

OFFICE MEMORANDUM

DATE: September 27, 2001

TO: Ken King, Assistant CEO, GEF Secretariat
Attn: GEF Program Coordination

FROM: Lars Vidaeus, GEF Executive Coordinator



EXTENSION: 34188

SUBJECT: **Tanzania: Conservation and Management of the Eastern Arc Mountain Forests
Submission for Work Program Inclusion (Joint Submission with UNDP)**

1. Please find attached the above mentioned Project Brief for work program inclusion. We would appreciate receiving any comments by October 9, 2001.
2. The proposal is consistent with the Criteria for Review of GEF projects as presented in the following sections of the Project Brief:
 - (a) Country Driven. Page 5, para 18-22; Annex 3.
 - (b) Endorsement. (attached)
 - (c) Program Designation and Conformity. Page 17, para 66-70.
 - (d) Project Design. Pages 18-37.
 - (e) Sustainability. Page 38.
 - (f) Replicability. Page 39.
 - (g) Stakeholder involvement. Page 39 and Annex 7.
 - (h) Monitoring and Evaluation. Page 44.
 - (i) Financing Plan. Page 43.
 - (j) Cost-effectiveness. Page 43 ff.
 - (k) Core Commitments and Linkages. Page 41-43.
 - (l) Consultation, Coordination, and Collaboration between IAs, page 43.
 - (m) Response to Reviews. Page 45.

3. At the time of PDF B approval, it was agreed that the Project Brief would address specific issues consistent with the GEF Project Review Criteria. These requirements have been addressed in the following sections, and should be read in conjunction with comments from the review sheet.

Program and Policy Conformity

Portfolio balance

4. Inclusion of the UNDP Zanzibar forest project in the Eastern Arc proposal. The inclusion of the Zanzibar project into the Eastern Arc project was not considered a tenable option because of the differences in forest types, stakeholders, and expected outputs. The Zanzibar project (Conservation of Jozani-Chwaka Bay Forests) was approved by Council in March 2000 and is under implementation.

Program Conformity

5. Inclusion of watershed catchment protection in the Baseline. The value of Eastern Arc conservation for catchment protection is strongly acknowledged in the Project Brief and watershed catchment activities are included in the Baseline. In particular, the value of the Eastern Arc for domestic water supplies and as a source of water for Tanzania's hydroelectricity generating potential is described. Refs.: paras 13-15 for value to the national economy; para 45 to 47 for discussion about inclusion in Baseline; Annex 5 for Incremental Cost Analysis.

Sustainability

6. Community involvement and long term sustainability of the Conservation Endowment Fund. This perspective has been included in the design of the Endowment Fund. Community involvement features strongly in the implementation of all project components. [Refs: para 116-117 on community-consultation in the Endowment Fund; para 124(c) on participatory forest conservation; see also paras 144-145 and Annex 7.]

7. Impact and lessons learned of other donors. Description of donor support has been included in the section that describes the Baseline (para 53-54). The Brief reviews donor activity in the Arc, emphasizing the forest sector but including the agricultural sector and their linkages to water and energy (Annex 5). The review contains lessons on implementation showing the increased impact of longer term project support. (para 175-179; Annex 7).

Baseline

8. Inclusion of watershed catchment protection in the baseline. This has been incorporated into the Baseline (para 45-47; and Annex 5).

9. Root causes and threat analysis. These are fully described in the Project Brief (para 37 – 40). Specific threats at individual sites, and their biodiversity values, are reviewed in Annex 4.

Alternative project description

10. Activities to be funded by the Endowment Fund. The Project Brief fully describes the types of activities which are to be financed by the Endowment Fund, which are: applied biodiversity research, participatory forest conservation, and protected forest reserve management. (para 124, b-d).

11. Co-financing of the Endowment Fund. Indicative co-financing commitments for the Eastern Arc Mountains Conservation Endowment Fund total US\$ 3.15 million, against a planned GEF commitment of \$6.75 million (of which US\$ 5.5 million is accounted for by the Endowment itself).

12. The EAMCEF Board is keenly aware of the need to raise additional resources to complement GEF support, and is confident that secured GEF financing will be catalytic in enabling them to do so. In order to comply with the GEF Council's guidance, an additional \$2.5 million will have to be raised (above existing indicative co-financing commitments) to match the GEF contribution to the Endowment. The time frame for achieving these benchmarks is at the end of the Phase I.

13. In the case of the Mgahinga-Bwindi Conservation Trust Fund, co-financing provided resources for virtually all of the Fund's operations. Income from the original GEF capital endowment was untouched, and has grown considerably since the Fund was first established. All of these strategies will feature in the fund raising efforts which will be launched in Phase I of the Endowment Fund activity. Proposed match to be used to capitalize the fund.

14. Donors contributing to the match. Indicative co-financing comprises a pending request to the European Commission to finance start-up operations (jointly prepared by WCS and the EAMCEF Board), leveraged co-financing from the IDA Lower Kihansi Environmental Management Project (for Applied Biodiversity Research), and local partnerships with NGOs (WWF and WCS) and the private sector (Songas).

Conformity with GEF Public Involvement Policy

15. Integration of local groups during implementation. There was extensive stakeholder involvement and NGO participation in implementation of PDF/B activities, particularly with respect to preparation of the Uluguru Mountains component and of the framework for the Conservation Strategy component.

16. With respect to the Endowment Fund, (which has, itself, been legally constituted as an NGO) the Board is to include community representation as well as representatives from the private sector and the NGO community. Key NGO partners include Care Tanzania, WWF Tanzania, and the Wildlife Conservation Society.

17. CARE was contracted through Government to implement the UNDP-GEF funded activity of the PDF/B (both the Ulugurus and Strategy components). CARE interacted with and mobilized the participation of other NGOs.

18. With respect to the National Forest Program (and the related Forest Conservation and Management Project which is seen to be the principal financial delivery mechanism for the NFP), implementation oversight is the responsibility of the NFP Steering Committee.

19. The Forest Advisers Group includes representatives from a number of civil society organizations, as well as donors and other sectors, and welcomes *ad hoc* participation by other interested parties.

20. Rights of tenure and use are highlighted but not clarified. The Project Brief includes a summary of the important legal reforms which strengthen community rights of tenure and use over forested areas (para 24-27).

Appropriateness of GEF Financing

Incremental cost

21. Limited contribution of GOT despite potentially significant domestic benefits. Public expenditure constraints in the forest sector are described in the Project Brief. Public financing for forestry has increased 3-fold, in real terms, over the last 10 years.

22. Absorptive capacity may be limited. A phased approach to implementation has been adopted with respect to the establishment of the Conservation Endowment Fund. The project timeline is seen as six years, which allows for the evolution of newly created institutions at both the national level and at the community level

Coordination with other Institutions

23. Effectiveness of donor activities/lessons learned. Donor effectiveness is addressed in the section on the Baseline (para 53-54). The level of integration with donors is shown by the pattern of co-financing the overall activity. Tanzania's National Forest Program is the principal mechanism for coordinating inputs to the sector. Lessons learned are summarized in para 175-179, and are reviewed in Annex 7.

Responsiveness to Comments and Evaluations

24. Linkages to national programs and IDA role. Linkages to national priorities have been greatly strengthened by the agreement that the Forest Conservation and Management Project (into which GEF support has been fully blended) is to be the principal financial delivery mechanism for implementation of the National Forestry Program.

Further processing

25. Needs to address Baseline issues (catchment protection) more thoroughly. Baseline includes catchment protection.

26. Plan for sustainable financing should identify activities to be funded. See para 10 to 14 of this memo.

27. Identify key underlying causes driving biodiversity loss per site. These are fully described in the Project Brief (para 37 – 40). Specific threats at individual sites, and their biodiversity values, are reviewed in Annex 4. Having said this, it should be noted that highly heterogeneous conditions obtain around each forest block. The Arc, as well as individual forest areas within the Arc, is highly fragmented and spread across a large area, and the threats are very specific to individual blocks. This has made it difficult to be very specific about threats to individual forest blocks.

28. Logging in natural forests. The project is subject to the World Bank's Environmental Safeguards. As such, neither the project as a whole, nor the GEF component, will finance commercial logging in natural forests.

29. Phased approach. The Endowment Fund activity will be implemented in a phased approach, with clear benchmarks and performance indicators.

Distribution:

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PROJECT BRIEF

1. IDENTIFIERS

PROJECT NUMBER:	P058706/P057234 (World Bank); PIMS 446 (UNDP)
PROJECT NAME:	Tanzania: Conservation and Management of the Eastern Arc Mountain Forests
PROJECT DURATION:	6 Years
IMPLEMENTING AGENCIES :	United Nations Development Program (UNDP) and the World Bank (WB)
EXECUTING AGENCY:	Ministry of Natural Resources and Tourism (MNRT)
REQUESTING COUNTRY:	Tanzania
ELIGIBILITY:	Eligible under Para. 9(b) of GEF Instrument. CBD ratified 8/3/1996.
GEF FOCAL AREA:	Biodiversity
GEF PROGRAMMING FRAMEWORK:	Operational Programs 3 and 4

2. SUMMARY

The primary objective of GEF support is to bring about the long-term sustainable implementation and financing of forest biodiversity conservation and community-based conservation and sustainable development activities in Tanzania's Eastern Arc Mountain forests, which are a global biodiversity hot spot. GEF support responds to the increasing threats to the forests at a time when both local communities and more distant populations are increasingly dependent on them for their livelihoods as well as their water and energy potential. GEF support, which is integrated into the implementation of the Tanzania National Forest Program, will focus on protection of forests which are areas of exceptionally high biodiversity and species endemism. The approach toward GEF support is based on the outcomes of PDF/A and B processes, which identified needs, strategies, and target areas for GEF funded incremental action to preserve biodiversity. US\$ 12 million in GEF support has been fully blended into the proposed Forest Conservation and Management Project, a \$62.2 million initiative (which includes US\$ 32.1 million in IDA financing) to support and strengthen processes of institutional reform, to support community-based forest and woodland protection and management, to improve forest governance, and to more fully involve the private sector in the management of industrial plantations. The FCMP is the primary financial mechanism which has been mobilized for implementation of the National Forest Program.

GEF support will greatly expand existing efforts to protect these forests by: 1) developing and supporting the implementation of an integrated conservation strategy for the entire Eastern Arc Mountains; 2) implementing a site based government and community conservation partnership initiative in the Uluguru region; 3) furthering institutional reforms to strengthen forest biodiversity conservation in the Eastern Arc; and 4) establishing and operating the Eastern Arc Mountains Conservation Endowment Fund to provide long-term sustainable financing through a privately managed initiative for priority community based conservation activities, biodiversity research, and protected areas management.

These four outputs form an integrated package of strategies, initiatives, and actions intended to provide global benefits. The approaches which will be supported, and which will be key to successful implementation are oriented toward bringing about closer collaboration and cooperation between the central government and regional and district administrations as well as local communities; supporting biodiversity research better to understand the extent and value of globally significant assets, as well as their relationship to human populations also dependent upon them; and support for local community action in an effort to address poverty issues and involve communities in conservation efforts.

GEF support will complement, benefit from, and contribute to other ongoing and planned donor-financed activities in the Eastern Arc Mountains. Provisions will be made to ensure close collaboration and integration of the different activities underway and planned for the region.

3. COSTS AND FINANCING (MILLIONS US \$)

GEF PDF Financing		
PDF/A	\$23,000	
PDF/B	\$350,000	
<i>Total, GEF PDF financing</i>		<i>\$373,000</i>
Proposed GEF support¹		\$12,000,000
Government and bilateral co-financing (indicative)		
IDA (FCMP)	\$28,700,000	
IDA (LKEMP)	\$900,000	
UNDP	\$300,000	
Government of Tanzania	\$1,950,000	
Denmark	\$4,500,000	
EC	\$1,100,000	
Other	\$1,000,000	
<i>Sub-total, Indicative co-financing</i>		<i>\$38,450,000</i>
Total Costs		\$ 50,450,000

4. ASSOCIATED FINANCING (MILLION US \$)

GEF support is fully blended into the proposed US\$ 62.2. million Forest Conservation and Management Project. US\$ 11.75 million of the total is accounted for by associated financing, not directly related to forest biodiversity conservation, financed from IDA, Government, and other sources.

5. GEF OPERATIONAL FOCAL POINT ENDORSEMENTS

The Letter of Endorsement from the GEF Focal Point is attached as Annex 15 to the Project Brief.

6. IMPLEMENTING AGENCY CONTACTS

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CONSERVATION AND MANAGEMENT OF THE TANZANIAN EASTERN ARC MOUNTAIN FORESTS

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Acronyms and Abbreviations

CBO	Community Based Organization
CEPF	Critical Ecosystems Partnership Fund
CFP	Catchment Forest Project
CI	Conservation International
Danida	Danish International Development Assistance
DIDC	Department of International Development Cooperation of the Ministry of Foreign Affairs, Finland
DOF	Danish Ornithological Foundation
EAMCEF	Eastern Arc Mountains Conservation Endowment Fund
EC	European Commission
EUCAMP	East Usambara Conservation Area Management Project
FBD	Forestry and Beekeeping Division of the Ministry of Natural Resources and Tourism
FCMP	Forest Conservation and Management Project
GEF	Global Environment Facility
GOT	Government of Tanzania
ICR	Implementation Completion Report
IPG	Interagency Planning Group on Environmental Funds (Africa Working Group)
JFM	Joint Forest Management
LAC	Local Advisory Committee
LEAT	Lawyers Environmental Action Trust
LKEMP	Lower Kihansi Environmental Management Project
MNRT	Ministry of Natural Resources and Tourism
NFP	National Forest Program
NGO	Non-Governmental Organization
NORAD	Norwegian Agency for Development
PDF	Project Development Facility
OP	GEF Operational Program
PFM	Participatory Forest Management
PRSP	Poverty Reduction Strategy Paper
STAP	Science and Technical Advisory Panel of the GEF
TAFORI	Tanzania Forestry Research Institute
TANAPA	Tanzania National Parks Authority
UMADEP	Uluguru Mountain Agricultural Development Project
UNDP	United Nations Development Program
VFR	Village Forest Reserve
WB	World Bank
WCST	Wildlife Conservation Society of Tanzania
WWF	World Wide Fund for Nature

1. CONTEXT

ENVIRONMENTAL CONTEXT

1. Tanzania has abundant tree resources, and over a third of the country (between 30 and 40 million ha) is under forest and woodland cover. A relatively small percentage of the country, however (less than 2 percent), comprises closed tropical high forests, while the bulk is accounted for by open woodlands of the *miombo* type (dominated by *Brachystegia* species). About 40 percent of Tanzania's tropical high forest area is concentrated in a belt of geologically ancient crystalline mountain formations known as the Eastern Arc Mountains.

2. The Eastern Arc Mountains stretch from southeast Kenya through south central Tanzania and are situated between 3°20' and 8°45'S latitude and 35°37' and 38°48' E longitude (See Annex 1). They consist of the Taita Hills in Kenya², and the Pare, Usambara, Nguru, Nguu, Ukaguru, Rubeho, Uluguru, Mahenge, and Udzungwa Mountains in Tanzania (Table 1). The mountains range in altitude from 500m to 2,850m. Rainfall in some blocks is as high as 3000 mm per year, but falls as low as 600 mm in the western rain shadow. Formed 100 million years ago, the Eastern Arc forests represent one of the oldest and most stable terrestrial ecosystems on the continent. Their age, geologic origin, and proximity to the Indian Ocean are features which separate them from other highland regions in East Africa. These same features have also contributed to their very diverse and unique biota, which is quite distinct from the adjacent savannah and woodland habitats in East Africa.

Table 1: Eastern Arc Mountain Forests, by block

Mountain range	Region	Country
Taita Hills; Kasigau Hill	Taita-Taveta	Kenya
North Pare Mts	Kilimanjaro	Tanzania
South Pare Mts	Kilimanjaro	Tanzania
West Usambara Mts	Tanga	Tanzania
East Usambara Mts	Tanga	Tanzania
Nguu Mts	Tanga	Tanzania
Nguru Mts	Morogoro	Tanzania
Rubeho	Morogoro	Tanzania
Ukaguru Mts	Morogoro	Tanzania
Uluguru Mts	Morogoro	Tanzania
Udzungwa Mts	Iringa	Tanzania
Mahenge Mts	Morogoro	Tanzania

3. Currently, the total area of natural forest in the Tanzanian Eastern Arc Mountains is approximately 5,350 km². It has been estimated that this is around a third of what it was a century ago. The Udzungwa Mountains contain the greatest area of natural forest followed by the Nguru, Uluguru, Rubeho, and East Usambara Mountains. Nearly three-quarters of the remaining natural forest in the Eastern Arc is open (and sometimes degraded) forest – forest in which the canopy is not contiguous. The total area of closed forest – forest in which the canopy is generally intact and contiguous – in the Eastern Arc is slightly more than 1,451 km² or approximately 0.2 percent of the area of Tanzania. The Udzungwa and East and West Usambara Mountains contain the greatest areas of closed forest.

4. Over the last 2,000 years, the Eastern Arc has lost over three-quarters of its original forest cover, estimated at around 23,300 km². Much of this loss has occurred during the last 200 years due to a dramatic increase in human population and technological change. The Eastern Arc Mountain forests which have suffered the highest proportional losses of original forest cover are the Taita Hills, Ukaguru, Mahenge, and Nguru Mountains.

5. The Eastern Arc forests have the highest known number of plant and animal species of any region in Tanzania. Approximately 27 percent of the plant species, 63 percent of the linyphiid spider species, 43

percent of butterfly species, 33 percent of amphibian species, 37 percent of the reptile species, 37 percent of the bird species, and 34 percent of the mammal species found in Tanzania occur in these forests.

6. The Eastern Arc is also characterized by high concentrations of endemic species. The Eastern Arc forests are known as one of the most important sites in Africa for endemic birds, amphibians, reptiles, many groups of invertebrates, and plants. Indeed, the Eastern Arc contains one of the highest proportions of endemic species of any region worldwide.³ There are at least 16 endemic plant genera. Twenty of 21 African violet species (*Saintpaulia spp.*) are endemic to the Arc. Of the known species occurring within the Eastern Arc, approximately 23 percent of montane plant species, 82 percent of linyphiid spider species, 39 percent of the butterfly species, 63 percent of forest dependent amphibian species, 68 percent of forest dependent reptile species, 3 percent of the bird species, and 6 percent of the mammal species are endemic. Patterns of species diversity and endemism in the Eastern Arc have been the subject of extensive research. Research findings, and lessons from experience with conservation, are summarized in Table 2.

7. The incidence of endemism in the Eastern Arc forests has been enhanced by the fact that they are distributed across multiple 'island' blocks. In addition, most mountain blocks are comprised of a number of fragmented forest patches, which also differ in their species assemblages. These patches occur along

Table 2. Biodiversity, and the Conservation and Management of the Eastern Arc Forests

Compared to most forests in Eastern Africa, the biodiversity in some parts of the Eastern Arc Mountain Forests is relatively well documented, and there is a growing body of literature about – and experience with – the conservation and management of the Arc. Diversity and endemism is spread across most taxa, but less mobile species (amphibians, gastropods, millipedes etc) have been found to show much higher rates of endemism than more mobile species (such as birds and butterflies). Some of the key research findings in the Eastern Arc with respect to biodiversity and endemism are that:

- Biodiversity values are virtually all in *primary* forest – not in degraded scrub, grassland or agricultural communities. Most endemic taxa are forest dependent.
- Low altitude forest communities are very rich in endemics and species overall, but the extent of these communities is very limited. Most have been cleared for cultivation.
- Several species – including trees – have not been re-collected since the last century or the early 1900s, and can be considered as extinct. Forest loss statistics of over 50% since 1914 suggest some 10% of species are doomed to extinction. Forest loss continues.
- The three big blocks – Usambaras, Ulugurus and Udzungwas are much richer, across all taxa, than the smaller areas of the Pare, Nguru, Ukaguru and Mahenge mountains.
- While there is much biological information on species distribution there is little information on forest ecology – at both species and community levels, or on species status, impact of management and use regimes, regeneration assessments etc. The lack of a good understanding of community processes and a classification of forest communities hinders more detailed conservation assessment.

