work on the plantations as well as clearing forest for the planting. Increased populations close to the reserves is likely to increase pressure for timber, fuel wood and agricultural land.

115. Logging further north along the coast has already led to the commercial extinction of several species in parts of the Coast Region. As it becomes increasingly difficult to access timber to the north, so it is inevitable that pressure is going to grow on the forests of the Rondo / Noto landscape. This is probably the greatest current threat to the forests and highlights the importance of securing the legal protection of the key forest such as those on the Noto and Chitoo plateaus.

### 1.1 The Zanzibar Landscape

116. The most pressing threats include the conversion of forest into agricultural land and the need for woodfuel. For instance, in 2007 the estimated coral rag forest cleared for agriculture was more than 500 ha and the need for woodfuel was about 1.5 million m<sup>3</sup>. This caused an over harvesting of over 776,273 m<sup>3</sup> to meet the demand.
117. Another threat comes from the result of indiscriminate hunting of important wild animal's species such as birds, monkeys and wild pigs in the pretext of vermin control. There is also hunting of the threatened Ader's duiker for bush meat.
118. Conversion of Coastal Forests to other land uses, such as agriculture and infrastructure development is another significant threat on Zanzibar. Selective over cutting of certain key species is an issue for coral rag forest on the east coast of Unguja Island; this is due to heavy demand for various products, for sticks for sea-weed farming.
119. A significant threat is posed by invasive plant species - particularly *Maesopsis eminii* in Ngezi-Vumawimbi Nature Forest Reserve and *Pandanus* spp in Jozani-Chwaka Bay National Park.

### Root Cause Analysis

120. An analysis of the root causes of biodiversity loss, undertaken for the Coastal Forests ecoregion, has identified factors operating at several levels, from the local level to national and international levels. These are among the more important factors driving the direct threats outlined above.
121. **Local level: Limited alternative economic activities:** According to the CIA in 2008, Tanzania had a per capita GDP of USD 210 in 1997 which was low compared with the average of USD 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 USD 1,400 in 2008, with real growth rates at 7.1% that year.<sup>44</sup> However this remains a country with considerable poverty. A significant proportion of the population in this country, including coastal communities, relies on agriculture for their livelihoods. Direct threats from agricultural expansion and associated fires, in particular, are linked to poverty and limited alternative economic activities in rural areas. A high level of direct reliance on forest products to sustain livelihoods contributes to their overuse in some areas. The lack of affordable energy alternatives also drives the urban demand for charcoal.
122. **Demographic changes:** Demographic changes combined with uncontrolled settlement increases overall direct pressures on land, timber and non-timber forest resources. In a region with an average human population increase of 2.5-3.5% per annum, the demand for additional farmland for subsistence agriculture is increasing every year. Population growth, including in-migration, also contributes to expansion of urban settlements. Population increases are also linked to habitat degradation associated with increased demand for firewood, charcoal, timber, building materials and bush meat. Declining respect for traditional forest protection systems: Small areas of forests have traditionally been conserved as sacred sites. These areas have been protected by community elders but are now threatened and some cases being destroyed by recent migrants who do not necessarily owe allegiance to traditional authorities. A decline in the respect

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<sup>44</sup> USA Central Intelligence Agency (CIA) World Factbook 2008, Tanzania country profile. <https://www.cia.gov/library/publications/the-world-factbook/geos/tz.html>

for elders among other members of the local population is causing further pressures to convert these forests to farmland.

123. **National level:** *Limited Consideration of Environmental Impacts of Economic Development Policies:* National and Local Governments tend to give priority to economic development activities and will permit the clearance of natural habitats to establish mining, tourism facilities, roads, and agricultural projects. Given the poverty of the eastern African nations, such a development focus is understandable. However, there remains considerable scope for undertaking development that is less environmentally damaging through enhanced integration of conservation objectives in development planning and consideration of environmental impacts.
124. *Inadequate Institutional Coordination and Integration of Sectoral Policies:* At the national level, conflicting objectives and policies among government ministries and departments have also contributed to the loss of habitats across the region. In Tanzania there are over 20 sectoral policies that either directly or indirectly affect forest management and conservation practices, with no clear mechanism for ensuring linkages between these different policies and Acts. Mechanisms are in place to address this issue.
125. **International level:** *Macro Economic Policies of the International Financial Institutions:* Structural Adjustment Programmes promoted by the International Monetary Fund and World Bank have resulted in significant reductions in the number of public sector employees. These reductions have particularly affected staff numbers in natural resource management sectors, with adverse impacts on the enforcement of existing environmental policies and on the development or implementation of new ones.
126. *International Market Demands:* International demands for timber drive legal and illegal logging in the Coastal Forests, with little current demand for sustainable management. During 2002 and 2003 the Coastal Forests of southern Tanzania were seriously over harvested, enhanced access afforded by the Rufiji river bridge. Round wood from high value timber trees were cut and exported from Dar es Salaam, Kilwa and Mtwara ports – much illegally and bound for China. Most of the economic benefits of these activities remained with traders and corrupt leadership. Significant efforts were made to bring this trade under control and a log export ban enacted by the government during 2004 has improved the situation considerably. By end 2005 PPG field visits to both Namakutwa-Namuete and Kiwengoma showed little evidence of current logging. The project will still need to balance the needs of conservation with the economic imperative of the District authorities who manage these woodlands for revenue.
127. *Long-haul tourism:* This has growing in popularity in Northern countries, with tourists focused on coastal regions with a good climate, such as the coastline of eastern Africa. If well planned, the growth of this sector could help facilitate economic growth through the promotion of ecotourism, which would satisfy the needs of both sustainable development and biodiversity conservation. However, the development of mass tourism along the Kenya coast and in Zanzibar has placed considerable additional pressure on Coastal Forest habitats.
128. **Protected Areas System - Matumbi and Kichi Hills.** Natural (mainly forest) resources provide the bulk of the revenue to the Rufiji District Council. This is translated into considerable logging of valuable timber trees from the forests of this landscape. The rates of logging have increased greatly with the opening of the road bridge over the Rufiji River in 2003 as this facilitated the transport of wood and other natural products (meat etc.) to Dar es Salaam. The scale of these threats has been assessed by field visits by staff from TFCG and WWF-Tanzania, and is also being measured over the longer term by the WWF Tanzania office through its northern Selous and TRAFFIC programmes. In 2003 high value timber species were being harvested from Namakutwa-Nyamute FR and transported as round wood to local saw-mills and to Dar es Salaam. According to the management plan, extraction is not permitted. In all the village lands around these reserves there is harvesting of timber trees for export as round wood, mainly from Dar es Salaam. By early 2005 exploitation rates had declined, but logging was still continuing in some areas and lorries loaded with round wood were still seen on the roads.

129. **Protected Areas System - Rondo/Litipo/Noto/Chitoa.** The forests of this landscape are threatened by the low capacity of the District forest management authorities, and the increasing rates of unsustainable harvesting of timber trees. The Rondo forests have been heavily degraded through logging, and much has been converted to pine plantation. Currently there are reports of logging starting once more, but details are lacking. Litipo Forest Reserve is also heavily degraded through timber extraction. Recent logging has heavily degraded the forests on Noto plateau. Elephant damage is substantial in Chitoa reserve as these animals use the forest at night for shelter. A more detailed assessment of the threats will be gathered at the start of the project and appropriate interventions designed. A DANIDA supported project (UTUMI) assisted the Districts and built some capacity, but targeted only a few areas of forest for participatory forest initiatives. This project has now closed.
130. **Protected Areas System – Zanzibar.** The terrestrial forest habitats of Zanzibar are threatened by conversion to agriculture and from unsustainable harvesting of woody resources and larger mammals for meat. The new National Protected Areas Board has little operational capacity and lacks necessary financial resources to fulfil its obligations effectively. A detailed assessment of the threats to each of the Coastal Forest protected areas on Zanzibar will be prepared during the inception period of the project and detailed implementation plans designed accordingly.

### **Impacts of Climate Change**

131. The adverse impacts of Climate Change are already having their toll in the livelihoods of people and in the sectors of the economy in Tanzania. Frequent and severe droughts in many parts of the country are being felt with their associated consequences on food production, acute shortage of power, hunger and water scarcity among others. These signify the vulnerability of the country to impacts of Climate Change. Climate Change will aggravate the situation leading to increased vulnerability of the communities to the impacts of Climate Change and also affecting the sectors of the economy especially Forestry, Water, Energy, Health, Tourism and Agriculture. Sectoral vulnerability analysis has indicated the extent of vulnerability for each sector as follows:
132. Vulnerability in the *agricultural sector* includes decreased production of different crops exacerbated by climatic variability and unpredictability of seasonality, erosion of natural resource base and environmental degradation.
133. In the *forest sector*, species which are more vulnerable are those with: limited geographical range and drought/heat intolerant; low germination rates; low survival rate of seedlings; and limited seed dispersal/migration capabilities.
134. The *livestock sector* is vulnerable to Climate Change as is expected to further shrink the rangelands which are important for livestock keeping communities in Tanzania. Shrinkage of rangelands is likely to exacerbate conflicts between livestock keepers and farmers in many areas.
135. In the *health sector* changes in temperature and rainfall regimes have caused malaria to expand to some parts of Tanga, Kilimanjaro and Arusha highlands, where the disease was formerly not prevalent. As more areas receive more rains, it will in turn attract more malaria vectors, leading to increased incidences of malaria diseases across the country.
136. *Coastal resources* are vulnerable as Climate Change is expected to cause various impacts including rise in sea level which in the final analysis will lead to coastal resources and infrastructure destruction such as mangroves and houses. This will in turn further impoverish the local communities which depend on these resources.

137. *Tourism sector* is vulnerable to Climate Change as many attractions are under threats due to change in temperature and rainfall regimes (e.g. the ice cap of Mount Kilimanjaro is under threat of melting, snow cover has been consistently depleted, year-on-year).

### **System Boundary**

138. In terms of biological systems the Eastern African Coastal Forests are a defined ecological region of Africa, and have a unique biodiversity that is globally threatened. The project is concerned with the protected area network within the Tanzanian portion of this Coastal Forest mosaic, and seeks to improve the coverage of protected areas to better capture biodiversity values and make the reserve network more resilient to the likely impacts of climate change in this region.

### ***1B.3 Long Term Solutions Needed to Address Threats***

139. Under the Baseline scenario biodiversity would continue to be lost. With ineffective management the CF patches are threatened by encroachment, by over harvesting (timber, poles, fuel, hunting), and edges are eroded by fire. Non-gazetted patches are converted (legally) to cultivation; and forest connectivity is lost. The long-term solution to the conservation predicament facing the Coastal Forests would be an expanded and effective PA network, encompassing forest sites with highest global significance, co-managed by empowered national and local institutions to nationally mandated management standards.
140. This project aims to conserve the globally valuable biodiversity within the Coastal Forests of Tanzania through enhancing the status of these areas within the national protected area network, and by undertaking targeted actions on the ground that seek to improve conservation while trying to improve the living standards and opportunities for participating in forest management by the local population. This will be achieved through a combination of measures including capacity building at relevant levels, direct intervention measures to solve known conservation problems, and the introduction and promotion of environmentally sustainable livelihood alternatives.
141. The project will build upon the development a conservation strategy for the Coastal Forests of Tanzania. The GEF Alternative will seek to embed the results of this NGO Facilitated process in government and develop appropriate management capacity to manage the Coastal Forests as a separate forest habitat type.
142. Only a few Coastal Forests are regarded as protected areas at the present time, principally those in the Sadaani National Park on the mainland and the Jozani Chwaka Bay National Park on Zanzibar. This is because no Forest Reserves in Tanzania have been assessed against the IUCN protected area coding system. The GEF Alternative will address this globally important 'gap' in the protected area system within the Tanzanian Coastal Forests by supporting Forestry and Beekeeping Division to code the Forest Reserves within the Coastal Forest mosaic as protected areas, and to upgrade one or more of the existing reserves to the status of Forest Nature Reserve.
143. In both the Matumbi-Kichi, Lindi and Kilwa forest landscapes there is a real opportunity to enhance the protected area networks through the development of additional Village Land Forest Reserves managed at the local level by village authorities. A few of these areas have already been established in the Matumbi area and more are already partly created. Improving the management of the existing national and local authority Forest Reserves in these globally important forest landscapes is also an important challenge. The project will also build capacity of the Districts and local communities to manage these forest areas. Without the GEF Alternative, the baseline situation will continue such that there will be continuing and rapid conversion of forest land outside of reserves for agricultural purposes and unsustainable use of natural resources within the reserves. This will result in the loss of forest connectivity and also the gradual reduction of forest biodiversity values.



144. On Zanzibar the National Protected Areas Board has already set its reservation targets for the Coastal Forest/thicket habitats of the island and has made some progress to creating new Forest Reserves on both Unguja and Pemba Islands. There is thus an important opportunity to improve the protected area network of these two islands. The project will work with DCCFF to increase the area of protected Coastal Forest and thicket habitat, and to consolidate the existing protected area network containing this habitat type. The GEF Alternative will focus on providing technical assistance and capacity building for DCCFF to implement more effective Coastal Forest conservation, and on the gazettement of additional protected areas to complement those already in existence.
145. The emergence of the forest carbon financing pilot projects (funded mainly by the Norwegian Embassy in Dar es Salaam) provides an opportunity to test sustainable funding mechanisms. These funds could be used to bolster those available from the GEF, and implement Reduced Emissions from Deforestation and Degradation in Developing Countries (REDD) related forest conservation on the ground. Without these funds, and the more limited alternatives provided by GEF, the baseline of woefully inadequate funding for conservation of forests will continue.

### ***1B.4 Barriers to the Conservation of Biodiversity***

146. A number of barriers that are impeding the attainment of the afore-mentioned long-term solutions have been identified through an iterative, participatory process involving a wide range of stakeholders. The problem analysis was undertaken by preparing a literature review, and through stakeholder interviews, inputs from experts, and a series of national stakeholder workshops held over the past few years. Three sets of barriers are currently impeding efforts to reduce the threats facing Coastal Forests and to realize the long-term solutions required to protect their biodiversity. These are as follows:

#### **Systemic lack of capacity**

147. Systemic level capacity weaknesses include: (a) Limited oversight by the national PA authorities of decentralized forest PA management entities and little systematic conservation planning, management coordination, and monitoring; (b) Policy frameworks governing PA management are often in-compatible with those governing development; the impacts of the latter on conservation values are not being accommodated in the cost-benefit calculus that underpins decision making; (c) Limited business planning to tap into economic opportunities (i.e. REDD, sustainable logging revenues, oil and gas mitigation and perhaps tourism).
148. The budget estimates, revenue from various sources and expenditure for both recurrent and development budget funds for Rufiji and Kilwa district councils shows that the estimated and allocated/expenditure funds for forest reserves activities in Rufiji District Council is either nil or negligible. For example In 2004/05 TZS 32.3 million was allocated to Natural Resources (Forests) for salaries, allowances, utilities, furniture, forest reserves, and vehicle maintenance. Although the total revenue accrued from logging of Coastal Forests was TZS 124.6 million, nothing was allocated for both National and Local Forest Reserves. Government subvention is allocated to district council but in reality all funds are allocated to two priority sectors, health and education.
149. The under-collection of royalties is a serious fiscal challenge to not only FBD, but all levels of government. The 2004 Public Expenditure Review of the environment stated that a “big portion of revenue collections is lost through many illegal means.”<sup>45</sup> Most estimates of revenue losses have focused on under-collection of royalties. For example, the National Forest Programme estimated that only 5-10% of revenue

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45 VPO. (2004). Public Expenditure Review of Environment: Financial Year 2004. Final Report. Vice-President’s Office, The United Republic of Tanzania

due from forest reserves and public lands was collected.<sup>46</sup> A more recent estimate at the national level was 14-28%.<sup>47</sup>

150. Evidence from southern Tanzania in mid-2004 indicated a situation worse than the estimated national average with collected revenue representing as low as four per cent of the timber harvested. The following calculations can be tentatively used to illustrate the scale of revenue losses at central and local government levels. Whilst official revenue statistics showed the equivalent of some USD 217, 335 derived from Kilwa and Rufiji Districts between July 2003 and June 2004, the value (based on government royalties) of timber actually harvested from both districts over a one-year period was estimated at around USD 10 million (Table 27).
151. Clearly both the FBD and District Councils are constrained by finances and the allocation of funds from both central and especially local governments towards sustainable forest management are woeful. The potential for further local resource mobilization can be made possible through formulation of rules and regulations that will allow this to happen under PFM structures.
152. Unfortunately PFM has proven to be a very long process, with large investments in financial support and time. Some villages involved for at least three to five years have still not completed the process. An extreme example is Mtanza-Msona village in Rufiji District, where revenue was not being received at village level up until mid-2005 despite a fully gazetted village forest reserve and operational management plan. The lack of perceived benefits ultimately led to deliberate timber harvesting contrary to the management plan.
153. In Zanzibar the financial capacity for Protected Areas and Coastal Forest conservation is inadequate. There is a gross uncertainty of funding flows for routine Protected Areas operations let alone development activities. There is heavy dependency on donor funding which is usually short term, erratic and rarely sustainable. Ecotourism has been the only revenue source for both Protected Areas management the economic multiplier effect at local level. Dependency on single revenue source such as ecotourism is a risky path as tourism is a fickle and an unreliable venture, especially when foreign tourists are concerned. Zanzibar has developed no domestic tourism making the risk more pronounced. Experience has shown that the development of ecotourism in some protected areas is very challenging partly due to under developed infrastructure. For Pemba the potential for ecotourism development is better than Unguja, because of little existing mass tourism, however, this will take time as the total number of tourists visiting Pemba is still very low. This is due to the nature of tourism investments and communication linkages to other tourism areas, notably the game parks.
154. The inadequacy of funds have impacted negatively on research and monitoring activities as well as infrastructural development necessary for sustainable biodiversity conservation. There is a dire dearth of data, housing and communication systems in Protected Areas. Lack of monitoring has resulted in progressive impoverishment and loss of biodiversity. Therefore, there is need to fund research and monitoring system in order to be able to deal with unplanned impacts and research is critical in identifying stresses, policy interventions, be a base for development of business plans. In another context, the limited revenue compels minimum benefit flows to communities which in turn triggers counter conservation activities.
155. In all areas there are no financial information systems in place and these are therefore urgently required if there is to be financial sustainability. The potential for revenue generation and financial sustainability is

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46 FBD. (2001). National Forest Programme in Tanzania, 2001-2010. Forestry and Beekeeping Division, Ministry of Natural Resources and Tourism.

47 Katila, M. and Simula, M. (2005). Sustainability Impact Assessment of Proposed WTO Negotiations: Final Report for the Forest Sector Study. SAVCOR. 103 pp.

considerable, but has to be developed in terms of institutional, development, capacity and the legal requirements being in place and actually implemented.

### **Weak institutional/individual capacity for protected areas management**

156. At all levels from on-ground to HQ organizations; weaknesses include: mandates, funding, staffing and skills. More than 75% of the Forest Reserves in the coastal regions of Tanzania are national Forest Reserves, but FBD has no resources for their management, and no staff dedicated to Coastal Forest management. This differs from the situation in the mangroves and Eastern Arc mountain forests where the national forest reserves have dedicated officers and a section within FBD tasked with their management (Catchment, Mangroves and Nature Reserves).
157. Another issue is the inadequate awareness of roles and responsibilities of the different institutions involved in coastal management. This reduces the potential synergy and collaboration when implementing their respective institutional mandates. On mainland Tanzania the Forestry and Beekeeping Division is undergoing major restructuring into a Forest Agency. An opportunity exists to work with this new agency as it is operationalised to institute a holistic analysis of the forest reserves of the country and their contribution to an effective system of protected areas. The UNDP GEF project, Conservation and Management of the Eastern Arc Mountains Forests is addressing this issue for the Eastern Arc Mountains ecoregion (a particular forest type). The WWF Eastern African Coastal Forests Programme is looking at this issue for the lowland Coastal Forests in Kenya, Tanzania and Mozambique.
158. On Zanzibar, the project will be embedded within the presently ineffective National Parks Board and hence will be able to look holistically at the protected area networks of both Zanzibar and Pemba islands, and identify gaps in the network of protected sites and work to have these gazetted.
159. At District level, and despite the existence of new policies and laws, capacity for implementation remains weak and is largely supported by donor-projects. Attempts are now being made to link forest management ideas with general development of the District level capacity in Tanzania. Work to develop JFM systems in existing Coastal Forest reserves has only been undertaken in a few places, and Community Based Natural Resource Management (CBNRM) approaches in general are also only just being explored in some of the non-gazetted Coastal Forest patches.
160. Forests form a large proportion of the revenue for district councils, and many stakeholders interviewed from Local Government Authorities (LGAs) perceived the involvement of communities in forest management as withdrawing revenue and management authority from District Governments. A key message regarding forest ownership, tenure and timber trade in southern Tanzania is that unless the perception of benefits which accrue to both communities and local government are greater than the investment costs (e.g. time, resources), the incentives to engage in sustainable and legal forestry will remain low.
161. There is a need to raise awareness of the legal mechanisms now existing for forest management in the target landscapes and also to build the technical capacity of District and villagers to make the systems work on the ground. This will entail identification and mobilization of focus groups of resource users, initiation of participatory planning processes and the establishment of trust with and among key stakeholder groups. WWF has been working on JFM and CBNRM in many of its projects in Tanzania and hence has considerable experience in this issue – as do the other potential partners in this project. Work to improve the law enforcement capacity of Districts and to resolve issues of unsustainable harvesting of timber trees especially from the Matumbi/Kichi Hills area will also be required.
162. At the village level, the new Forest Policy and Forest Act provides villagers with significant new rights and responsibilities with regard to forest conservation. These need to be explained and will take time to be appreciated and operationalised. Local Government Authorities (LGA) have in the past been reluctant to

support PFM initiatives which has impacted on PFM progress. LGAs are largely lacking capacity in community forest management, since most officers are traditional foresters who value forests mainly as a source of timber for commercial purposes only.

163. Analyses shows that in many cases of Joint Forest Management local villagers bear the costs of the agreement as they only obtain benefits they had for free previously, but have assumed a greater cost in terms of management time input to the forest reserve. In community-based natural resource management the village, through the creation of a Village Land Forest Reserve, gains control over that land and its resources and the benefits are more favourable. In all cases the project will need to understand the impact of its interventions on rural people.
164. Properly trained human resource is a prerequisite in the conservation and management of the biodiversity in the protected areas and beyond. The Revolutionary Government of Zanzibar in collaboration with development partners has worked hard to satisfy the demand. Towards the end of the project, the sector was proud of a rich human resource base. However due to inadequate government budget allocation and sharp decline in external funding, the human resources development as well as service delivery to the general public has been seriously impaired. Thus, the sector is not able to train and even maintain competent manpower to the satisfactory level. For instance, the number of skilled manpower has declined from 157 to 116 in 1996 and 2006, respectively.
165. **Technical skills.** Data collected from professional and technical staff at the FBD headquarters and in 4 districts visited on the mainland show that the staff is dominated by technical staff (diploma and certificate holders) and that constitutes 55% of the total natural resources staff. Professional staff (master and first degree holders) constitutes only 19% and most of them are from central government. Non-professional and non-technical staff (i.e. Forest, Beekeeping, Fisheries, Game and Antiquities) constitutes 27% of the staff. Many districts do not have professionals and some of them for example Ruangwa district have only 1 technical staff (diploma holder) while other districts had up to 22 technical staff (diploma and certificate holders). When compared, central government has more qualified staff than Local government; 8 MSc, 7 BSc, and 17 Diplomas. This situation has been attributed by setting up FSU at Lindi district. No one holds master degree in 4 districts. Although Lindi district has 4 degree holders, all are stationed at district head-office, two hold District Natural Resource Officer (DNRO) and District Forest Officer (DFO) posts and the rest deals with PFM and logging activities. Rondo National Forest Reserve has 14,630 ha and is in Lindi district. The plantation forest (3,739 ha) is surrounded with natural forest (10,891ha) and managed by 13 staff majority of them are non-technical.
166. **Gender.** Professional and technical natural resources staff at districts and FBD levels dominated by men (87%). Another observation is that some districts have no female staff at all. The majority of staff are old at age classes of 41-50 (46.8%) and 51-60 (14.8%) who are due for retiring. Rufiji, Kilwa and Lindi districts have considerable numbers of staff who have been trained on the use of National Forestry and Beekeeping Database (NAFOBEDA), and only one staff amongst them is a female. Young people who are working in natural resources management account for only 8%. This means that in a period of less than a decade if no new recruitment, virtually there shall be no any staff to work in natural resource sector in coastal area of Tanzania mainland because majority of natural resources staff are clustered at 41-50 and 51-60 age classes.
167. **Professions.** Foresters dominate the staff in natural resources management comprising of 56.2% of the total professional staff (Table 3). However, out of 77 forest staff in the 4 districts, 46 are working in mangrove programme and at Field Service Unit (FSU) in Lindi. Beekeeping, wildlife, fisheries, antiquities and environment staff constitute 3.6, 11.7, 24.11, 2.9 and 1.5% respectively. Beekeeping practices seem to be potential in coastal areas but constituting only 3.6% of the total professional staff. Wildlife Management Areas and eco-cultural are also potential in some sites due to presence of profession hunting and eco and cultural attractions in the area (Kilwa ruins and Rufiji Delta for spot fishing and canoes riding) but there are very few staff to support this kind of initiatives. Protection of the environment has been

emphasized in natural resources laws e.g. Environmental Management Act (EMA) (2004), however, only two districts has employed one environmental staff each. Fishing is an important activity in coastal districts, fisheries staff account only 24.1% of the total. In-land fishing can be developed as there are significant fisheries staff at Rufiji, Kilwa and Lindi and potential for fish-farming activities exist. Ruangwa has no fisheries staff and will be difficult to initiate such an income generating activity (IGA). The ever changing working environment calls for a continuous and systematic training and retraining. Due to inability of the sectors to recruit and maintain competent staff and the changing technologies, there is an acute shortage of requisite qualifications to sustainably manage Coastal Forests. Human resources capacity in many aspects needs to be raised, most notably train or recruit professionals in research and monitoring, natural resources economics, marketing, sociology, ICT, ecology, structural engineering, laws, conflict management skills etc.

168. There are even serious capacity gaps within communities and local NGOs. Most often than not, lack of capacities cause total collapse of some NGOs or engender them to be driven by external agendas. However, due to their ability to reach further down and a close link between success and participation, NGOs capacity building has become a cornerstone to long term sustainability. Conservation NGO and CBOs are not an exception and they direly need capacity upgrading. Lack of capacities at community level to influence forest policy agenda-setting has allowed the persistence of a top-down approach coupled with arbitrary involvement of local communities along with low levels of community awareness on rights and responsibilities in relation to forest management. For effective partnership and sustainable resources managements, community and NGO capacity building is of paramount importance to empower them to fulfil stakeholder roles. Most notable skills include identifying pathways, organization management, negotiations, business planning, biodiversity conservation and development of sustainable life style.
169. *Human Resource Requirement* Assessment of human resource requirements in districts and at the FBD was done based on the information provided by the districts and head of GIS at FBD on the available positions. This was done in order to compare with the available staff and identify the deficit/gap to be filled. The District Natural Resources Officer who is named as Land, Natural Resources and Environmental Officer is supposed to have a District Forest Officer, District Beekeeping Officer, District Game Officer, District Land Officer and District Fisheries Officer reporting to him/her. The results have shown that in each district at least one professional forester is required (Master and/or degree) while many districts which lack professionals are willing to accept MSc staff unlike in the past during retrenchment and staff deployment with exception of Ruangwa and Kilwa.

### **Limited landscape focus**

170. PA management tends to be focused in situ at the PA site with little consideration of landscape level fundamentals. There are two problems: first: local communities tend to be excluded from the management process. As a consequence, their livelihood needs are often ignored, causing them to perceive that PAs generate few benefits but impose high costs. This is an impediment to efforts to ‘upgrade’ protection or bring unprotected lands into the PA system. This is compounded by the fact that an open access situation tends to prevail within Forest Reserves and un-protected forests under district jurisdiction, meaning that forest adjacent residents do not benefit from conservation. Second, there is limited buffer zone” management in woodlands abutting Coastal Forests. Un-sustained harvesting of woodland resources imposes externalities on Coastal Forest patches, causing encroachment as resources are depleted. Uncontrolled woodland fires pose a further hazard.
171. The Coastal Forest habitat type is not recognized as a priority for investment by the national government FBD, or the Districts along the coast. Typically these reserves are seen as a source of timber, charcoal and other materials to supply increasing urban centres, or for export. This use is compromising the globally significant biodiversity values which are mainly found in the Forest Reserves being managed by District authorities.

172. This GEF FSP project will also be able to assist in the analysis of the current Coastal Forests protected area network, and help identify gaps in that network and where Tanzania might wish to upgrade forest reserves to further achieve conservation objectives. Particularly important sites might be proposed as additions to either the Selous Game Reserve or the Sadaani National Park, or to be upgraded into 'Forest Nature Reserves'. Within the two landscape areas identified for field focus on the Tanzanian mainland, enhanced protected area coverage and effectiveness of the reserve network will be addressed.
173. The people of coastal Tanzania are amongst the poorest in the country, which means that most are subsistence farmers who survive on less than USD 1.00 per day. Elements of this project will provide income generating opportunities to forest adjacent communities. These opportunities will be tailored by experts to the local situation and will aim to develop sustainable sources of funding for local people living around these forests. Part of this will be the benefits coming to people from their involvement in Participatory Forest Management approaches where management agreements will confer them rights to use forest resources on a sustainable basis. The work to declare Village Land Forest Reserves will also help local populations gain control over their natural resources and manage them sustainably for the future. Under the awareness components, attempts will also be made to monitor resource utilization patterns and how these are affecting (positive or negative) the opportunities for future income generation from these forests.
174. Environmental education and awareness raising is embedded within the Tanzanian National Curriculum and it is widely agreed that lack of awareness is one of the factors contributing to environmental destruction in Tanzania. In all three landscapes the level of conservation awareness is likely to be low, although WCST has worked with communities around the Rondo forest during the 1990s, MCP in Kilwa since 2004 and an IUCN project worked in the Rufiji District and some of the villages of the Matumbi Hills until 2003.
175. In addition to the general issue of low environmental awareness is the lack of awareness of changes in the policy and law relating to forest management. The engagement of local communities in forest management has been plagued by popular (and polarised) public perceptions of forests – either as entirely owned by central government, or, at the other end of the spectrum, basically free-access resources with little or no stewardship status. Whilst current policies call for the involvement of communities, villages visited throughout 2004-2006 by TRAFFIC were largely unaware of the new Forest Act (2002), relevant procedures for participatory forest management, and what incentives truly exist. Relevant policy documents were not available in any of the villages visited. This does not auger well for financial sustainability from forests. In many parts of Tanzania local government does not have copies of the 1998 Forest Policy and 2002 Forest Law and requires assistance with translating these legal instruments to activities on the ground. This awareness work will be directly linked to attempts to better manage the forest resources of the four areas.
176. In most of these landscapes there is no, or an incomplete, natural resources and social baseline in place against which to measure changes due to project interventions. This project will develop these baselines where they do not exist and will use them to measure impact over the four years that the intervention lasts. Both simple forest disturbance and more complicated biodiversity monitoring approaches will be used. Local people involved with managing the reserves will be involved so that there is a direct link between the natural resources and the management decisions made by people living in the area.
177. **Transport.** The District councils, of Rufiji, Kilwa, Lindi are severely constrained in terms of transport. Natural Resources Offices have been allocated with at least one vehicle for natural resources management (usually from PFM) but not all of these are in good repair and the cost of running the vehicles is often prohibitive. There is also an acute deficit in motorcycles and bicycles; in average each district requires one vehicle and 5 motorcycles.

178. **Office rooms and facilities.** There are no problems of office spaces however renovation and reliable power is required. A moderate capacity has been recorded in computer, photocopier and fax machines; however, communication systems (telephone and Radio Calls) are not available in natural resources offices under District Councils. Radio calls are particularly important in remote and vast areas like Rondo Plantation and Ruangwa district and it is cost-effective. FBD GIS and Database requires special equipment and materials.

### **Summary of capacity limitations.**

179. The District Councils and FBD are constrained by finances, inadequate and qualified human resources and working facilities. This shows that structural changes alone cannot solve current range of problems associated with the sustainable management of Coastal Forest in District Councils. Complementary changes of building capacity in training, provision of working tools, changes in individual staff attitude/behaviors to improve governance and accountability are imperative. There is also the problem of awareness or mindset to some politicians, decision makers and officials of in rational resource allocation.
180. It appears that forestry sector is not a priority in district councils and the situation will still prevail during implementation and after the Coastal Forest project. This may have been attributed to the policy of the Central Government that natural resources sector is not among the four priority sectors (education, health, water and infrastructure) set by the Central Government. Most CBOs are income-generating entities from the natural resource base. In this respect, these CBOs can be very important entry points to capacity building at grass root level as people are willing to sustain them even from their own resources. The CBOs can thus be used as vehicles to participatory natural resources management. Remarkable challenge however lies with the present and future performance of Village Natural Resource Committees (VNRCs) because of low incentives to motivate them.

## **PART 1-C: Stakeholder Analysis**

181. A wide range of stakeholders are benefiting from Coastal Forests with or without land ownership. Experience shows that the majority of stakeholders are those without forest land ownership. Based on field studies, the stakeholders can be divided into seven broad groups.

### ***1C.1 Local communities***

182. Local communities that collect forest products and get services from surrounding Coastal Forests include:
- Individual households
  - Groups of village forest products traders
  - Village Natural Resources Committees
  - Village Councils (Village governments)
183. Studies have shown that this group (in particular households) collect free of charge various products from the Coastal Forests to sustain their subsistence livelihood but the economic value of the products and services collected are not well documented. Products collected free include firewood, poles, withies (*fito*) thatch grass, ropes, mushroom, wild fruits, traditional medicine, tooth brushes, raffia, honey and wild animals.
184. On average 96 percent of village households in the Coastal Forests are collecting and using firewood as their main sources of energy for cooking with no affordable substitute in the foreseeable future. However,

in many villages, dependency on firewood is 100%.<sup>48</sup> The average firewood consumption within the coastal zone for household cooking per capita is around 725kg of dry wood or 1.0 m<sup>3</sup>.<sup>49</sup>

185. Small groups within a village do collect free of charge and sell various forest products to whole sellers at road side or centres of production. Products involved include, charcoal, poles medicinal plants, fruits weaving material and firewood. Depending on accessibility and proximity to District Council headquarters, sometimes these groups are paying district royalties for forest and agricultural products sold.<sup>50</sup>
186. In many villages, village councils (village governments) have established Village Natural Resources Committees to enhance conservation of Coastal Forests through the Joint Forest Management (JFM) or Community Based Forest Management (CBFM) principles.<sup>51</sup> Members of these groups benefit through training, recognition by the community and income earning through approved legal forest trades for example sale of confiscated forest products from illegal traders.
187. Few groups of villagers are specializing on production and sale of saw logs and sawn timber on a small scale using traditional tools (axe and pit saw). Most of the trade is however illegal.<sup>52</sup> Coastal forests are used for traditional rituals, they are important for water catchment and amelioration of climate.<sup>53</sup>

## ***IC.2 Government***

### **Local Government**

188. Local government is allowed to collect forest revenue from sale of forest products originating from LAFRs and 5 % revenue from central government forest reserves products originating from their districts. The local governments assist in coordination of extension services, law enforcement, promotion of tree growing and management of local government forest reserves of conservation and biodiversity values.<sup>54</sup> Of late the local governments are expected to manage also central government forest reserves within their districts but with no defined Memorandum of Understanding (MOU) with FBD.

### **Regional Secretariats**

189. Regional secretariats are under the Prime Ministers' Office. They form a coordination link between the Central Government and the District Councils on policy formulation, conservation and management of the Coastal Forests.

### **Government Sector Ministries**

190. As outlined earlier above, various sector ministries are involved directly or indirectly in conservation and management of Coastal Forests covering: policy formulation, sector planning and budgeting, law enforcement, revenue collection, information systems, extension, research, training, monitoring and evaluation and coordination of other stakeholders. Experience has shown a growing number of

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<sup>48</sup> WWF. 2007a. Socio-Economic Profile of Matumbi and Kichi Hills Landscape, Kilwa and Rufiji Districts. WWF – Tanzania. WWF – Tanzania.

<sup>49</sup> Kaale B. K. 2005. Baseline Study on Biomass Energy Conservation in Tanzania. Ministry of Energy and Minerals – Dar es Salaam Tanzania.

<sup>50</sup> WWF 2007a; CARE 2006. Final Evaluation Report for Misitu Yetu Participatory Forest Management (PFM) Project CARE- Tanzania.

<sup>51</sup> MNRT. 2001. Tanzania National Forest Programme 2001-2010. Ministry of Natural Resources and Tourism. Forestry and Beekeeping Division;

MNRT. 2007. Community- Based Forest Management Guidelines for the Establishment of Village Land Forest Reserves and Community Forest Reserves. Ministry of Natural Resources and Tourism Dar es Salaam.

<sup>52</sup> WWF. 2007b. The Dar es Salaam Charcoal Project. A project proposal to begin resolving the environmental crisis caused by charcoal. WWF – Tanzania.

<sup>53</sup> CARE 2006

<sup>54</sup> See MNRT 2007



stakeholders have realized that the achievement of their sector policy objectives, Mkakati wa kukuza an kupunguza umaskini Tanzania (National Strategy for Growth and Reduction of Poverty) (MKUKUTA), Makakati wa Kukuza Uchumi Zanzibar (Strategy for Growth and the Reduction of Poverty) (MKUZA) and MDGs is influenced by sustainable conservation of the Coastal Forests hence the need for multi-sectoral coordination.

### ***IC.3 Commercial Forest Product Dealers (Private Sector)***

191. The private sector consist of individuals, groups or companies with high investment capital and business skills. In most cases they are outsiders and not members of the Coastal Forest village communities.<sup>55</sup> Their ambition is to realize rapid profits from clearing Coastal Forest, sometimes with little consideration on environmental and biodiversity conservation. Whilst there are legitimate businesses working in this sector, a significant number of organisations' business is illegal and revenue collected by the government is reported to be below 5 percent of the true value of the products harvested.

### ***IC.4 Community Based Organisations (CBOs) and Non- Governmental Organisations (NGOs)***

192. Various local (national) CBOs and NGOs are operating within the Coastal Forests assisting in awareness raising and extension services, financing of forestry and environment activities, promoting gender roles, women empowerment and revenue collection. Some of the active NGOs include: WWF, (TFCG), Mitandao ya Jamii ya Usimamizi wa Misitu Tanzania (Community Network in Forest Conservation in Tanzania) (MJUMITA), Umoja wa Wavuna Mbao Kilwa (Kilwa timber harvester Association) (UWAMBALI), Mpingo Conservation Project (MCP) and Tanzania Natural Resources Forum (TNRF).

## **PART II: Project Strategy**

### ***2.1 Project Rationale and Policy Conformity***

193. Twenty five percent of Tanzania's surface is designated as protected areas under wildlife legislation. This protected area system is managed by two agencies: Tanzania National Parks Authority manages National Parks, and Wildlife Department manages Game Reserves and Game Controlled Areas.
194. The protected area system for the Coastal Forests includes two recent National Parks (Sadaani and Mkomazi) on the mainland, and the new (2004) Jozani National Park on Zanzibar. The majority of the remainder of the protected forest resources are found within Forest Reserves under the management of the central and local government, and a few village forest reserves under the authority of village governments. There are no Forest Nature Reserves in the Coastal Forests, although this category is allowed in the 1998 Forest Policy and the 2002 Forest Act.
195. Forest Reserves are not regarded as protected areas according to the IUCN system developed by the World Commission on Protected Areas. Hence the Coastal Forests of eastern Africa have been identified as one of the major 'gaps' in the worlds protected area network<sup>56</sup>. Despite not being regarded as protected areas,

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<sup>55</sup> WWF. 2007a. Socio-Economic Profile of Matumbi and Kichi Hills Landscape, Kilwa and Rufiji Districts. WWF – Tanzania. WWF – Tanzania.

<sup>56</sup> Rodrigues ASL, Andelman SJ, Bakarr MI, Boitani L, Brooks TM, Cowling RM, Fishpool LDC, da Fonseca GAB, Gaston KJ, Hoffmann M, Long JS, Marquet PA, Pilgrim JD, Pressey RL, Schipper J, Sechrest W, Stuart SN, Underhill LG, Waller RW, Watts MEJ, Yan X. 2004. Effectiveness of the global protected area network in representing species diversity. *Nature* 428: 640-643; De Klerk, H.M., Fjelds , J., Blyth, S. and Burgess, N.D. 2004. Gaps in the protected area network for threatened Afrotropical birds. *Biological Conservation* 117: 529-537; Fjelds , J., De Klerk, H.M., Blyth, S. and Burgess, N.D. 2004. Where are the major gaps in the reserve network for Africa's mammals?. *Oryx* 38: 17-25; Burgess, N.D. W. K per, J. Mutke, S. Westaway, J. Brown,

the Forest Reserve approach has been very important in maintaining habitat cover and preventing conversion to agriculture. These reserves form the basis of a network of protected areas that provide habitat for hundreds of endemic animals and plants (for vertebrates see Appendix 1).

196. The montane Forest Reserves with high biodiversity and water catchment values and mangrove forests along the coast are managed by special projects within FBD. The plantation forests are also managed by a special unit within FBD. Other forest types, including the Coastal Forests are not separated for special attention and are of much lower priority in terms of funding allocation and staffing support. Most of the Coastal Forests are managed by poorly staffed and funded District Natural Resources Offices, under the authority of the District Executive Director.
197. This project addresses the lack of an agreed focus on Coastal Forest habitats within FBD, and the *de facto* delegation of all forest conservation and management authority to poorly staffed and funded District Natural Resources Offices. The Project also addresses issues of coordination between Tanzania National Parks (TANAPA), FBD and District Authorities with regard to participating in, and then implementing, the draft Coastal Forest strategy document that has been developed with WWF facilitation. Much additional project activity will focus at the level of three individual forest landscapes, two managed under the authority of District Authorities on mainland Tanzania and the other managed by DCCFF on Zanzibar. Lessons learned from these actions will be fed back to national level mechanisms (Coastal Forest task force, Biodiversity and Ecosystem Working Group of the National Forest Programme etc) to learn lessons relating to the development of a comprehensive protected area system for Tanzania, and specifically for the Coastal Forest habitat.

The project takes an innovative approach, in so far as:

198. At the national level, the project will link with and facilitate discussions on enhancing the conservation of the Coastal Forest protected area system. This work will take two forms: 1) building the management capacity of the forest management structures of government on mainland Tanzania and on Zanzibar; 2) Working to identify gaps in the protected area network across the Coastal Forest habitat type and to both recognize existing protected sites (Forest reserves etc) as 'protected areas' according to IUCN and to increase the protected area coverage and connectivity through increased numbers of Village Forest Reserves.
199. At the landscape scale on the Tanzanian mainland, District and community approaches will be used to improve management of existing reserves, create new Village Forest Reserves, develop landscape conservation plans and improve capacity for the management of existing reserves. On Zanzibar, the project will focus on building the capacity of the National Protected Areas Board to better manage its existing protected area system and to develop and implement plans for enhancing this system.
200. Lessons learnt at the landscape scale will be widely disseminated across Districts and up to the national level strategic planning work. This aims to assist scaling up of the approaches used throughout the Coastal Forests of Tanzania - thereby contributing even more to the development of a national system of community managed protected areas.
201. The activities planned as part of the project will last four years. During this time local communities and decentralized authorities will learn how to manage their forest resources in a sustainable manner. This project is formulated so as to build on the lessons learnt from previous projects.