Studies of social issues, including socio-economic assessments of forest use and dependence etc, are much poorer. The process which led to the establishment of the Amani Nature Reserve, for example (in the East Usambaras), emphasized the great number of stakeholder interests in the forests and biodiversity of the Arc.

distinct altitudinal and moisture gradients. (The East Usambaras, for example, are comprised of 21 separate forest patches.) The median forest patch size across all of the Eastern Arc mountains is 10 km², while the mean forest patch size is 58.1 km². The Udzungwa and West Usambara Mountains contain the largest number of forest fragments. It is widely accepted that the global significance of the Eastern Arc warrants recognition as a World Heritage Site, and proposals to this effect are underway.

8. The Eastern Arc is also the habitat for the majority of the globally critically endangered and vulnerable mammal, bird, and tree species found in mainland Tanzania. Eighty-six percent of all mammal species and 90 percent of all bird species listed by IUCN (1996) as either critically endangered, endangered, or vulnerable in mainland Tanzania are found in the Eastern Arc forests. Furthermore, approximately 52 percent of the globally threatened tree species

occurring in Tanzania are found in the Eastern Arc Mountains.

9. As a result of the extensive threats facing the Eastern Arc forests (discussed in greater detail in Section 2 of this Project Brief) and their exceptionally high concentrations of endemic species, the Eastern Arc and the coastal forests of Tanzania and southern Kenya have been identified as one of the 25 most threatened ecosystems worldwide – one of the so-called ‘global biodiversity hot spots’ – recognized by Conservation International,⁴ and are included in WWF’s listing of 200 ecoregions of critical global importance. The Eastern Arc Mountains and coastal forests of Tanzania and Kenya have the highest ratio of endemic plant and vertebrate species per 100 km² of all 25 biodiversity hot spots.

SOCIO-ECONOMIC CONTEXT

Eastern Arc forests and the local economy

10. The Eastern Arc Mountains are scattered over an enormous area. Because of the higher rainfall and better soils which are found at higher elevations in Tanzania, there are naturally much higher human population densities in the vicinities of these forested areas. Perhaps as many as 4 million people live within 10 km of one of the Arc’s 11 main forest blocks. Between 40 and 50 percent of this population lives below the poverty line. At least 80 percent of the population living in the vicinity of the Eastern Arc Mountains derive their principal livelihoods from agriculture and livestock husbandry, and many are heavily dependent on forest products and environmental services. Because of differences in rainfall and altitude, there are widespread differences in farming systems, and while there is little evidence of significant food insecurity, farmers have consistently reported that yields have declined.

11. The Eastern Arc forests are extremely important for mitigating the impacts of rural poverty. Recent studies have shown that fully 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, and wild fruit and other foods (a point noted in Tanzania’s Poverty Reduction Strategy Paper). In addition, forests and woodlands are an important source of dry season grazing, reducing households’ exposure to environmental risk. Rural households generally use a wide variety of environmental resources from woodlands, and the sizable aggregate value of environmentally-derived income is made up of a fairly large number of smaller individual income sources. In other studies from the region, it has also been shown that there is a negative relationship between aggregate environmental income share and total household income, that the poor are more resource-dependent than the rich (though better off households are, in quantitative terms, the most significant users of environmental resources). There is considerable complexity in the factors which determine levels of resource use: different households use different resources for different reasons at different times. Still, the conclusions are inescapable: the rural poor are heavily dependent on resources derived from forests and woodlands, and deforestation and forest degradation poses a significant threat to rural livelihoods.

12. The Eastern Arc Mountain forests are inextricably linked to the social and economic fabric of the communities living adjacent to the forests. Stakeholder processes and studies (undertaken as part of the PDF/B-financed activity), have confirmed the importance of these forests to livelihoods and the linkages between effective forest management, conservation, and poverty reduction.⁵ These studies identified both the benefits associated with conservation (primarily related to water) and the costs associated with changing current practices. These costs include the potential loss of livelihood for residents engaged in timber felling, charcoal production, and agriculture (taking place within forest boundaries) and potential economic adversity for current users of those forest products – such as urban dwellers dependent on charcoal for fuel and poles for construction and women engaged in local brew making. Indeed discussions with community groups, foresters, and government officials during the PDF/B process demonstrated convincingly that virtually all livelihoods in the communities adjacent to these forests are dependent in

some way and to varying degrees on forest resources. These findings underscore the importance of developing accepted strategies which address socio-economic issues associated with developing and implementing biodiversity conservation initiatives in the Eastern Arc Mountains.

Eastern Arc forests and the national economy

13. While the biodiversity of the Eastern Arc Mountain forests is of extraordinary international significance and locally is of great value for mitigating the impacts of poverty, the value of these forests to the national economy, primarily through water and energy production, is of extreme national importance. The Eastern Arc forests cover several major catchments which collectively provide water for all of the nation's coastal communities (including Dar es Salaam with its population of 3 million). These mountain forests feed more than 22 rivers, including the Sigi, Ruvu, Ruaha, Kihansi, and Rufiji. The Uluguru catchment, for example, provides the main source of drinking water to both Morogoro town and Dar es Salaam. Hydroelectric energy production is similarly heavily dependent on maintaining the integrity of these forests. Nearly 70 percent of Tanzania's electricity is generated from sources derived from the Eastern Arc forests.⁶ Water from the Eastern Arc also supports river ecosystems, mangrove forests, coastal ecosystems and coral reefs.

14. Other environmental services captured by the macro-economy associated with the Eastern Arc forests impact positively on agricultural production and also result from timber harvesting (both through the legal and illegal felling of trees used in construction and to make furniture and charcoal). More recently a small ecotourism industry has developed. There are some indications of a growing trade in threatened species of insects and reptiles. Accordingly, there is a strong need for sustainable use of forest products for these purposes and activities such as tourism which maximize the non-destructive uses of forests.

15. The idea of collecting environmental rents, especially from the energy and water sectors, has been tabled in a general way a number of times. These proposals, however, are somewhat disconnected from an understanding of the tenuous – indeed, highly precarious – financial position of service delivery institutions such as the Tanzania Electricity Supply Company (TanESCO) and the Dar es Salaam Water and Sewerage Authority (DAWASA). While the capturing of environmental rents may seem to be a good idea in the abstract, the current public expenditure framework suggests that this would be unrealistic in the short term.

Rights of tenure and use

16. A multiplicity of tenure regimes determines rights of use and access to the forests of the Eastern Arc. While there is one National Park and one Nature Reserve in the Arc,⁷ many of the more significant forest blocks have been gazetted as either Central Government or Local Government Forest Reserves. Of these, some are categorized as "Protection Reserves", but this classification is a loose one with little practical or legal meaning. The larger forest reserves in Kilimanjaro, Tanga, and Morogoro Regions are under Central Government management as catchment forests, while other smaller blocks are under District Government management.

17. Some forests are on private land (primarily tea estates), and some of these have been covenanted for conservation purposes. A few (very few) forest areas are classified as Local Authority Forest Reserves. Some forests are found on Village Land, and a small number of these have been classified more formally as Village Forest Reserves (a new tenure regime which seeks to transfer control over forested areas to Villages). Much village forest land is being converted to agriculture. Uncertainty of tenure accentuates the conversion process. Extensive areas of non-forested land, both scrub and grassland (at higher levels and on steep slopes) or cultivated land, both village and commercial estate, surround the

fragmented blocks of remaining forest cover in the Eastern Arc. Cultivation is spreading through encroachment, and through the clearing and conversion of village land, including areas which are considered marginal for agriculture because of their steep slopes and shallow soils.

POLICY CONTEXT

18. Tanzania has the largest gross area under protected status of any country in sub-Saharan Africa (around 13.8 million ha under IUCN Management Categories 1 to 4). As a proportion of total land area, it has the second highest percentage under protected area status (14.6 percent, compared with Botswana's 18 percent) in sub-Saharan Africa.⁸

19. Tanzania's National Forest Policy (adopted in 1998) places a high priority on the conservation of forest biodiversity as well as community based initiatives. The Policy defines the overall goal for the forest sector as enhancing "*the contribution of the forest sector to the sustainable development of Tanzania, and the conservation and management of her natural resources for the benefit of present and future generations*". The Policy proposes the establishment of Nature Reserves, as a new type of protected area specifically to conserve forest biodiversity, and the integration of biodiversity conservation and sustainable utilization into forest reserve management (Table 3). The development of innovative

Table 3. Biodiversity Conservation and Forest Policy in Tanzania

Tanzania's Forest Policy states that:

- New forest reserves for biodiversity conservation will be established in areas of high biodiversity value. Forest reserves with protection objectives of national strategic importance may be declared as nature resources.
- Biodiversity conservation and management will be included in the management plans for all protection forests. Involvement of local communities and other stakeholders in conservation and management will be encouraged through joint management agreements.
- Biodiversity research and information dissemination will be strengthened in order to improve biodiversity conservation and management.
- Biodiversity conservation will be incorporated in the management regimes of natural production forests and plantations. Biodiversity conservation and management guidelines will be incorporated in the management plans. The replacement of natural forests by exotic plantations will be minimized.

Source: *National Forest Policy*, Ministry of Natural Resources and Tourism, March 1998.

Participatory Forest Management arrangements, also outlined in policy, are expected to help conserve areas of high biodiversity and to empower communities to derive sustainable benefits. The promotion of strategic and targeted research in conservation areas, coupled with stronger monitoring and evaluation and EIA processes will provide greater adaptive management capability.

20. Following adoption of the new Forest Policy, Government launched preparation of the National Forest Program (NFP), which was envisaged as a plan for implementation of the policy. The National Forest Program, which is currently in the final stages of Government approval, outlines a four-fold program of forest development in Tanzania: forest resources conservation and management (in which both biodiversity conservation and participatory forest management feature strongly); institutional and human resources

development; legal and regulatory development; and forest industries development. The NFP provides the framework for future public expenditure in the forestry sector, and outlines priorities for donor financing. Both the NFP and the National Forest Policy provide important guidance in establishing priorities which will be captured in the **Tanzania National Biodiversity Strategy and Action Plan**, which is under preparation (with NORAD support) which, in draft, places a high priority on the conservation of the Eastern Arc forests.

21. The principal financial delivery mechanism for the National Forest Program is the planned US\$ 62.2 million World Bank-financed Forest Conservation and Management Project (FCMP) into which

the proposed GEF financed alternative has been fully blended. Additional bilateral support for implementation of the NFP is in the process of being mobilized. The principal programmatic areas addressed in the NFP, and the scope of proposed IDA support for its implementation through the FCMP are summarized in Annex 3.

22. The importance of the National Forest Program in setting the framework for IDA, UNDP, and GEF assistance in the sector cannot be understated. Preparation of the National Forest Program is a significant milestone and represents Government's clear ownership of the forest conservation and development agenda in Tanzania. It provides the overall framework for public expenditure in the forestry sector, regardless of the source of funding. FCMP (including its GEF activities) is very clearly accepted as the principal financial delivery mechanism for the National Forest Program. Implementation oversight for FCMP is to be provided by the NFP Steering Committee, under the direction of the Forest and Beekeeping Division, and the donor community has strongly encouraged Government to carry out joint annual reviews of NFP implementation.

23. The new Forest Policy, and its implementing mechanisms, should be put into the context of wider efforts to support policy reform in Tanzania. Indeed, Government introduced several significant new policy initiatives in the 1990s. Those of relevance include policies for the environment, for energy, for lands, for water, for wildlife, and for tourism. The agricultural policy is currently under revision. Other cross cutting policies have been prepared which emphasize decentralization and the empowerment of people; and the strengthening of government programs to reduce poverty. Despite these good intentions, established linkages between sectoral policies are not strong. The National Forest Policy does spell out the clear need for collaboration with the agriculture, lands, water and energy sectors, and sets out various mechanisms to encourage collaboration. The nexus between forest, water, and energy sectors with respect to catchment functions of forests in the Eastern Arc needs considerable support.

LEGAL CONTEXT

24. The current legal context for forest conservation and management in Tanzania is defined by the outdated Forest Ordinance (Cap 389) of 1957. New legislation is in an advanced stage of preparation and is expected to provide a legal framework consistent with the priorities outlined in policy, and complementary to the recently adopted land legislation. The new legislation is expected to become the primary legal instrument in support of the protection of forest biodiversity conservation, and will establish the legal and regulatory framework to assist in its implementation. The establishment of national mechanisms to bring about the implementation of international conventions will be a priority.

25. Perhaps the most significant change expected in legislation is associated with the development of mechanisms which fully empower communities to conserve and manage forests. Unreserved forests – that is, forests and woodlands which are not formally gazetted as reserves – represent the greater proportion of the national forest estate (19 million ha, or 56 percent), and the bulk of these are found on village lands.⁹ The draft legislation proposes to formalize the concept proposed in policy which seeks to bring forests on village lands under the jurisdiction of local communities, and which establishes the concept of the Village Forest Reserve as the primary construct for doing so. A Village Forest Reserve is defined in policy as a forest which is owned and managed by a village. Consistent with the changes proposed in policy and legislation, Government has prepared clear guidelines about how Village Forest Reserves are to be established.¹⁰ Among other things, legislation incorporates a range of safeguards (including environmental assessment) to prevent further losses of critical forested areas, and a checklist which addresses safeguards issues is under development to assist in the establishment of VFRs in critical areas.

26. Preliminary experience with this model of local community control over forested areas has been encouraging. Despite the lack of a legal framework, it has been estimated that over 1,500 small reserved

areas have been established and are under local control, covering an area of over 350,000 ha. These reserves are being protected both for production, as well as for conservation.¹¹

27. It should be noted that, strictly speaking, ‘reservation’ of critical habitats is a land management regime rather than a tenure category. Reservation does not in law necessarily endow ownership upon the state, a fact made explicit in recent land legislation (the Land Act, 1999). Where once ‘Forest Reserve’ was taken to mean a property owned and managed by the Government for forestry, it now means that the state (and not even FBD) only holds fairly loose jurisdiction over the Reserve. Neither the ownership of the Reserve by the State, nor even its operational management, may be assumed. The most secure tenure regime is actually Village Land, over which tenure can be formally established by the community in perpetuity. All other land may be managed only under 99 year leases. The Village Land Act (1999) endows Village Councils with the designation of the manager of Village Land (rather than the owner) while ownership may be held by the village as a whole. In light of these nuances, the concept of the Village Forest Reserve takes on great significance in terms of how forests are to be conserved and managed in future.

28. A final note should be added about the importance of customary forest and land management constructs. The concept of the Village Forest Reserve in some respects derives from customary practices of local land reservation which are found in some areas of Tanzania, primarily for grazing, but also for beekeeping, fuelwood production, and for religious practices. Known as *ngitiri*, while generally quite small, in aggregate they constitute an important asset, and model for local forest conservation which is being strengthened and supported through policy and legal changes.

INSTITUTIONAL CONTEXT

29. At the national level, the capacity and scope for dealing explicitly with forest biodiversity conservation in Tanzania is seriously constrained. The Forest and Beekeeping Division (FBD) of the Ministry of Natural Resources and Tourism (MNRT) has traditionally focused on production and protection of forestry in reserved forest areas (though ‘protection’ has been taken to mean broad, catchment protection rather than habitat or biodiversity conservation *per se*.) Production has primarily been from industrial pine and cypress plantations, and from past intensive harvesting of hardwoods e.g. camphor from natural forests. While Central Government reserves are loosely FBD’s responsibility, under Tanzania’s decentralized system of government, most responsibility for forest conservation and management actually rests with respective District administrations. (The Eastern Arc extends across 12 Districts and 4 Regions.) FBD has functioned primarily as a regulatory and enforcement body, rather than as a service-delivery oriented institution.

30. More specifically, institutional factors which have constrained the effective conservation and management of Tanzania’s forest and woodland resources include¹²:

- Weak oversight for forest and woodland management, rooted in problems of accountability and supervision in the current institutional framework. As an outcome, forest exploitation has, in many instances, been subject to few controls or constraints, and has resulted in the illegal movement and settlement of people into reserved forests, and the unsustainable and illegal harvesting of wood for commercial purposes.
- An ineffective system of decentralized forest administration, which separates the need for enforcement and regulation from the needs of rural communities for forest and woodland products. One outcome of this is the limited emphasis on the role of forestry institutions in service delivery.
- Inadequate systems of revenue collection in a decentralized forestry administration. Revenue collection mechanisms, as well as the public expenditure framework within which these

mechanisms are defined, are inadequate for ensuring that revenues collected are actually used for forest management or are otherwise returned or shared with villages and communities with a stake in forest protection. Targets set for revenue collection are not clearly rationalized, and though it is estimated that less than 10 percent of revenues which are due from natural forests are actually collected, little thinking has focused on how and with what objective should revenues be collected. Low rates of revenue collection adversely affect recurrent funding of forestry activities, increase the potential for rent-seeking, and encourage rates of consumption which are not consistent with the economic costs of forest exploitation.

- Inadequate institutional mechanisms for forest biodiversity conservation specifically with the capacity to assess the need for, plan, coordinate, implement and monitor conservation activities.
- Widely disparate systems of tenure over forested lands with unclear opportunities for closer cooperation with villages to undertake these activities.
- Limited scope for publicly-financed forest biodiversity conservation and a heavy dependency on donor assistance to provide irregular support for the sector, in the absence of any immediate national or local benefits for doing so.
- Limited effectiveness of the public expenditure program in the forestry sector in meeting national forest policy objectives, and highly distorted financial and technical resource delivery from the donor community.

31. Even when institutional responsibilities for forest conservation and management have been reasonably well defined, there continue to be fiscal constraints to resource management in Tanzania. Although the forestry sector has attracted substantial donor investment, public expenditure for forest conservation and management has been extremely limited. Central Government allocations to FBD are currently around TSh 2.5 to 3 billion per year (around \$3.2 million, which largely accounts for its wage bill). This sum is intended to provide for the management of around 13 million ha (about US\$ 0.25 per ha). [Having said this, it is important to note the increases in public expenditure in the forestry sector over the last several years. In nominal terms, the budget for the Forestry and Beekeeping Division has increased from around TSh 600 million in 1994/95 to TSh 2.7 billion in 1999/2000.] FBD revenues are also generated from the sale of timber from Reserves (timber harvested from dry woodlands and industrial plantations, and not from tropical high forests). A revenue retention scheme established some years ago has meant that FBD has increased its access to these resources for the management of a greatly under-funded sector. The exploitation and sale of timber from conservation areas (including the Eastern Arc) has been abandoned as a matter of policy, and so the idea that timber royalties could be used to generate revenues for the management of conservation areas is infeasible. Long years of donor support have not created the mechanisms for ensuring that resources for conservation and management are available on a sustainable basis.

32. These weaknesses in the financial and institutional framework are widely acknowledged. In response, Government has proposed a major reform in the institutional framework which is expected to be launched shortly. The objective of the institutional reform is to transform Tanzania's forestry institutions from enforcement and regulatory agencies to service-delivery oriented organizations with clearly defined roles and tasks, and with a mandate for forest and woodland management.

33. Substantive institutional reforms are expected to reduce problems associated with the current institutional structure, building on the strengths inherent in decentralization while strengthening centralized structures which can provide important service delivery functions to districts requesting them. The new Forest Policy and the National Forest Program clearly articulate the problems posed by the current institutional structure, and pose a series of options for addressing these institutional constraints, including the creation of a service-oriented forest management agency, the more active involvement of the private sector in plantation management, and a better-defined basis for community-based forest and woodland conservation and management.

34. Institutional reforms are expected to focus, as well, on addressing the need for an institutional framework for forest biodiversity conservation and on improving the framework for planning and implementation of biodiversity conservation initiatives. Building this capacity must be done in conjunction with other proposed institutional reforms in the forestry sector and result in forestry sector institutions at the central, district and local levels.

35. In particular, Government expects also to invest heavily in developing and implementing service standards to support village-based forest and woodlands management and conservation by building upon some of the initiatives already underway in particular *ngitiri* (traditional grazing area) management, Joint Forest Management, the establishment of Village Forest Reserves, and through several pilot initiatives focusing specifically on community-based forest conservation in a selected priority area.

36. It is envisaged that institutional reforms are to be accompanied by improved financial management, particularly through revenue collection and monitoring, which focuses on the relationship between improved revenue collection and forest management. The basis for revenue collection is to be rationalized, and mechanisms for revenue sharing at the village level are to be defined and implemented. The question of capturing environmental rents to finance forest biodiversity conservation, while appealing in the abstract, is likely to be addressed only when other priorities have been addressed in terms of the performance and financial management of key service delivery institutions.

2. BASELINE ACTIVITIES

THE CURRENT SITUATION

37. The areas surrounding the Eastern Arc forests are amongst the most densely populated protected areas in Tanzania. The dispersed forest blocks are under a range of administration, conservation, and management regimes, human settlement patterns, and land-use practices. These factors contribute significantly to the complexity of threats and their root causes, which will diminish the biological diversity of the forests. In particular, the conservation of the Eastern Arc's biodiversity and catchment values has often come into conflict with a desire for shorter-term exploitation of the Arc's economic values (mainly land and timber). The PDF/B process sought to develop a fuller understanding of the threats to the ecosystem through a series of local and national consultations and field studies. The results of those studies are summarized here.

Anthropogenic threats to the Eastern Arc Forests

38. An analysis of the various anthropogenic threats to the Eastern Arc was carried out as part of the PDF/B process.¹³ Their impact has been observed from studies on the population dynamics of indicators species, soil and water quality, the distribution of land-use, and the status of particular habitats within and between ecosystems. The rate of forest cover loss provides a striking indication of the impact of these threats: historically, the Eastern Arc has been losing forest cover at a rate of between 7,000 and 8,000 ha per year.

39. There are six main anthropogenic threats to the Eastern Arc forests, namely a) commercial agriculture, b) subsistence agriculture, c) commercial timber extraction, d) domestic timber extraction, e) other household uses, and f) intentionally set fires.

- (a) **Commercial agriculture** . Highly diverse farming systems across the region where the Eastern Arc forests are found have favored the emergence of multiple commercial cropping strategies

with varying impacts on forest cover. The four primary cash crops in Tanzania are coffee, tobacco, tea, and cotton, but typically, these have not had a huge impact on high forest cover loss in the Arc. The main coffee producing areas of Tanzania are mostly in the Kilimanjaro and Kagera regions (away from the Eastern Arc), and tobacco and cotton are grown primarily in drier areas. Tea is grown in Iringa, Tanga, and Kagera, mostly in large estates, and poses a modestly greater threat. The most significant threat, however, comes from the cultivation of vegetables and cooking bananas for local markets, and, in some places, the cultivation of cardamom and other spices under the forest cover. The former requires outright forest clearance of cultivable areas, while the latter results in the clearance of the understory and cultivation for several years before soils are depleted. This type of commercial cultivation plays an extremely important role in rural livelihoods.

- (b) **Subsistence agriculture** . Subsistence farming systems are characterized by very low productivity (less than 1 ton per ha for maize, which is the main subsistence crop). This is in part due to the lack of better alternatives. Cultivation on steep slopes and slash and burn cultivation are common. Cropping practices are widely perceived to have led to a decline in already low yields, and to deforestation, and soil erosion. Agriculture continues to expand into forested areas.
- (c) **Commercial timber extraction** Large-scale timber extraction still occurs, albeit illegally because of a moratorium on the felling of high forests established in the early 1990s. Logging has been almost completely stopped in some areas (such as in the East Usambaras). However, there are few incentives – or the capacity – otherwise to reduce or even to monitor the rates of extraction. In practice, District Forest Officers (who are accountable to the local District Administration rather than to FBD) sometimes condone harvesting in high forests. Many Districts make their own decisions about logging, and some have even called for logging in their District forest management plans, irrespective of national policy. Strong action is, therefore, required at the national level to clearly delineate logging policies as they apply to the Eastern Arc forests, and enforcement mechanisms need to be implemented. Commercial extraction to meet charcoal and woodfuel market demands occurs, but is limited to those few areas of the Arc which are in the vicinity of larger urban centers (primarily Morogoro and Tanga).
- (d) **Domestic timber extraction** for household construction also poses a threat to the high forests, particularly in areas of recent settlement because of the need for building material. Most of this extraction is carried out by relatively low impact pitsawyers.
- (e) **Other household uses** pose less of a threat to the high forests of the Arc because they tend to have lower impacts – the collection of wild foods and fruits, the use of forests for beekeeping, and livestock grazing. These also play an extremely important role in mitigating the impacts of poverty.
- (f) **Intentionally set fires.** Poor land-uses practices contribute to a sixth feature of the forest and woodland landscape in Tanzania. The regular burning of fields and grasslands is a key feature especially of subsistence farming and for range management, and poses another risk to high forests in the Arc. Honeyhunters are also widely blamed for setting fires.

Root causes, underlying problems, and other threats to the Eastern Arc

- 40. Anthropogenic threats to the Eastern Arc are an outcome of a series of root causes, which include
 - (a) **Widespread poverty throughout the region covered by the Eastern Arc.** Poverty is overwhelmingly a rural problem. The incidence of poverty is around 60 percent in rural areas,

and just 39 percent in small urban areas (compared with 9 percent in Dar es Salaam).¹⁴ Poverty is exacerbated by population growth in the forested mountains, and population pressures are seen to be an underlying cause of biodiversity loss. Indicators of income inequality are poor, but it is widely accepted that heterogeneity in income levels within communities in some respects places greater pressures on forest resources.

- (b) **Extensive and inefficient land use practices** which stem from the lack of skills, market opportunities, access to financial inputs, and structural economic constraints as well as the lack of technical inputs which would be needed for improving agricultural land-uses;
- (c) **Lack of local environmental awareness** of the values imbued in the Eastern Arc ecosystem, and in particular, the lack of awareness about the potential for sustainable natural resource management solutions;
- (d) **Lack of experience and incentives to develop alternative resource use and conservation frameworks** in communities and on private land.
- (e) **Few fora that promote communal exchanges** and local networking about environmental management;
- (f) **Lack of effective local mechanisms for controlling forest exploitation**

41. In addition to these anthropogenic threats to the Eastern Arc, and their root causes, the PDF/B process and other institutional and fiscal reviews¹⁵ have shown that other constraints also pose a significant threat to effective forest management, and in particular to their conservation and protection. These constraints are largely institutional, as well as an outcome of physiographic constraints, which include

- (a) **Limited ecosystem-wide strategic focus.** The fact that the Eastern Arc is geographically comprised of widely disbursed forest blocks, which extend across multiple administrative, management, and tenure regimes means that their conservation and management will require the development of a consensus amongst stakeholders, many with competing interests, about the way forward. There is no management objective or strategy for the Eastern Arc as a whole which seeks to reconcile these interests.
- (b) **Weak institutional capacity.** Despite the very strong new policy framework in favor of forest biodiversity conservation, the approach will require a significantly new emphasis in national forestry institutions on planning, coordinating, implementing, and monitoring forest conservation efforts.
- (c) **Weak forest governance.** Control over forest resources remains largely in the hands of those least dependent on them, and rooted in problems of accountability and supervision in the current institutional framework. An outcome of this is that forest exploitation has been subject to few controls or constraints, and has resulted in the movement and settlement of people into reserved forests, and the unsustainable and illegal harvesting of wood for commercial purposes.
- (d) **Inadequate and poorly targeted fiscal resources** and delivery mechanisms for forest biodiversity conservation. There are almost no public resources available for forest conservation in Tanzania, and the sector is heavily dependent on irregular and inconsistent donor commitments, limiting the potential for a sustained program of forest conservation. Provided revenues are shared equitably, the improved collection of royalties from the felling of timber and other forest products in areas of relatively low biodiversity, could provide resources for more

active protection and management at the national and local levels. Revenue generation at the local level could bring about more aggressive protection by local institutions, and so begin to address the problem of the high rate of extraction. Again, poor governance in the sector, and the lack of supervision or clearly-defined authority to deal with the problem of corruption poses enormous challenges for forest management.

- (e) **Limited effectiveness of protection regimes.** Many forested areas have not been gazetted, and though gazettement as Forest Reserves provides only weak legal protection, the absence of protected status has meant that these forests may be converted, legally, to other uses (primarily agriculture). The new policy directive which favors the establishment of Village Forest Reserves will pose additional challenges of ensuring villages are able to conserve areas of high biodiversity value. There is a need for a service delivery mechanism which can address this particular approach.

42. The relationship between threats to biodiversity in the Eastern Arc, the root causes of these threats, and other institutional constraints are reviewed in Annex 2 and in the Incremental Cost Analysis in Annex 8.

BASELINE INTERVENTIONS TO CONSERVE FOREST ECOSYSTEMS

43. The existing situation reflects a set of actions which are being undertaken on a 'business-as-usual' basis in the Eastern Arc including activities in the forest and agricultural sector. Both these sectors have significant linkages to the water and energy sectors. The existing situation largely comprises: forest sector planning; forest catchment and protected areas management; planned forest institutional reforms; biodiversity conservation activities; and agricultural and rural development activities. Annex 8 reviews Baseline activities in greater detail.¹⁶

Forestry sector planning

44. The National Forest Program provides the overall planning framework which describes the need for interventions in the forestry sector. The plan was the product of extensive consultations and consensus-building activities between government and civil society. With respect to forest biodiversity conservation and management, the plan proposes to launch steps to reduce forest biodiversity loss, to promote village-based forest conservation, to identify and prioritize threatened forest ecosystems, to propose and support implementation of mitigation steps, and to prepare management guidelines for forest biodiversity conservation. The NFP Steering Committee has been established to see through the process of implementation, and has primary responsibility for ensuring that donor activities are implemented in a manner which is consistent with the NFP. (The NFP Steering Committee is comprised of representatives from MNRT, the Ministry of Finance, the Planning Commission, the Ministry of Regional Administration and Local Government, the National Land use Planning Commission, the Vice President's Office (Environment Division), Sokoine University of Agriculture, and the Private Sector Foundation.) The principal financial delivery mechanism for the National Forest Program is the planned US\$ 62.2 million World Bank-financed Forest Conservation and Management Project (FCMP) into which the proposed GEF financed alternative has been fully blended (and which includes US\$32.1 million in IDA financing). The NFP Steering Committee has been given oversight for preparation of the FCMP, and monitoring of its implementation. Additional bilateral support for implementation of the NFP is in the process of being mobilized.

45. With respect to the Eastern Arc forests, the NFP explicitly recognizes their global biodiversity values, but also acknowledges that national resources to invest in their conservation are likely to be

extremely constrained. The NFP does not establish a strategic framework for how forest biodiversity conservation in the Eastern Arc can be brought about.

Forest catchment and protected areas conservation and management

46. Almost the only high forests in Tanzania over which Government has any immediate control are classified as catchment forests, which are maintained and protected for their watershed catchment values. Catchment management is essential for national power generation, to provide urban and rural water supplies, and for existing and potential irrigation. Linkages between management of the forest sector and the water and energy sectors are weak. No water or power user fees revert to forest managers, despite generalist suggestions to do so. Water supplies in Tanga, Morogoro and Dar es Salaam have been severely affected by the lack of a regulatory framework for water management.

47. As with many other areas, the policy framework for water management has improved considerably over the last several years, and national policy now places a priority on determining water rights partly on the basis of the need to maintain downstream environmental flows. The translation of policy into effective action to ensure upstream catchment protection may be a longer term outcome. Similarly, catchment protection remains critical for ensuring long term access to power, yet there is something of a disconnect between the energy, forest, and water sectors. Constrained installed hydroelectric generating capacity has meant that the impacts of reduced catchment flows as a result of poor land management practices are greatly amplified during drought periods.¹⁷

48. The Forestry and Beekeeping Division has deployed staff to manage major catchment forests in the Eastern Arc, and these are concentrated in the Uluguru North, Uluguru South, and East Usambara Mountains. A total of 8 Forest Officers and 57 Assistant Forest Officers have been deployed by FBD to assist in managing catchment forests in these particular blocks. They are assisted with support from the Norwegian-financed Catchment Forestry Project as well as by the German-financed Natural Resources Management and Buffer Zone Development Program. Additional staff have been deployed by the Tanzania National Parks Authority (TANAPA) to management the Udzungwa National Park. TANAPA has been preparing (with WWF support) a management plan for the Udzungwa National Park.

Planned forest institutional reforms

49. Government intends to establish the Tanzania Forest Service as a specialized 'executive agency' as defined by the Executive Agencies Act (1997), and consistent with the wider and on-going national program of civil service reform. It is envisaged that the Tanzania Forest Service will, among other things, have some responsibilities for the protection and management of natural forests. Establishment of the TFS is being supported by the World Bank. Planned investments are intended to focus on improving governance in the sector, and to develop means of ensuring that revenues collected from forest

Table 4: Biodiversity Conservation Activities in the Eastern Arc Forests

- East Usambara Conservation Area Management Project t (DIDC)
- Uluguru Mountains Biodiversity Conservation Project implemented by WCST/DOF in partnership with UMADEP, Morogoro Rural District and the Catchment Forestry Project.
- Natural Resources Management and Buffer Zone Development Program (GTZ)
- Udzungwa Mountain Forest Management and Biodiversity Conservation Project (Danida)
- Community-based Natural Woodlands Management Project (Danida)
- Catchment Forestry Project –working in partnership with FBD in 16 districts throughout the country, including Morogoro, Kilimanjaro, and Tanga (NORAD)
- Reducing Biodiversity Loss at Crossborder Sites in East Africa (GEF/UNDP) (Taita Hills, Kenya; Pares)

management are reinvested at the local level in forest protection and management through local institutions. In addition, the TFS is expected to establish vastly improved service-delivery mechanisms for participatory forest and woodland management, in particular, support for the establishment of Village Forest Reserves, forest and woodland conservation and management by individuals and communities, and Joint Forest Management, building on experiences piloted in earlier efforts (See Annex 3).

50. With respect to the Eastern Arc, the capacity to plan, mobilize resources for, implement, and monitor biodiversity conservation initiatives is lacking. For the TFS to have any national mandate for forest biodiversity conservation, these types of skills will need to be upgraded and greatly enhanced. In particular, the inclusion of a particular focus on participatory forest biodiversity conservation in the emerging institutional framework is a critical need. The Baseline provides no resources to enable this kind of institutional strengthening.

Biodiversity conservation in the Eastern Arc

51. The bulk of the most significant biodiversity conservation activities which are being undertaken in the Eastern Arc are donor-financed. These are summarized in Table 4. Donor support has been highly fragmented and inconsistent, and has primarily addressed national and local needs (important in their own right), with very little focus on globally significant biodiversity values. Some activities have provided much needed research about biodiversity in the Arc, and its conservation. However, because of the multiplicity of objectives, approaches, and outcomes, donor support has not reflected any particular set of strategic objectives.

52. In addition, donor support for work in the Eastern Arc has been irregular and inconsistent. National and local institutions are not able reliably to depend on long-term donor support for financing local biodiversity conservation initiatives, and the sustainability of many donor interventions is open to question. The certainty of long-term financing for forest biodiversity conservation in Tanzania remains problematic. Indeed, long term financing needs to conserve the Eastern Arc are enormous. One study concluded that, in order to address prevailing forest biodiversity policy priorities, public expenditures totaling around \$15 million per year would be required in the long-term – a five-fold increase over current total public financing levels¹⁸ Subsequent efforts have sought to identify how the efficiency of expenditures could be increased, and whether alternative resource delivery models would be more effective (i.e. financing communities directly to assist them in undertaking forest conservation, rather than financing Government).

53. The extent of future donor commitments to biodiversity conservation in the Eastern Arc is not clear. While the Eastern Arc has, for instance, been identified for eventual support from the Critical Ecosystems Partnership Fund (CEPF), no specific commitments have been made, and the timing and scope of future support is uncertain. Most donors view potential GEF support as an important catalyst for their own actions, and are likely to make new commitments as the outcomes from the proposed Eastern Arc activity become clearer. Conservation of Eastern Arc forest biodiversity features strongly in the draft Tanzania National Biodiversity Strategy and Action Plan.

Effectiveness of past donor support for biodiversity conservation in the Eastern Arc

54. Primary sources of donor support for forest biodiversity conservation in the Eastern Arc are reviewed in Table 4. The distribution of donor financed biodiversity conservation activities in the Eastern Arc was reviewed during the PDF/A exercise, and compared with perceptions of local threats and of global biodiversity values of particular forested areas (Annex 4). Such an exercise is necessarily subjective, but suggested scope for intervention in several priority areas which are not effectively being

addressed with donor or public support. The PDF/A analysis formed the basis for proposals in the PDF/B to develop community-based conservation activities in the Ulugurus.

55. In general, donor and public support has been *ad-hoc*, poorly coordinated, and inconsistent. There have been few retrospective efforts to establish the lessons learned, and few interactions between projects. A review of project effectiveness, however, has suggested that longer term support for specific activities in particular sites can result in considerable impact. Donor supported activities and their impact are summarized in Annex 4. This understanding helped shape the design of GEF support, which proposes that implementation is concentrated in the Uluguru Mountains, and should be complemented by longer-term and sustainable funding mechanisms. Lessons learned during the preparation process are summarized in Annex 10.

Agriculture and rural development activities

56. For the most part, the Eastern Arc Mountains have reliable rainfall of between 2200 mm and 1000 mm per year. Despite their rather poor soils, population densities are high - up to 450 people per km² in some areas. Agriculture consists of commercial estates (mainly tea, some cinchona, increasing horticulture) and intensive and extensive subsistence cultivation. Land shortages have forced cultivation onto ever steeper slopes and onto stream banks, and have brought about the conversion of remaining forest land to agriculture. Erosion is widespread, and has led to soil and nutrient losses, decreased catchment capability, flash floods and landslides, and reservoir siltation. Poor farming practices in much of the Eastern Arc area accentuates poverty and increases dependence on forest resources for alternative incomes.

57. Agricultural extension in Tanzania is provided as an advisory service by District Agriculture Officers. In the face of public expenditure constraints, these services have been in decline. Donor and government supported schemes have sought to increase the area under tea in recent years through out-grower schemes, to integrate agro-forestry, to increase horticulture, to encourage the adoption of stall fed cattle rearing. Pyrethrum is increasingly being cultivated, as is the cultivation of spices. Economic liberalization in the sector has greatly increased the incentive to expand agriculture, but advisory services are not in place adequately to address the increased demand.

Outcomes from the PDF Process

PDF Block A outcomes

58. PDF Block A support was sought in 1997 to characterize more fully the nature of the perceived forest conservation problem in the Eastern Arc Mountains, and to propose possible solutions. The Block A grant was approved in late 1997, through UNDP, on the basis of a proposal which suggested potential for collaboration and partnerships with other agencies such as the World Bank. Implementation of PDF/A activities commenced after the December 1997 *International Conference on the Conservation and Management of the Eastern Arc Mountain Forests*. Activities which were financed by the PDF/A grant included: (i) a preliminary assessment of biodiversity values and conservation problems in the Eastern Arc; (ii) an assessment of priority actions for conservation of the Arc; (iii) an assessment of financial constraints, sustainable financing opportunities, and the effectiveness of donor interventions in the Eastern Arc; and (iv) the development of preliminary proposals for GEF financing for conservation of the Eastern Arc.

59. PDF/A activities allowed for the development of a three-way matrix which considered levels of biological diversity and endemism, the degree of threat, and the level and effectiveness of interventions

financed with public or donor resources. On this basis, a ranking exercise was developed to establish priorities for future intervention.

60. Three of the main forest blocks are exceptionally diverse: the East Usambara Mountains, the Udzungwa Mountains and the Uluguru Mountains. Biodiversity conservation activities are underway in the first two of these mountain blocks with support from DIDC and Danida, respectively. The Ulugurus, which are under enormous population pressures (which have led to the clearance of virtually all the lower forests) has received no major donor or public support. This was the rationale for the selection of the Uluguru Mountains as the main pilot site for this GEF activity. The matrix and ranking exercise is summarized in Annex 4.

61. PDF/A activities provided an opportunity for closer collaboration between multiple donors and national institutions with interests in the Arc. In particular, the UNDP and the World Bank agreed to explore the potential for a joint PDF/B proposal. The joint approach allowed for building on the strengths inherent in the Bank's on-going support to the forest sector, and in UNDP's experience in technical assistance at decentralized levels. Recommendations from the PDF/A process were incorporated into the PDF/B proposal.

PDF Block B outcomes

62. In addition to providing resources to enable the preparation of this Project Brief (and the interagency coordination between the World Bank and UNDP required in order to do so), the PDF/B process has resulted in,

- (a) The development of an outline and plan for the preparation of a participatory and strategic approach to the conservation and management of the Eastern Arc forests (UNDP);
- (b) the preparation of proposals for institutional reforms for forest biodiversity conservation with a specific focus on improving the framework for participatory forest biodiversity conservation (World Bank);
- (c) a needs assessment for priority conservation activities for pilot activities in targeted sites in the Uluguru Mountains, including proposals for specific partnerships and development activities (UNDP); and
- (d) the legal establishment of the Eastern Arc Mountains Conservation Endowment Fund (EAMCEF), the constitution of its founding board, the development of a draft operational manual, and the preparation of proposals for sustainably financing its operations (World Bank).