## 2.2 Project Goal, Objectives, Outcomes and Outputs

202. **The Goal of the Integrated Ecosystem Management Programme is:** The Coastal Forest Biodiversity and Ecosystem Values are Conserved and Provide Sustainable Benefit Flows at Local, National and Global Levels.
203. **The project will be responsible for achieving the following project objective:** The spatial coverage and management effectiveness of the Coastal Forest PA sub system is expanded and strengthened.
204. The Project Objective will be achieved through three Project Outcomes:

<b>OUTCOME 1.</b> Strengthened Enabling Environment is functioning for conservation of Coastal Forests in mainland Tanzania, leading to increased funding, staffing and oversight.
<b>OUTCOME 2.</b> The Protected Area System for Zanzibar is strengthened in terms of both representativeness, connectivity, financing and managerial capacity.
<b>OUTCOME 3.</b> Effective PA Management Systems in place at four project priority landscapes, with co-management between central, local and village government partners, leading to improved conservation of biodiversity values.

205. The project will deliver 18 principal Outputs, organized within the three Outcomes (see Project Logframe for detailed activities under each output):

*Outcome 1. Strengthened Enabling Environment is functioning for conservation of Coastal Forests in mainland Tanzania, leading to increased funding, staffing and oversight.*

206. **Output 1.1** Capacity built in Forestry and Beekeeping Division (and nascent successor agency - Tanzania Forest Service) to lead and oversee a Tanzania Coastal Forest Conservation Programme. This will entail providing relevant training, materials and office structure so that the Forestry and Beekeeping Division will be able to undertake more strategic management of the coastal forests habitat and attendant reserves.
207. **Output 1.2** Coastal Forest Reserves within target landscapes are assessed as to priority for conservation on biodiversity and threat criteria, and conservation strategy developed. This will entail collecting and compiling existing and new biodiversity and threat data for all reserves in the target landscapes for the project, and then developing a strategy for their better conservation, including landscape scale linkage and the development of suitable corridors.
208. **Output 1.3** Conservation Strategy includes Business Plan for Coastal Forests showing overall financing needs and potential revenue sources. This will entail contracting the services of a suitable consultant to develop business plan for coastal forests, building on previous work, that shows how funding might be located to sustainably manage the existing and proposed network of coastal forest reserves.
209. **Output 1.4** MOU developed with Coastal Forest Districts over joint responsibilities in conservation of Coastal Forests. This will entail developing and agreeing an MOU with Districts over the management of coastal forest reserves; at present it is unclear whether FBD or the Districts should be managing the reserves, which causes significant confusion and lack of management action on the ground.
210. **Output 1.5** Carbon financing plan developed for Coastal Forest Landscapes, addressing both REDD and CDM sources and related burgeoning frameworks. This will entail gathering existing and new data on the carbon stocks in the coastal forests region, and working out from existing data the rates of forest (and

hence carbon) loss over time. Once calculated these data might be used as a part of the business case for the area in terms of trying to raise sustainable funding for the conservation of the forests.

211. **Output 1.6** Training and staffing needs assessment at all levels of conservation practice directs capacity building interventions. This entails undertaking a capacity and staff assessment at national and district levels in the intervention landscapes, and using this work to direct the projects work on capacity building.
212. **Output 1.7** In service training courses developed and implemented at all levels within both forestry and associated sectors and within NGOs, Civil Society Organizations (CSOs) and Government. This entails employing a training company or service provider to deliver the training and capacity building that is identified by Output 1.6, and ensuring that this also includes NGO and CSO participation in addition to government.
213. **Output 1.8** Built capacity evaluated and monitored, identifying weak points for further intervention. This entails undertaking a repeat assessment / survey to assess if the capacity building programme has delivered increased capacity within the people who received the training, and to define remaining gaps.

*Outcome 2: The Protected Area System for Zanzibar is strengthened in terms of both representativeness, connectivity, financing and managerial capacity.*

214. **Output 2.1** Government of Zanzibar with a functional and sustainable institutional structure for terrestrial Protected Areas at Board level and Conservation Section within Forest Department. This will entail working with the Zanzibar Government to review and define the best structure for these parts of government and then putting these structures in place with regard to building training and infrastructure capacity.
215. **Output 2.2** Terrestrial Protected Area Network expanded to include key gaps in coral rag and thicket communities of high biodiversity, with buffer and connectivity forests. This will entail using the existing and new survey data on the biodiversity and forests and thicket habitats of Zanzibar, and building on the existing proposals for new reserves, to put in place new reserves that cover the distribution of species and habitats in a more comprehensive way. Building connections between existing reserves will be a particularly important element of this work.
216. **Output 2.3:** Key forest Protected Areas are consolidated, and their management status improved. This will entail assessing the needs for management in the existing network of protected areas, and then working to improve management in the most effective way possible. Use of the Management Effectiveness Tracking Tool will ensure that there is a measure of the improved management of these sites.
217. **Output 2.4** Community Forest Management Areas provide sustainable buffering and connectivity support, whilst contributing to household security. This will entail putting in place a network of new community forest management areas around existing reserves. These will be designed so that they maximise reserve connectivity, but also provide resource extraction benefits to people that help improve their livelihoods.
218. **Output 2.5** Training and staffing needs assessment at all levels of conservation practice directs capacity building interventions. This entails undertaking a capacity and staff assessment at national and district levels in the intervention landscapes, and using this work to direct the projects work on capacity building.
219. **Output 2.6** In service training courses developed and implemented at all levels within both forestry and associated sectors and within NGOs, Civil Society Organizations (CSOs) and Government. This entails employing a training company or service provider to deliver the training and capacity building that is identified by Output 2.5, and ensuring that this also includes NGO and CSO participation in addition to government.

220. **Output 2.7** Built capacity evaluated and monitored, identifying weak points for further intervention. This entails undertaking a repeat assessment / survey to assess if the capacity building programme has delivered increased capacity within the people who received the training, and to define remaining gaps.

**Outcome 3:** *Effective PA Management Systems in place at three project priority landscapes, with co-management between central, local and village government partners, leading to improved conservation of biodiversity values.*

221. **Output 3.1** Landscapes (Rufiji, Kilwa, Rondo / Lindi) are agreed, described and assessed as to issues of connectivity, gaps and buffer functions. This will entail building on the existing mapping and data collection under the PPG in these landscapes, with the aim of fully defining the protected area network, connections and buffer zones.
222. **Output 3.2** Gaps in landscape plan filled by strategic development of Local area forest reserves and VLFRs. This will entail using the results of the above mapping and data gathering process to agree the boundaries for new reserves, and then to work with local communities and the District authorities to get the reserves decarled within the period of the project.
223. **Output 3.3** Landscape Conservation Plan developed and agreed with local district and national partners. This entails using the above mapping work at the landscape scale and working through a process of workshops to agree with District and National Government partners on the allocation of land within the landscape areas tackled by this project.
224. **Output 3.4** Conservation plans under implementation with key indicator baselines completed and new area METT scores completed. This entails completing METT scores for all the protected reserves in the target landscapes and updating these over the lifespan of the project, to measure changes in effectiveness over time.

### 2.3. Project Risks and Assumptions

225. The identification of risks was initiated at a very early stage of project development. An economic study conducted as part of project preparation was a key tool for identifying and clarifying some of the important risks. Key risks were discussed and ranked at a major stakeholder workshop conducted in November, 2005. The main risks, risk rankings and mitigation measures are presented below. \

**Table 10: Risk Analysis**

Risk		Risk Mitigation Measure
Significant increases in externally driven pressure on forest and protected areas resources – e.g. logging pressures (Asia’s demand for logs continues), mining.	M	The scale of the past problem and level of government / public reaction suggests that sustainable use will prevail. This project is involved at landscape level, with focus on governance processes from CF to peripheral woodland resource. The project links to WWF’s initiative on China - Eastern Africa forest trade.
The Planned Tanzania Forest Service may receive little public support and not attract core funding. (Same for reforms in Zanzibar)	M	There is strong support for TFS at present (e.g. in statements of Chief Secretary and Minister). Recent policy provides for stronger partnership with CSOs with real involvement on ground.
Government will not want to build upon the strategic planning work already completed by WWF	L	A national Tanzanian task force has overseen the development of the Coastal Forest strategy, which has been chaired by the director of Forestry and Beekeeping Division.

Government will not be willing to apply IUCN protected area codes to CF Forest Reserves	L	A similar process has already been completed for the Eastern Arc mountain Forest Reserves, facilitated by the GEF Eastern Arc project. The value of the approach has been accepted by Forestry and Beekeeping Division
The District – Central government partnership on managing Coastal Forests is not practical, leaving us in past state of uncertain mandates.	L	There has been much analysis in this process, by many stakeholders. Tanzania is looking at case history carefully, with honest analysis, which will be in the TFS Framework.
Government of Zanzibar and mainland Tanzania are unwilling to declare proposed Forest Reserves and village forest reserves	M	Progress has been made over the past years on these proposed areas and completion of the process only required careful follow-up.
That village communities do not benefit from the VLFR process and use CF and Woodlands as a source of easy income (logs, charcoal), with less conservation support.	M	There is considerable investment into Community Based Natural Resource Management process. VLFRs are Community Managed, WB / Danida funding provides support to these CFM inputs, seeking to ensure sustainable benefit flows to whole village communities.
Climate change could lead to both changed distributions of biodiversity components, and changes in village demands on forest resources.	L	A focus on landscapes (as opposed to small patches), with sufficient buffer zone protection mitigates against short term change. The maintenance of forest cover is good adaptation policy.

\*Risk rating – H (High Risk), S (Substantial Risk), M (Modest Risk), and L (Low Risk). Risks refer to the possibility that assumptions, defined in the logical framework in Part 3, may not hold.

226. Project success at the national level will be closely linked to the ability of the Forestry and Beekeeping Division and the DCCFF to engage in the process and prioritise lowland Coastal Forests as a separate, priority, sector for further investment over coming years. Given the problems of logging from these forests over the past year, the time may be ripe for such a prioritisation. Project success at the landscape scale is closely linked to the Government’s commitment to implement recent reforms in forest resource management policy, legislation and regulations, decentralization of government authority to district level and supportive legislation mandating local level land use and development planning. The Government’s sustained commitment to implementing these reforms and innovations and the ability to mobilize the financial and human technical resources to do so will be critical to project success and sustainability. This project will focus on building District level and village level capacity to deliver these reforms at the field level.

## 2.4 Alternative Strategies Considered

227. The option of investing project resources in other conservation strategies were considered during the development of this project. Two options were considered.

- *Option 1 – Integrated Conservation and Development Project.* In the past GEF investment has been used to fund Integrated Conservation and Development Projects managed by project implementation units, often through NGOs. The broad lessons learned about these kinds of projects is that they fail to deliver long term solutions as they are not sufficiently embedded in the local systems of governance, and also do not focus on delivery of outcomes that will outlast the project interventions. In this project the emphasis is on the government agencies managing the forests (FBD on the mainland, DCCFF on Zanzibar, and the Districts and Villages in the landscapes in southern Tanzania). Emphasis is also placed enhancing the protected area network on the ground, and on making strategic decisions on the status of the entire Coastal Forest protected area network. These will deliver tangible outcomes that will be recognised in law, and will therefore survive potentially for the next century, or more.
- *Option 2 – Trust Fund.* There is an existing Trust Fund for the Eastern Arc Mountains. The option of using the GEF funding for the Coastal Forests to establish a parallel structure for the Coastal Forests was considered. Whilst attractive, the level of funding available and the need for rapid results on the ground to improve the protected area network and mitigate critical threats overruled that as a useful option for this particular GEF project. Links to the Trust Fund will be explored and options for enhancing its funding status and geographical coverage will also be assessed. However, other funding will be required to make a Coastal Forest Trust Fund a reality.

## 2.5 Expected Global and National Benefits

228. *Ecosystem services* derived from Coastal Forests provide a wide variety of benefits for people, such as the protection of fisheries, watersheds and soils. Furthermore, forests constitute an important source of raw materials for both the rural poor who depend on forest products to meet basic livelihood needs, and for industry's demand for timber and non-timber products.
229. *Carbon storage* The world's forests are globally important carbon store,<sup>57</sup> but this carbon is lost when forests are cleared or degraded. The Coastal Forests of Tanzania contain around 50-80 tons of Biomass Carbon per hectare when they are in good condition. This biomass carbon, and a proportion of the soil carbon will be lost when forest are cleared. In addition to this, studies have shown how degradation also affects the storage of forest carbon. For example - work in Tanzania shows that the degraded forests of the Pugu Hills contain 22 tons of carbon per hectare (above ground carbon only, not including roots, or soil carbon). Further south and in less degraded forests in the Kiwengoma Forest Reserve, at similar altitude, rainfall and aspect to the Pugu Hills, less degraded forests contain around 58 tons of carbon per hectare. If we assume that the root and soil carbon is similar between the two sites, this means that degradation of closed canopy Coastal Forest results in a minimum loss of  $58-22 = 36$  tons of carbon per hectare. In fact it is likely that root and soil carbon has also been lost from the Pugu Hills, and thus the total carbon loss will be proportionally more than these provisional figures suggest. The proposed mechanism to be agreed at the COP15 meeting of the UN Framework Convention on Climate Change – Reduced Emissions from Deforestation and Degradation provides a way that countries might be funded to retain the carbon in their forested lands to reduce climate change impacts globally.
230. *Contribution to Carbon Sequestration.* The sustainable management of forests can contribute to terrestrial carbon sequestration, or uptake from the atmosphere. The poor management of the Coastal Forests of Tanzania, including within protected areas, means that they have been losing carbon. Better management would mean that trees could grow again and take up carbon from the atmosphere and store it for extended periods of time. Tanzania has reserved over 20% of its territory as forest reserves, game reserves and national parks, thus acting as both an area of storage and as potential sequestration of Carbon dioxide<sup>58</sup>.
231. *Biodiversity* At the global level, 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). Forests are also important for scientific research and education. The diversity of species within the Coastal Forests of Tanzania means that there is a high rate of genetic diversity here. As many species are unique, they have bioprospecting potential and there may be benefits to the world and to Tanzania from detailed investigation of the medicinal and other properties for these species. This has already partly been done in the late 1980s and early 1990s, but there is potential for other benefits to be realised from these forests – for example from some of the endemic species of *Coffea*.
232. *Ecotourism* remains under-developed in all Protected Areas within the Coastal Forest network – representing a significant and substantial revenue development opportunity for local economies. South-East Tanzania has recently started to develop its tourist industry centred around the beaches of Mtwara and the Mnazi Bay Marine Reserve, and with the recent construction of an all-weather road from Dar-es salaam to Mtwara it is only a matter of time before Kilwa and Lindi Landscapes are developed to give a unique destination that can be combined with Kilwa's UNESCO World Heritage sites. Village based wildlife tourism might be developed in the village lands where large game are known to visit certain water holes at various times of the year although there considerable barriers to cross in making this a viable enterprise. Within the Zanzibar Landscape there is also a push to develop nature trails and local crafts for

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<sup>57</sup> Gullison, R.E., Frumhoff, P., Canadell, J., Field, C.B., Nepstad, D.C., Hayhoe, K., Avissar, R., Curran, L.M., Friedlingstein, P., Jones, C.D. & Nobre, C. (2007). Tropical Forests and Climate Policy. *Science* 316, 985-986.

<sup>58</sup> Ministry of Natural Resources and Tourism, 2001

ecotourism purposes. The enhancement and promotion of protected areas within this environment will encourage the development of tourism in the area.

233. *Support to Local Enterprise.* Local economic benefits accrue from the local use of the Coastal Forest habitats. For example, the forests have provided a source of timber and non-timber forest products and the timber, in particular, has been shown to be highly valuable. The project landscapes are an important source of this high value timber and some of the work of the project of developing the business case for forest management in these areas will be able to quantify the values and the potential sustainable revenue flows from these areas. This work will build upon that already underway within the Mpingo Conservation Project and from the lessons of a similar project in Angai Forest Reserve in the southern part of Tanzania.

**Table 11. Benefits Summary**

Benefits	Baseline	Alternative	Increment
Global benefits	Weak enforcement of existing regulations and minimal management of forest landscapes. GOT has limited capacity to achieve biodiversity conservation and maintain quality of forests.	Agreed conservation strategy that provides a framework for conservation action by all players Joint-management resulting in increased role of local communities in managing forest resource use and access.  Communities have incentives to regulate forest use and access for their own benefit.	Conservation strategy focuses efforts by many stakeholders to solve conservation problems in the Coastal Forests Collaborative management results in improved management and monitoring of biodiversity and forest resources. Ecological stability of forests is increased, biodiversity is less threatened.
National and local benefits	Open access to Coastal Forests is endangering their functions in biodiversity conservation, watershed protection and indigenous cultural uses. Communities within the forest landscapes are poor and use unsustainable farming and forest resource harvesting practices.	Social transformation of forest dependent communities through effective partnerships in co-management of forests and increased security of resource tenure.  Enhanced alternative livelihood options reduce unsustainable use of land and forest resources.	Forest cover is retained, globally significant biodiversity is protected and ecosystem services are maintained Increased income for households and incentives for sustainable forest resource management and protection.



## ***2.6 Country Ownership: Country Eligibility and Country Drivenness***

### **Eligibility for GEF Funding**

234. Tanzania ratified the Convention on Biological Diversity on 8<sup>th</sup> March 1996 along with the Framework Convention on Climate Change. Tanzania is eligible for technical assistance from UNDP.
235. The UN Convention on Biological Diversity (CBD) considers protected areas as cornerstones for biodiversity conservation and as critical tools for reducing the current rate of loss of species and habitats in all types of ecosystems (2010 biodiversity target, decision VI/26).
236. Recognizing the unsatisfactory spatial coverage of protected areas, the expanded Programme of Work on Forest Biodiversity (decision VI/22) calls for Parties to “*assess the representativeness of protected areas relative to forest types*” and to “*establish biologically and geographically representative networks of protected areas*” (programme element 1, goal 3, objective 3). In addition, the framework for monitoring implementation of the achievement of the 2010 target states that “*at least 10% of the world’s forest types*” should be effectively conserved (decision VIII/15).
237. The Global Environment Facility (GEF) is the main funding mechanism for providing assistance to developing countries to facilitate them to achieve the targets set out within the CBD – to which they are signatories. This project will address the 2010 target related to protected areas and the conservation of the world’s forests. It will also seek to ensure that the protected areas in these areas are effectively managed.

### **The Fit with GEF Focal Area Strategy**

238. This project satisfies the requirements for GEF financing under the Strategy for ***Sustainable Forest Management***; biodiversity sub program namely, SOI: “Conservation of Globally Significant Forest Biodiversity”, and within this SO, SP3 – “Extending and Strengthening Terrestrial Protected Area Networks”. This will include gazettment of new Forest Nature Reserves, and re classification of priority Forest Reserves under insecure District administration as priority National Forest Reserves, under the administration of the National Forest Service. Collectively, these measures will serve to increase the area under effective PA administration for biodiversity conservation and improve forest security.

### **Country Drivenness**

239. There is a strong policy framework for environmental management and for biodiversity conservation in Tanzania and the country has taken a number of key steps for environmental management that resonate positively for biodiversity conservation.
240. The proposal addresses multiple priorities for the development of the Tanzanian national Protected Area System as contained in the Tanzania Country Study on Biodiversity (1997), the National Biodiversity Strategy Action Plan (2003), the National Forestry Programme (2001) and the Forest Act (2002). The Forest Policy of Tanzania (1998) establishes a framework for the conservation of biological diversity through participatory forest management, decentralization and privatization and recognizes the roles of local communities and the private sector in managing forest resources. Implementation of the Forest Policy is through the National Forest Programme, supported by the Forest Act (2002). The National Forest Programme was launched in 2001 and aims to reduce poverty through increasing employment in forest based industries by 25% by 2010 and increasing the income generated from forest resources and services that is retained by local communities by 20% by 2010.

241. The Tanzanian National Forest Programme of 2001 divides Tanzania into a number of different forest types. The Coastal Forests of mainland Tanzania and the offshore islands, including Zanzibar, are one of the key forest types recognized in this document. The National Forest Programme recognizes that these forests have globally important biodiversity values.
242. An Eastern African wide regional consensus and common vision for Coastal Forest conservation and management was developed in 2002 with support of the WWF Programme Office (WWF-EARPO). This work has included the development of a draft strategy for conservation in the Coastal Forests, which is aimed to be implemented over the coming decade. A Tanzania Coastal Forest Task Force has been formed that includes representatives from key Government and NGO partners. The Task Force has set out the following field level conservation agenda for the period between 2003 and 2010, which has guided the preparation of this proposal:
- All eight Coastal Forest hotspots in Tanzania (1) Usambara Lowlands, (2) Rondo/Litipo/Noto Plateaux, (3) Matumbi/Kichi Hills, (4) Pande/Pugu/Ruvu, (5) Eastern Slopes of Uluguru Mountains, (6) Jozani/Ngezi, (7) Kiono/Zaraninge, (8) Mlola (Mafia Island) maintain their forest cover to ensure the continued existence of Coastal Forest endemic plant and animal species and ecosystems (total are 1,277,341 ha)

<b>Landscapes</b>		<b>METT scores available</b>
1. Matumbi Kichi Landscape	40,924.2 ha	
2. Zanzibar Landscape	14,205 ha	
3. Kilwa Landscape	233,215 ha	
3. Lindi Forest Landscape	29,103 ha	
An additional 10,000 ha of Village Forest Reserves and conservation corridors established within the Kilwa and Lindi landscapes. At least 5,000 ha of threatened coral rag forest on Unguja and Pemba islands (Zanzibar) brought under management in forest reserves		<b>Green field sites: METTS to be completed during the project</b>
<b>Total Project Coverage</b>		<b>332,447.2 Ha</b>

243. The Tanzanian Government is also engaged in a programme of decentralization of forest conservation functions to District levels. This proposal will also assist in this process by building capacity at these levels to deliver better forest conservation in collaboration with forest adjacent communities. It will also help the development of the new protected area authority on Zanzibar, which has the mandate to develop a protected areas network.

## 2.7 Program Designation and Conformity

244. This proposed project in the Coastal Forests of Tanzania is consistent with GEF Operational Program 3: Forest ecosystems. The project will directly address GEF Strategic Priority 1 on Biodiversity: *Catalyzing Sustainability for Protected Area Systems*.
245. This project addresses the lack of an agreed focus on Coastal Forest habitats within FBD, and the *de facto* delegation of all forest conservation and management authority to poorly staffed and funded District Natural Resources Offices. The Project also addresses issues of coordination between TANAPA, FBD and District Authorities with regard to participating in, and then implementing, the draft Coastal Forest strategy document that has been developed with WWF facilitation. Much additional project activity will focus at the level of three individual forest landscapes, two managed under the authority of District Authorities on mainland Tanzania and the other managed by DCCFF on Zanzibar. Lessons learned from these actions will be fed back to national level mechanisms (Coastal Forest task force, Biodiversity and Ecosystem Working Group of the National Forest Programme etc) to learn lessons relating to the development of a comprehensive protected area system for Tanzania, and specifically for the Coastal Forest habitat.