63. The PDF/B process involved extensive public consultations with respect to developing the framework for the preparation of the Eastern Arc Conservation Strategy as well as pilot activities proposed for the Uluguru Mountains (Annex 10). Importantly, the outcomes of the PDF/B process have been integrated into larger forest biodiversity concerns outlined in the National Forest Program, and into the proposed Tanzania Forest Conservation and Management Project, a US\$62.2 million program (including \$32.1 million in IDA resources) which is seen to be a multi-donor resource delivery mechanism for the National Forest Program, and which constitutes an important element of the sustainable Baseline and co-financing to the GEF Alternative.

3. THE ALTERNATIVE COURSE OF ACTION

LONG-TERM OBJECTIVE

64. The long-term objective of GEF support is to conserve the biodiversity of the Eastern Arc mountain forests, which contain globally significant biodiversity, at a level beyond what could be expected based on the prevailing management objectives of watershed catchment protection. GEF resources would be used to develop a strategic approach toward long term conservation of the Arc and would support activities to incorporate biodiversity conservation objectives more effectively into forest management.

IMMEDIATE OBJECTIVES AND OUTPUTS

Immediate objectives

65. There are four immediate objectives of GEF support. The **first** is to seek to bring together multiple stakeholders with interests in the Eastern Arc to develop a consensus about how best its biodiversity is to be conserved and to elaborate that consensus as a comprehensive and wide ranging strategy for the Eastern Arc. The **second** is to support the implementation of community-based conservation initiatives in priority pilot areas and to develop lessons which can be extended to other areas. The **third** is to support a process of institutional reform which will strengthen the capacity of national institutions to undertake participatory forest biodiversity conservation. The **fourth** is to improve long-term financial flows for forest biodiversity conservation in the Eastern Arc by developing and implementing sustainable financing and delivery mechanisms.

Outputs

66. These objectives are expected to be met as a result of four particular outputs.

- | | |
|-----------|---|
| Output 1: | An Eastern Arc Forests Conservation Strategy is developed, which incorporates the views of multiple stakeholders, and which has mobilized support for implementation of priority actions. |
| Output 2: | Community-based conservation initiatives are underway in the Uluguru Mountains. |
| Output 3: | Institutional reforms are completed which strengthen the capacity of national forestry institutions to provide services which strengthen processes of participatory forest biodiversity conservation in the Eastern Arc |
| Output 4: | The Eastern Arc Mountains Conservation Endowment Fund is operating and is investing in protected area management, community-based conservation, and applied biodiversity research. |

ELIGIBILITY AND RATIONALE FOR GEF FINANCING

67. The Government of Tanzania signed the Convention on Biological Diversity on June 12, 1992 and ratified the Convention on August 3, 1996. Tanzania is a party to the African Convention on the Conservation of Nature and Natural Resources, the Convention on the Protection of World Cultural and Natural Heritage, the Convention on International Trade in Endangered Species (CITES), and the Ramsar Convention on Wetlands of International Importance. Government has placed a high priority on the conservation of biological diversity, and, for example, maintains one of the largest systems of protected areas in Africa. Much of the focus of these efforts has been on wildlife habitat conservation.

68. The proposed GEF activity is consistent with the GEF Operational Strategy for Biodiversity Conservation, and specifically with the objectives of Operational Programs 3 and 4 on Forest Ecosystems and Mountain Ecosystems. Consistent with these objectives, the GEF activity will provide finance for the creation and strengthening of participatory and co-management schemes to build support and ownership for biodiversity conservation, develop socio-economic activities to reconcile biodiversity conservation with human needs, identify processes which are likely to have significant adverse impacts on the conservation and sustainable use of biodiversity, and support capacity building efforts while focusing primarily on a mountain tropical forest ecosystem that is at risk.

69. Particular attention will be given to the demonstration and application of techniques to protect highly threatened endemic species; *in situ* conservation of wild relatives of domesticated plants and animals for the sustainable use of biodiversity; strengthening conservation area networks; and development of sustainable use methods in forestry by combining production, socio-economic, and biodiversity goals. In addition, GEF resources will seek to support sustainable agriculture and land use practices on mountain slopes adjacent to the forests in order to protect representative habitats and to strengthen the network of representative conservation areas in montane forest systems. Activities supported with GEF resources are designed to be replicated, with successful outcomes and lessons learned documented and shared with other GEF funded programs.

70. GEF support is consistent with Article 8 of the Convention on Biological Diversity, which relates to *in situ* conservation, as it will support protection and management of protected areas in a region of globally important biodiversity, promote environmentally sound and sustainable activities in areas adjacent to protected areas. GEF support will promote the recovery of threatened species through the development and implementation of management and ecosystem protection strategies, and will support maintenance of viable populations of threatened and endangered species within and beyond protected area boundaries. GEF support is consistent with CoP3's emphasis on inter-sectoral cooperation in natural resource biodiversity conservation, building capacity in local institutions and communities, strengthening the involvement of local people, promoting environmental awareness, and improving the dissemination of information about sites of global importance. GEF support will also help to achieve related goals of reducing poverty in forest dependent communities by providing alternatives to destruction of biodiversity habitat as a means of securing a livelihood.

71. GEF support is consistent with guidance from the CoP with respect to conservation, management, and sustainable use of threatened and endangered species; strengthening the involvement of communities, and building partnerships at the local and national levels; and promoting cost effective measures to conserve biodiversity, including economic incentives and alternative livelihood opportunities for local communities.

OUTPUTS, RATIONALE AND ACTIVITIES

Output 1: Development of an Integrated Eastern Arc Mountain Biodiversity Conservation Strategy (GEF financing, US\$ 2 million; Co-financing, US\$ 12.6 million)

Rationale

72. With the Eastern Arc Mountain Forests situated within 12 districts in the East of Tanzania, the establishment and implementation of programs to conserve biodiversity in an effective and efficient manner will be unusually challenging. The complex tenure regimes and the different objectives for the Arc Mountains that come from the forest, agricultural, water and power sectors exacerbate this challenge. In addition, policy changes established at the national level that are intended to promote conservation of

biodiversity require implementation through the many different local, regional, and national authorities that are responsible for managing the natural resources of the arc. Accordingly, cross-sectoral strategies that address biodiversity and that lead to a communally accepted goal and vision for the resources of the Arc, need to be devised and implemented at the regional level. Corresponding efforts are needed to identify critical needs and establish priorities¹⁹ in the arc. To be effective, these strategies will need to be pursued in a participatory manner, with all stakeholders, including local communities, participating, and effective communication and outreach activities undertaken.

73. Strategies will of necessity be hierarchical, with an overall Eastern Arc strategy that is based on the strategies agreed for each of the separate Mountain Blocks. In cases where Blocks encompass more than one District, then there is need to bring Districts together to merge their interests (eg Udzungwa and West Usambaras). The lowest level of strategic planning will be the Management Plans for the component Protected Areas (National Parks, Nature Reserves, and Forest Reserves). Cutting across these geographic plans and strategies will be a set of common thematic plans and strategies. For example the pattern of addressing how catchment forestry links to water sector interests should be similar across the Arc. So too should be strategies addressing for example: the restoration of degraded forest, sustainable use regimes, biodiversity monitoring, and modalities for participatory forest management, (PFM).

74. Then, once programs are underway, effective ecological and socio-economic monitoring programs will need to be put in place to evaluate program effectiveness and progress towards goals. Strategies and management interventions must be adaptive, responding to such monitoring information. Strategies for long-term sustainability, including financing and fee-based solutions will need to be explored and implemented.

75. This first output for the Eastern Arc Project is designed to address these needs through the development and implementation of an integrated set of conservation strategies and monitoring programs. Government authorities at all levels and across sectors will be engaged within the districts that comprise the Eastern Arc Mountains. Linkages will be forged with national institutions and specific activities undertaken to align on-ground resource use practices with biodiversity protection policies. The intent is to engage authorities responsible for policy, planning, and management in an integrated manner to bring biodiversity to the fore; and to engineer a set of strategies and practices that will provide for protection over the long run. Strategies will focus on conserving existing forest ecosystems and implementing sustainable use participatory management strategies. Core activities will involve methodologies to remove threats and strengthen institutions. This component also involves integrating with other sectors, including agriculture, poverty eradication, and water, to achieve success.

76. This GEF investment is almost entirely incremental because the baseline has limited emphasis on biodiversity (other than policy statements in the national forest policy and program and limited field activities). Consequently, strategies and policies today are largely designed to achieve other ends, which incidentally may protect biodiversity, but have not yet done so in a sustainable fashion. Incremental investment is vital to achieving the GEF goal of protecting the biodiversity found throughout the Eastern Arc Mountain forests. The strategy processes that are laid out below are broad ranging and are designed to meet both surface threats to forest conservation, as well as to address root causes. They encompass lessons learned from past conservation initiatives in Tanzania and elsewhere.

77. This GEF component develops the strategy and plans, and seeks to leverage other donor and government support to implement plans rising out of the strategies. The Uluguru Mountains Component (the second section below) is where pilot innovative interventions under the strategy can be tested in an integrated and participatory way through GEF funding. The Strategy Activities are to be implemented by three sets of interactive donor support: GEF (through this project), Danida, and through IDA financing to the forest sector. Linkages will be made with NGO activity. The lead agency is identified in the activity

lists that follow - with an estimate of financing. Danish and IDA inputs are co-finance to the GEF intervention.

78. The nine separate Activities within the Strategy Component are listed in Table 5, with an indication of donor leadership and extent of GEF support. GEF funds Activities 1.1 to 1.4, Co-Finance supports activities 1.5 to 1.9.

79. The specific tasks to be carried out within each of these activities are detailed in Annex 5.

Table 5: A Summary of Activities leading to preparation of a Conservation Strategy for the Eastern Arc Mountains		
Activity	Activity Name	Donor
1.1	An overall Eastern Arc Conservation Strategy is developed and key elements of it are implemented. (0.9 mill\$).	GEF – UNDP
1.2	A set of thematic strategies for biodiversity conservation are developed and implemented through both macro frameworks and individual management plan processes. (0.8 mill\$)	GEF – UNDP
1.3	Socioeconomic monitoring program developed that evaluates linkages between conservation, poverty and livelihoods. This strengthens the project ICDP linkages. (0.2 mill\$)	GEF-UNDP
1.4	Public expenditure management and the financing of forest biodiversity conservation (0.1mill \$)	GEF-UNDP This adds to overall Endowment Fund activity of GEF –WB, see below.
1.5	Service fees and user charges for forest biodiversity– water fees linkages, from the major cities and power users are explored and started.	Danida
1.6	Participatory Forest Management strategies for biodiversity conservation are elaborated and field-tested. This will incorporate the lessons from Output 3 (Institutional Reforms for Participatory Forest Management), and not duplicate it.	GEF-WB, IDA, and Danida
1.7	Adaptive resource monitoring programs for forest biodiversity are developed and under implementation.	Danida
1.8	Catchment Management Strategies are elaborated, and under implementation. Financed and implemented by NORAD.	NORAD
1.9	Information, education and communication strategies (IEC) are developed and under implementation.	Danida

Output 2: Innovations in community-based forest biodiversity conservation in the Uluguru Mountains (GEF financing, US\$ 3 million; Co-financing, US\$ 12.4 million)

Rationale

80. Annex 4 stresses the urgent need in the Uluguru Mountain Forests of the Eastern Arc Mountains, for concerted and integrated action to protect the remaining forests from further encroachment and degradation. Their protected status is as Government Forest Reserves, and there are few left on village land. These forests, comprising approximately 210 square kilometers, are among the most important in the entire Eastern Arc in terms of species richness, with many rare species of plants and animals, and extremely high levels of species endemism. The Uluguru Mountains and their forests also provide the main source of fresh water for Dar es Salaam (via the Ruvu River) as well as the town of Morogoro. With population growth, continued expansion of commercial and subsistence agriculture, continued illegal logging, as well as fires and other human activities, these forests and the endemic species within them are highly threatened.

81. Government officials and many local community stakeholders are aware of these problems, but have proven not to have the capacity to address the situation on their own. A Danida financed NGO project (DOF-WCST), which has conducted extensive research and is now beginning to work with local

communities on conservation is ongoing in the northern forests (North Uluguru Forest Reserve and tiny Bunduki Forest Reserve) above Morogoro town. However, the scope of this activity relative to the need is quite small. The larger, less explored and potentially richer South Uluguru Forest Reserve and patches of village forest are not included. In addition, the DOF-WCST effort primarily focuses on forest - community practices. It has not tackled the complex governance issues associated with the forests.

82. GEF funding is the cornerstone of an expanded program to safeguard the Uluguru Mountain forests through an integrated conservation and development approach. This approach results from a nine-month design process (detailed in Annex 10), involving stakeholders through workshops, meetings, and forums as well as field research, analysis, and the application of lessons learned from other biodiversity conservation activities. The GEF investment will specifically address the shortcomings of the baseline and will be linked with co-financing from partners to provide the resources, technology, and leadership needed to protect the international interest in biodiversity.

83. In the case of the Ulugurus, both biodiversity and water values can be maintained through specific actions to preserve the catchment forests. However, all the local communities adjacent to the forests depend on them to one degree or another for their livelihood. Thus the challenge of this activity will be to balance the interests and needs of all the different people that benefit directly or indirectly from the forests – from the local level to the international level. It is a complex problem, but with recent changes in the government policy, new technology and approaches to forest and land management, and funding from GEF and other donors, there is a real opportunity to achieve change that can protect diversity, water values and address the needs of the local populations. GEF support should achieve this change by simultaneously addressing the near term need for effective protection measures while laying the foundation for a longer term management strategy which actively engages local stakeholders in forest management and conservation. There are five component activities within this output. They are summarized here, indicating field partners and funding requirements.

84. Table 6 describes activities that are planned for GEF support, in conjunction with expected inputs from key co-financing partners. Because of the critical need to ensure that long-term support is available for forest biodiversity conservation in the Ulugurus, the development of these activities will complement closely the proposed work of the Eastern Arc Mountains Conservation Endowment Fund in the Ulugurus. These activities will be carried out in close cooperation and interaction with each other. Details are in Annex 6.

Table 6: Activities proposed for GEF support, Associated with pilot community-based forest conservation in the Uluguru Mountains		
Activity	Name	Partner Institutions
2.1	Protected Area Management: Management and protection systems in the South Uluguru Forest Reserve improved, and biodiversity and hydrological values sustained.	Catchment Forestry and NORAD
2.2	Participatory Forest Management: strategies for resource use and conservation are implemented.	FBD and IDA – Danida components
2.3	Agriculture/Agroforestry: communities with greater capacity for sustainable land use management and small enterprise/marketing. Selected opportunities for income generation are developed, emphasizing sustainable use of forest resources.	Based on, and to continue the work by UMADEP
2.4	Information/Education: Conservation awareness is increased at all levels (through education campaigns addressing politicians, schools, opinion leaders and local communities).	Linkages to activity started by WCST and DOF in the northern Forests
2.5	Institutional Development: Capacity of partners in planning and management of land, conservation, agriculture, forestry and environment is enhanced.	All partners

Output 3: Institutional reforms for forest biodiversity conservation (GEF financing, US\$ 0.25 million; Co-financing, US\$ 8.3 million)

Rationale

85. Within the current institutional framework, the Forestry and Beekeeping Division provides overall policy guidance for the forestry sector, and some technical oversight and supervision. For the most part, however, management and protection of all reserves has been highly decentralized, and is primarily the responsibility of District Forest Officers (DFOs) and their staff, who report to local district administrations (with the exception of a number of major catchment forests, which are under the management of FBD). The current institutional structure has been problematic, and badly in need of reform.. The fundamental orientation of the institutional structure is toward regulation and enforcement of forest legislation -- roles which were largely appropriate in an earlier context when there were few needs to mediate between the demands of rural people, the state, and the private sector, but which are mostly inappropriate in contemporary Tanzania where forest protection and management can no longer be undertaken independently of the needs of rural communities.

86. Until recently, the institutional, policy, and legal framework provided only limited scope for supporting forest biodiversity conservation. As a signatory to the Convention on Biodiversity, Tanzania is increasingly recognizing its important obligation to put in place sound mechanisms for forest biodiversity conservation, but is ill-equipped to do so within the prevailing institutional structure. Forest protection was undertaken in the past only to meet the needs of the timber industry, and also for watershed catchment protection. There is a very limited capacity to take on the wider issues associated with biodiversity conservation within FBD.

87. Other institutions in Tanzania also have a mandate for forest biodiversity conservation, such as training centers, research organizations, and the NGO community. In particular, there is a need to develop further clarity about the institutional role which is expected of the Sokoine University of Agriculture (SUA) and Tafori in developing a program of relevant research in the Eastern Arc.

88. Within this context, there is a widespread recognition in the National Forest Policy and the National Forest Program that Tanzania's forest institutions as they are currently structured are not adequate for meeting the challenges of conservation and management of Tanzania's forests and woodlands.

89. In order to respond to this concern, Government has launched a process of civil service reform which is expected to transform Tanzania's forestry institutions. Government has proposed the establishment of the Tanzania Forest Service (TFS) as a stand-alone 'executive agency' with clearly defined roles and tasks, and with a mandate for bringing about improvements in forest and woodland management through multiple institutional and service delivery mechanisms. It is envisaged that the TFS will be constituted with specific service delivery functions and performance targets, while responsibilities for forest policy, legislation, and planning are to remain with a sectoral department of the Ministry of Natural Resources and Tourism.

90. The World Bank has proposed to support a process of institutional reform which leads to this goal, and this is a central feature of the proposed Forest Conservation and Management Project (Annex 3). IDA-support for institutional reform activities is expected to total \$26.7 million. Additional IDA support (\$ 3.4 million) will finance a program more fully to involve the private sector in industrial plantation management. IDA support, then, focuses primarily on improving the overall institutional framework, improving financial and procurement management, and supporting participatory forest management and the involvement of the private sector in plantation management.

91. The principal rationale for GEF support for this activity, is to provide incremental resources to strengthen the capacity of the new Tanzania Forest Service (TFS) to support, implement, and monitor forest biodiversity conservation activities.

92. The TFS is expected to be a service delivery organization, rather than an institution primarily with regulatory or enforcement responsibilities. Supporting the development of participatory forest management regimes will be one of its main service delivery roles. In spite of the fact that there has been some support for participatory forest management in Tanzania, an understanding of the most effective approaches which can support forest biodiversity conservation *per se* is limited. GEF support, then, will be geared toward integrating forest biodiversity conservation into the participatory forest management program.²⁰

93. A single activity is envisaged to assist in meeting this objective:

Activity 3.1 Participatory forest conservation guidelines are developed and are under implementation

- (a) GEF support will finance an evaluation of Participatory Forest Management (PFM) activities and their impacts, with the objective of preparing a ‘best practice’ evaluation of PFM and forest biodiversity conservation;
- (b) On the basis of the findings of the ‘best practice’ study, guidelines will be developed to expand the existing *Community-based Forest Management Guidelines*²¹ so that they incorporate forest biodiversity conservation as a key element of PFM;
- (c) In conjunction with the PFM sub-component of the FCMP, capacity building and training programs to implement the revised *Guidelines* will be developed and under implementation.

Output 4: Establishment and operation of the Eastern Arc Mountains Conservation Endowment Fund (GEF financing, US\$ 6.75 million; Co-financing, US\$ 5.1 million)

Rationale

94. The PDF A and B efforts identified the need for a long-term sustainable approach to funding the conservation of forest biodiversity, and highlighted the importance of engaging local communities in forest biodiversity conservation. The establishment of the Eastern Arc Mountains Conservation Endowment Fund (EAMCEF) is intended to begin to address this critical need. The Endowment Fund proposal must be considered in light of the wider discussion with respect to biodiversity values, threats, and the long-term effectiveness of public expenditure and donor support.

95. Resource requirements to undertake forest biodiversity conservation in the Eastern Arc are substantial – and scarce. The bulk of revenues accrued by Government for forest management (around 50 percent) comes from the industrial plantation sector. Current policy places a strong emphasis on ensuring that revenues accrue to the managers of the forests from which the revenues are derived (whether these managers are communities, districts, or the Forest and Beekeeping Division). At the moment, FBD is able to retain 56 percent of the revenues it collects, and these account for its development budget. Its wage bill is separately covered by Government.

96. Under the prevailing policy framework, if FBD were to invest more in forest biodiversity conservation, it would have to seek to generate revenues for the management of these forests. As logging in Tanzania’s high forests has been banned, there is virtually no revenue being generated by these

sources. In light of this, the argument that public expenditure on catchment management should be increased is particularly weak.

97. The conventional environmental economist's argument is that fees for water and electricity should be assessed on the basis of the forests' catchment management value, and that these should be retained for management. The only problem with this approach is that there is little enough revenue at the moment even to sustain the water and power utilities, let alone to finance needed forest conservation activities.

98. Having said this, Government is taking clear steps to improve its public expenditure framework, and this is expected to be an outcome of proposed institutional reforms which will increase the efficiency of service delivery, increase revenues from forest products (largely from Tanzania's extensive dry woodlands), and which will reduce overall expenditures through staff retrenchment and redeployment.

99. At the macro level, this is simply a question of sound public expenditure management. The development of the Poverty Reduction Strategy Program (PRSP) and the Medium Term Expenditure Framework (MTEF) both integrate concerns about forest management into the expenditure program. FCMP is being incorporated into the MTEF.

100. The Eastern Arc Mountains Conservation Endowment Fund (EAMCEF) has been launched outside of the framework of government, though it has Government's clear and explicit endorsement. It is seen as an alternative mechanism for the delivery of badly-needed resources for forest biodiversity conservation, and this is consistent with policy which encourages the development of multiple institutional mechanisms and stakeholder partnerships to achieve this objective.

101. Inadequate and poorly targeted public and donor resources for forest biodiversity conservation in the Eastern Arc has meant that there is a limited view of long-term resource requirements and financing needs. Most efforts to develop sound forest biodiversity conservation programs in the Eastern Arc have suffered from the 'feast-or-famine' five-year project cycle: a period of raised expectations and increased resource flows followed by the departure of staff, and constrained finances. Even the best designed initiatives have failed, ultimately, to create the mechanisms for longer-term financing.²² Indeed, if there is any single 'lesson learned' from donor financing, it has been that their impacts are much more likely to be short term, rather than long term.

102. The financial sustainability of donor assisted forest biodiversity conservation projects has been a longstanding concern. Government ultimately pays the price when financial sustainability is not assured. The EAMCEF provides an important opportunity to build on synergies in donor support. Danida, for example, sees a clear linkage between the short term project financing it expects to provide in the Udzungwas and Ulugurus, to the long term sustainable financing for continued activities in these sites which would be provided by the EAMCEF. Danida's rationale for supporting activities in these two sites is largely based on the assumption that long-term financing through the EAMCEF would be forthcoming, and its widely recognized that Danida financing over the project period would be insufficient for ensuring long term sustainability in the absence of the EAMCEF. While Danida support is not characterized as EAMCEF co-financing, these types of synergies between what donors can provide in the short term and what EAMCEF could provide in the long term should not be understated.

103. Similar circumstances apply in the East Usambaras, where 15 years of support from the Government of Finland has resulted in the establishment of a protected area (the Amani Nature Reserve) and which has created a good framework for forest biodiversity conservation in this part of the Arc. Finnish support is expected to close down within 2 years, and in the absence of on-going support, the substantial gains which have been made in conservation will be lost. The EAMCEF is partly seen to be a solution to this longer term problem of financing.

104. Obtaining explicit bilateral co-financing commitments for EAMCEF has been problematic. Donor resistance to co-financing has two dimensions to it: firstly, donors wish to see that the EAMCEF has an established track record of resource delivery to priority conservation activities before committing resources to it; secondly, many bilateral donors argue that they are already financing GEF through the replenishment process and that they should not be expected to provide additional co-finance for eligible GEF activities such as the EAMCEF. This is clearly a larger issue, but has been a recurrent theme in discussions with donors.

105. The needs for resources to implement forest biodiversity conservation initiatives in the Arc are daunting. Even if public funding could be mobilized, however, to ensure long-term resource flows for Eastern Arc forest biodiversity conservation, two concerns give pause: firstly, beyond the question of the needed *levels* of public spending on forest biodiversity conservation is the question of *efficiency*. Could resources be delivered more effectively through *private* delivery mechanisms and institutions, rather than through the public sector? Secondly, the public sector's interest in forest biodiversity conservation is perhaps disconnected from either the local values and priorities of communities most dependent on these resources for their livelihoods or the perception of their global importance. The development of an effective resource delivery mechanism which seeks to mobilize global interests in biodiversity conservation while balancing these with community interests is the common challenge in the design of sustainable financing mechanisms for biodiversity conservation.

106. These facts notwithstanding, perhaps the most important rationale for establishing an Endowment Fund is the **strong enabling environment** for it. Government has put in place a series of complementary measures to support the development of a **range** of mechanisms for improving forest conservation and management, and sees the Endowment Fund as an important opportunity for introducing another approach outside of the public sector to do this. These include its strong support for the development of participatory forest management, revenue sharing arrangements, and support for NGOs and others who are more capable of delivering on the forest management agenda. The strong enabling environment is perhaps best captured by the fact that Government has committed to using US\$ 2 million in IDA resources to finance the Endowment Fund as a way of strengthening this unique opportunity for a public-private partnership.

107. Indeed, recognizing the constraints inherent in donor-financed initiatives and public sector investment, Government's strategic choices with respect to forest biodiversity conservation have actually involved promoting a diverse range of instruments, institutions, and mechanisms with this objective. On the one hand, it is strongly supportive of NGOs and other organizations which have taken on community-based conservation, while on the other, Government is investing heavily in the development of participatory forest management strategies which are to be undertaken by FBD, and complements this approach with the establishment of new protected areas as Nature Reserves. This is an outcome of a recognition that the demand for effectively addressing the problem requires the development of multiple solutions. Support for the establishment of an Endowment Fund as a privately managed and independently financed institution has to be understood in this context, and a reflection of a concern that long term sustainability should increasingly be designed into forest biodiversity conservation initiatives.

108. Having said this, Government is also keenly aware that even the best-endowed Conservation Fund would not be able effectively to address forest biodiversity conservation issues throughout the Arc simply because of their extent and the fact that they are found spread across a wide area. The establishment of the Endowment Fund is being supported by Government both because of its thematic focus (described below), and because it has been proposed that it limits the geographic extent of its activities in the first instance in order to achieve greater long term impact.

Preparatory work

109. The potential for the establishment of a Conservation Endowment Fund was explored during the PDF/A process using resources mobilized by the World Bank.²³ The potential was addressed from the perspective of the 4 critical prior conditions for successful trust fund establishment, identified in the 1998 *GEF Evaluation of Experience with Conservation Trust Funds*. A feasibility study was prepared and concluded that the policy and institutional framework would support the establishment of an Endowment Fund in Tanzania, and could be justified on the basis of the biodiversity values found in the Eastern Arc. The feasibility study recommended that an Endowment Fund working group should be established, that a profile of the fund should be prepared, and that the PDF/B process should focus on further development of the design of the fund and should support a study tour to another endowment fund site.²⁴ These recommendations formed the basis for proposals in the PDF/B to begin preparation of a sustainable financing mechanism, and were acted upon during the preparation process.

110. Because of the proposed nature of the Endowment Fund as a privately-managed institution, the Bank sought Government's agreement to support its establishment on these terms. MNRT has strongly endorsed its establishment, has agreed that it should be co-financed with IDA resources, and has argued that it is consistent with the national policy objective of seeking to involve a wider group of stakeholders in forest conservation and management through a diverse range of approaches and instruments, outside of the influence of the public sector.

111. An Endowment Fund specialist was subsequently employed by FBD to begin the process of establishing the Fund, and to work with key stakeholders and interests in the Fund. Catalytic support from the PDF/B process brought about the formal establishment of the Eastern Arc Mountains Conservation Endowment Fund (EAMCEF), and a deed of trust under the Trustees' Incorporation Ordinance (Cap 375) has been prepared and registered with the Administrator General of Trustees. As such, the Eastern Arc Mountains Conservation Endowment Fund has now been legally constituted as a Non-Governmental Organization. An Inaugural Board has been established and is comprised of representatives of the public sector, the private sector, and environmental NGOs.²⁵ The Deed requires the appointment of four additional Trustees who shall represent a reputable NGO which has the objective of supporting community-based conservation and natural resource management, a representative from the academic/research community from a national institution, and two members representing communities in the areas of operation of the Endowment.

112. The Deed also provides for the establishment of Local Advisory Committees (LACs) in the areas of EAMCEF operation, and that these will be constituted of representatives from Village Environmental Committees. LACs will be constituted to provide guidance and advice to the Board. Collectively, these various mechanisms provide for representation of diverse interests in the conservation and management of the Eastern Arc.

Thematic and geographic coverage

113. The preparatory work which underpinned the establishment of the EAMCEF focused developing the mechanisms for financing three key priorities: community-based conservation; applied biodiversity research; and protected areas management. The design of the fund has been responsive to these three priority areas. Because of the important linkages involved, EAMCEF will work closely with the UNDP implemented GEF activities with respect to the Conservation Strategy and community-based conservation in the Ulugurus in order to capture important synergies.

114. Because of the great extent of the Eastern Arc and the concern that the EAMCEF should be seen to have a sustained impact in the short term, the Fund is expected to operate, in the first instance, across a limited geographic range, primarily in two or three Mountain blocks of the Eastern Arc forests. These were established as an outcome of the ranking exercise which was undertaken during the PDF/A exercise, and which is described more fully in Annex 4. In the first instance, support is to be provided for activities in the Uluguru Mountains, the Udzungwa Mountains, and in the East Usambara Mountains.

Uluguru Mountains

115. The objective of operating in the Uluguru Mountains is to put in place the financial mechanism to provide longer term support for biodiversity conservation after GEF supported UNDP community-based conservation activities are completed. UNDP activities are expected to provide critical resources to launch the process of developing community-based conservation initiatives in the Ulugurus, while resources for the EAMCEF will provide sustaining and long term support for continued community involvement. Phased support for activities in the Ulugurus will be mobilized toward the end of the project cycle. The phasing of support to the Ulugurus is discussed further below.

116. The importance of the EAMCEF with respect for Danida support for work in the Ulugurus should not be understated. Danida sees key linkages between the short term project financing it expects to provide in the Udzungwas and Ulugurus, and the long term sustainable financing for continued activities in these sites which would be provided by the EAMCEF. Danida's rationale for supporting activities in these two sites is largely based on the assumption that long-term financing through the EAMCEF would be forthcoming. While Danida support is not characterized as EAMCEF co-financing, these types of synergies between what donors can provide in the short term and what EAMCEF could provide in the long term should not be understated.

Udzungwa Mountains

117. IDA resources have been mobilized to invest in applied biodiversity research in the Udzungwa Mountains through the Lower Kihansi Environmental Management Project (LKEMP).²⁶ LKEMP is partly intended to provide resources, through an open, competitive, and peer reviewed process for national and international scientists to conduct short and medium-term studies for the purposes of filling critical gaps in knowledge. Furthermore, Tanzanian students and interns from relevant institutions are to be supported under the institutional strengthening component of LKEMP to conduct field research on important aspects of the ecology of the Kihansi Gorge. Because of the need for an independent mechanism for vetting research proposals in the Udzungwas through the Kihansi project, it has been agreed that the Board of the EAMCEF will establish the mechanism for managing this biodiversity research program.

East Usambara Mountains

118. The East Usambara Mountains cover somewhere around 150,000 ha, of which around 45,000 ha are under forest cover. EAMCEF will support activities in the East Usambara Mountains centered around the establishment of the Amani Nature Reserve (a 8,380 ha reserve gazetted in 1997), and its current, small program of forest conservation efforts which are designed to protect these critical areas through community activities, reserve management, and biodiversity research. These activities were launched through the East Usambara Conservation Area Management Program (EUCAMP) with support from Finnish DIDC which is expected to come to closure in late 2002. Despite this support, there is no effective long term mechanism for ensuring resources are available to continue the innovative activities which have been launched. EAMCEF will build on the lessons learned from EUCAMP and will seek to strengthen the most effective approaches which have been undertaken.

Other small mountain blocks

119. A number of other mountain blocks have received little or no support for biodiversity conservation. In the medium-term, once a track record has been established for operation of the EAMCEF in priority sites, programs are expected to be extended into other mountain blocks, such as the Malundwes, Mahenges, Rubehos, and Ukagurus, but this will depend on additional (probably substantial) capitalization of the fund, and its success in delivering expected outputs.

120. GEF support is needed to support 5 major activities (including capitalization of the Endowment Fund itself).²⁷ Each activity will provide the necessary technical and financial assistance to develop the institutional and management capacity of EAMCEF, as well as within FBD, and (through collaborating NGOs) within communities. Detailed activity schedules are given in Annex 7.

- (a) **Endowment Administration.** The Endowment Fund Secretariat will be established in Morogoro and will consist of an Executive Director, three Program Officers, an Accountant, a Secretary, and support staff. These individuals will be the only full-time employees of EAMCEF. The Secretariat will be responsible for (i) developing the program content for each of the three priority areas of support (Community-based conservation, applied biodiversity research, and protected areas management); (ii) working in collaboration with FBD and suitable NGOs to implement activities in these three priority areas; (iii) submitting annual work plans and budgets to the EAMCEF Board for approval; (iv) disbursing approved funds and ensuring that proper disbursement, procurement and supervision procedures are followed; (v) maintaining financial records and accounting/reporting; and (vi) ensuring ongoing monitoring and evaluation of all work receiving EAMCEF funding.²⁸ Other activities which will be undertaken by the Secretariat include, communications and education and fund raising.
- (b) **Applied Biodiversity Research.** Under this component the EAMCEF will support research which strengthens an understanding of the extent and value of biodiversity and ecosystem health in priority geographic sites, and which can help to reduce the impacts of human pressures on the ecosystem and its biological resources. Research will be undertaken in the context of overall efforts to improve the management of the Eastern Arc forests in a way which maintains and increases their contribution to local and national economic development. GEF support will specifically ensure that biodiversity conservation is a clear focus of targeted research initiatives which are linked with forest management and conservation, along with other important objectives such as maintaining water supplies and providing sustainable supplies of valuable timber and non-timber products.
- (c) **Participatory Forest Conservation.** The objective of these activities is to increase the share of the benefits from forest conservation and management to local communities and to ensure that these continue on a sustainable basis. These activities are fully consistent with Government's policy for participatory forest management (including co-management) of forest reserves and forests on customary land. GEF funds will support training, workshops and technical assistance to help mobilize these stakeholders and enhance their knowledge and skills to become effective forest management partners.
- (d) **Protected Forest Reserve Management** activities should strengthen the capacity of FBD or other institutions with jurisdiction over forest reserves. Improving forest ecological and economic viability will be of paramount importance. Priority forest management activities for funding under the Endowment Fund would include improvement of staff capabilities (e.g. training, skills development of reserve staff), forest management and ecotourism infrastructure (e.g.; trails,

access roads, ranger stations, etc.), conservation education, management planning, and others. Where appropriate, activities should include a training component.

- (e) **Establishment of the Conservation Endowment Fund.** The purpose of the Conservation Endowment Fund is to provide sustainable in-country funding for biodiversity conservation of the Eastern Arc Forests, in the context of ecologically sustainable development. The EAMCEF Fund will be established as the long-term financing mechanism to support these activities.

121. Support for establishment and operation of the Fund will be phased. **Phase I**, which is expected to last three years, will build the capacity within the EAMCEF and its partners to carry out their respective roles in the management of the Endowment Fund and the coordination and implementation of the activities described above. A modest unallocated fund for technical programs will allow EAMCEF to address early needs and to gain experience in program planning and implementation. At the end of year 3, an assessment of the achievement of the agreed indicators of institutional capacity and readiness will serve to trigger the release of the endowment capital into the Fund. During year 4, the endowment will earn interest and these funds will finance **Phase II**, the implementation phase, which will begin at the start of year 5. Assistance from the GEF is requested to provide the initial endowment capital of US \$6.5 million for the EAMCEF, as well as US\$0.25 million for the three-year start-up phase.

122. In order to assess progress in meeting the objectives of GEF support, a Midterm Review will be carried out at the end of the third project year to assess performance with respect to meeting particular benchmarks and indicators. Indicators which will trigger release of the Endowment Fund include the following: (i) successful establishment and functioning of the Secretariat (i.e. key positions in the Secretariat have been filled, audits have been completed and are clear, an acceptable 2 year work plan is developed); (ii) finalization of the *Financial, Operations, and Management Manual* which defines and clarifies procedures and operations for the EAMCEF and its approval by IDA; (iii) establishment and functioning of the Endowment Fund Board (i.e. regular Board meetings, appointment of four new Board members, application of the procedures for Board members); (iv) development and launching of the fund raising strategy; (v) grant making activities have begun (proposals solicited, competitive selection procedures followed, grants awarded and pilot activities are under implementation); (vi) at least one Local Advisory Committee has been established; (vii) documented adherence to the policies, procedures and principles set forth in the Deed of Trust; (viii) documented significant co-financing for the EAMCEF.

123. A more detailed set of benchmarks which will also provide an indication of the effectiveness of the framework for conservation action, delivery, and on-the-ground activities over the first three years, and which are to be defined before CEO endorsement, will establish the basis for determining if the overall program is meeting its objectives. Successful outcomes in all of these areas will determine whether or not the initial capital endowment from GEF is disbursed.

4. RISKS AND SUSTAINABILITY

RISKS

124. The long term success of GEF support for forest biodiversity conservation in the Eastern Arc will depend, *inter alia*, on the willingness of multiple stakeholders and partners to cooperate, and to seek to develop a shared vision about how best forest biodiversity can be conserved and managed for the immediate benefits of communities, for regional and national benefits to the economy, and for global benefits. A commitment to continue the activities launched with GEF support will also be critical for its success.

125. There are six main risks associated with GEF support which are:
- (a) **lack of commitment** by the central or district governments to the core principles that form the basis of this support – empowerment, conservation, decentralization, and a balance between short and long-term needs;
 - (b) counterproductive **changes in national forestry and development policies** that undercut the ability to achieve the objectives of GEF support;
 - (c) the more specific **failure of fund-raising efforts** to increase the Endowment Funds capital base to a level where the investment income can sustain grant making and other program activities at a level which will achieve the desired conservation benefits;
 - (d) **poor implementation performance** by the agencies and organizations implementing the integrated strategy and the partnership initiatives;
 - (e) **lack of effective participation** at all levels, at the national, regional, district, and community levels.
 - (f) **delays by government** in implementing proposed institutional reforms.
126. These collective risks are assessed to be moderate. At the national level, while sectoral commitments are strong, other competing priorities such as health, education, basic sanitation, and nutrition, may divert attention, effort, and resources away from what appear to be longer term environmental imperatives. This risk is somewhat mitigated because of the growing realization that environmental quality is inextricably linked to food production, tourism, sanitation, and -- especially with respect to the Eastern Arc – the sustainability of water supplies and hydroelectric energy sources.
127. The prevailing sectoral policy framework which supports implementation of GEF activities is quite strong, however, particularly in light of the National Forest Policy and the integration of GEF support into the National Forest Program (and its principal financing mechanism, the Forest Conservation and Management Project). Government (in particular among other stakeholders) has shown its particular commitment to addressing widely shared environmental concerns, notwithstanding its immediate focus on poverty reduction and the steps needed to bring this about. Political will and strong cooperation during the preparation process, and a clear endorsement of the principals captured in the NFP and in its implementing mechanisms, suggest potential risks have been greatly mitigated as a result.
128. Perhaps the biggest challenge in Tanzania has been in moving beyond planning and strategy formulation into the process of implementation. There are, however, already important signs that the structural changes which are thought to be needed to achieve long term impact in the forestry sector are already underway, particularly with respect to institutional reform.
129. The risk that GEF supported activities end after GEF support ceases is thought to be moderate. Risk mitigation and sustainability in this regard, however, are closely linked. Clearly, longer term donor support for activities in the Arc will be required, and GEF support is expected to be catalytic for mobilizing this support. This project is designed for six years intervention; which allows for capacity development to ensure activity continues beyond project closure.

SUSTAINABILITY

130. Sustainability has to be considered from four perspectives. Firstly, will the on-the-ground activities launched with GEF support continue after this support (or *any* donor support) ceases? Secondly,

will GEF be effective in leveraging additional donor support to begin to address other priorities in the Eastern Arc which have not been addressed by GEF? Thirdly, will sustainable financing mechanisms generate sufficient resources to produce long term and sustainable outcomes? Fourthly, will Government continue to provide the enabling institutional and policy framework to achieve the wider objectives of proposed GEF support?