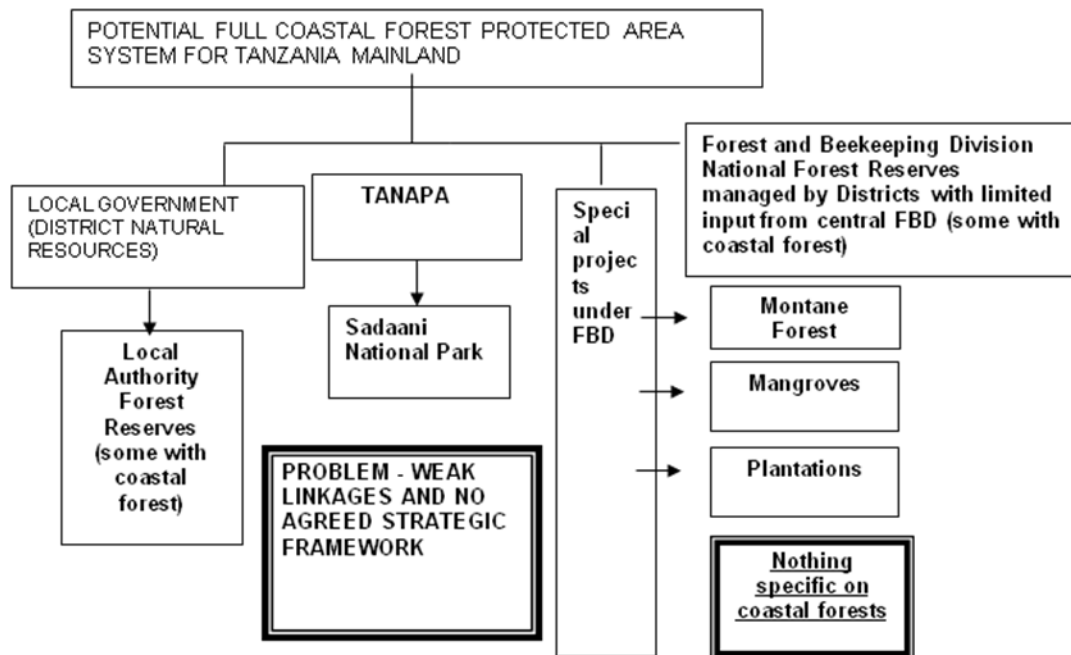


Figure 7: Program Designation and Conformity

## ***2.8 Linkages to UNDP Country Programme***

246. The project will contribute to meeting the objectives as set out in the UNDP Country Programme 2007 and is consistent with the agreed terms in the UNDP Country Programme. Building on existing initiatives and networks in Tanzania this approach will encourage coordinated and collaborative UN support to Tanzania, thus maximizing efficiencies and effectiveness of the organizations' collective input.
247. The programme will be guided by the five inter-related principles of the UN Development Group:
- 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.
248. In addition, the project 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 initiatives.
249. The project is also in line with other international activities and regional programmes. It is in line with the Millennium Development Goals (MDGs) adopted by Tanzania, especially MDG-7 on "Environmental Sustainability". This goal involves the following objectives:
- Integrate the principles of sustainable development into country policies and program and reverse the loss of environmental resources;
  - Halve, by 2015, the proportion of people without sustainable access to safe drinking water;
  - Have achieved, by 2020, a significant Improvement in the lives of at least 100 million slum dwellers.

## ***2.9 Linkages with GEF Financed Projects***

250. Substantively, the project will benefit from UNDP-GEF's past work in the Eastern Arc Mountains, Tanzania, on Selous-Niassa Game Reserve connectivity, the World Bank Marine and Coastal programme and new support to Tanzania National Parks and from the UN-REDD programme. Lessons may also be drawn from other forest conservation activities in the area inclosing the WB/DANIDA supported Community Forest Programme and the UNDP-GEF Coastal Forests Project in Indonesia.
251. The project is highly complementary with a number of national and regional GEF projects. The Project development team has worked in close collaboration with other project teams to avoid any duplication and overlap between the initiatives, and to optimise synergies.

252. One priority is the WB-GEF led Marine and Coastal Programme in both the mainland and on Zanzibar. The WB project focuses on mangroves, and this project on dry Coastal Forest. There are potential synergies in the development of tourism networks and efforts to strengthen district management capacity. Further priorities are the World Bank DANIDA supported Community Forest Programme; and the WWF Eastern Africa Coastal Forests Eco-region Program. The GEF approved funding through UNDP for a sister project in Kenya, that will strengthen the PA network in Kenya’s Coastal Forests and is supporting buffer zone management in the Arabuko-Sokoke Coastal Forest through the GEF Commercial Insects Project. Close linkages will be maintained with these initiatives. An associated SFM MSP is planned to address deforestation in western miombo woodlands, reversing poor agriculture/livestock practices through improved village land-use plans; this is a conceptually different initiative, focusing on different institutions—and is not focused on protected area management as a vehicle for forest conservation. The two initiatives will be implemented in parallel, to share lessons and capture synergies.

**Table 13: On-going/ planned GEF projects**

<b>Project Name</b>	<b>Focal Area</b>	<b>IA</b>	<b>Description and Linkages</b>
Marine and Coastal Programme (MACEMP)	Mainland Tanzania and Zanzibar	WB/GEF	Geographical linkages, lessons learned
Tanzania National Parks – Protected Area expansion	Southern Circuit Tanzania	UNDP/GEF proposed	Thematic linkages (protected area management)
Kenya Coastal Forests Project	Kenya	UNDP / GEF	Thematic (forestry) linkages, lessons learned
Selous- Niassa Game Reserve Corridor Project	Tanzania, Mozambique	UNDP GEF	Geographical linkages, lessons learned, thematic linkages
Eastern Arc Mountains	Tanzania	UNDP GEF	Thematic (forestry) linkages, lessons learned
Coastal Forests Project	Indonesia	UNDP/GEF	Thematic (forestry) linkages, lessons learned

## **2.10. Sustainability**

253. Sustainability has been a major consideration throughout the development of this project. There are two key interlinked challenges to assuring sustainability.

### **Institutional Sustainability**

254. The project strongly emphasizes building institutional capacities in FBD, DCCFF, National Protected Areas Board of Zanzibar, District administrations, NGOs, CBOs and community/village level resource management associations to sustain management of forest resources within the overall management of the landscape beyond the lifetime of the project. The experience of FBD, district authorities and community-based associations working in partnership to establish and maintain forest reserve sites for the production of mutually agreed benefits will establish a foundation for continuing collaboration in the future.
255. The project aims to leave a Coastal Forest conservation strategy, outlining how the protected area system should be developed for this habitat type, embedded at national level and also agreed and under implementation by a number of NGOs, government departments, and aid donors. Such a strategy will be for at least 10 years and hence will leave a tangible product that, through implementation, will ensure the long term sustainability of interventions in the Coastal Forests of Tanzania.
256. The project will also invest in developing skills of local community leaders and other key stakeholders to mobilize community members for participatory planning, implementation and monitoring of the project

implementation. The villages will be encouraged and facilitated to form Environment/Natural Resources/Conservation Committees or associations. The DCCFF and the National Protected Areas Board of Zanzibar will obtain improved capacity for conservation management on Zanzibar. The respective District Councils would assist the communities in passing appropriate bylaws and approving them. The project will develop a body of knowledge and experience with participatory management practices among local and national government authorities.

## **Financial Sustainability**

257. The project aims to finance sustainability through three measures aimed at raising the revenue collection potential, while generating livelihoods for local communities engaged in Participatory Forest management:
- Carbon Financing
  - Increasing Revenue retention from timber extraction
  - Generating a sustainable supply chain for Mpingo wood.
258. Carbon Finance: Examples of the mean values of tons of carbon per hectare of habitat from available studies are as follows: East African coastal forests; 157 tons carbon per hectare/ Miombo woodlands; 87 tons carbon per hectare. Degradation reduces carbon storage in coastal forests from 157 to 33 tons per hectare, and in woodlands from 87 to 33 tons per hectare (FBD 2007). The Government of Norway has pledged US\$ 100 million to Tanzania over four years, to strengthen the institutions that will be responsible for governing REDD (whether through a market based solution, or more likely, at least initially, through fund based approaches) and to test local payment schemes. A detailed supply chain has been developed, identifying the actions needed at national, district and local level to make REDD viable. A governance framework is being developed, geared to addressing additionality, permanence, investor confidence and social acceptance amongst other things. The Norwegian investment will be implemented through the UN REDD programme, WB Forest Carbon Partnership Facility, Sokoine University and the Tanzania Forest Conservation Group. Funding will be made available to develop cost curves for REDD (cost: abatement ratios) for different land management systems (protected areas, village lands etc) and land uses. Activities include the development of methodologies, agreeing REDD costs, assessing the distribution of costs and benefits, and the development of cost curves, using international best practice.
259. The exact long term mechanics of carbon financing in Tanzania will depend on the outcomes of the climate change talks under the FCCC, on whether a fund based or market based approach is agreed and developed, and the distribution of roles and responsibilities for governing REDD between local communities, districts and the national Government. These aspects will be worked out in parallel to this project.
260. However, given the major investment by the Government of Norway, Tanzania's participation in the UN REDD programme and FCPF and the commitments expressed by the Government, the long term prospects for REDD in Tanzania are essentially sound.
261. The funding to establish and adapt the REDD framework and pilot projects at the local level will be committed in parallel. The GEF project will limit activities to building a business case for investing REDD funds in Forest reserves, within the framework of a national REDD accounting system, that aims amongst other things at avoiding emissions leakage.
262. The existing evidence on the role reserves play in emissions abatement is as follows:
- Land conversion is occurring at a greater rate outside reserves than within them—meaning that reserves have proven to be an effective vehicle for reducing deforestation

- Forest degradation remains high in all except the most intensively managed reserves (generally those where production activities are not permitted, such as National Parks and Nature Reserves);
- Most of the high carbon forests in Tanzania lie in reserves: accordingly, degradation of these areas can make a major contribution to carbon emissions, even relative to emissions from outright forest conversion outside reserves.

263. There is a need to pilot REDD – in order to test and adapt management to reduce forest degradation while avoiding leakage. Technical assistance provided by Norway has identified the need for the following (Angelsan-Hofstad 2008)

- ‘Data on the current situation in the pilot area must be established, both in terms of forest conditions (area, biomass), and socioeconomic conditions (forest income, total income, assets). Without such information it becomes next to impossible to assess the impact of the REDD pilot project on both forests and local livelihoods.
- Control areas adjacent to the pilot areas need to be established, with a similar collection of data. This is needed for several reasons, including to assess how large the problem of leakage is. A high risk is that activities like charcoal production will just move outside the pilot area.
- The activities should include some experimental design, that is, some of the variables should vary across pilot project in order to gain insight in what will work under which conditions. This concerns both the payment vehicle, the recipients of the payment, and methods of data collection and verification’

264. Thus although evidence points to the success of Forest Reserves in reducing forest loss and degradation, further work is needed to establish the viability of using these reserves as a vehicle for REDD, taking into account leakage and cost effectiveness. This is an important issue—in terms of ensuring that REDD contributes maximally to biodiversity conservation. The project will limit its investments to undertaking carbon stock assessments, and designing REDD pilots in Kilwa and Rufiji districts, specifically focusing on the roles (opportunities and constraints) of Reserves in addressing REDD. The actual costs of undertaking the REDD pilots will be underwritten with REDD finance as part of the national strategy.

265. More specifically, the project will undertake the following activities:

- Baseline assessment of carbon stocks and degradation in forest reserves
- Design of a pilot initiative, to be financed with REDD funds, to test REDD + (carbon capture in Reserves while addressing biodiversity management
- Monitoring implementation of the pilots and recommending adaptive management measures, needed to improve impacts.

These activities will not initially be plugged into the carbon market, but undertaken in conjunction with the REDD readiness work financed by Norway and other development partners, through UN REDD, the FCPF and other vehicles.

266. Increasing revenue retention from timber extraction: A second major strategy employed by the project is on strengthening revenue collection for forest activities in coastal woodlands surrounding coastal forest patches, to be reinvested in management of the woodlands and core PAs. The 2004 Public Expenditure Review of the environment stated that a “big portion of revenue collections is lost through many illegal means” (VPO, 2004). The National Forest Programme estimated that 5-10% of revenue due from forest reserves and public lands was collected (FBD, 2001). A more recent estimate at the national level was 14-28% (SAVCOR, 2005). Evidence from southern Tanzania in mid-2004 indicated a situation worse than the estimated national average, with collected revenue representing as low as 4% of the timber harvested. The following calculations can be tentatively used to illustrate the scale of revenue losses at central and local government levels. Whilst official revenue statistics showed the equivalent of some USD 217 335 derived from Kilwa and Rufiji Districts between July 2003 and June 2004, the value (based on government



royalties) of timber actually harvested from both districts over a one-year period was estimated at around USD 10 million

267. An analysis undertaken during project preparation showed that the increased revenue should be sufficient to meet the basic management costs of CF PAs, and an increase in revenue and reinvestment in PAs is a key project target.
268. The following specific activities are planned:
- Development of a framework for forecasting of potential income and revenue generated within areas of reserves zoned for sustainable use (Activity 1.2.2/ 1.3.2)
  - Monitor and record offtake levels, income and revenue earned from reserves
269. One of the aims of the project is to increase rural incomes from sustainably managed forest and land resources within the landscape sites. Development and implementation of community management plans for reserves that explicitly incorporate sustainable harvest levels and reinvestment requirements (c.f. in tree planting, stock maintenance and fire control) will enhance the ecological and economic viability of collaboratively managed forests. Collaborative management agreements and local bylaws governing resource use and access will provide clear incentives for local stewardship and re-investment. Through investments in establishing tree nurseries and wood lots the project will increase the standing crop of harvestable forest resources and enhance future income-generating opportunities, such as from timber, fruit and nut trees.
270. There will be a focus on increasing benefits at the local level from forest resource extraction (i.e. timber from coastal woodlands, adjacent to coastal forests), mpingo wood, used for the construction of musical instruments etc, through legal mechanisms provided through participatory forest management. An economic analysis of the returns from one commodity: timber, harvested in Southern Tanzania showed there is considerable scope to increase returns at the community level. One survey showed the Harvester got USD 3.5/m<sup>3</sup>, license fees were USD 70/m<sup>3</sup> and Export secured USD 330/m<sup>3</sup> while processed timber obtained USD 1500/m<sup>3</sup>. Efforts to improve revenue capture at the local level will be facilitated by a big investment in improving forest governance in Tanzania, as part of a national initiative to reduce deforestation and degradation.
271. Generating a sustainable supply chain for Mpingo wood: The African Blackwood tree (mpingo in Swahili), a coastal forest species, is a valuable timber used by wood carvers locally and to produce musical instruments internationally including clarinets, oboes and bagpipes. Demand for the product coupled with poor forest management is leading to its extirpation across its range. The project will seek to control exploitation of this species, as part of the management plans and operations under component 3. In addition, US\$ 400,000 has been committed in co financing through the Mpingo Conservation project, to promote fair trade for Mpingo sold for the manufacture of musical instruments, under FSC certification.
272. A supply chain analysis has been undertaken. This showed that a 2000 hectare village reserve could yield 26.4 M<sup>3</sup> per annum in sustainable Mpingo harvests, and yield a net profit of US\$ 61,000. Market analyses in the UK have shown that manufacturers of musical instruments are willing to pay up to twice the current market price for the purchase of billets. Accordingly, this is a potentially promising economic activity, that could give conservation value to standing forest. The costs of setting up a sustainable Mpingo supply chain will be borne through co-finance (to be continued beyond the life of the project). The GEF project funds would be drawn down to establish sustainable offtake levels and management systems (planning and enforcement within village forest reserves).

## Global Warming

273. Climate change is likely to affect the distribution and abundance of both endemic and non-endemic species. The project has internalized this factor into design. See below a climate change adaptation implementation action plan to be followed during the project.

**Table 14 : Climate change adaptation implementation action plan.**

Needs / Issue	Adaptation Measures	Scope & Timing	Responsible
Protected Area network not climate proofed	Ensure connectivity between existing protected areas so that species / habitats have the opportunity to move under climate change scenarios.	New reserves and corridors between reserves in Rufiji, Kilwa and Lindi. Within the 4 years of project implementation.	FBD, District Councils, Villages and WWF
Carbon financing	Pilot testing of REDD implementation in the Rufiji and Kilwa districts.	Funding dependant (Norwegian Embassy). Could start 2009. Testing methodologies and approaches.	WWF/Norwegian Embassy and then to the field

### 2.11. Replicability

274. The Project incorporates good biodiversity management practices that have been demonstrated elsewhere.
275. The project will undertake field delivery of Tanzanian policies and laws. Work will be implemented both at the national level on the development of an agreed conservation strategy for the Coastal Forests and on looking strategically on the protected area system for these forests. Work will also be undertaken at the landscape level to deliver tangible improvements in the protected area system at that level. Lessons learned at the field level will inform the development of the national strategy and will help build the protected area system for Coastal Forests. These lessons, and the agreed strategy, will provide as basis for actions at other key landscapes within the Tanzanian Coastal Forests.
276. Interventions at some of these landscapes are already receiving funding – for example from Finnida in the lowlands of the East Usambaras, from the Norwegian Agency for Development Co-operation, (NORAD) in the lowlands of the Ulugurus, and potentially from CEPF for the Gendagenda-Msumbugwe landscape north of the Sadaani National Park. Although these interventions are outside the scope of the co-finance of this project, they contribute additional opportunities for learning and scaling up the impact of the GEF project. Taken together this suite of investments and projects will be able to deliver significant improvements in the prospects for long term conservation in these forests. The results of this project will be widely replicable within the country and also elsewhere in the region, through a variety of media and through linkages with locally based NGOs undertaking education and advocacy work.

**Table 15: Replication Action Plan**

Outcome	Needs/Opportunities for Replication	Project Strategy for Replication
OUTCOME 1. Strengthened Enabling Environment is functioning for conservation of Coastal Forests in mainland Tanzania, leading to increased funding, staffing and oversight.	The work proposed is already similar to that undertaken for the Eastern Arc project funded by UNDP-GEF. This second testing of the approach, if also successful, can be replicated for other ecoregional scale GEF projects globally. This outcome will also help build the capacity of the government agencies and hence they will be able to replicate the enhanced capacity themselves.	Lessons from implementing the protected area systems approach in the Coastal Forests will be documented, captured, and disseminated in technical papers and scientific products. The approach will also be promoted at relevant international meetings and technical protected area events. It is expected that the capacity build internally will be used to spread the lessons learned across the work of the FBD Tanzania mainland.
OUTCOME 2. The Protected Area System for Zanzibar is strengthened in terms of both representativeness, connectivity, financing and managerial capacity.	The work on the protected areas of Zanzibar will be of relevance to similar small island states in the Indian Ocean and elsewhere. This outcome will also help build the capacity of the government agencies and hence they will be able to replicate the enhanced capacity themselves.	As with the above, the approach to replication will be to capture the detailed lessons learned and the results of implementing this outcome and to make these available as broadly as possible. It is expected that the capacity build internally will be used to spread the lessons learned across the work of the DCCFF in Zanzibar.
OUTCOME 3. Effective PA Management Systems in place at four project priority landscapes, with co-management between central, local and village government partners, leading to improved conservation of biodiversity values.	This outcome will field test a number of implementation methodologies (Village FR, Corridors, PFM approaches, Sustainable harvesting, carbon financing). These are all highly relevant to other regions of the coast of Tanzania, and across the whole country (and more widely)	Detailed learning from this field projects will be fed back to the systems of Government that are trying to roll these conservation approaches out across the country. Through the lessons being available at national level, and through links to the UN REDD project and Norwegian REDD projects for Tanzania, there will be an opportunity to replicate the lessons and successes across other similar countries.

## ***2.12. Lessons Learned***

277. This project was designed based on thematic and geographical priorities established by the Tanzanian National Coastal Forests Task Force. The Task Force, established in 2002, includes representatives of principal government agencies, international and national NGOs and donors involved with participatory natural resource management, biodiversity conservation and poverty alleviation within the Coastal Forest Mosaic. The project design and implementation plan are based on more than a decade of experience by the Ministry of Natural Resources and Tourism/Forestry and Beekeeping Division (MNRT/FBD), DCCFF, WWF, CARE, TFCG, WCST, Frontier Tanzania and other partners in promoting participatory forest resource management, rural livelihood enhancement, environmental protection and biodiversity conservation within the Coastal Forest Mosaic and the coral-rag forest of the coastal islands. The project design has benefited from design input from a multidisciplinary team of government, NGO, community organization representatives, donor project staff and academics, with guidance from an international consultant.

278. The project design is thus based on the lessons learned over more than a decade by WWF and its partners in implementing participatory methods of forest management within the Coastal Forest Mosaic. It also builds upon the past 4 years' experience of developing a conservation strategy for the Coastal Forests of Eastern Africa. Finally, the project builds on the experience collected by the GEF/CARE interventions on Jozani in Zanzibar and the UNDP/GEF/FAO project "Reducing Biodiversity Loss at Cross-Border Sites in East Africa". These lessons include:

- Strategy development needs to involve multiple stakeholders over a period of years to build trust and shared visions for conservation;
- Projects should focus on a limited number of actions and deliver these well;
- Establishing participatory management requires work at all levels from community/village to district to national authorities. A site-based planning process entailing evaluation of forest resources and identification of specific threats to these resources is important for development of social contracts that are acceptable to all parties (villages, district authorities, FBD and any other partners). The planning process should also include an assessment of the socio-economic setting in the respective communities in order to determine the most appropriate intervention approaches;
- Forest protection elements need to be built into field level interventions to ensure that there are mechanisms to control resource exploitation. These can be government controls, community controls or a combination of these;
- Networking and sharing of information enriches the knowledge base and experience among participating stakeholders, contributing to application of innovative and more effective approaches to biodiversity conservation;
- Initial goals must focus on building partnerships and developing sustainable use regimes that satisfy the aspirations of multiple stakeholders;
- It takes time to develop trust between implementation partners and project interventions need to be undertaken over a considerable period to have a lasting effect;
- An enabling policy environment needs to be in place to support project interventions;
- Conservation interventions require active support (in equal measure) from political institutions, local communities and forest management authorities. Sustainable management requires an integrated approach involving partnership building between local and central government, community groups, the private sector and donor institutions through both short-term interventions and long-term landscape level planning and sustained implementation;
- Given sufficient awareness and incentives in terms of socio-economic benefits, communities can and will manage forest and woodland resources for biodiversity, in addition to other recognized benefits. This in turn contributes to empower communities and stimulates socio-economic development.