131. The first question is largely concerned with technical and design issues, and is a question that has to be asked of any publicly-financed initiative – whether financed by Government or donor resources: Will the technical options being supported on a life of their own after GEF support ceases? Rural transformation is every development practitioners ideal. The design process has sought to bring to bear the best expertise available to develop the components which have been proposed, and has developed linkages with groups (such as CARE Tanzania and WCST) which share the view that environmentally sound development which is not sustainable has limited value. Sustainability at this level will require a continued focus on ensuring the right technical and financial inputs are being provided at the right time and are being supported by a constructive policy and institutional framework.

132. The second question has to be put into the context of the leveraging which has already taken place as a result of the catalytic support GEF provided to UNDP and the World Bank through the PDF/B process. Activities which are expected to co-finance this GEF support through parallel financing mechanisms include continued, and likely increased, Government support for catchment forest and national parks management, World Bank-support through the Forest Conservation and Management Project and the Lower Kihansi Environmental Management Project, and support which has been committed by Danida to activities in the Uluguru Mountains. Additional commitments are expected to be forthcoming from the Government of Finland, and possibly from the European Commission.²⁹ Co-financing is also expected to be generated by the EAMCEF Board³⁰, which has committed its representative institutions (WWF, NEMC, LEAT, FBD, and Songas) to providing some start-up capital for the Fund. In light of the level of interest and support co-financing GEF activities – even in the absence of any particular outcome – there are full expectations that additional donor financing can be generated to begin to address other priority areas of the Arc.

133. This is an especially important point with respect to the Endowment Fund. Simply because of GEF financing constraints, and the geographic extent of the Eastern Arc, Endowment Fund resources are inadequate for addressing forest biodiversity conservation for the whole of the Arc. The effectiveness of the EAMCEF will be closely linked to its ability to generate additional resources both to capitalize the endowment, or to finance program activities. Having said this, the establishment of the EAMCEF specifically aims to overcome the common problem of a lack of sustainability of financing. The establishment of the Fund will ensure that a dependable and constant stream of income will be available to cover recurrent costs in perpetuity. The sustainability of the Fund will ultimately depend on three outcomes: firstly, that there is appropriate and effective management of the capital endowment, to ensure that sustainable financing is actually available; secondly, that the institutional structure of the Fund is sound, including the relationship between the Secretariat and the Board, and that they are held accountable to stakeholders; and thirdly, that beneficiaries and stakeholders are committed to implementing conservation related activities financed by the Endowment.

134. Finally, at the policy and institutional level, the Government of Tanzania through FBD and affiliated institutions has committed itself to the objectives of GEF support which are described here. FBD, as well as district and local level government forestry officials have participated fully and extensively in the development of each set of outputs and activities. It is anticipated that this commitment will be ongoing and will translate into action as implementation begins. Importantly, national forestry and development policies are in place that are consistent with the objectives of this support. This realization is

illustrated by the gradual inclusion of environmental issues in the Poverty Reduction Strategy Program (PRSP) process.

REPLICABILITY

135. The activities proposed for GEF support are all designed to ensure that monitoring and evaluation information provides feedback to replicate successful activities, and to modify less successful ones to improve performance. An understanding of the potential replicability of proposed interventions featured strongly in the Lessons-learned workshop convened in February 2001 (Annex 10).

5. STAKEHOLDER PARTICIPATION

136. Stakeholder participation has been a key and successful ingredient of the work undertaken during PDF/B activities. This is described in greater detail in Annex 10. GEF support will continue and expand upon this involvement, with stakeholders at all levels (local communities, local and district officials, central government, NGOs, and donors) participating directly in each of the four sets of activities. Stakeholder participation ultimately will be fundamental to successfully achieving the goals and outputs proposed for GEF support.

137. In the strategy activity, representatives from FBD, district and local forest authorities, as well as academia, will participate in devising and implementing policies and strategies to better support biodiversity conservation in the Eastern Arc Mountains. Similarly, community-based conservation activities in the Ulugurus will closely involve local and district stakeholders through a variety of approaches, including joint forestry and protected area management as well as efforts to enhance agriculture, agroforestry, and the viability of small business enterprises. The institutional reform component directly involves forestry and other government officials in all activities. Finally, the Endowment Fund specifically requires creation of Local Advisory Committees to participate in awarding grants for community based conservation, research, and forest protection field activities.

6. IMPLEMENTATION ARRANGEMENTS AND INSTITUTIONAL FRAMEWORK

INSTITUTIONAL FRAMEWORK

138. At first sight, this appears to be a complex project, with four disparate components linking into several distinct mountain blocks across many districts, and was developed with support to FBD through two GEF Implementing Agencies -- UNDP and WB. However, given the coordinating role of the Forest and Beekeeping Division, and the strengthening of the capacity of FBD for coordination, this complexity is more perceived than real.

139. The overall framework for implementation of GEF activities is through the Tanzania National Forest Program. Planned GEF support has been integrated into the NFP, and has been fully blended into the primary financial delivery mechanism for the NFP which is the World Bank-financed Forest Conservation and Management Project. Other donor resources are in the process of being mobilized.

140. Implementation of the NFP is under the oversight of the National Forest Program Steering Committee, a high level coordinating committee comprised of representatives from MNRT, the Ministry of Finance, the Planning Commission, the Ministry of Regional Administration and Local Government, the National Land use Planning Commission, the Vice President's Office (Environment Division), Sokoine University of Agriculture, and the Private Sector Foundation. The NFP Steering Committee is expected to establish a Task Force on Forest Biodiversity with more specific responsibilities for oversight of activities financed by GEF in the Eastern Arc.

141. A key consultative mechanism for implementation of the NFP will be the Forestry Advisers Group. The Forestry Advisers Group convenes quarterly at the invitation of the Director of FBD (who is the Chair and Secretariat) and is comprised of representatives from key donors, environmental NGOs, and sectoral Ministries. The Forestry Advisers Group was established as a forum for coordination and information exchange amongst parties interested in the forestry sector and has been brief fully and consulted extensively about the NFP.

142. Within this overall framework, with respect to preparation of the Conservation Strategy, and work in the Ulugurus, at the level of local government, activities will be implemented in close consultation with District Councils, Village Councils, and Village Environmental Committees (as appropriate). With respect to the Endowment Fund, the framework for local consultation will be Local Advisory Committees (LACs) which are provided for in the EAMCEF Deed of Trust. With respect to proposals for supporting institutional reform for participatory forest conservation activities, these will be implemented in conjunction with separately-financed World Bank support for Participatory Forest Management.

143. Specific implementation modalities have been established for activities which are to be implemented respectively by UNDP and by the World Bank. Both Implementing Agencies have strong and complementary roles in this project.

144. The strengths of UNDP are in providing traditional technical assistance and capacity building with a main focus at decentralized levels of government and at community levels. UNDP has a long tradition of support to forestry in Tanzania, and UNDP-GEF initiated this Eastern Arc Project at PDF Block A stage. UNDP takes the lead responsibility for strategic planning and field level pilot interventions in the Uluguru Mountains.

145. The strengths of the World Bank are in trust fund development in Africa. The Bank has a long history of support to the forest sector in Tanzania and has placed a strong emphasis on the institutional reform and service delivery process. FCMP has a heavy emphasis on these reforms; and the GEF component on institutional reform for conservation activity is linked to that. Both agencies have roles and responsibilities in the ongoing PRSP process in Tanzania.

IMPLEMENTATION ARRANGEMENTS

146. The Implementing Agencies and key stakeholders will work with the NFP Steering Committee to prepare a Work Plan which describes the envisaged program of overall implementation. Implementation of the four sets of activities will be tightly integrated, and this will be captured in the work plan.

147. For example, the development of the Eastern Arc Conservation Strategy will provide important guidance for implementing the activities of the Endowment Fund (and the preparation of specific thematic strategies for the EAMCEF i.e. biodiversity research, participatory forest conservation, and forest reserve/nature reserve management) and community-based conservation activities in the Ulugurus. Because of the view that the sustainable financing mechanism established through EAMCEF should

provide long-term support to priority sites of the Ulugurus, the Fund will, in turn, work closely with the community-based conservation activities in the Ulugurus to ensure there is appropriate complementarity and additionality. The preparation of participatory forest conservation guidelines will be fully integrated into the PFM activities supported by FCMP, bringing these essential capabilities to the Eastern Arc mountains. The processes supported by this activity will, in turn, provide important guidance to the preparation of the Conservation Strategy.

148. Offices to support implementation of GEF activities, including the EAMCEF, will be established in Morogoro. Morogoro is centrally located, and provides good access to several blocks of the Eastern Arc (particularly the Ulugurus and Udzungwas). Morogoro is also the site of the Sokoine University of Agriculture and its Faculty of Forestry and the Tanzania Forestry Research Institute (TAFORI). Other staff, based in Dar es Salaam, will work to mobilize activities associated with preparation of the Conservation Strategy, particularly as it relates to FBD and its successor agency the Tanzania Forest Service. The Endowment Fund may consider establishing a satellite office in the East Usambaras, but will otherwise operating from the offices of the Amani Nature Reserve.

149. The overall GEF process has built on the comparative strengths and advantages of the two IAs as follows:

- UNDP's strengths are in providing traditional technical assistance and capacity building, with a main focus at de-centralised levels of government and grass roots levels. UNDP would take the lead responsibility for strategic planning and field level pilot interventions in the Uluguru Mountains. UNDP has had a long presence in Tanzania in terms of providing on-site technical advice to Government in the area of forest biodiversity conservation.
- World Bank's strengths are in trust fund development in Africa. The Bank has a long history of support to the forest sector in Tanzania, and has placed a strong emphasis on the institutional reform and service delivery process. FCMP has a heavy emphasis on these reforms. The GEF component on reform within the conservation activities is linked to this.

150. Both Agencies have a role and responsibility in the ongoing PRSP process in Tanzania. The PRSP is evolving rapidly in Tanzania. FBD is currently integrating the FCMP into the Medium Term Expenditure Framework, as part of the overall program which seeks to improve public expenditure management.

151. UNDP's core support to Tanzania, focuses on poverty and human resource development. Two ongoing program are of relevance to this proposal:

- (a) Local government reform processes. Districts of both Tanga and Morogoro Regions are included in such processes, which provide training to District Councils and lower bodies at ward and village levels in governance matters.
- (b) Support to livelihoods and poverty amelioration through community activities. Again Eastern Arc districts are eligible. Discussions within UNDP CO Tanzania since receipt of the Review have led to the CO promising co-finance to community based sustainable natural resource utilization initiatives totaling 300,000\$ over the project lifetime. These comprise resources which would not have otherwise been available for forest conservation in Tanzania in the absence GEF support.

World Bank

152. The World Bank will maintain IA oversight, with its co-financing partners, over implementation of the institutional reform and Endowment Fund activities. From the perspective of implementing

mechanisms, the participatory forest conservation institutional reforms will be integrated into the wider program of institutional reforms which is being financed by FCMP, and the implementing mechanisms which have been established to implement its Bank-financed components.

153. With respect to operation of the EMCEF, the Fund is a charitable entity incorporated in Tanzania as a Trust under the Trustees' Incorporation Ordinance (Cap 375). The Endowment Fund is exempt from tax and is a private organization operating independently from Government. The mandate of the EAMCEF is not to participate directly in forest or nature reserve management, as this is the role and responsibility of other institutions such as FBD. Rather, EAMCEF will promote effective and biodiversity-compatible management of reserves and other forested areas by supporting activities in its priority areas -- forest and nature reserve management, applied biodiversity research, and community-based forest conservation -- and will support environmental education and outreach activities related to its activities. The EAMCEF's management structure provides for the participation of key stakeholders -- government departments, statutory bodies, local and international NGOs, and forest adjacent communities concerned with conservation, management, and use of the natural resources of the Arc.

154. The Endowment Fund is to government by an independent EAMCEF Board, composed of individuals of high public standing drawn from both civil society and government. The Bank will be consulted in the event that there will be any proposed changes to the composition and selection criteria of the EAMCEF Board. The 9-member Board is comprised of representatives from the following groups:

- (a) the Ministry of Natural Resources and Tourism, Forestry and Beekeeping Division;
- (b) the National Environment Management Council;
- (c) an international NGO operating in the Eastern Arc Mountains;
- (d) a national NGO with experience working in the Eastern Arc Mountains;
- (e) the academic or research community, with experience in the Eastern Arc Mountains;
- (f) the business community
- (g) the legal community
- (h) two communities in areas (preferably from different regions) which are targeted for support from the Fund.

155. The EAMCEF Board will be responsible for overall direction, governance, financial management (including decisions regarding expenditures of income from endowment investments), and monitoring progress. A register of Technical Advisers, comprised of individuals selected in their individual professional capacities, will be created and tapped when advice on technical issues is required. The operation rules and mechanisms of the Endowment will be defined in the *Financial, Operations, and Management Manual*.

156. Endowment funds will be invested off-shore and managed by a professional asset manager. Day-to-day operations of the Fund will be managed by a small Secretariat, headed by an Executive Director, who will also be responsible for fund raising. The Secretariat will be established in Phase I. The Secretariat will be responsible for financial management, reporting, and auditing, following procedure as reflected in the *Financial, Operations, and Management Manual*. EAMCEF accounts will be audited annually by independent auditors acceptable to the Bank. The annual audit report will be submitted to the

Bank within six months of the end of each fiscal year. Detailed arrangements are described in the *Financial, Operations, and Management Manual*.

UNDP

157. The UNDP will have IA oversight, with its co-financing partners, for implementation of the Conservation Strategy and community-based conservation activities in the Uluguru Mountains, contributing its on-the-ground capabilities and experience in developing biodiversity conservation programs in the cross border region of Kenya and Tanzania.

158. UNDP brings strengths from two ongoing country program. These are:

- (a) Local government reform processes. The Districts of both Tanga and Morogoro Regions are included in such processes, which provide training to District Councils and lower bodies at ward and village levels in governance matters. This would include governance over natural resources.
- (b) Support to livelihood and poverty amelioration through community activities. Again Eastern Arc districts are eligible. Discussions within UNDP CO Tanzania have led to the CO promising co-finance to community based sustainable natural resource utilization initiatives totaling US\$ 300,000 over the project lifetime (see letter of 25/10 in Annex 12). These resources comprise incremental financing which would not otherwise have been used for forest conservation in the absence of proposed GEF support.

159. The UNDP will provide Implementing Agency oversight, with its co-financing partners, for the implementation of the conservation strategy and community based conservation activities in the Uluguru Mountains. UNDP contributes its on ground capabilities and experience in developing biodiversity conservation programs in cross borders regions of Kenya and Tanzania, and in Zanzibar (see Annex 3).

IA collaboration, and co-financiers

160. The respective WB and UNDP task managers will be in direct and ongoing contact to facilitate the work financed with GEF support and to ensure maximum levels of cooperation to bring about success. Joint activities, and when possible, joint supervision missions, will be undertaken during implementation.

161. The role of other co-financing donors is in the process of being defined. Danida is expected to provide co-financing and direct support for preparation of the Conservation Strategy and implementation of community-based conservation activities in the Ulugurus. A proposal has been submitted to the European Commission to provide support for implementation of Phase I of the EAMCEF through WCST, and funding has been solicited from Finnish DIDC for EAMCEF Phase II activities. The responsibilities of individual IAs and its co-financing partners will be outlined in the Work Plan, and will be annually reviewed during the course of regular supervision missions. All co-financing arrangements will be negotiated with partners during Appraisal, and details will be confirmed by the time of CEO endorsement.

7. INCREMENTAL COSTS AND FINANCING

INCREMENTAL COSTS

162. The total cost of the Forest Conservation and Management Project, of which the GEF Alternative is a part, is around US\$ 62.2 million. IDA financing comprises a critical element of the overall package

of support, and is expected to total \$28.7 million through the FCMP and another \$900,000 from the Lower Kihansi Environmental Management project. Additional co-financing is comprised of Government counterpart funding, commitments which are anticipated from bilateral donors (in particular, Danida), and expressions of interest from local and international NGOs. Incremental costs are specifically associated with establishing strategic, policy, technical, monitoring, and financial capacities to implement programs and activities (including community-based forest biodiversity conservation) that will preserve globally significant biodiversity both in the near term and the long term. Annex 8 presents a summary of domestic and global benefits associated with each component.

FINANCING

Co-financing Summary

163. Proposed financing and co-financing commitments are summarized in Table 7 and are indicated in detail in Annex 8. Briefly, the World Bank expects to provide financing through FCMP in conjunction with institutional reforms for forest biodiversity conservation (US\$ 13.5 million), improved revenue collection systems (US\$ 4.7 million), and support for participatory forest management (US\$ 8.5 million) as well as support for the Eastern Arc Conservation Endowment Fund both through FCMP (US\$ 2 million) and through LKEMP in conjunction with applied biodiversity research and Endowment administration (US\$ 0.9 million). The EC is expected to finance operations of the EAMCEF as well as Endowment administration (US\$ 1.1 million). Danida is expected to finance critical components of the Conservation Strategy (US\$ 2.5 million) as well as Community-based Conservation in the Ulugurus (US\$ 2 million). UNDP is committed to using some of its resources to co-finance community-based natural resources management in the Uluguru activity (US\$ 300,000). Additional resources are expected from various partners involved with the EAMCEF, in particular, organizations affiliated with members of the Inaugural Board (US\$ 1.0 million). Government counterpart funding is expected with respect to preparation the Conservation Strategy (US\$ 0.5 million), Community-based Conservation in the Ulugurus (US\$ 1.1 million), institutional reforms for forest biodiversity conservation (US\$ 0.2 million), and Endowment Fund Administration and Operation (US\$ 0.15 million).

Table 7: Summary, GEF financing Eastern Arc Forests Conservation and Management (US\$ million)

Activities	Indicative Co-financing (US\$ million)								GEF	Total Costs
	IDA FCMP	IDA LKEMP	Danida	UNDP	EC	GOT	Other	Sub-total, co-financing		
1. Development of an Integrated Eastern Arc Mountain Biodiversity Conservation Strategy	9.6	..	2.5	..	..	0.5	..	12.6	2.0	14.6
2. Community-based conservation in the Uluguru Mountains	9.0	..	2.0	0.3	..	1.1	..	12.4	3.0	15.4
3. Institutional reforms for forest biodiversity conservation	8.1	..	..	..	..	0.2	..	8.3	0.2	8.5
4. Establishment and operation of the Eastern Arc Mountains Conservation Endowment Fund	2.0	0.9	..	..	1.1	0.1	1.0	5.1	6.8	11.9
Total	28.7	0.9	4.5	0.3	1.1	1.9	1.0	38.4	12.0	50.4

Co-financing of the EAMCEF

164. Current guidance by the GEF Council requires a significant element of co-financing for the establishment of GEF-financed Conservation Endowment Trust Funds. Indicative co-financing commitments for the EAMCEF total US\$ 5.1 million, against a planned GEF commitment of \$6.75 million (of which US\$ 6.5 million is accounted for by the Endowment itself). A significant part of this co-financing commitment is comprised of a commitment to use US\$ 2 million in IDA resources to co-finance the EAMCEF. This is an extremely strong indication of Government's interest in seeing that the Endowment Fund is fully and adequately financed.

165. The EAMCEF Inaugural Board is keenly aware of the need to raise additional resources to complement GEF support, and is confident that secured GEF financing will be catalytic in enabling them to do so. In order to comply with the GEF Council's guidance, a considerable amount will have to be raised (above existing indicative co-financing commitments) to match the GEF contribution to the Endowment. These resources are unlikely to be generated until aggressive fund raising activities are undertaken, and until the EAMCEF has a track record. The time frame for achieving these benchmarks is the end of the Phase I.

166. There is some considerable interest in and commitment to generating other resources through the EAMCEF Board. The company, Songas (affiliated with AES), is represented on the Board. AES has a corporate policy of investing a share of its profits in environmentally and socially responsible development activities, and it is envisaged that the EAMCEF could present Songas with an opportunity to address this concern. Songas (and other potential partners in the private sector) is similarly constrained in that it would prefer to work through established institutions and mechanisms, and is hoping that GEF resources would enable the EAMCEF to gain a track record for which further investment could be forthcoming.

167. Other GEF Conservation Trust Funds have taken a broad view of what constitutes co-financing, and have included direct financing for the Endowment with a capital contribution, the financing of management and administration costs, or the financing of activities which are to be developed and implemented by the Endowment. In the case of the Mgahinga-Bwindi Conservation Trust Fund, co-financing provided resources for virtually all of the Fund's operations. Income from the original GEF capital endowment was untouched, and has grown considerably since the Fund was first established. All of these strategies will feature in the fund raising efforts which will be launched in Phase I of the Endowment Fund activity.