## **PART III: Implementation Arrangements**

### ***3.1 Project Management & Implementation***

279. The project will be implemented over a period of four years beginning in 2009. The project implementation plan is presented below. An inception period will be used to refine the project design and bring on board the relevant stakeholders for implementation.

#### **Execution modality.**

280. The implementation arrangement of this project will follow government established structures as much as possible where the National Execution modalities (NEX) will be applied for both components i.e. Tanzania Mainland and Zanzibar
281. **Tanzania Mainland:** In Tanzania mainland the project will be executed by the Ministry of Natural Resources and Tourism where day to day activities will be coordinated by and NGO under MOU with the

MNRT. The NGO will ensure the effective implementation of field activities and assume first line of accountability for financial management. At field level the District Natural Resources Officers and the DED would assume responsibility for support to villages through the facilitation of an NGO. A District level “technical committee”, District Natural Resources Advisory Body, will assure linkages between sectors (wildlife, agriculture, forestry, and land), under the chairmanship of the District Commissioner or representative.

282. **Zanzibar component:** Project implementation responsibilities in Zanzibar are designed according to institutional roles of DCCFF taking the leading role on issues of conservation and forestry in Zanzibar. However partnerships with NGOs to provide facilitation on community activities and providing project management as it may be may require entering into agreement between Government and respective NGO (e.g. CARE/WWF). Details of this collaboration will be agreed during the inception phase.

### **Oversight**

283. The National Task Force for coastal forests (sitting as steering committee), under the co- chairmanship of Directors of FBD (or his representative) and the Director DCCFF Zanzibar will provide project oversight. Committee membership will include representatives of district level authorities covered by this project. Further operational details will be developed during project inception period.

### **Coordination FBD and DCCFF.**

284. Government in both mainland (FBD) and Zanzibar (DCCF) will appoint a Natural Project Coordinator to provide leadership, reporting to the PSC.

### **Project components.**

#### **Inception workshop**

285. The project will begin with an inception workshop. The project manager will review the project document prior to the workshop and recommend revisions in light of the prevailing situation. This may include updating the log frame and institutional arrangements. The project manager will present the finalised work plan and first quarterly plan to the Project Steering Committee. All key stakeholders will participate and the workshop will offer an opportunity to ensure coordination between all the players and establish a common ground of understanding necessary to ensure the smooth running of project implementation.

#### **Landscape implementation**

286. WWF will be contracted by and MoU to implement the landscape activity on behalf of government. WWF has already established a good working modality for the landscape with a project facilitator based in Kilwa since 2004. WWF has been working through the two districts of Kilwa and Rufiji and this will be replicated in Lindi. The activities in Kilwa and Rufiji will continue receiving financial support from WWF. The GEF support will enhance the implementation at both districts, Kilwa and Rufiji in addition to the WWF funding. The GEF support will fund the major part of implementing the Lindi district activity. This set up will have synergy in delivery to the landscape conservation as detailed in the document.
287. CARE will provide the same advisory assistance role on Zanzibar. This is based on their more than 10 years of successful working on the island.

#### **Technical Assistance**

288. Short-term national as well as international technical assistance (TA) will be provided by the Programme, in order to overcome barriers and achieve the project outputs/outcomes (for example biodiversity surveys, conservation education, participatory planning, and income generating activities). The TA will be directly contracted by the NPSC, through a transparent procurement process (i.e. the development of Terms of References and recruitment) following UNDP regulations and will directly assist the implementing entities and report to the NPSC. Many of the project components are innovative and need some level of local

consultancy input. These include issues such as: Landscape planning, Protected Area Economics, Business Plans, Institutional Capacity Building, Protected Area gap analysis and climate change adaptation strategies, etc. Where needed these local consultancy inputs have been identified and budgeted.

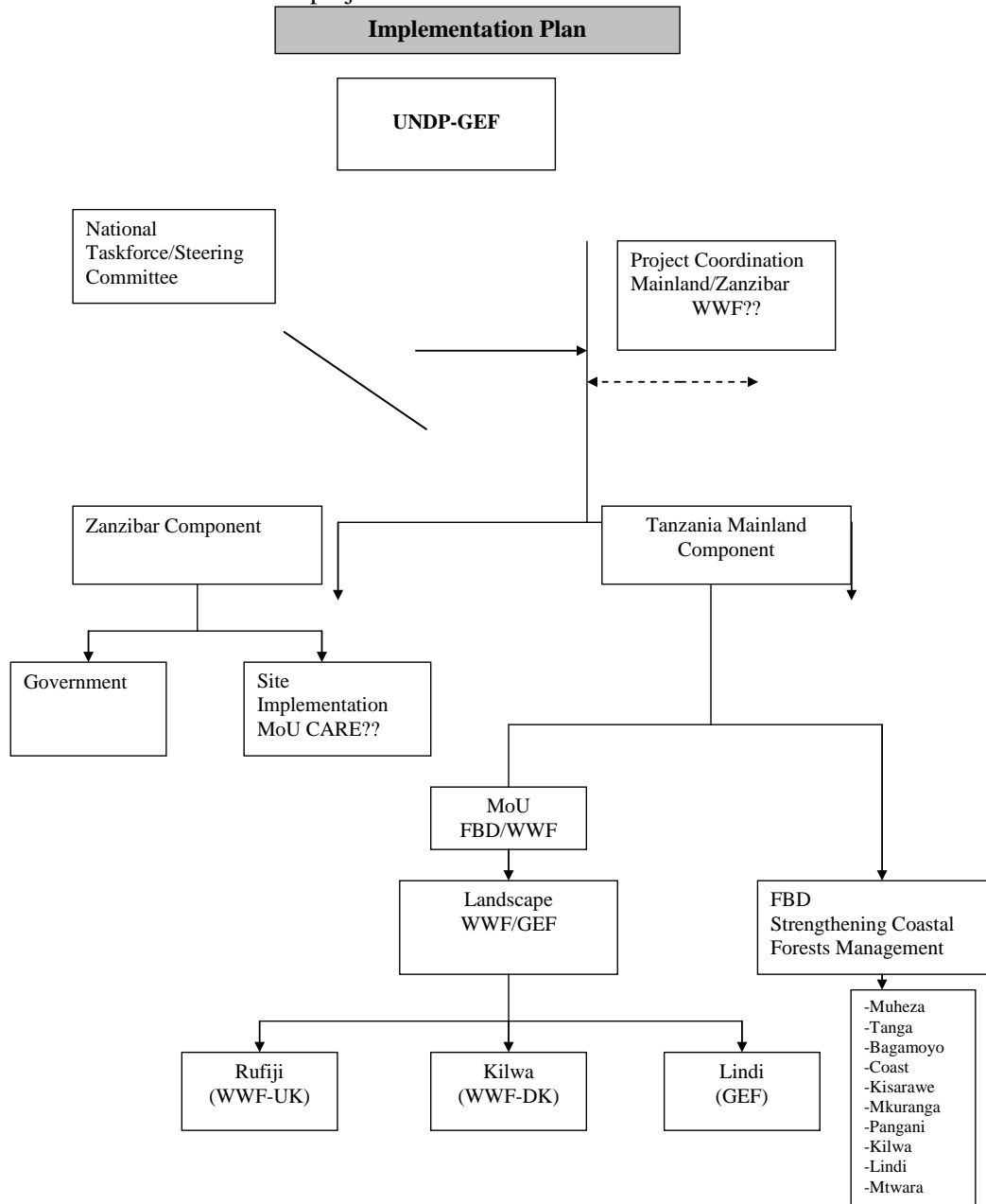
**Funds flow**

289. UNDP will disburse funds separately to DCCFF Zanzibar and to FBD using government procedures. UNDP will also disburse funds to WWF based on the MOU with FBD on site implementation. The site implementation picks on the already existing Forest Landscape Restoration project funding already going on with WWF funding for the last five years (2003 to date). Funding to the district will be through a WWF / District MOU and will be managed by the facilitators at district level.

**Secretariat**

290. As this is a single project with single reporting into GEF, a small administrative secretariat will be formed; with the mandate for reporting and coordinating work plans, between the three activity centers (FBD, field landscapes and Zanzibar). WWF will be contracted to provide this function, but reporting through National Coordinators to the Project Steering Committee.

291. The structure of the project is as follows:



### **Site Level Project Management**

292. At the site level the project will continue to work with established village conservation committees and to assist in establishment of village level natural resource management committees and associations. At the district level within each of the three landscape sites a district natural resource management council will be established, initially as an advisory body and to aid in effective dissemination of project related information to a broad array of stakeholder groups. As implementation of the project progresses it is planned that these village associations and district councils will take an increasingly responsible role in decision making about local project activities, fund raising and financing decisions in line with the principles of community-driven development that the project has embraced.
293. Daily project management is provided through a National Project Manager, responsible for the Biodiversity thematic level, i.e. the combined Biodiversity Sector Mainstreaming and Biosecurity Mainstreaming Projects. Implementation of the projects will fall largely to national entities within the different sectors (fisheries, tourism, agriculture, forestry, etc.) and thematic areas. Because the main emphasis lies on “mainstreaming” and “capacity development”, broad participation will be sought within the relevant production sectors and civil society. Already some platforms and structures for discussion, exchange & coordination exist; these will be used in further sectoral and project coordination (e.g. IAS committee, national parks committee, legal review committee, etc.). Changes in the set-up, as well as support to these committees may be envisaged in order to make them more effective. It is envisaged that apart from activities that will be allocated to the most relevant and competent entities in the sector/area, several project activities will be contracted out locally, in most cases likely to private sector / NGO partnerships. These contracts will follow a transparent, open and independent tender process, coordinated by the Steering Committee and following UNDP-GEF procurement procedures.

### **Public involvement Plan**

294. At the national level the project will engage with governments, donors, NGOs, experts and representatives of relevant Tanzanian Districts over the finalization and ratification of an agreed strategy for the conservation of Tanzanian Coastal Forests. The project will also seek to inform all stakeholders of the values of Coastal Forests, the problems that they are facing, and why they need conservation. The locally based NGO – TFCG will be heavily involved with this work, although all partners will also play their part. Various forms of media will be used to provide this information service, and this work will be based on the experienced learned from TFCG involvement in the UNDP-GEF project ‘Eastern Arc Mountains Strategy’.
295. At the landscape scale, the projects primary stakeholders are organized groups of rural residents and District government authorities within the landscape sites. The project will ultimately engage more than 20,000 rural residents within the landscape sites and will reach thousands more through the education, communications and awareness component. Key constituents include members of local (village and district) natural resource management committees and councils, community-based resource user associations and local craft, trade or livelihood organizations and cooperatives. Previously established village conservation committees, private tree nursery owners and trade associations (e.g. beekeepers), women and youth groups comprise important elements of the primary stakeholder group. Other key stakeholders are the national agencies concerned with forest resource management and resource-based rural development (e.g. FBD and DCCFF/NPAB) as well as partner NGOs and CBOs. Initially, the Coastal Forest Conservation Task Force (representing all of the constituencies listed above except the last) will continue to act as a steering and oversight council for the project. As onsite activities are scaled up this “board” will be expanded to include key representatives of local government, village leaders and members

of community based organizations and associations from within the landscape sites. Ultimately these groups will comprise no less than 33% of the (national) steering committee membership.

## Reporting

296. The Project Manager will be responsible for the preparation of reports for the NPSC and UNDP on a regular basis, including the following: (i) Inception Report; (ii) Annual Project Report; (iii) Project Implementation Review; (iv) Quarterly Progress Reports; and (v) Project Terminal Report. The Quarterly progress reports will provide a basis for managing project disbursements. These reports will include a brief summary of the status of activities, explaining variances from the work plan, and presenting work-plans for each successive quarter for review and endorsement. The Annual Project Report will be undertaken annually, and will entail a more detailed assessment of progress in implementation, using the set indicators. It will further evaluate the causes of successes and failures, and present a clear action plan for addressing problem areas for immediate implementation.
297. *Annual Monitoring* will occur through the *Tripartite Review (TPR)*. The TPR will be composed of Government representatives (Tanzania Mainland and Tanzania Zanzibar), UNDP and the Project. This will serve as the highest policy-level meeting of the parties directly involved in the implementation of the project. The project will be subject to Tripartite Review (TPR) at least once every year. The first such meeting will be held within the first twelve months of implementation. The Annual Project Report (APR) will be prepared and submitted to UNDP-CO and the UNDP-GEF regional office at least two weeks prior to the TPR for review and comments. The project will be subjected to at least two independent external evaluations:
- **Mid-term Evaluation** - will be undertaken at the end of the second year of implementation. The Mid-Term Evaluation will determine progress being made towards the achievement of outcomes and will identify course correction if needed;
  - **Final Evaluation** - will take place three months prior to the terminal tripartite review meeting, and will focus on the same issues as the mid-term evaluation. The final evaluation will also look at impact and sustainability of results, including the contribution to capacity development and the achievement of global environmental goals.
298. The Programme Coordination Unit will provide the designated UNDP Resident Representative with certified periodic financial statements, and with an annual audit of the financial statements relating to the status of funds according to the established procedures set out in the Programming and Finance manuals. The Audit will be conducted by the legally recognized auditor of the Government, or by a commercial auditor engaged by the PCU.
299. The Government will provide the designated UNDP Resident Representative with certified periodic financial statements, and with an annual audit of the financial statements relating to the status of funds according to the established procedures set out in the Programming and Finance manuals. The Audit will be conducted by the legally recognized auditor of the Government, or by a commercial auditor engaged by the Government.



## Legal Context

300. This Project Document shall be the instrument referred to as such in Article I of the Standard Basic Assistance Agreement between the Government of Tanzania and the United Nations Development Programme. The host country implementing agency shall, for the purpose of the Standard Basic Assistance Agreement, refer to the government co-operating agency described in that Agreement.
301. UNDP acts in this Project as Implementing Agency of the Global Environment Facility (GEF), and all rights and privileges pertaining to UNDP as per the terms of the SBAA shall be extended mutatis mutandis to GEF.
302. The UNDP Resident Representative in Tanzania is authorized to effect in writing the following types of revision to this Project Document, provided that s/he has verified the agreement thereto by the UNDP-GEF Unit and is assured that the other signatories to the Project Document have no objection to the proposed changes:
  - a) Revision of, or addition to, any of the annexes to the Project Document;
  - b) Revisions which do not involve significant changes in the immediate objectives, outcomes or activities of the project, but are caused by the rearrangement of the inputs already agreed to or by cost increases due to inflation;
  - c) Mandatory annual revisions which re-phase the delivery of agreed project inputs or increased expert or other costs due to inflation or take into account agency expenditure flexibility; and
  - d) Inclusion of additional annexes and attachments only as set out here in this Project Document.

## Audit Requirement

303. The Government of Tanzania and WWF will provide UNDP with certified periodic financial statements, and with an annual audit of the financial statements relating to the status of project funds according to the established procedures set out in the UNDP Programming and Finance manuals.

## PART IV: Monitoring and Evaluation Plan

304. The project will support the implementation of a comprehensive monitoring and evaluation of PRSP framework designed to monitor performance, process, objective achievement, and its environmental and socio-economic impacts and will rely strongly on active involvement of project implementing partners to include Vice Presidents Office Department of Environment (VPO-DoE), National Environmental Management Council (NEMC), MNRT-FBD, Ministry of Agriculture Natural Resources, Environment and Co-operatives (MANREC)-Zanzibar, local communities, Regional and district administration, private/NGO sector and UNDP/GEF are taking part in monitoring processes according to the defined roles and responsibilities based on specific performance indicators.
305. Project monitoring and evaluation will be conducted in accordance with established UNDP and GEF procedures. The Logical Framework Matrix will provide performance and impact indicators for project implementation along with their corresponding means of verification. These will form the basis upon which the project's monitoring and evaluation system will be built.
306. *Impact Monitoring.* The project team will utilize the recent UNDP GEF guidelines on indicators of conservation impact to develop during the inception period a plan for the measurement of project impact on biodiversity, protected areas, and livelihoods. The management effectiveness scoring system developed by WWF and the World Bank will be used for the protected areas components. The livelihoods impact

monitoring will be developed with CARE Tanzania. Some provisional impact level indicators are presented in the summary to this project and in the project logical framework.

307. *Performance Monitoring.* The project team Tanzania will be directly accountable to UNDP-GEF for financial and technical oversight and for overall project management, coordination and administration. For sub-contracts and other arrangements regarding working with NGO partners and local governments and institutions WWF will ensure that transparent accounting and financial control are in place. WWF will contract for independent audits as required by the GEF Implementing Agency (UNDP). Partner NGOs and subcontractors will submit quarterly financial statements to WWF Tanzania.
308. Performance indicators as outlined in the project log frame will be reported on a quarterly and annual basis. An independent mid-term review will be carried out towards the end of the second year of implementation. This review will cover baseline indicators and measurements of project activity and impact during the initial two years of implementation. An independent final evaluation will be carried out during the last quarter of the fourth year of project implementation.
309. The internal monitoring and evaluation process will rely strongly on active involvement of project implementing partners to include FBD, DCCFF/NPAB, partner NGOs (e.g. WWF, CARE, TFCG, WCST, and FT), local government, and community-based institutions established in the course of the project or collaborating with the project. Training for participatory monitoring and evaluation procedures will be provided to partners and community groups to enhance the quality of local participation. A detailed monitoring plan will be prepared, based on the project log frame and other documents as well as input received during a project initiation workshop to be held soon after project effectiveness.

## **PART V: Incremental Logic**

### ***5.1 Baseline Course of Action***

310. The Baseline is the “business-as-usual” scenario that would take place during the next five years in the absence of the interventions planned under the project. A number of conservation interventions have already been undertaken in these forests, as detailed below and summarized in Table 16. Without the proposed outcome of this project these interventions will remain the baseline situation.
311. Under the “business-as-usual” scenario, Tanzania and Zanzibar Coastal Forest biodiversity would remain under significant threat, with only minor advances in the effectiveness of Forest Reserves and Village Land Forest Reserves as a conservation tool. Highly bio-diverse forest areas would remain outside the current system of protection. Definition and implementation of conservation measures, including zoning, within large, multiple use landscapes would remain incomplete. The effectiveness of management of the Coastal Forest resources would be weak and funding would be insufficient.

#### **Baseline Overview for Coastal Forest Conservation**

1. *Global Environmental Objective.* The global environmental objective of GEF support is conservation of Coastal Forest biodiversity within mainland Tanzania and Zanzibar.
2. *Strategy.* A conservation strategy document for the Coastal Forests has been produced with and endorsed by government, but with significant technical input by WWF and other NGOs. It was published in 2007. The document includes summary sections of biodiversity value, threats, conservation targets, conservation strategies, priority sites and issues, and an analysis of who is doing what and where at the present time.

3. *Baseline trend of development of Tanzania's Coastal Forest Protected areas and key baseline programmes:* Under the baseline scenario, government (national and district) would continue to receive modest funds to implement the protection of Coastal Forest reserves, and illegal logging, NTFP harvesting and agricultural encroachment would continue. No new Forest Reserves would be gazetted and forest outside the reserves would continue to be lost at a faster rate than within.
4. *Financial planning and management systems:* Under the baseline scenario there would be no overall financial planning for the Coastal Forests as a system, and no management plans would be developed unless they were funded by NGO or development assistance funding. Management systems would be based on the requirements of the Districts in the main (primarily to generate money) and only in the National Parks and Forest Nature Reserves would conservation be an objective of management.
5. *Inter-agency co-ordination mechanisms:* Under the baseline there would remain the Coastal Forests Task Force that was established with the assistance of WWF, but which includes representatives of all the major players in the conservation of these forests. No other mechanism would exist for interagency coordination, especially between FBD and the Districts who are managing the forests. WWF has been funding the development of a Coastal Forest strategy over the past four years. This process is set to continue with funding from the WWF network, but linkages into government are insufficient. There has also been some work on identifying gaps in the protected area system for the Coastal Forests, primarily at the research level and again not strongly linked into government process. At the national level there are also processes to promote participatory forest management, but these do not focus on the Districts containing the landscapes proposed for intervention here.