8. MONITORING, EVALUATION AND LESSONS LEARNED

MONITORING AND EVALUATION (M&E)

168. Monitoring and Evaluation (M&E) will provide the NFP Steering Committee, the Forestry Advisers Group, and the EAMCEF Board, and other stakeholders and implementation partners with data and information to measure progress, determine whether expected impacts have been achieved, and to provide timely feedback in order to ensure that problems are identified early in implementation and that appropriate actions are taken. The parameters for M&E of biodiversity projects are described in great deal in various reviews and Guidelines prepared by GEF and by the IAs, and these have provided guidance in developing plans for M&E.³¹ M&E must focus on three levels: impacts on the conservation of global biodiversity; impacts on ecosystems covered which are of critical national economic importance;

indicators which capture the extent to which the objectives of GEF support at the implementation level are being met.

169. Monitoring and Evaluation activities will be explicitly supported through the preparation of the Conservation Strategy, which, in part, focuses on developing good baseline information through the Arc. Evaluation personnel working with preparation of the Strategy, however, will coordinate with the Directors of each component and with key stakeholders to ensure that a common view of the most appropriate approach is shared and can be implemented in the field.

170. M&E indicators will be developed in accordance with guidelines for GEF-financed projects at the outset and will consider aspects such as: ecological monitoring, participatory forest management, socio-economic impacts, institutional effectiveness, and grant making effectiveness.

171. The monitoring of ecological and conservation impacts will review overall changes and trends in forest cover, and the status of endemic and indicator species. Current data for some of these and other ecological indices have already been collected in target areas, so a baseline can be readily established. Other specific biodiversity indicators will be developed through the Strategy activity, with a baseline defined in the first year.

172. Community and social indicators will focus on measuring effectiveness in engaging communities in the planning and implementation phases of conservation and participatory forest management activities, in gaining an understanding of the significance of local and global benefits of biodiversity protection, and in benefiting in a tangible way (i.e. improved livelihoods) from conservation activities.

173. The evaluation of institutional effectiveness will focus on four aspects: 1) the ability of the Uluguru and Endowment Fund components to establish and maintain their administrative and operating capabilities in accordance with timetables and needs; 2) the effectiveness of the Endowment Fund as a mechanism for providing long-term reliable funding for conservation programs; 3) the effectiveness of all components in involving stakeholders; and 4) the degree of policy and programmatic change resulting from implementation of the integrated strategy.

174. Supervision by the IAs will be coordinated with key co-financing donors, and formal supervision missions are expected to be undertaken twice yearly in conjunction with supervision of the overall Forest Conservation and Management Project. Activities will also be considered in the annual GEF Project Implementation Review (PIR). A Midterm Review will be undertaken at the end of the third project year, especially in conjunction with evaluating performance under Phase I of the EAMCEF, and to launch Phase II. Benchmarks and indicators of performance which will determine the release of the initial endowment to the EAMCEF will be developed and agreed before CEO endorsement. A final Implementation Completion Review will be prepared after GEF support ends.

LESSONS LEARNED AND TECHNICAL REVIEWS

175. Experience with Bank-implemented biodiversity conservation activities in Africa has identified four principal lessons which have contributed to the success of biodiversity conservation efforts: ³² (i) Biodiversity operations are not likely to be sustainable unless they are integrated into country and Bank development strategies or if they are financed indefinitely by the international community; (ii) The biodiversity portfolio should be supervised much more aggressively, focusing on learning, identifying problems early, anticipating the need for adaptation, and encouraging change; (iii) Be more demanding in project design; (iv) Provide stronger leadership to sharpen focus on choices and priorities.

176. The extent to which these ‘lessons learned’ have been incorporated are summarized in Table 8. Preparation of GEF activities for the Eastern Arc has been greatly informed by other GEF studies and reviews.³³

177. In order to build on some of the experience which has been gained with forest biodiversity conservation activities in the Eastern Arc, a ‘Lessons Learned’ workshop was convened in February 2001. The findings from this workshop are described in Annex 10.

178. With respect to the design of the Eastern Arc Mountains Conservation Endowment Fund, extensive guidance has been provided by the GEF Council, and by various reviews of experience with Trust Funds.³⁴ This guidance has been fully incorporated into the design of the Endowment Fund. Annex 10 also summarizes the extent to which design of the EACEF has been responsive to the recommendations of the most recent of these reviews.

Table 8: Incorporating Lessons Learned in Project Design

Lessons from Successful Biodiversity Projects in Africa	Responsiveness in design of GEF support for the Eastern Arc to the Lessons from Experience
Biodiversity operations should be integrated in national development strategies and fully into donor assistance programs. No sustainability without integration	Forest biodiversity conservation features strongly in the National Forest Policy and the National Forest Program. GEF support is fully-blended into planned IDA support for the forestry sector, which in turn has been captured in the Country Assistance Strategy.
Biodiversity portfolio should be aggressively supervised	The Supervision Plan for FCMP proposes twice yearly formal supervisions and less frequent informal supervisions. Supervision missions will be jointly carried out with UNDP and Danida.
Be more demanding in project design	Recommendations of Technical Reviews have been fully incorporated into project design. Stakeholder consultations featured strongly in project preparation in order to understand multiple interests.
Sharpen the focus on choices and strategic priorities	Priority setting was a key feature of the PDF/A process. Effort to build on lessons learned from other biodiversity conservation initiative and global experience with conservation trust funds.

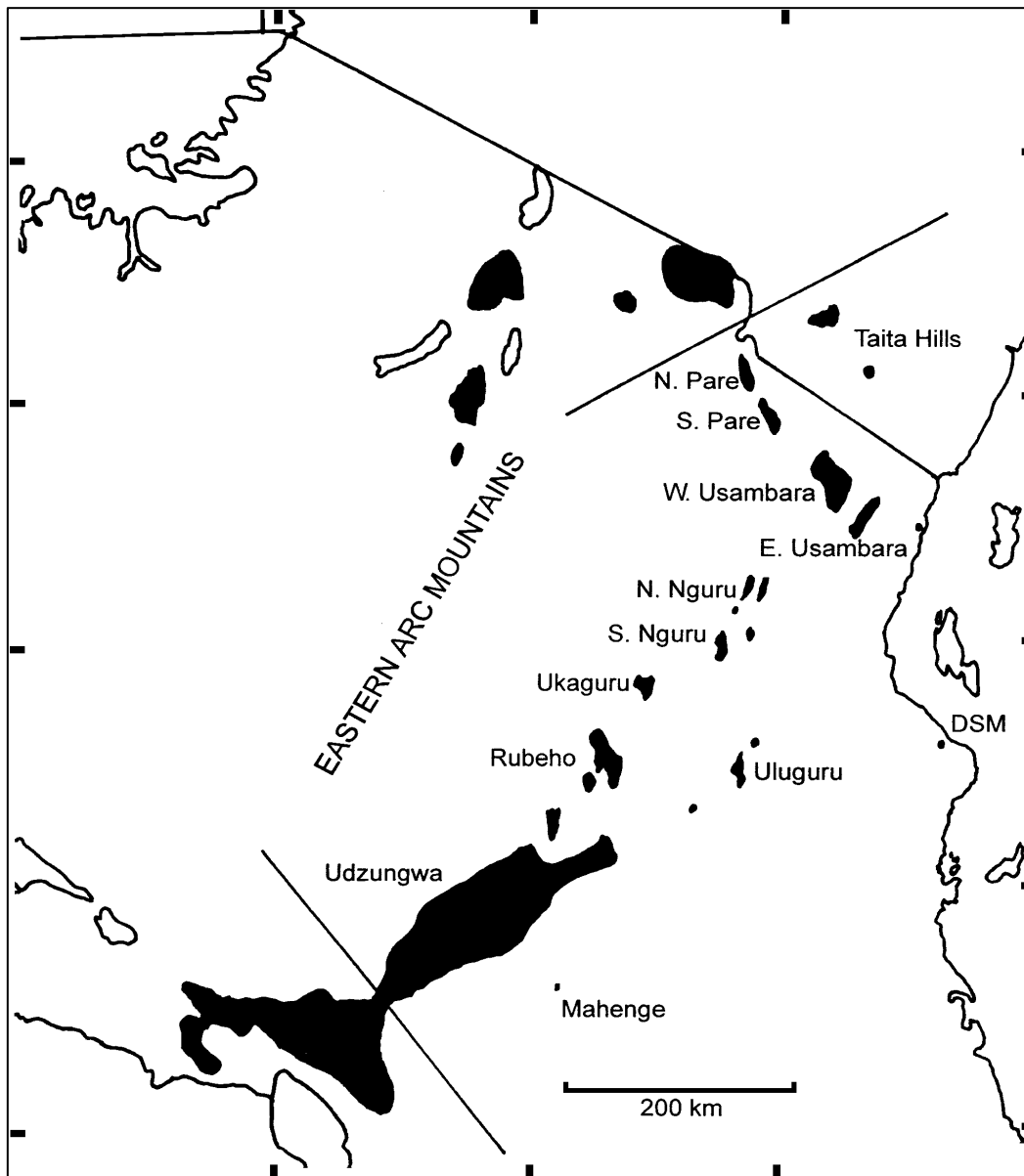
179. In addition, design of the Endowment Fund has followed closely from experience with other Trust Funds, such as the Mulanje Mountain Biodiversity Conservation Project and the Mgahinga-Bwindi Impenetrable Forest Conservation Trust and has sought to incorporate the recommendations of the Interagency Panel Group on Environmental Funds, Africa Working Group (IPGEF) which contributed substantively to the preparation of the EACEF.³⁵ The Endowment Fund component includes many of the best practices guidelines identified in the GEF evaluation of Trust Funds. Experiences and outcomes will be incorporated into future such reviews.

This Project Brief was reviewed in Tanzania by the National Forest Program Steering Committee, and by a member of the STAP (Annex 13).

Annexes

Annex 1:	Map of the Eastern Arc Mountain Forests
Annex 2:	Threats to Biodiversity Loss in the Eastern Arc Forests, Root Causes, and Mitigating Actions
Annex 3:	World Bank and UNDP Support for Implementation of the Tanzania National Forest Program
Annex 4:	Forest Biodiversity Value, Endemicity, Threats and Donor Support and Effectiveness in the Eastern Arc
Annex 5:	Activity Description, Output 1—Development of an Integrated Eastern Arc Mountain Biodiversity Conservation Strategy
Annex 6:	Activity Description, Output 2 – Innovations in community-based Forest Biodiversity Conservation in the Uluguru Mountains
Annex 7:	Activity Description, Output 4 – Establishment and Operation of the Eastern Arc Mountains Conservation Endowment Fund
Annex 8:	Incremental Cost Analysis
Annex 9:	Logical Framework
Annex 10:	Stakeholder Consultations and Lessons Learned and Incorporated into Project Design
Annex 11:	Deed of Trust for the Eastern Arc Mountains Conservation Endowment Fund
Annex 12:	Indications of UNDP and Government Counterpart Financing
Annex 13:	Technical Review
Annex 14:	Response to the Technical Review
Annex 15:	Letter of Endorsement

ANNEX 1: MAP OF THE EASTERN ARC MOUNTAIN FORESTS



Map prepared by the US Forest Service, Forest Health Project

ANNEX 2: THREATS TO BIODIVERSITY LOSS IN THE EASTERN ARC FORESTS, ROOT CAUSES, AND MITIGATING ACTIONS

There are six main anthropogenic threats to the loss of biodiversity in the Eastern Arc forests, namely a) commercial agriculture, b) subsistence agriculture, c) commercial timber extraction, d) domestic timber extraction, and e) other household uses.

- (a) **Commercial agriculture** . Highly diverse farming systems across the region where the Eastern Arc forests are found have favored the emergence of multiple commercial cropping strategies with varying impacts on forest cover. The four primary cash crops in Tanzania are coffee, tobacco, tea, and cotton, but typically, these have not had a huge impact on high forest cover loss in the Arc. The main coffee producing areas of Tanzania are mostly in the Kilimanjaro and Kagera regions (away from the Eastern Arc), and tobacco and cotton are grown primarily in drier areas. Tea is grown in Iringa, Tanga, and Kagera, mostly in large estates, and poses a modestly greater threat. The most significant threat, however, comes from the cultivation of vegetables and cooking bananas for local markets, and, in some places, the cultivation of cardamom and other spices under the forest cover. The former requires outright forest clearance of cultivable areas, while the latter results in the clearance of the understory and cultivation for several years before soils are depleted. This type of commercial cultivation plays an extremely important role in rural livelihoods.
- (b) **Subsistence agriculture** . Subsistence farming systems are characterized by very low productivity (less than 1 ton per ha for maize, which is the main subsistence crop). This is in part due to the lack of better alternatives. Cultivation on steep slopes and slash and burn cultivation are common. Cropping practices are widely perceived to have led to a decline in already low yields, and to deforestation, and soil erosion. Agriculture continues to expand into forested areas.
- (c) **Intentionally set fires**. The burning of fields and grasslands is a key feature of subsistence farming in Tanzania, and poses another risk to high forests in the Arc. Honeyhunters are also widely blamed for setting fires.
- (d) **Commercial timber extraction** Large-scale timber extraction still occurs, albeit illegally because of a moratorium on the felling of high forests established in the early 1990s. Logging has been almost completely stopped in some areas (such as in the East Usambaras). However, there are few incentives – or the capacity – otherwise to reduce or even to monitor the rates of extraction. In practice, District Forest Officers (who are accountable to the local District Administration rather than to FBD) sometimes condone harvesting in high forests. Many Districts make their own decisions about logging, and some have even called for logging in their District forest management plans, irrespective of national policy. Strong action is, therefore, required at the national level to clearly delineate logging policies as they apply to the Eastern Arc forests, and enforcement mechanisms need to be implemented. Commercial extraction to meet charcoal and woodfuel market demands occurs, but is limited to those few areas of the Arc which are in the vicinity of larger urban centers (primarily Morogoro and Tanga).
- (e) **Domestic timber extraction** for household construction also poses a threat to the high forests, particularly in areas of recent settlement because of the need for building material. Most of this extraction is carried out by relatively low impact pitsawyers.

- (f) **Other household uses** pose less of a threat to the high forests of the Arc because they tend to be non-extractive – the collection of wild foods and fruits, the use of forests for beekeeping, and livestock grazing. These also play an extremely important role in mitigating the impacts of poverty.

Anthropogenic threats are the result of a series of root causes, which seldom act independently of each other, but which overlap, and mutually reinforce the nature of the threat and its outcome in the forests.

<i>Root causes of the threats to biodiversity conservation in the Eastern Arc Mountain Forests</i>	<i>Threats associated with particular root causes (by letter referred to above)</i>	<i>Baseline actions to mitigate impacts of root causes</i>	<i>Actions to be financed by GEF to mitigate impacts of root causes</i>
1. Extensive poverty throughout the region	a, b, c, d, e, f	Rural roads improvements, economic liberalization to improve functioning of markets, Heavy investments in health and education. Forest management contributes significantly to mitigating the impacts of poverty, but will likely do little to increase rural incomes. Baseline investments in institutional reform, focusing on strengthening participatory forest management, will contribute to mitigating poverty.	Community-based conservation activities in the Ulugurus, and those financed by the Endowment Fund, are intended to link biodiversity conservation with poverty reduction in critical ecosystems. The development of a strategic and integrated view of Conservation in the Eastern Arc will provide important guidance about resolving development and biodiversity conservation needs.
2. Extensive and inefficient land-use practices	a, b, c	Agricultural extension activities, new land legislation and support for its implementation, economic liberalization to improve operation of markets.	Community-based forest biodiversity conservation activities seek to bring improved land-use practices into the agricultural landscape.
3. Lack of environmental awareness	b, c, d	Community based woodland management and biodiversity conservation projects (Danida, UMADEP). Forest sector planning contributes to longer term view of increased environmental awareness.	-- ditto --
4. Lack of experience and incentives to develop alternative resource use and conservation frameworks in communities and on private land.	b, c, d, f	-- ditto --	-- ditto --
5. Few <i>fora</i> that promote communal exchanges and local networking	b, e, f	-- ditto -- FCMP will also invest in community exchanges, farmer-to-farmer exchanges, and interactions to widen the group of interested parties in VFR establishment and management. Development of network of practitioners.	Ulugurus activity, preparation of the Conservation Strategy, and operation of the Endowment Fund will provide a <i>fora</i> to promote communal exchanges and local networking.

<i>Root causes of the threats to biodiversity conservation in the Eastern Arc Mountain Forests</i>	<i>Threats associated with particular root causes (by letter referred to above)</i>	<i>Baseline actions to mitigate impacts of root causes</i>	<i>Actions to be financed by GEF to mitigate impacts of root causes</i>
6. Lack of effective local mechanisms for controlling forest exploitation.	d, e	Conservation programs in catchment Forest Reserves and in other protected areas begin to address this problem. National Forest Policy and National Forest Program introduce new framework for local control, and are in the process of being implemented. Proposed institutional reforms will also address this constraint.	GEF support will improve institutional capacity to undertake biodiversity conservation activities, in part by focusing on local capacity to undertake forest conservation and management.
7. Limited ecosystem-wide strategic focus.	a, b, c, d, e	National Forest Program provides broad framework for action on forest biodiversity conservation, but provides no specific guidance with respect to the Eastern Arc	Preparation of integrated strategic conservation plan for the Eastern Arc will seek to establish a common platform for a range of stakeholders to develop a consensus about the priorities for conservation and management in the Eastern Arc.
8. Weak institutional capacity for forest biodiversity conservation	c, d, e	Framework for institutional reform is being developed.	Project proposes to improve capacity for forest biodiversity conservation in new institutional framework through training and by integrating forest conservation initiatives into the broader program of the TFS.
9. Weak forest governance	c, d, e	Planned institutional reforms are partly intended to improve forest governance	...
10. Inadequate and poorly targeted fiscal resources	c, d, e	Donor resources and wage bill for catchment forests and National parks protection. Move to a sector-wide approach supported by the FCMP is intended to improve resource flows and targeting	Long term sustainable financing for forest biodiversity conservation will be an outcome of the establishment of the Eastern Arc Conservation Endowment Fund.
11. Limited effectiveness of protection regimes	c, d, e	Alternative village-based management and protection regimes have been introduced in policy and are waiting ratification in the legal framework. The introduction of village-based forest management and conservation schemes will be a key focus of the proposed Forest Conservation and Management project.	Community-based conservation through the Uluguru component, as well as supported by the Endowment Fund, should provide important support to the establishment of VFRs in critical biodiversity catchments.

ANNEX 3: WORLD BANK AND UNDP SUPPORT FOR IMPLEMENTATION OF THE TANZANIA NATIONAL FOREST PROGRAM

The National Forest Program was envisaged as a plan for implementation of the 1998 National Forest Policy, and has been prepared by the Ministry of Natural Resources and Tourism, with assistance from the Finnish Department of International Development Cooperation (DIDC). The four thematic programs of the NFP are summarized in Table A3.1.

The principal financial delivery mechanism for the National Forest Program is the planned US\$ 62.2 million Forest Conservation and Management Project (FCMP) into which the proposed GEF financed alternative has been fully-blended. Bilateral support for implementation of the NFP (including planned GEF co-financing) is in the process of being mobilized.

World Bank Support

Government and the World Bank have agreed to focus IDA resources on two areas of the NFP – institutional reform, and involvement of the private sector in industrial plantation development -- and are seeking GEF support for implementation of the third component, summarized here but described in greater detail in the main text of this Project Brief. As such, FCMP has three components, which are intended to provide support for the thematic programs and activities underlined in the Table. IDA support is expected to total US\$ 32.1 million, and constitutes a critical part of the overall Forest Conservation and Management Project.