**Table 16: Baseline Course of Action**

Baseline	Organisation	
FR management	FBD (mainland)	<ul style="list-style-type: none"> <li>FBD manages the National FR in the Coastal Area under their authority. This basically equates to the Rondo Forest in the Lindi Landscape. This has only modest resources for management and staffing.</li> </ul>
FR management	District Councils (mainland)	<ul style="list-style-type: none"> <li>The District Councils manage the Forest Reserves in the mainland landscapes. They issue licences for harvesting in these reserves and collect the revenue. Some reserves are closed for harvesting officially. Much illegal logging also goes on and the reserves are weakly managed as there is practically no budget or staffing.</li> </ul>
FR, NP, NR management	DCCFF (Zanzibar)	<ul style="list-style-type: none"> <li>DCCFF manages the protected area network of Zanzibar. It has limited funds and capacity for this task.</li> </ul>
VLFR management	Village Governments (mainland)	<ul style="list-style-type: none"> <li>Aside for where projects (e.g WWF and the Mpingo Conservation Project) have established VLFR, they are not being developed.</li> </ul>
Land alienation	Commercial companies	<ul style="list-style-type: none"> <li>Operations such as Bioshape are purchasing land in the coastal regions of Kilwa and converting woodland and some forest habitat to monoculture. Similar activities are planned by other companies.</li> </ul>

Land alienation	Reserves	<ul style="list-style-type: none"> <li>• Some of the reserves owned and managed by the central government have alienated land from the local people. This mainly relates to the stricter protection areas, such as the Selous and the Sadaani National Park.</li> </ul>
Agricultural Support	Extension offices	<ul style="list-style-type: none"> <li>• District Agriculture offices have extremely limited staff and financial resources. This severely constrains their work to assist with agricultural improvement in the focal Districts.</li> </ul>
Credit	Banks and Microloans	<ul style="list-style-type: none"> <li>• Aside from a few microcredit schemes established by NGO projects (e.g. CARE in Zanzibar) access to credit by local communities is extremely constrained. In some Districts there may also be some credit available via the World Bank TASAB project, or through the PFM interventions. But these are all small.</li> </ul>
Logging	Various	<ul style="list-style-type: none"> <li>• In the period 2000-2003 logging was out of control in this region, for export to the Far East. Although better regulated and controlled, it is believed the significant illegal logging activity still takes place. In addition, there is also a significant amount of legal logging.</li> </ul>
Biodiversity Conservation	Various	<ul style="list-style-type: none"> <li>• The NGO projects operating in the area provide some funds for biodiversity (forest) conservation in the Matumbi Hills, Kilwa and Zanzibar landscapes. However, aside from these funds there is no funding available from government for biodiversity conservation.</li> </ul>

### **Baseline for Outcome 1 – Mainland Tanzania and FBD Institutional Capacity**

6. *Management and governance.* Currently, there is no officer or section within the Forestry and Beekeeping Division that is dedicated to the conservation of the Coastal Forests, although there are such sections for mangroves, mountain catchment forests and plantations. The Coastal Forests are not a priority for investment by mainland Districts, and are rather seen as a source of income.
7. *Management of existing PAs and establishment of new ones:* Under the baseline scenario there would be very little active management of the Coastal Forest sites. The only activities that would be coordinated by FBD and Districts, using their own funds, would be to control logging and to try and prevent illegality as far as possible. There would also be no establishment of new protected areas, no assessment of existing sites against IUCN protected area categories, and only limited development of Village Land Forest Reserves through the efforts of NGO projects (TFCG, WWF and MCP). Work to certify timber trade through the FSC mechanisms would continue with the assistance of MCP and WWF. Work to expand the management of reserves under Participatory Forest Management mechanisms would also continue.
8. *At the landscape level,* all three areas have been the subject of a variety of project inputs over the past decade. This has assisted in some cases with improving the protected area coverage and management effectiveness. In other landscapes the advances made during project support, may not have been sustained as projects have ended. This needs to be assessed as a part of the baseline of the new proposed project. Most of the project inputs on mainland Tanzania have involved elements of Participatory Forest Management and the establishment of Village Land Forest Reserves. These approaches have been encouraged by the Forest Policy of 1998 and the Forest Act of 2002. Fully embedding these approaches within the work of the District Forest Officers has proven more challenging and most efforts have been externally funded by projects. Solving the capacity and funding issues at District level remains a fundamental problem to scale up PFM as a forest management approach in these landscapes, or more broadly within Tanzania.

### **Baseline for Outcome 2 – Zanzibar and DCCFF Institutional Capacity**

9. On Zanzibar the DCCFF gives a higher priority to Coastal Forest conservation than the mainland. The DCCFF has received some support via projects such as the GEF funding Jozani Chwaka Bay project, but this has always been small. Government allocations to conservation are also small.
10. *Management of existing PAs and establishment of new ones:* Under the baseline scenario there would be very little active management of the Coastal Forest sites, except the few (such as Jozani Chwaka Bay) that generate their own funding.

### **Baseline for Outcome 3 - Matumbi and Kichi Hills Landscape**

11. *Conservation.* The landscape has benefited from FBD-WWF involvement for the past 15 years, and which is continuing. A Forest Management Plan was developed for the Matumbi Hills section of the landscape, Community Conservation Committees were established in several villages, and Village Forest Reserves were established (some partially gazetted Village Land Forest Reserves need to be finalized). Between 2001 and 2003 an IUCN-supported project also worked in the area, through the Rufiji District, and gathered significant data on the region and mapped the distribution of forest and forest harvesting activities.
12. *Management and Governance.* The protected forests in the landscape are a mixture of national forest reserves, local authority forest reserves and village forest reserves. In theory the national forest reserves should receive support from the central government while the local authority and village forests are managed from the District Forest Office of Rufiji and Kilwa Districts. In practice, neither the central nor the local government can provide significant funding for management and the DFO is effectively responsible for management. There is pressure from the District to generate revenue from the forests and licenses have been issued for logging for export from many parts of the landscape. Logging is also taking place in the national, local authority and village forest reserves and a large proportion of this is illegal. This activity reached its peak in 2003, but still continues today.
13. *Rural Livelihoods.* As with other parts of rural Tanzania, people are mainly poor subsistence farmers practicing shifting cultivation. This activity is augmented by logging and some charcoal production. Participatory forest management systems have been established with WWF project support, and these are providing a mechanism for communities to gain better control of their forest lands, but further work is needed to strengthen them. There is also a need to further improve local financing systems for micro or rural credit to farmers. These issues will be captured during the monitoring process.

### **Baseline for Outcome 3 - Kilwa Landscape**

14. *Conservation* Parts of the Kilwa landscape receive support from WWF under the Eastern Selous project and the Coastal Forest Project. A key issue is dealing with compensation claims from loggers whose licenses were cancelled before they had expired. The Mpingo Conservation Project has been supporting several villages developed Village Land Forest Areas through the PFM process, and has recently been awarded the first certificate by the Forest Stewardship Council (FSC) for community-managed natural forest in Africa. Several unprotected forest areas in Kilwa need to be gazetted and protected as soon as possible as new investment and development initiatives pose a new threat to the forests of this region.
15. *Management and Governance* The District Forest Officer in Kilwa has no dedicated vehicle although he can get fuel money. Only three forest officers are employed and although a fourth position is open but they have not been able fill it. The district forestry department is also struggling to support communities interested to engage in participatory forest management due to limited resources. Many reserves do not show any evidence of beacons or boundary clearance and there are no management plans.

16. *Rural Livelihoods* Although quantitative data on the rural livelihoods for these landscape areas are not available, the rural population is believed comparable to many other parts of rural Tanzania. This means that most people are poor subsistence farmers with few income generating opportunities.

### **Baseline for Outcome 3 - Rondo/Litipo/Noto/Chitoa (Lindi Landscape)**

17. *Conservation.* The Rondo Forest Reserve is managed by the Rondo Forest Project of FBD; and is better funded than other reserves in the area, primarily to support the plantation management. Conservation projects managed by the Wildlife Conservation Society of Tanzania (WCST) were undertaken in the past on the Rondo Plateau and surrounding areas. Chitoa boundaries marked by WCST project in period of 1995-1999 using IUCN Netherlands funding, and the Rondo forest boundary was marked using funding from WWF-Tanzania to WCST in 1997. These projects also covered the conservation of some other forests in the area; using WWF funds (Ngarama North, Pindirola) and using IUCN funds (Ngarama South, Litipo, Nyangamara, Kitope and Tong'omba). They also worked on tree planting, wildlife conservation clubs, environmental education, village natural resource committees, beekeeping groups, and to gazette the forest Nyangamara. The WCST project phased out in 1999. From 2000 to 2003 some work in the same forests was supported by the Danish International Development Agency (DANIDA) through its UTUMI project, which undertook biodiversity surveys, socio-economic surveys, and worked to develop Participatory Forest Management Plans for a sample of 4 forests. The UTUMI project was phased out at the end of 2003. No project support is available at the present time.
18. *Management and Governance.* The Forests of this landscape are mainly within national Forest Reserves owned and managed by the Tanzanian Government. Rondo Forest is a national forest reserve with a special project – the Rondo Forest Plantation - providing the bulk of the management input to that area. However, both the central government project in Rondo and the District Forest Officers facilities and operational budgets for managing these forests are tiny. Some efforts to introduce Participatory Forest Management (PFM) have been made through the work of the UTUMI project funded by DANIDA, but this work was mainly undertaken in forest reserves of lower biodiversity value not covered by this proposal. The Lindi District has been experiencing significant logging over the past 2 years, and it is not known whether this has abated since the ban on round wood logging in July 2004.
19. *Rural Livelihoods.* Although quantitative data on the rural livelihoods for these landscape areas are not available, the rural population is believed comparable to many other parts of rural Tanzania. This means that most people are poor subsistence farmers with few income generating opportunities.

### **Protected Areas System - Zanzibar Landscape**

20. *Conservation.* For some years the DCCFF has worked in and around Jozani to conserve and maintain the biodiversity value of the forest. In 1995 CARE Tanzania supported conservation work around Jozani by incorporating income sharing activities with forest-adjacent villages forest into the conservation effort of DCCFF. UNDP-GEF supported DCCFF in the development of the Jozani National Park and to develop tourism. The Jozani – Chwaka Bay National Park was gazetted in 2004 and UNDP-GEF and the CARE Tanzania support to the area has ended. Around Ngezi-Vumawimbi on Pemba CARE is supporting alternative income generating activities and limited conservation efforts. Fauna and Flora International is also supporting the conservation of Pemba Flying Fox. External support to the protected area network of Zanzibar remains very limited.
21. *Management and Governance.* The protected area network of Zanzibar is in the process of being established. In the past the forest conservation and networking had support from the Finnish International Development Agency (FINNIDA), but this was withdrawn due to political issues in the late 1990s. The

Natural Resource Sectors have been re-organised and the Department of Fisheries and Marine Product and that of Forestry are separate departments with the same but different responsibilities in marine and terrestrial resource base. The National Protected Areas Board provides a meeting ground for joint conservation efforts.

22. *Rural Livelihoods.* In common with other parts of Tanzania most rural people are poor subsistence farmers. However, successful income generating schemes have been operated around the Jozani forest by DCCFF and CARE Tanzania over a number of years. These schemes have included tourism development, micro-credit schemes. Income from Tourism in 2002 was around USD 100,000 USD, of which USD 6,000 USD was distributed to communities. This approach has made a significant impact on the local economy around the new Jozani National Park. Resource Use Management Agreements (RULA) have been negotiated between the neighbouring villages and between villages and DCCFF. These management agreements are part of the forest management framework which need to be monitored under this project.

## **5.2 Alternative**

23. Under the GEF-led alternative scenario, Tanzania and Zanzibar Coastal Forest biodiversity will benefit from a concentrated effort to extend conservation to areas which are currently unprotected in a reconfigured Coastal Forest protected area network, designed to protect biodiversity while optimizing its ecological service function – under effective and sustainable adaptive management.
24. Under the GEF alternative there would be greatly enhanced efforts to generate a comprehensive network of Coastal Forest protected areas. This would be done on both the Tanzanian mainland and the Zanzibar island. A series of new protected areas would also be gazetted on the mainland of Tanzania, primarily in the Kilwa and Lindi Districts and probably mainly at the level of Village Land Forest Reserves. The GEF alternative will also explore ways to make the Coastal Forest protected area network more financially stable, and to generate sustainable sources of funding, such as from forest carbon. And to put in place sustainable forest management systems such as Participatory Forest Management around the reserves and, especially, in the village lands. The involvement of the local communities is also expected to assist the better control over the exploitation of timber and other forest resources from the area, as is being piloted by the Mpingo Conservation Project. Finally, the GEF alternative would also develop landscape level plans together with the Districts and would seek to have these embedded within the District Development Plans in Rufiji, Kilwa and Lindi Districts.

### **Summary of Costs**

312. The total cost of the project, including co-funding and GEF funds, amounts to USD 10,572,166. Of this total, co-funding, in cash and in kind, constitutes 66% or USD 7,022,166. GEF financing comprises the remaining 33% of the total, or USD 3,550,000. The incremental cost matrix in the Project Document provides a summary breakdown of baseline costs and co-funded and GEF-funded alternative costs

## **5.3 Co-Financing**

313. Government resources are meagre for the conservation of these globally important forest areas. Without GEF resources and the leveraged co-financing, the mainland sites will most likely continue to degrade. Moreover, the opportunities to create village forest reserves will not last forever as the remaining unprotected forest habitats are being converted to farmlands with little biodiversity value. In addition, without GEF support, the new PA Board on Zanzibar will not be able to establish its network of protected areas to cover Coastal Forest sites. These opportunities will not last for long and when the habitats are gone they cannot be recreated.

314. Total Government co-financing for this project is estimated to be from two sources. The first set of funding is from the Forestry and Beekeeping Division. Although FBD does not manage the reserves within the coastal regions directly as they have been devolved to District levels, they have responsibility for controlling the management of the resource. After the logging boom of 2003, FBD has been committing significant resources to patrolling and managing the exploitation of harvesting in these areas, especially Rufiji District.
315. Although detailed financial data are not available, the cost of these activities has been running at well over USD 100,000 per annum. The second set of funding is from the District Councils to manage the reserves. The Districts have very modest budgets and natural resources are not a high priority for funding allocation, despite being one of the sources of income for the District. Detailed budget data are not available for the coastal Districts, but comparison with Districts in the Eastern Arc Mountains suggests that the operational budget of the Natural Resources Departments of most Districts (excluding donor funding) ranges from nothing to around USD 5,000 per annum. Salaries and some field allowances are additional to this.
316. In addition to GEF funding WWF will contribute substantial counterpart financing in the form of executive management and administration, office and transport facilities, and deployment of technical specialists for training and mentoring of FBD and DCCFF/NPAB field staff, local authorities and community leaders.

**Total NGO co-financing is USD 2,947,500**

317. *WWF Network.* The major source of co-financing will be the WWF network, which has already endorsed the Eastern Africa Coastal Forest Programme that includes the proposed project activities, as first priority items. WWF-UK will provide USD 360,000, WWF-Finland USD 347,500, WWF Sweden USD 800,000 and WWF Denmark at least USD 40,000.
318. Mpingo Conservation Project, working in Coastal Forest areas in Kilwa District is expected to provide co-financing of USD 400,000 over the project life span.
319. Tanzania Forest Conservation Group, will provide co-financing in the region of USD 400,000 over the project life span.
320. CARE will provide an anticipated co-financing of USD 600,000 over the project lifespan.
321. IUCN will also be providing significant co-funding over the project life span to a quantity to be determined.

**Total Government of Tanzania co-financing is USD 3,674,666**

322. *Government of Tanzania.* The government of Tanzania supports this project and the time and resources of the various District offices on the mainland and the national protected areas board of Zanzibar will provide co-financing to this project. Their contribution is estimated as USD 3,674,666 over the lifespan of this project, all of which shall be provided in kind, of which USD 1,732,750 will come from DCCFF and USD 1,280,000 will come for the FBD. From the districts, Rufiji District Council is expected to contribute USD 204,000, Kilwa District Council USD 240,000 and Lindi District Council USD 217,918, all in kind and over the period of the project lifespan.

**Total United Nations Development Programme co-financing is USD 400,000**

323. *United Nations.* UNDP supports this project. Their contribution is estimated as USD 400,000 over the lifespan of this project, provided annually in cash.



## PART VII: Project Logical Framework

<b>Project Strategy</b>	<b>Objectively Verifiable Indicators</b>
<b>Project Goal:</b>	<i>The Coastal Forest Biodiversity and Ecosystem Values are Conserved and Provide Sustainable Benefit Flows at Local, National and Global Levels.</i>

Project Purpose	Indicator	Baseline	Target by EOP	Sources of verification	Assumptions
<b>Objective:</b>  The spatial coverage and management effectiveness of the Coastal Forest PA sub system is expanded and strengthened.	1. Increase in extent (ha) of PA network that includes Coastal Forests, and a network with increased legal protection and management of biodiversity values, including Forest Nature Reserves.	16,000 ha is under effective management of which none is Forest Nature Reserve (FNR)	12, 000 as FNR	Ministry and Departmental Reports, and Project Docs. Project documents, Landscape plans, maps and GIS files, MTE and Terminal Evaluation (TE) National Reports to CBD	The Ministry of Natural Resources (Mainland Tz) and the Ministry Agriculture (Z) both continue to support and invest in conservation for Coastal Forest biodiversity.
	2. Increase in area under landscape conservation, with functional corridors and buffer-zones, managed under detailed landscape conservation plans	Nil	1,277 million ha		Government and local partners remain committed to collaboration on PA management.

Project Purpose	Indicator	Baseline	Target by EOP	Sources of verification	Assumptions
<b>(GEF 3.55 mill USD)</b>	3. Business plans show improved Financial Scorecard for national system of CF protected areas and target landscapes (Rufiji, Kilwa, Lindi, and Zanzibar).	See Financial Scorecard Annex	By EOP, an increase of over 40% in finance score card scores	Financial scorecard	Business planning with emphasis on carbon and biodiversity values leads to greater financial capabilities
	4. METT scores for PAs and PA landscapes show improvement in targeted landscapes	The average METT score for PAs is stated (see tracking tools)	By EOP an all over increase of 20% in the METT score	METT by evaluators	
<b>Outcome 1:</b> Strengthened Enabling Environment is functioning for conservation of Coastal Forests in mainland Tanzania, leading to increased funding, staffing and oversight	1. Central Government Forestry Agency has dedicated Coastal Forest section, which enters into MOUs with Districts for oversight of Coastal Forests and co-management of Forest Reserves.	No Section; No MOUs	Section in place with >2 staff, and at least 6 MOUs with Districts signed.	Annual Government and partner PA Status reports	FBD and TFS agree to provide stronger oversight and support through creating a discrete Coastal Forest Office

Project Purpose	Indicator	Baseline	Target by EOP	Sources of verification	Assumptions
(GEF 1.322 mill USD)	2. Increase in staffing levels and funding levels for CF in all four landscapes. Better articulated PA financing needs lead to improved local government budgetary subvention for PAs in 6 districts	Average staff per District on mainland is <5. Funding < 10,000\$ pa	Average staff increased to >10 in 6 districts. Funding exceeds 30,000\$ pa in each of 6 districts		
	3. Significant % increase in competence levels of protected area institutions for PA including co-management partners; using UNDP-GEF PA Scorecard.	Average is provided		UNDP PA Scorecard	Local communities, private sector, civil society and other government agencies are willing to participate in PA policy and decision making structures, and implementation of proposed reforms
	4. Number of reports produced synthesizing the Annual Status of the PA network (using the “State-Pressure-Response models”).	Nil	4 by EOP (annual reports for each of the 4 years that the project will run)	METT Annual Report Annual PA Status Reports	
	5. No of VLFR – District Forestry collaborations on Management Plans, improved logging and on certification processes.	Nil	4 By EOP (annual reports from the project)	Annual reports	

Project Purpose	Indicator	Baseline	Target by EOP	Sources of verification	Assumptions
<b>Outcome 2</b>	1 The Protected Area Authority is reconstituted, with viable TOR and meets frequently,	Defunct, has not met in over two years	Reconstituted PAA, with updated ToR, and meets twice annually	Government Reports	Political will in Zanzibar allows the Protected Areas Board to be strengthened and for DCCF to increase focus on conservation through a functional Conservation Section / Department.  That Government planning allows optimal use of Retention Fund for conservation
The Protected Area System for Zanzibar is strengthened in terms of both representativeness, connectivity, financing and managerial capacity.	2 DCCF has a conservation Section in place that is staffed and functional	No distinct section	Section with sufficient staff and resources to implement mandate		
	3The Terrestrial PA network increases in area and connectivity	PAs totalling 14,205 ha	System increased by at least 3 gazetted PAs (at least 5,000 ha), with improved connectivity between existing sites		
	4 Village partners and CBOs / NGOs involved in , and benefitting from, forest conservation through VLFRs, with technical support from Government	Community Forest Areas in 12 sites	Community Forest Areas provide buffer functions around ALL Forest PAs		
	5 Protected Areas with management plans approved and under implementation leading to improved METT scores	Two forest PAs with plans; but limited implementation. METT averages 36	All seven PAs with management plans under implementation METT > 20%increase		

Project Purpose	Indicator	Baseline	Target by EOP	Sources of verification	Assumptions
(GEF 0.964 mill USD)	6. Significant % increase in competence levels of protected area institutions for PA including co-management partners; using UNDP-GEF PA Scorecard.	Average is provided		UNDP PA Scorecard	Local communities, private sector, civil society and other government agencies are willing to participate in PA policy and decision making structures, and implementation of proposed reforms
	7. Number of reports produced synthesizing the Annual Status of the PA network (using the “State-Pressure-Response models”).	Nil	4 by EOP (annual reports for each of the 4 years that the project will run)	METT Annual Report Annual PA Status Reports	
	8. No of VLFR – Government Forestry collaborations on Management Plans, improved logging and on certification processes.	Nil	4 By EOP (annual reports from the project)	Annual reports	
<b>Outcome 3:</b> Effective PA Management Systems in place at four project priority landscapes, with co-management between central, local and village government partners,	1. Number of Landscapes with broad conservation plans in place, approved and implemented.	Nil	All target Project Areas (and – at EOP An additional 10,000 ha of village Forest reserves established within the Kilwa and Lindi landscapes		The business environment allows private sector companies make profit and thus be able to contribute towards PA co-management.  VNRCs are able to realize tangible benefits that motivate them to

Project Purpose	Indicator	Baseline	Target by EOP	Sources of verification	Assumptions
leading to improved conservation of biodiversity values and enhanced benefits for communities.  (GEF 0.926 mill USD)	2. Number of protected areas with up-to-date and approved management and business plans	Nil	All FRs, and FNRs plus VFRs. (total area 303,242.2 ha)		continue being involved in forest conservation
	3. Village governments involved in, and benefitting from, CF conservation through creation of VLFRS where they control exploitation and use. VLFRs will be placed strategically as buffers and corridors, and will also help prevent land alienation for biofuels in key biodiversity sites.	Nil (apart from stand alone VLFRS)	At least 15 villages participate actively in Forest conservation process (>5 per landscape)	Site Reports, District Reports	
	4. Management effectiveness of PAs improved as a result of co-management, using GEF METT Score Card	Average is provided	Average improved by 20%	METT scorecard	
<b>MANAGEMENT COSTS 9% GEF 0.327 mill \$)</b>	See at end for details				

## Output – Activity Detail to Achieve Outcomes

Output	Indicative Activities (by the National Project Team)
<p><b>Outcome 1. Strengthened Enabling Environment is functioning for conservation of Coastal Forests in mainland Tanzania, leading to increased funding, staffing and oversight.</b></p>	
<p>Output 1.1 Capacity built in Forest and Beekeeping Division (and probable successor agency - Tanzania Forest Service) to lead and oversee a Tanzania Coastal Forest Conservation Programme</p>	<p>1.1.1 Coastal Forest Conservation “Unit ‘created in FBD, with mandate and TOR</p>
	<p>1.1.2 Staff appointed into CFCU, including international advisor</p>
	<p>1.1.3 Infrastructure procurement for CFCU</p>
	<p>1.1.4 Partnerships in place between CFCU and Districts and NGO partners</p>
	<p>1.1.5 Awareness and advocacy materials to develop Coastal Forest Network</p>
	<p>1.1.6 Support to biodiversity components within new TFS</p>
<p>Output 1.2 Coastal Forest Reserves within target landscapes are assessed as to priority for conservation on biodiversity and threat criteria, and conservation strategy developed</p>	<p>1.2.1 Draft ToRs and supervise a consultancy to undertake protected area gap analysis undertaken to identify location of potential new reserves and corridors in the coastal region</p>
	<p>1.2.2 Draft ToRs and supervise consultancy to undertake PA-valuations (on which to base proposals to increase public-budget allocations, and include a costing of PA co-management as opposed to traditional top-down, with correlation to management effectiveness and plans to meet the shortfall.</p>
	<p>1.2.3 Development of a framework for forecasting potential income and revenue generated within areas of forest reserved zoned for sustainable use</p>
	<p>1.2.4 Draft ToRs and supervise consultancy to undertake and assessment of options to maximize PA management effectiveness in current &amp; projected funding levels</p>

<b>Output</b>	<b>Indicative Activities (by the National Project Team)</b>
	<p>1.2.5 Work to establish new Forest Reserves in the most important areas for biodiversity</p> <p>1.2.6 Identify advocacy targets and implement an information management systems to inform decision makers (central and local government, CBOs, private sector, donor agencies, NGOs) on PA benefits and costs</p>
<p>Output 1.3 Conservation Strategy includes Business Plan for Coastal Forests showing overall financing needs and potential revenue sources</p>	<p>1.3.1 Draft a framework to use by FBD staff in PA business planning (at site and national level)</p> <p>1.3.2 Draft document summarizing other PA revenue mechanisms for application over mid to long-term, and required operation frameworks for cost efficient and optimized conservation benefits from available funds and expected revenue developed.</p> <p>1.3.3 Review feasibility of different PA management models for landscape systems including core Nature Reserves and secondary FRS, Village LFRS.</p>
<p>Output 1.4 MOU developed with Coastal Forest Districts over joint responsibilities in conservation of Coastal Forests.</p>	<p>1.4.1 Develop MoU from CFCU with Districts over combined management of key reserves</p> <p>1.4.2 Ensure contents of MOU are also captured in District Development Plans</p> <p>1.4.3 Contribute towards assessment and implementation of Institutional reforms for sharing forest conservation responsibilities &amp; resources at co-managed PAs (including PFM Regulations)</p> <p>1.4.4 Assess long term Tourism prospects and steps needed to promote tourism (with MACEMP)</p> <p>1.4.5 Coordinate drafting of Tourism handbook (to promote Coastal Forest tourism).</p>
<p>Output 1.5 Carbon plan developed for Coastal Forest Landscapes, addressing both REDD and CDM sources.</p>	<p>1.5.1 Coordinate with ONE UN REDD and Tanzania REDD strategy over Coastal Forest carbon issues</p>



Output	Indicative Activities (by the National Project Team)
	1.5.2 Together with other funded REDD programmes, undertake baseline assessments of carbon stocks and degradation of PAs and VLFRs
	1.5.3 With partners design a pilot initiative to test, monitor and adapt REDD (financed with REDD readiness funds administered in parallel to the project) to test REDD + (capture carbon in reserves while addressing biodiversity management)
Output 1.6 Training and staffing needs assessment at all levels of conservation practice directs capacity building interventions	1.6.1 Assessment of capacity needs at district /landscape levels (staff, infrastructure, training skills)
	1.6.2 An assessment to identify training needs.
	1.6.3 Best practice identified in terms staffing mix of government community inputs)
Output 1.7 In service training courses developed and implemented at all levels within both forestry and associated sectors and within NGOs, CSO and Government	1.7.1 Identify suitable trainers, organize and support short courses for FBD and District Forest Staff and partners from NGOs CBOs (e.g. developing management and business plans for PAs, PA valuation, negotiation and conflict resolution skills, cost effective management)
	1.7.2 Implement the targeted short courses on developing management and business plans for PAs, etc)
Output 1.8 Built capacity evaluated and monitored, identifying weak points for further intervention.	1.8.1 Continuous feedback from landscapes identifies best practices and remaining capacity gaps
	1.8.2 Gaps in training (and other capacity needs) identified and filled.
<b>Outcome 2: The Protected Area System for Zanzibar is strengthened in terms of both representativeness, connectivity, financing and managerial capacity.</b>	
Output 2.1 Government of Zanzibar with a functional and sustainable institutional structure for terrestrial Protected Areas at Board level and	2.1.1 Present institutional structures for conservation of biodiversity reviewed as to functionality.

<b>Output</b>	<b>Indicative Activities (by the National Project Team)</b>
Conservation Section within Forest Department	2.1.2 Protected Area Board reconstituted with capacity to provide oversight and leadership
	2.1.3 DCCF with a functional Conservation Section that manages the Protected Areas
	2.1.4 Conservation Section with partnerships in place to tourism, community and district sectors
	2.1.5 Economic analysis of Protected Area system completed showing options for sustainability
	2.1.6 Tourism development plan harmonized with conservation planning
	2.1.7 Conservation Section with a Business Plan in place incorporating economic factors
	2.1.8 Conservation Section with staffing and staff training plans in place.
	2.1.9 Technical expertise supports PA economic / business plan functions in DCCF
	2.1.10 Capacity enhanced within Conservation Section – training and infrastructure
	2.1.11 GIS unit within (linked to) DCCF with capacity for forest planning
	Output 2.2 Terrestrial Protected Area Network expanded to include key gaps in coral rag and thicket communities of high biodiversity, with buffer and connectivity forests
2.2.2 Protected Area System plan for both Unguja and Pemba completed and approved	
2.2.3 Landscape planning for major PAs identifies key areas for extension and upgrading	
2.2.4 New protected areas gazetted and boundaries demarcated	

<b>Output</b>	<b>Indicative Activities (by the National Project Team)</b>
Output 2.3: Key forest Protected Areas are consolidated, and their management status improved	2.3.1 Key Protected Areas reviewed in terms of boundary and management functions
	2.3.2 Management plans completed for all major PAs, and management under implementation.
	2.3.3 Key indicators of success of plan implementation assessed from adequate baselines
	2.3.4 Funding processes agreed at landscape levels (timber royalties, tourism levies and retention funds)
Output 2.4 Community Forest Management Areas provide sustainable buffering and connectivity support, whilst contributing to household security	2.4.1 Assess / evaluate community forest activities to date, learning best practice and problem areas
	2.4.2 Integrate community issues into overall PA system planning at government and at landscape level
	2.4.3 Amend community forest regulations as necessary
	2.4.4 Strengthen community CBOs such as JECA
	2.4.5 Develop new community forests, with training and capacity support
	2.4.6 Integrate such community forests into landscape planning processes
Output 2.5 Training and staffing needs assessment at all levels of conservation practice directs capacity building interventions	2.5.1 Assessment of capacity needs at district /landscape levels (staff, infrastructure, training skills)
	2.5.2 An assessment to identify training needs.
	2.5.3 Best practice identified in terms staffing mix of government community inputs)

Output	Indicative Activities (by the National Project Team)
Output 2.6 In service training courses developed and implemented at all levels within both forestry and associated sectors and within NGOs, CSO and Government	2.6.1 Identify suitable trainers, organize and support short courses for FBD and District Forest Staff and partners from NGOs CBOs (e.g. developing management and business plans for PAs, PA valuation, negotiation and conflict resolution skills, cost effective management)
	2.6.2 Implement the targeted short courses on developing management and business plans for PAs, etc)
Output 2.7 Built capacity evaluated and monitored, identifying weak points for further intervention.	2.7.1 Continuous feedback from landscapes identifies best practices and remaining capacity gaps
	2.7.2 Gaps in training (and other capacity needs) identified and filled.
<b>Outcome 3: Effective PA Management Systems in place at three project priority landscapes, with co-management between central, local and village government partners, leading to improved conservation of biodiversity values.</b>	
Output 3.1 Landscapes (Rufiji, Kilwa, Rondo – Lindi) are agreed, described and assessed as to issues of connectivity, gaps and buffer functions	3.1.1 Landscape concept and models outlined and agreed (e.g. from WCPA guidelines etc)
	3.1.2 Landscapes assessed as to effectiveness and coverage
	3.1.3 Landscape stakeholders identified and facilitated to participate
	3.1.4 Gaps in Landscape spatial coverage and in thematic input (e.g. credit, agro-forestry) identified
Output 3.2 Gaps in landscape plan filled by strategic development of Local AREA FRS and VLFRs	3.2.1 GIS planning unit in FBD DSM with capacity to provide planning materials
	3.2.2 Field work identifies key areas on ground
	3.2.3 Advocacy with partners to include key areas for connectivity and buffer functions
	3.2.4 Gazettement and boundary demarcation processes completed for new VLFR, or corridor / buffer zones

<b>Output</b>	<b>Indicative Activities (by the National Project Team)</b>
Output 3.3 Landscape Conservation Plan developed and agreed with local district and national partners	3.3.1 Landscape plan(s) developed and approved with partners
	3.3.2 Partnership protocols completed allowing joint working modalities at the landscape scale
	3.3.3 Cooperation with CARE or TFCG leads to credit activities in key villages around forest project sites.
	3.3.4 Work with Mpingo Conservation Programme, Mama Msitu and District Forestry leads to sustainable logging in buffer VLFRs
Output 3.4 Conservation plans under implementation with key indicator baselines completed and new area METT scores completed	3.4.1 Baseline assessments completed (biodiversity, threat analysis and community participation/ benefits)
	3.4.2 METT scores completed at new sites.
	3.3.3 Landscape plans implemented with partners, seeking sustainable financing (e.g. carbon, PES, timber)
	3.3.4 Monitor and record offtake levels, income and revenue earned from reserves, using the revenue forecasting framework.
<b><i>Project Management: Ensures effective project administration, M&amp;E, and coordination have enabled timely and efficient implementation of project activities.</i></b>	
Effective project administration, M&E, and coordination have enabled timely and efficient implementation of project activities.	4.1.1 Ensure all requisite facilities and communication channels for effective project management are in place.
	4.1.2 Produce annual work plans for the timely achievement of project objectives.
	4.1.3 Develop and implement a detailed project Monitoring and Evaluation (M&E) Plan, basing on the shortened version articulated in this Prodoc.
	4.1.4 Produce quarterly and annual technical and financial reports for GEF and GoT institutions.

<b>Output</b>	<b>Indicative Activities (by the National Project Team)</b>
	4.1.5 Liaise with UNDP CO, and UNDP - GEF to organize mid and end-of project reviews and evaluations
	4.1.6 Develop and implement a communication strategy for the project
	4.1.7 Develop knowledge management systems, capture project lessons, package for appropriate audience (especially policy makers) and disseminate accordingly
	4.1.8 Use existing Networks – e.g. WWF Coastal Forests, BirdLife/WCST, MCP, CEPF and Village PFM processes to share information & develop knowledge exchange facilities (universities), so as to disseminate project lessons else-where in Tanzania and to other African countries.

## PART VIII: Project Total Budget

- Total project financing amounts to USD 10,572,166, excluding preparatory costs. Of this, the GEF will finance USD 3,550,000. See details on Total Budget and Workplan below.

### Total Budget and Workplan

<b>Award ID:</b>	<b>00058855</b>									
<b>Award Title:</b>	<b>PIMS 2760 Extending the Coastal Forest Protected Area Subsystem in Tanzania</b>									
<b>Project ID:</b>	<b>00073328</b>									
<b>Project Title:</b>	<b>PIMS 2760 Extending the Coastal Forest Protected Area Subsystem in Tanzania</b>									
<b>Executing Agency:</b>	<b>Forestry and Beekeeping Division of the Ministry of Natural Resources and Tourism (MNRT)</b>									
<b>GEF Outcome/Atlas Activity</b>	<b>ResParty (IA)</b>	<b>SoF</b>	<b>Atlas Budget Account Code</b>	<b>Input</b>	<b>Amount (USD) Year 1 (2009)</b>	<b>Amount (USD) Year 2 (2010)</b>	<b>Amount (USD) Year 3 (2011)</b>	<b>Amount (USD) Year 4 (2012)</b>	<b>Total (USD)</b>	<b>Budget Notes</b>
<b>OUTCOME 1:</b>		GEF	71200	International Consultants	75,000	75,000	75,000	0	225,000	<b>1</b>
		GEF	71300	Local Consultants	139,500	206,000	157,000	127,000	629,500	<b>2</b>
		GEF	72100	Contractual Services - Companies	40,000	80,000	80,000	55,000	255,000	<b>3</b>
		GEF	71600	Travel	5,000	5,000	5,000	5,000	20,000	<b>4</b>
		GEF	72200	Equipment and furniture	47,000	25,000	0	0	72,000	<b>5</b>
		GEF	72800	IT equipment	2,500	0	0	0	2,500	<b>6</b>
		GEF	74200	Audiovisual and printing production	2,000	2,000	2,000	2,000	8,000	<b>7</b>
		GEF	72100	Contractual services	10,000	15,000	5,000	10,000	40,000	<b>8</b>
		GEF	74500	Miscellaneous Expenses	5,000	35,000	5,000	35,000	80,000	<b>9</b>
					<b>Total Outcome 1</b>	<b>326,000</b>	<b>443,000</b>	<b>329,000</b>	<b>234,000</b>	<b>1,332,000</b>
<b>OUTCOME 2:</b>		GEF	71200	International Consultants	25,000	25,000	25,000		75,000	<b>10</b>

		GEF	71300	Local Consultants	120,000	115,000	85,000	85,000	405,000	<b>11</b>
		GEF	72100	Contractual services	50,000	90,000	90,000	50,000	280,000	<b>12</b>
		GEF	72800	IT equipment	7,500	10,000	0	0	17,500	<b>13</b>
		GEF	71600	Travel	5,000	5,000	5,000	5,000	20,000	<b>14</b>
		GEF	72100	Contractual services	10,000	15,000	5,000	10,000	40,000	<b>15</b>
		GEF	72200	Equipment and furniture	37,000	50,000	20,000	20,000	127,000	<b>16</b>
<b>OUTCOME 3:</b>				<b>Total Outcome 2</b>	<b>254,500</b>	<b>310,000</b>	<b>230,000</b>	<b>170,000</b>	<b>964,500</b>	
		GEF	72100	Contractual services	175,500	218,500	218,500	181,500	794,000	<b>17</b>
		GEF	71600	Travel	15,000	15,000	15,000	15,000	60,000	<b>18</b>
		GEF	72200	Equipment & Furniture	35,000	5,000	5,000	5,000	50,000	<b>19</b>
		GEF	72800	IT equipment	2,500	0	0	0	2,500	<b>20</b>
		GEF	74500	Miscellaneous Expenses	5,000	5,000	5,000	5,000	20,000	<b>21</b>
<b>Project Management</b>				<b>Total Outcome 3</b>	<b>233,000</b>	<b>243,500</b>	<b>243,500</b>	<b>206,500</b>	<b>926,500</b>	
		GEF	71300	Local Consultants	55,000	56,000	57,000	57,000	225,000	<b>22</b>
		GEF	71600	Travel	10,000	10,000	10,000	10,000	40,000	<b>23</b>
		GEF	72200	Equipment and furniture	10,000	10,000	10,000	10,000	40,000	<b>24</b>
		GEF	72800	IT equipment	5,000				5,000	<b>25</b>
		GEF	74500	Audit costs	4,000	4,000	4,000	5,000	17,000	<b>26</b>
				<b>SUBTOTAL</b>	<b>84,000</b>	<b>80,000</b>	<b>81,000</b>	<b>82,000</b>	<b>327,000</b>	
				<b>TOTAL (GEF)</b>	<b>897,500</b>	<b>1,076,500</b>	<b>883,500</b>	<b>692,500</b>	<b>3,550,000</b>	



## Financing summary including co-financing

Responsible Party/ Implementing Agent	Amount 2009(USD)	Amount 2010(USD)	Amount 2011(USD)	Amount 2012 (USD)	Total (USD)
FBD (In kind)	320,000	320,000	320,000	320,000	1,280,000
DCCFF (In kind)	433,000	433,000	433,000	433,750	1,732,750
Rufiji District council (in kind)	51,000	51,000	51,000	51,000	204,000
Kilwa District council (in kind)	60,000	60,000	60,000	60,000	240,000
Lindi district council (in kind)	54,000	54,000	54,000	55,916	217,916
TFCG	100,000	100,000	100,000	100,000	400,000
CARE	150,000	150,000	150,000	150,000	600,000
Mpingo Conservation Project	100,000	100,000	100,000	100,000	400,000
WWF UK	120,000	120,000	120,000		360,000
WWF Finland	347,500		0	0	347,500
WWF Denmark	40,000	0	0	0	40,000
WWF Sweden	200,000	200,000	200,000	200,000	800,000
GEF	897,500	1,076,500	883,500	692,500	3,550,000
UNDP	100,000	100,000	100,000	100,000	400,000
<b>TOTAL</b>	<b>2,973,000</b>	<b>2,764,500</b>	<b>2,571,500</b>	<b>2,263,166</b>	<b>10,572,166</b>

## Budget Notes

### General Cost Factors:

International TA and the National Project Coordinator are budgeted according to the existing UNDP GEF 'Eastern Arc Mountains' project in Tanzania. The short term consultant costs are based on UNDP cost scales, and the experience of other UNDP GEF projects in Tanzania.

### **Outcome 1:**

1. **International technical assistance** (cost of USD 225,000 over three years, according to rates provided by UNDP Tanzania).

*Tasks are specified in the Terms of Reference for International TA*

2. **Local consultants outputs** USD 629,500 is budgeted to support local consultancy input to the work of FBD on mainland Tanzania, who will lead this outcome of the projects work. Some of the envisaged local consultancies are as follows:

- *Establish of baseline and endline surveys to assess the conservation impact of the project (primarily METT forms for all sites in the relevant landscapes .*
- *Establishment of dedicated Coastal Forest unit (NPC- with TA support, equipment in project management unit below) (Output 1.1)*
- *Development of a Coastal Forests Protected Area network ( with TA support) (Output 1.2)*
  - Retainer landscape planning consultant (USD 25,100),*
  - protected area gap analyses (USD 43,200),*
  - establishment of Nature Reserves*
  - production of landscape management plans (USD 328,000)*
  - METT and Financial Score cards (USD 40,000),*
  - Biodiversity monitoring (USD 44,800),*
- *Business plan for FBD (41,600 with TA support), (Output 1.3)*
- *Development of MOU with Districts to continue work after project ends (with TA support) (Output 1.4)*
- *Harmonization with District Development Plans (Output 1.4)*
- *Valuation and sustainable financing, including REDD (USD 107,200, with TA support) (Output 1.5)*

3. **Contractual services companies** USD 255,000 has been budgeted for contractual services to implement the field conservation elements of the projects work. This entails two elements of work:

- *Education and awareness on the Coastal Forests (TFCG, USD 75,000) (Output 1.2)*
- *Work to define and protect corridors between reserves (USD 120,000) (Output 1.2)*

4. **Travel:** USD 20,000 has been budgeted to support the travel, per diems and transport costs to support the delivery of the work of Outcome 1. This has been developed based on the costs of other similar projects, for example the GEF Eastern Arc Project.

5. **Equipment and furniture:** USD 72,000 has been budgeted for office equipment for FBD to establish the Coastal Forests conservation unit within that agency in Dar es Salaam. This is broken down as follows:

- *Office equipment (USD 20,000) (Output 1.1),*
  - *Vehicle (USD 22,000) (Output 1.1),*
  - *Motorbike (USD 5,000) (Output 1.1).*
6. **IT equipment.** USD 2,500 has been budgeted to purchase 2 computers and a printer for the Coastal Forest Conservation Unit of FBD (Output 1.1.)
7. **Audiovisual and printing production:** USD 8,000 has been budgeted for costs of printing materials to promote the work of the project (Output 1.1.)
8. **Contractual Services** USD 40,000 has been budgeted for assistance to government to provide the following:
- *Training needs assessment (USD 10,000) (Output 1.6)*
  - *In service training programme (USD 20,000) (Output 1.7)*
  - *Monitoring impact of training programme (USD 10,000) (Output 1.8)*
9. **Miscellaneous** USD 80,000 has been budgeted to support the hosting of Project Management Committee meetings (USD 20,000), which will be organized by the NPC on behalf of FBD and the project (Output 1.1), and to pay for the costs of a mid-term (USD 30,000) and final (USD 30,000) evaluation.

#### **Outcome 2:**

10. **International technical assistance** A sum of USD 75,000 has been set aside to provide targeted international assistance over three years, according to rates provided by UNDP Tanzania). This will in particular include assistance to cover the costs of establishing revenue forecasting and generation systems.
11. **Local consultancy outputs** (USD 405,000 is budgeted for this set of activities, which will be run by the DCCFF on Zanzibar). These funds will be used to support the following:
- *Management capacity of Zanzibar protected area authority enhanced (local consultants are required to:*
    - i. *Develop a business plan (USD 41,600, with TA support) (Output 2.1)*
    - ii. *Complete an economic analysis of the PA system on Zanzibar (USD 57,000, with TA support) (Output 2.1)*
    - iii. *Build capacity of protected area authority (USD 41,600 with TA support) (Output 2.1)*
  - *Additional Coastal Forest protected areas gazetted on Zanzibar, with local consultants required to:*
    - i. *undertake protected area gap analysis (USD 41,600, with TA support) (Output 2.2)*
    - ii. *Identify and gazette new protected areas (USD 48,000) (Output 2.2)*
    - iii. *Develop management plans for existing areas (USD 72,000) (Output 2.3)*
  - *Community partnership arrangements around reserves; local consultants will:*
    - i. *Evaluate the existing community involvement schemes (USD 21,600) (Output 2.4)*
    - ii. *Build CBO capacity (USD 21,600) (Output 2.4)*
    - iii. *Assist DCCFF to improve and establish PFM around its protected areas (USD 60,000) (Output 2.4, Output 2.5)*
12. **Contractual Services** (USD 280,000 is budgeted to undertake the following activities to enhance the protected area network on Zanzibar:

- *Gazettment of proposed protected areas (USD 150,000 (Output 2.2))*
  - *Establishment of Village FRs (USD 120,000) (Output 2.2)*
13. **IT Equipment.** USD 17,500 has been budgeted to set up IT systems for the DCCFF on Zanzibar and for the various protected areas they manage. This includes USD 15,000 for GIS systems establishment (Output 2.1)
  14. **Travel:** USD 20,000 has been budgeted to allow DCCFF to travel to the various project sites to assess the work being undertaken on the ground (Output 2.3).
  15. **Contractual Services** USD 40,000 has been budgeted for assistance to government to provide the following:
    - *Training needs assessment (USD 10,000) (Output 2.5)*
    - *In service training programme (USD 20,000) (Output 2.6)*
    - *Monitoring impact of training programme (USD 10,000) (Output 2.7)*
  16. **Equipment and Furniture:** USD 127,000 has been budgeted to fully establish the offices of DCCFF and the protected area offices as functioning entities to manage the forests of Zanzibar (Output 2.1).

### Outcome 3:

17. **Contractual services** (USD 794,000 has been budgeted as a sub-contract to WWF Tanzania Programme Office to deliver the work proposed on the ground in Rufiji, Kilwa and Lindi Rural Districts). That work will entail the following to be done to deliver *Protected area system in Tanzanian Coastal Forests enhanced in 3 key landscapes, and Landscape management plans developed and agreed:*
  - *Employ 5 staff within WWF, 4 working in the field (USD 194,000) (Output 3.1),*
  - *Employ one awareness officer to work at the local level (TFCCG, USD 48,000) (Output 3.1),*
  - *Employ local labour to work on reserve gazettment and improved management activities (boundary marking, nursery establishment etc) (USD 70,000) (Output 3.1),*
  - *Community meetings (USD 40,000) (Output 3.1),*
  - *Study tours (USD 23,000) (Output 3.1),*
  - *Connectivity analysis (USD 25,000) (Output 3.1),*
  - *Baseline forest surveys (USD 25,000) (Output 3.1),*
  - *Village meetings and workshops (USD 40,000) (Output 3.2),*
  - *VFR gazettment (USD 240,000) (Output 3.2),*
  - *Landscape plan development (USD 38,000) (Output 3.3),*
  - *Landscape plan implementation (USD 60,000) (Output 3.4).*
18. **Travel:** USD 60,000 has been budgeted to support field work to deliver an improved protected area network and series of landscape plans for this southern part of Tanzania (Outputs 3.1-3.4)
19. **Equipment:** USD 50,000 has been budgeted for office running costs and field equipment to field work on protected areas and landscape management. This includes the cost of one vehicle (USD 22,000), Motorbikes (USD 5,000) and bicycles (USD 3,000); with USD 20,000 for local office running costs (paper, cartridges, phones and internet, etc). (Outputs 3.1-3.4)
20. **IT equipment:** USD 2,500 has been budgeted to purchase computers to support the field implementation teams for this part of the project (Output 3.1-3.4)

21. **Miscellaneous** USD 20,000 has been budgeted under this item to pay for the meetings of the Tanzanian Coastal Forest Task Force, and brings together NGO and Government to discuss and agree on the way forward with conserving these forest habitats in Tanzania (Outputs 3.1-3.4)

**Project Management:**

22. **Local consultants:** USD 225,000 has been budgeted to pay for two staff in the Project Management Unit; USD 180,000 is budgeted here to include the costs of a seconded government officer(s) to be the National Project Coordinator(s), and the costs of various local consultants to undertake key elements of the work). Consultant rates will be between \$100 and \$450 per day according to UNDP rules and the experience of the person(s) concerned. USD 45,000 is budgeted to include an office assistant / accountant. It is expected that these staff would be seconded to the project from FBD or DCCFF.
23. **Travel:** A total of USD 20,000 has been budgeted to allow staff of the PMO to coordinate the work of the different field sites.
24. **Office supplies and equipment:** A total of USD 10,000 per annum has been budgeted for running the PMO office. To make the PMO operational this will include stationery, communication materials, telephone and internet connectivity, office equipment as necessary, and maintenance costs for PMO transport.
25. **IT equipment:** A total of USD 5,000 has been budgeted to allow the staff of the PMO to purchase necessary computer and printer equipment (2 laptops, 2 printers, 1 photocopier, backup drives) to manage the project
26. **Miscellaneous:** A total of USD 17,000 has been budgeted to pay for the auditing of project expenditure.

**WORKPLAN.** This budget will be used as the basis for the preparation of Annual Work Plans by the Programme Coordination Unit.

**GUIDELINES FOR UNITED NATIONS LOCAL CONSULTANTS' RATES  
EFFECTIVE 1 SEPTEMBER 2006**

(In T.Shillings)

**Freelance Consultants**

UNDP-Equivalent	Level of education UNDP Equiv. Steps	Years of experience								
		0-5	4	5	6-10	7	8	>10	10	

NP-D	<i>Top Class Prof. Consultants</i>	298,245	347,272	364,059	397,633	414,421	447,995
NP-C	<i>Ph. D. Degree</i>	241,968	280,444	293,269	319,082	332,837	360,346
NP-B	<i>Master Degree</i>	179,677	207,426	216,901	236,150	245,775	265,024
NP-A	<i>First Degree</i>	133,726	154,621	161,586	175,515	182,480	196,410
G-5	<i>High School Education</i>	<b>61,782</b>	<b>71,023</b>	<b>74,103</b>	<b>80,263</b>	<b>83,343</b>	<b>89,755</b>

**Corporate/ Institutional Consultants**

UNDP-Equivalent	Level of education UNDP Equiv. Steps	Years of experience								
		0-5	4	5	6-10	7	8	>10	10	

NP-D	<i>Top Class Prof. Consultants</i>	372,807	434,090	455,074	497,042	518,026	559,994
NP-C	<i>Ph. D. Degree</i>	302,460	350,555	366,586	398,853	416,046	450,432
NP-B	<i>Master Degree</i>	224,597	259,282	271,126	295,188	307,218	331,279
NP-A	<i>First Degree</i>	167,157	193,276	201,982	219,394	228,101	245,513
G-5	<i>High School Education</i>	77,228	88,778	92,629	100,329	104,179	112,194

Based on the following:

1. The gross Salary Scale for National Officers effective 1 1-Apr-06
2. Freelance rate is equivalent to the NO Gross Salary + 25% and Corporate/Institutional rate is equivalent to Freelance rate + 25%
3. The consultancy fee is inclusive of secretarial and report production services;
4. Where the consultancy requires support staff, such as Research Assistants, the applicable rate for the Assistants will be based on the UN GS scale;
5. One month has 21.75 work/days (w.d);
6. The corporate rate will be applicable only to cases where the negotiations for the contract is with an institution and not with individual.
7. Note that we have not revised rates for G-5

# ANNEX I: Additional Information

## PART I: Other agreements

The Letters of Co-financing are attached as separate files.

## PART II: Terms of References for key project staff and main sub-contracts

The ToRs for key project staff and consultants are presented in Annex III of the CEO Endorsement Document

## PART III: Management Effectiveness Tracking Tools

(Attached as separate files)

# ANNEX II: Stakeholder Involvement Plan

## Introduction

The Stakeholder Involvement Plan specifies goals and objectives for stakeholder involvement, identifies key stakeholders and their interests relative to the project, and describes how stakeholders will be involved in the implementation of each project outcome.

## Goal and Objectives for Stakeholder Involvement

The *goal* for stakeholder involvement in the Project is: to ensure that all stakeholders who are affected by, have a role in, or are interested in project themes have the opportunity to be involved in and develop a sense of “ownership” of the project. The *objectives* of the Plan are threefold,

## Methods and Strategies for Stakeholder Involvement

The Project will involve stakeholders using three distinct but overlapping methods, as illustrated by the model presented in Figure 1. The Project incorporates three strategies for stakeholder involvement, as follows:

*Outcome 1, under the title of “Enabling Environment”.* Improving stakeholder involvement is considered so important that it was made a separate output, with specific activities. It is also implicit in *Outcome 4*.

*Involvement by Stakeholders in Activities under All Outcomes:* Multiple stakeholders will also have to be involved in each of the other outcomes for them to be successfully implemented. Many of the proposed project outputs require specific stakeholders to be aware, consulted and/or participate directly.

*Stakeholder Capacity Development:* The project incorporates measures to build the capacity of stakeholders to make project results more sustainable over the long run. This includes capacity development to plan and implement more effective awareness raising, as well as capacity for improved cooperation and collaboration between stakeholders.

## Stakeholder Identification

WWF will be the main body for the project development process and work in close cooperation with the respective governmental bodies on mainland Tanzania (FBD) and Zanzibar (DCCFF) who will be managing the project in association with the UNDP Country Office and through WWF. Stakeholders involved in the management process will also develop close operational and mutually supportive links with other government departments, academic institutions and NGOs.

## Criteria for identifying stakeholders

Various stakeholders are contributing positively or negatively to the conservation and sustainable management of the Tanzania Coastal Forests (CFs). Field lessons and experiences have shown that stake to the CF is influenced by various factors namely:

- Ownership based on legal or traditional norms

- Benefits obtained from the CF (Tangible and Intangible) and distribution of the benefits to the society
- Conservation of global biodiversity, climate change and scientific research
- Losses to general community due to destruction of CFs, taking into account upstream and downstream ecological linkages.

### **Coastal Forest Resource Ownership**

Ownership of land is a key factor influencing stakeholders' involvement in CFs. Initially the CFs were confined to Central Government Forest Reserves (CGFR) under the supervision of the Director of Forestry and Beekeeping (DFOB) and to Local Authority Forest Reserves (LAFR) under the supervision of District Councils. By end of 2007 Tanzania had 166 gazetted Forest Reserves with an area of 1,191,000 hectares (ha) within the Coastal forest zone of which 146 were CGFR (National forest reserves) and 20 were LAFR.<sup>59</sup> In addition, Zanzibar had two CGFR, namely Jozani and Ngezi under the supervision of the DCCFF<sup>60</sup>.

Besides the Director of Forestry and Beekeeping (DFOB) and Local Authorities, other stakeholders owning large areas of Coastal Forests legally include:

- The Wildlife Division which manages game reserves for example the Selous Game reserve with over 44,000 square km<sup>61</sup>.
- Tanzania National Parks Authority (TANAPA) that manages national parks for example the Saadani National Park that has over 30 km<sup>2</sup> of Coastal Forests<sup>62</sup>.
- The Mafia Island Marine Park which has an area of 82,200 ha of which 100 ha are classified as Coastal Forest.
- Village Governments and individual villagers. The Village Land Act No. 5 of 1999 and the Forest Act No. 14 of 2002 have provided legal rights for village governments and individuals to own forest land<sup>63</sup>.
- Various sector ministries have included in their sector policies and legal acts issues related to conservation of the environment, biodiversity and forests of which CFs are included for achievement of MKUKUTA, MKUZA and the Millennium Development Goals. These ministries listed are potential stakeholders to the development of CFs (defined in main Project Document).

### *Information dissemination, consultation, and similar activities that took place during the PPG*

During the project preparation stage, a stakeholder analysis was undertaken in order to:

- Identify key stakeholders;
- Review stakeholder interests and associated impacts on the project;
- Identify and develop opportunities for the project to benefit stakeholders.

Table 1 below describes the major stakeholders and their involvement in the project.

### **Table 1: Key Stakeholders and Roles and Responsibilities**

<sup>59</sup> Burgess, N.G. and Clarke P. 2008. Towards a Protected Area network in the Coastal Forests ecoregion of Tanzania: analysis and recommendations. WWF- Tanzania

<sup>60</sup> DCCFF 2007. Draft Report: Long Term Forest Management Plan. Department of Commercial Crops, Fruits and Forestry- Zanzibar.

<sup>61</sup> MNRT. 1998a. National Forest Policy. United Republic of Tanzania. Government Printers Dar es Salaam; MNRT. 1998b. The Wildlife Policy of Tanzania. United Republic of Tanzania. Government Printers Dar es Salaam.

<sup>62</sup> MNRT. 1998b. The Wildlife Policy of Tanzania. United Republic of Tanzania. Government Printers Dar es Salaam; MNRT.1998c The National Beekeeping Policy. United Republic of Tanzania. Government Printers Dar es Salaam.

<sup>63</sup> MNRT. 1997. National Fisheries Sector Policy and Strategy Statements United Republic of Tanzania. Government Printers Dar es Salaam.



Stakeholder Type	Roles and Responsibilities
Individual Households	Day to day monitoring of VLFRs, maintaining support to VNRCs, benefitting from harvests of forest products, taking personal responsibilities for forests.
Village Natural Resources Committees	Management and maintenance of VLFRs, monitoring of quotas, management of harvests, provision of forest product benefits to communities.
Village Councils	Overall management of VNRCs, accountability of CLFR management to wider rural communities, coordination with District Authorities and outsiders.
District Government	Collection of forest revenues from district managed forests, monitor forest health and harvest quotas, monitor extraction levels, provide licenses, support local communities in the development of VLFRs and their proper management.
Regional Secretariat	Coordinate between District and Central Government on policy and management issues, across sectors of government.
Forest Product Dealers (private sector)	Support development of markets and economic growth. Provide financial incentives for best management of forests, work with government and VNRC to support good practice in forest management and forest product extraction.
Community Based Organisations	Develop civil society capacity on a local level to support land rights, social development, economic growth and sustainable forest management.
National nongovernmental organisations	Develop civil society capacity on a national level to support land rights, social development, economic growth and sustainable forest management, support supply chains and forest management processes.
International nongovernmental organisations	Develop civil society capacity on a regional level to support land rights, social development, economic growth and sustainable forest management, support supply chains and forest management processes. International advocacy.
Government Departments	Manage the processes of forest management on a national level, implementing forest management policies, linkages with other government departments.
Government Ministries	Support forest management and economic growth through sound policy guidance and implementation, linkages and overlap with other ministries.

### Activities planned during implementation and evaluation

The stakeholder participation plan has been developed based on the principles outlined in Table 2 below.

**Table 2: Stakeholder participation principles**

Principle	Stakeholder participation will:
Value Adding	be an essential means of adding value to the project
Inclusivity	include all relevant stakeholders
Accessibility and Access	be accessible and promote access to the process
Transparency	be based on transparency and fair access to information; main provisions of the project's plans and results will be published in local mass-media
Fairness	ensure that all stakeholders are treated in a fair and unbiased way
Accountability	be based on a commitment to accountability by all stakeholders
Constructive	seek to manage conflict and promote the public interest

Principle	Stakeholder participation will:
Redressing	seek to redress inequity and injustice
Capacitating	seek to develop the capacity of all stakeholders
Needs Based	be based on the needs of all stakeholders
Flexible	be flexibly designed and implemented
Rational and Coordinated	be rationally planned and coordinated, and not be ad hoc
Excellence	be subject to ongoing reflection and improvement

### ***Long-term stakeholder participation***

The project will provide the following opportunities for long-term participation of all stakeholders, with a special emphasis on the active participation of local communities:

Decision-making – through the Steering Committee. The establishment of the structure will follow a participatory and transparent process involving the confirmation of all stakeholders; conducting one-to-one consultations with all stakeholders; development of Terms of Reference and ground-rules; inception meeting to agree on the constitution, ToR and ground-rules for the committees.

Capacity building – at systemic, institutional and individual level – is one of the key strategic interventions of the project and will target all stakeholders that have the potential to be involved in brokering, implementing and/or monitoring management agreements related to activities in and around the reserves. The project will target especially organizations operating at the community level to enable them to actively participate in developing and implementing management agreements.

Communication - will include the participatory development of an integrated communication strategy.

The communication strategy will be based on the following key principles:

- providing information to all stakeholders;
- promoting dialogue between all stakeholders;
- promoting access to information.

Finally, the project will be launched by a well-publicized multi-stakeholder inception workshop. This workshop will provide an opportunity to provide all stakeholders with updated information on the project as well as a basis for further consultation during the project's implementation, and will refine and confirm the work plan.

**SIGNATURE PAGE**  
**Country: Tanzania**

**UNDAF Outcome(s)/Indicator(s):**  
*(Link to UNDAF outcome, if no UNDAF, leave blank)*

**By 2010 democratic structures and systems of good governance and the application of human rights are strengthened**

(CP outcomes)

4. "Effective mechanisms in place, including social protection, that address institutional barriers and socio-cultural dimensions to promote and protect the rights of the poor and most vulnerable
8. "Strengthened national and local structures and systems of governance that foster the rule-of-law, promote gender equality, combat corruption and promote accountability and transparency.

**Expected Outcome(s)/Indicator (s):**

**Outcome 1:** Strengthened Enabling Environment is functioning for conservation of Coastal Forests in mainland Tanzania, leading to increased funding, staffing and oversight.

**Outcome 2:** The Protected Area System for Zanzibar is strengthened in terms of both representativeness, connectivity, financing and managerial capacity.

**Outcome 3:** Effective PA Management Systems in place at four project priority landscapes, with co-management between central, local and village government partners, leading to improved conservation of biodiversity values.

**Expected Output(s)/Indicator(s):**

**Output 1.1** Capacity built in Forestry and Beekeeping Division (and nascent successor agency - Tanzania Forest Service) to lead and oversee a Tanzania Coastal Forest Conservation Programme. This will entail providing relevant training, materials and office structure so that the Forestry and Beekeeping Division will be able to undertake more strategic management of the coastal forests habitat and attendant reserves.

**Output 1.2** Coastal Forest Reserves within target landscapes are assessed as to priority for conservation on biodiversity and threat criteria, and conservation strategy developed. This will entail collecting and compiling existing and new biodiversity and threat data for all reserves in the target landscapes for the project, and then developing a strategy for their better conservation, including landscape scale linkage and the development of suitable corridors. **Output 2.2** Terrestrial Protected Area Network expanded to include key gaps in coral rag and thicket communities of high biodiversity, with buffer and connectivity forests. **Output 2.3:** Key forest Protected Areas are consolidated and their management status improved. This will entail assessing the needs for management in the existing network of protected areas, and then working to improve management in the most effective way possible. Use of the Management Effectiveness Tracking Tool will ensure that there is a measure of the improved management of these sites. **Output 3.1** Landscapes (Rufiji, Kilwa, Rondo / Lindi) are agreed, described and assessed as to issues of connectivity, gaps and buffer functions. This will entail building on the existing mapping and data collection under the PPG in these landscapes, with the aim of fully defining the protected area network, connections and buffer zones. **Output 3.3** Landscape Conservation Plan developed and agreed with local district and national partners. This entails using the above mapping work at the landscape scale and working through a process of workshops to agree with District and National Government partners on the allocation of land within the landscape areas tackled by this project.

**Implementing partner: Ministry of Natural Resources and Tourism (MNRT)**

**Other Partners:** Forestry and Bee-keeping Division of the Ministry of Natural Resources and Tourism;  
Zanzibar: Department of Commercial Crops, Fruits and Forestry.

<p>Programme Period: 2010-2014</p> <p>Programme Component: <b>Biodiversity</b> Project Title: <b>Extending the Coastal Forest Protected Area Subsystem in Tanzania</b></p> <p>PIMS: 2760 Atlas proposal ID: <b>00058855</b> Atlas Project ID: <b>00073328</b> Project Duration: 4 years Management Arrangement: NEX</p>	<table> <tr> <td><b>Total budget:</b></td> <td style="text-align: right;"><b>US\$ 10,572,166</b></td> </tr> <tr> <td><b>GEF</b></td> <td style="text-align: right;">US\$ 3,550,000</td> </tr> <tr> <td><b>Government</b> (In Kind Contribution)</td> <td style="text-align: right;">US\$ 3,674,666</td> </tr> <tr> <td><b>UNDP</b></td> <td style="text-align: right;">US\$ 400,000</td> </tr> <tr> <td colspan="2"><b>• Other: NGO's</b></td> </tr> <tr> <td>TFCG</td> <td style="text-align: right;">400,000</td> </tr> <tr> <td>CARE</td> <td style="text-align: right;">600,000</td> </tr> <tr> <td>Mpingo Conservation Project</td> <td style="text-align: right;">400,000</td> </tr> <tr> <td>WWF UK</td> <td style="text-align: right;">360,000</td> </tr> <tr> <td>WWF Finland</td> <td style="text-align: right;">347,500</td> </tr> <tr> <td>WWF Denmark</td> <td style="text-align: right;">40,000</td> </tr> <tr> <td>WWF Sweden</td> <td style="text-align: right;">800,000</td> </tr> </table>	<b>Total budget:</b>	<b>US\$ 10,572,166</b>	<b>GEF</b>	US\$ 3,550,000	<b>Government</b> (In Kind Contribution)	US\$ 3,674,666	<b>UNDP</b>	US\$ 400,000	<b>• Other: NGO's</b>		TFCG	400,000	CARE	600,000	Mpingo Conservation Project	400,000	WWF UK	360,000	WWF Finland	347,500	WWF Denmark	40,000	WWF Sweden	800,000
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On Behalf of	Signature	Date	Name/Title
<b>Government of Tanzania:</b> Ministry of Natural Resources and Tourism, Tanzania			Permanent Secretary Ministry of Natural Resources and Tourism
<b>Government of Tanzania:</b> Ministry of Agriculture, Livestock and Environment, Zanzibar			Permanent Secretary Ministry of Agriculture, Livestock and Environment, Zanzibar
<b>UNDP</b>			<b>Alain Noudehou</b> UNDP Country Director Dar Es Salaam Tanzania