Supporting institutional change and improving service delivery

This component will assist the government with the design and establishment of the Tanzania Forest Service (TFS), as a specialized ‘executive agency’ as defined by the Executive Agencies Act (1997), and consistent with the wider and on-going national program of civil service reform. It is envisaged that the Tanzania Forest Service will, among other things, have clearer responsibilities for the protection and management of natural forests and the development and management of industrial plantations (including promoting the private sector to take on these tasks). Initially, the agency will be established on a limited basis with clearly defined regional responsibilities and coverage, although the concept is that an agency with a national mandate will eventually be established. Technical assistance will be provided to work with FBD and the Civil Service Department (CSD) and other relevant government

Table A3.1: Thematic Programs of the Tanzania National Forest Program

- 1. Forest Resources and Conservation Program**
 - Participatory Forest Resources Management and Gender Aspects
 - Forest Biodiversity Conservation and Management
 - Land Use Planning
 - Forest Resources Information and Management Planning
 - Forest Resources Utilization
- 2. Institutions and Human Resources Program**
 - Strengthening Institutional Set-up and Coordination and Cooperation
 - Human Resources Capacity Building
 - Forest Financing
 - Strengthening Extension Services and Awareness Creation in Forest Management
 - Forestry Research
 - Policy Analysis, Planning, and Monitoring
 - Forest Resources Valuation
- 3. Legal and Regulatory Framework Program**
 - Development of laws and regulation
 - Harmonization of Regulations
 - Development of Sector-specific Environmental Impact Assessment Guidelines
- 4. Forestry Based Industries and Sustainable Livelihoods**
 - Forestry Products and Services Information Development
 - Products and Markets Promotion and Awareness Creation
 - Forestry Industries Technology Development
 - Infrastructure Development

Source: Ministry of Natural Resources and Tourism. *National Forest Program*. Forestry and Beekeeping Division (2001).

agencies to design the structure and functions of the agency and to draw up the necessary implementation plans and guidelines for establishment of the agency, including the formulation of business and staff recruitment plans. This component will also provide support to build on experience from previous operations, and upon the opportunities posed by the new Forest Policy, and planned legislation.

Three sub-components of this activity are envisaged:

- (i) **Establishment of the Tanzania Forest Service**, focusing on the phased-in introduction of the new executive agency, with clearly defined roles, functions, performance standards, and monitoring. This sub-component would provide resources to manage the change process, to strengthen the capacity for administration and management, to rationalize and to strengthen the capacity for tasks related to policy, planning, and legislation (which would remain with the Ministry), and would support a badly-needed program of investments in infrastructure, including headquarter and field facilities for the TFS.
- (ii) **Improving revenue collection from forests and woodlands**, to improve the capacity of the TFS to become self-financing, and to ensure that revenues are reinvested at the local level in forest protection and management through local institutions. This component will develop alternative revenue collection mechanisms, and monitoring systems to improve rates of collection.
- (iii) **Improving service-delivery mechanisms for participatory forest and woodland management**, in particular, support for the establishment of Village Forest Reserves, woodland management by individuals and communities (*ngitiri*), and Joint Forest Management, building on experiences piloted in earlier operations. This sub-component will be implemented in conjunction with community-based forest management activities which, it is envisaged, will be supported by the Government of Denmark.

A mid-term review would determine outstanding issues and provide recommendations for improving the efficiency and effectiveness of the TFS. A further evaluation will be undertaken prior to project completion and, as well as determining the degree of achievement and success of the TFS, will develop lessons for the future.

Private sector involvement in the management of industrial plantations

FCMP will provide resources to develop and implement a framework for the involvement of the private sector in the management of existing industrial plantations as well as to strengthen the potential for the development and management of new plantations. This would include an analysis of the technical and financial feasibility of the industrial plantations with reference to existing and potential markets as well as the formulation of steps and guidelines for the private sector's involvement. Multiple mechanisms for the involvement of the private sector will be developed and implemented on a pilot basis, and are expected to include leasing arrangements, joint forest management, and co-management. Consistent with policy, the objective is eventually to introduce fully commercial plantation management, building on information and experience gained through activities.

Four sub-components are envisaged:

- (i) **Improving the plantation resource information base and management planning capacity.** This sub-component will provide resources to develop the information needed to allow for the identification and selection of priority sites and for designing pilot activities. The sub-component will finance aerial photography, interpretation, mapping, and indicative inventories of around 40,000 ha of state-owned plantations; a rapid socio-economic assessment which identifies key

stakeholders, their concerns, and expectations; the development of a plantation database for management purposes; preparation of basic guidelines to guide plantation management and to establish parameters for monitoring commercial plantation operations; preparation of basic growth and yield tables for key species relying on existing data; preliminary estimates of growing stock and allowable cut; and capacity building of staff in selected areas to build capacity to undertake these tasks.

- (ii) **Strengthening institutional support services for private sector involvement.** This sub-component will support the creation of an enabling institutional and market environment for private sector involvement in plantation development and management. It will provide resources for the design and implementation of a communication strategy; the development of a plan of action with agreed principles and clear objectives for private sector involvement; the establishment of a PSI unit within MNRT; the development of legal procedures and instruments for tendering to ensure transparency and consistency with Government guidelines; the preparation of model information memoranda, leases, model contracts, and transparent bidding assessment procedures, as well as community and environmental action plans where they are needed; prepare recommendations on an improved log sales system; an action plan for improving forestry taxation and the investment environment for plantation forestry; and study tours and staff training to increase an understanding of the principles surrounding private sector involvement.
- (iii) **Pilot alternative management of selected industrial plantations.** Three pilot activities are envisaged under this component: the development of leasing arrangements for involving the private sector in plantation management; the development of co-management arrangements where responsibility for plantation management is shared between Government and a partner (for example, a village or a company); and designated community management for a plantation area where responsibilities and control are assumed by a village. The project will provide resources to establish boundaries of each pilot area, to carry out rapid inventories or aerial surveys as needed, to prepare legal documentation as needed, and to carry out stakeholder surveys and assessments where communities will be involved or otherwise affected by the program.
- (iv) **Monitoring and evaluation.** The project will place a strong emphasis on the monitoring and evaluation of performance under the pilot operations. The project will provide resources to establish a mechanism for monitoring and evaluation; to determine performance indicators for the pilot operations; to implement a regular monitoring process which reports against quantitative and qualitative performance indicators; and to provide feedback to MNRT to modify mechanisms and procedures on the basis of results from the pilot operations.

Eastern Arc forests conservation and management

This third component of the program is described in greater detail in the text of this Project Brief, but is summarized here in order to establish the extent to which proposed GEF support has been fully blended into this IDA operation. This component will support institutional reform, strategy development, pilot community-based conservation, and the development of sustainable financing for tropical high forest conservation in Tanzania.

The GEF activity is expected to have four sub-components, the first two of which will be implemented by the World Bank:

- (i) **Institutional reforms for forest biodiversity conservation, in particular of the Eastern Arc forests** at central, district and local partnership levels to incorporate specific responsibilities for biodiversity conservation, oversight, monitoring and coordination. Such reforms will be linked

with other reforms and institutional restructuring proposed for the forestry sector as a whole, which are to be financed by IDA. The GEF implementing agency for this sub-component would be the Bank;

- (ii) Mechanisms for **sustainable financing of biodiversity conservation**, will be developed including the establishment of an Eastern Arc Conservation Endowment Fund. The GEF implementing agency for this sub-component would be the Bank. IDA will finance US\$ 2 million in costs of the EAMCEF through FCMP, in addition to expected GEF support.

Two additional components are to be implemented by the UNDP and are complementary to the Bank-implemented activities:

- (iii) Development and preparation of an integrated **Conservation Strategy for the Eastern Arc Mountain Forests** using a broad-based participatory process, with a focus on institutional capacity building, and which considers links to other sectoral activities, such as agriculture, water, land, and energy. A wider dialogue on the impacts of sectoral activities on forest biodiversity conservation in the Eastern Arc will be developed amongst the key institutions involved in sectoral activities. Mapping and baseline activities will be undertaken as part of the Strategy development, and will include an assessment of the multiple tenure regimes found in the forests of the Arc. The GEF implementing agency for this sub-component would be UNDP.
- (iv) A **forest conservation intervention through government and community partnership initiatives** which will be undertaken at priority sites in the Uluguru Mountains - one of the most important mountain forest blocks in the arc. Firm linkages will be established with partners (other donors, NGOs, Community-based organizations, government agencies, etc.) The GEF implementing agency for this sub-component would be UNDP.

Project processing

The Appraisal of two of the three components of FCMP was carried out from October 8 to 17, 2001, and has now been completed. The FCMP Project Appraisal Document clearly describes and incorporates the GEF activities, but explains that they will be separately Appraised after Council review. The FCMP Development Credit Agreement is to be negotiated in early December and is expected to go to the Bank's Board of Executive Directors for its approval by the end of February, 2002. The Credit should be effective within 90 days from signing.

UNDP and GEF Support for implementation of Forest Biodiversity Conservation Initiatives in Tanzania

Tanzania has several GEF Biodiversity Projects. A number of these focus on forest ecosystems.

A past project "Institutional Support to the Protection of East African Biodiversity" (1992- 1996) had a component supporting forest capacity. A PhD study within the Forest Faculty looked at Indigenous Knowledge for Forest Conservation in the East Usambaras. This input fed into the current Forest Policy. Support to the Forest and Environment sectors assisted the Biodiversity Country Study with a detailed assessment of biodiversity issues in Tanzania. The country study emphasized the importance of the Eastern Arc Forests. A major workshop on the Conservation of Protected Areas (1994) drew attention to the need for stronger protection of forest biodiversity beyond the traditional Forest Reserve. Many foresters were sensitized as to the importance of forest biodiversity via either improved University teaching or via specific short courses for in-service foresters. However that project was completed five years ago and had a focus on capacity building, rather than on field implementation.

An ongoing UNDP-GEF Regional Project “NGO – Government Partnerships for Biodiversity Conservation” has an element in Tanzania, implemented via the Tanzania Wildlife Conservation Society. However the project has a field focus on grassland and wetland sites.

An ongoing UNDP-GEF Regional Project “Reducing Biodiversity Loss at Selected Cross Border Sites in East Africa” does have a forest focus, with three forest sites in Tanzania, one of which is in the Eastern Arc – the South Pare Mountains and Chome Forest Reserve. The Taita Hills Forests form a cross border site in Kenya. These site activities have contributed much in terms of lessons at dealing with conservation at district level, and the development of an enabling environment for effective conservation. The principal lesson learned is the need for a broad consensus of support based on understanding and trust. The consensus must be across village level and civil service level institutions. It takes time! Lessons are summarized in Annex 10. Little capacity and little acceptance of responsibility within district forestry and local CBOs are key issues. This project finishes in early 2003, and so will have a year of overlap.

A Medium Sized Project in Zanzibar (UNDP-GEF) “Conservation of the Jozani Chwaka Bay Forest System” had linkages to the development of this Eastern Arc project, but the Jozani system is part of the Coastal Forests and under the jurisdiction of the Zanzibar Ministry, distinct from Dar es Salaam. The Jozani project started over a year ago, and is executed by CARE in cooperation with the Zanzibar authorities. The Project has strong components on community forest management, and is amongst the first in East Africa to develop specific protocols for co-management on the ground through CBOs. Many of these lessons have been incorporated into the Uluguru component of this project, as CARE were contracted to develop that program within the PDF B process.

This present Eastern Arc Mountain Forests proposal adds to and complements the existing portfolio of past and present projects. The proposal builds on lessons derived from past activity.

ANNEX 4: FOREST BIODIVERSITY VALUE, ENDEMICITY, THREATS AND DONOR SUPPORT AND EFFECTIVENESS IN THE EASTERN ARC

There is a rich and growing scientific literature about the extent of forest biodiversity and endemism in Tanzania. Burgess et al (2001) ¹ made an effort to rank different blocks of the Eastern Arc on the basis of rates of endemism. The results from that assessment are summarized in Table A4.1.

**Table A4.1: Incidence of biodiversity endemism in the forest blocks of the Eastern Arc mountains forests,
and area adjusted rankings of biodiversity values**

Eastern Arc Mountain Forest Blocks	Forest area (km ²)	Numbers of Endemic Species				Ranking of forests by number of endemics	Ranking of forests, accounting for endemics per forest area
		Number of Single Block Endemics	Number of Eastern Arc Endemics	Number of Eastern Arc near-endemics	Sum of all Endemics		
Taita Hills	3	2	1	0	3	9	2
North Pare	25	0	0	0	0	12	10+
South Pare	211	0	2	2	4	8	7
West Usambara	220	1	10	1	12	5	6
East Usambaras	450	11	29	26	66	1	3
Nguu	140	0	5	0	5	7	..
Nguru	328	1	14	7	22	4	5
Ukaguru	155	0	4	4	8	6	8
Rubeho	654	0	2	0	2	10	9
Uluguru	291	13	27	20	60	2	1
Malundwe Hill	5	0	0	0	0	12	..
Mahenge	5	0	1	0	1	11	10+
Udzungwa	1017	13	18	25	56	3	4

Source: derived from Burgess et al (2001).

The fact that forest blocks occur in widely disbursed fragments has contributed to the high rates of endemism found in the Eastern Arc, but are increasingly a reflection of the threats which are posed to their integrity. Table A4.2 summarizes information about fragmentation, makes an estimate of the areas which have been lost to deforestation, and the extent of the threat to future forest biodiversity loss.

¹ Burgess, N, Lovett, J. and Mhagama, S. (2001). Biodiversity conservation and sustainable forest management in the Eastern Arc Mountains. Unpublished report prepared for the GEF PDF/B Eastern Arc Strategy Process.

Table A4.2: Estimated threats to forest biodiversity loss in the Eastern Arc Mountains

Eastern Arc Mountain Forest Blocks	Ranking of forests, accounting for endemics per forest area	Area of closed forest (km²)	Number of forest patches	Estimated extent of forest cover loss (percent over last 100 years)	Estimate of threat to biodiversity loss
Taita Kenya	2	4	13	98	Very high
North Pare	10+	28	2	50	Very high
South Pare	7	120	5	73	High
W. Usambara	6	245	17	84	High
E. Usambara	3	235	8	57	Medium
Nguu	..	..	..	..	..
Nguru	5	120	8	82	Medium
Ukaguru	8	100	1	96	Very high
Rubeho	96	100	6	37	Very high
Uluguru	1	120	5	65	Very high
Malundwe Hill	..	..	..	..	..
Mahenge	10+	10	3	89	High
Udzungwa	4	389	26	76	Medium (Very high at lower altitudes)

Source: derived from Burgess et al (2001).

Poverty and other social indicators in Tanzania are extremely poor. Most data is out of date, and is only aggregated at the regional level in the first instance. Recent census information is not available. The lack of data makes it very difficult to draw any particular conclusions about the immediate incidence of poverty amongst communities living in the vicinity of the Eastern Arc and the pressures this poses. Nonetheless, Table A4.3 makes an attempt to present some of the poverty and social welfare indicators which are known for the 4 regions across which the Eastern Arc forests extend.

According to these statistics, poverty indicators are the worst in Tanga and Iringa regions, measured both in terms of the incidence of poverty as well as in terms of the prevalence of stunting amongst children. The statistics with respect to population pressure are almost meaningless because population data is long out of date, and because regional aggregations fail to capture the fact that locally, population densities around individual forest blocks can be extremely high.

Table A4.3: Poverty and Social Welfare Indicators and the Eastern Arc Forests

Eastern Arc Mountain Forest Block	Forest area (km ²)	Location by Region	Incidence of Poverty, by Region	Nutritional Status of Children (moderate stunting)	Rural population (1988)	Rural population per km ² of forest area
Taita Hills	3	Taita-Taveta (Kenya)				
North Pare	25	Kilimanjaro	25	33.5	845,428	3582
South Pare	211					
West Usambara	220	Tanga	41	55.3	979,536	1209
East Usambaras	450					
Nguu	140					
Nguru	328	Morogoro	38	52.7	865,437	602
Ukaguru	155					
Rubeho	654					
Uluguru	291					
Malundwe Hill	5					
Mahenge	5					
Udzungwa	1017	Iringa	42	70.5	1,030,489	1013
Tanzania, total			40	43.4	16,948,271	

Sources: World Bank (2000). *Agriculture in Tanzania since 1986*. Washington, D.C. World Bank; World Bank (1994). *Tanzania Agriculture*. Washington, D.C.

The incidence of poverty is based on 1993 data, and is the percentage of households where per capita expenditure is below the poverty line, defined at the 40th percentile nationally (TSh 43,773 for rural households). Other statistics suggest higher incidence, but this is a function of how the poverty line is defined;

Nutritional status is indicated by the percentage of children below 2.5 s.d. of the median height for age which exhibit moderate stunting.

Population data which dates from 1988 is unreliable, and is only repeated to give an indication of land pressures across various regions. From this, one could conclude that population pressures on forests are probably highest in Kilimanjaro Region and lowest in Morogoro Region, but this fails to capture the distribution of populations within regions. Population pressure around forests in Morogoro Region are thought to be very high because of the coincident limited availability of good agricultural land. Patterns of forest loss outlined in Table A4.2 suggest this is the case.

With respect to donor support for forest biodiversity conservation, and its effectiveness in the Eastern Arc, Table A4.4 summarizes some of the donor activities which are currently underway in various blocks, and ranks their effectiveness (on the basis of a great deal of very subjective judgment) in achieving long term and sustainable outcomes.

Table A4.4: Donor-financed forest biodiversity conservation activities in the Eastern Arc

Eastern Arc Mountain Forest Blocks	Project/Donor	Extent of financial support (1 to 5)	Extent to which project interventions have had a major impact on forest biodiversity conservation (1 to 5)	Long term prospects for sustainable biodiversity conservation activities? (1 to 5)	Comments	Overall rating of the effectiveness of donor supported forest biodiversity conservation in achieving long term sustainable outcomes
North Pare	Catchment Forestry Via NORAD (CFN)	5	4	5	-	5
South Pare	Reducing Biodiversity Loss at Cross Border Sites in East Africa (GEF)	5	2	3	Project activities in the Pares are a relatively small sub-component of a wider initiatives	3
West Usambara	Natural Resources Management and Buffer Zone Development Program (GTZ)	4	4	5	Project support is part of a wider program of land and forest management, and doesn't have a specific emphasis on biodiversity conservation <i>per se</i>	4
East Usambaras	East Usambara Conservation Area Management Project (DIDC)	2	1	4	Long term support has had a good impact on biodiversity conservation, but sustainable financing mechanisms are not in place, and project approach has resulted in possibly serious conflicts with communities in forest adjacent areas.	2
Nguu	CF – N	5	4	5		5
Nguru	CF – N	5	4	4		4
Ukaguru	CF – N	4	4	3		3
Rubeho	CF – N	5	4	5		5
Uluguru	Uluguru Mountains Biodiversity Conservation Project (WCST, DOF, UMADEP)	4	4	3	Project is a modest new initiative with limited track record to date.	4
Malundwe Hill	In National Park	4	5	5	Basic protection	5
Mahenge	CF – N	5	4	4		4
Udzungwa	1 Udzungwa Mountains Forest Management and Biodiversity Conservation Project (Danida) 2 Udzungwa NP (WWF)	2	2	2	Project has focused l on the important forest areas that are outside the park. Focuses on the National Park only	3

Finally, in an effort to consolidate the information collected and evaluated during the PDF/A and B exercises with respect to the threats and their impacts on forest biodiversity loss in the Eastern Arc, a

ranking exercise was undertaken to establish priorities for future action. The results are summarized in Table A4.5. The results are highly subjective, but are thought to be an indication of the best judgment of the many experts who were consulted during the PDF/A and B activities.

Table A4.5: Summary Table, Ranking forest blocks in terms of priorities for action to reduce threats to biodiversity loss in the Eastern Arc

Eastern Arc Mountain Forest Blocks	Ranking of forests by number of endemics (a)	Ranking of forests, accounting for endemics per forest area (b)	Estimate of threat to biodiversity loss (c)	Overall rating of the effectiveness of donor supported forest biodiversity conservation in achieving sustainable outcomes (d)	Priority for steps to reduce threat to biodiversity loss (score)	Ranking of forest blocks in terms of priorities for actions to reduce threat to biodiversity loss (top five)
Taita Hills	9	2	1	n/a		
North Pare	12	10	1	4	1.37	
South Pare	8	7	2	4	0.90	
West Usambara	5	6	2	4	0.55	5
East Usambaras	1	3	3	2	0.48	3
Nguu	7	..	..	5	..	
Nguru	4	5	1	4	0.53	4
Ukaguru	6	8	1	3	0.87	
Rubeho	10	9	1	5	0.90	
Uluguru	2	1	1	4	-0.37	1
Malundwe Hill	12	..	..	5	..	
Mahenge	11	10	2	4	1.45	
Udzungwa	3	4	2.5	3	0.47	2

Notes:

Rankings are based on the other Tables in this Annex.. Scoring is highly subjective, but represents the best estimates of experts familiar with the challenges of forest biodiversity conservation in the Eastern Arc. A low score means that the forest block is a high priority for effective action in reducing threats to forest biodiversity loss.

Scoring was determined on the basis of the following: $\text{Score} = (a/12) + (b/10) + (c/3) * 0.5 - (d/5)$

ANNEX 5: ACTIVITY DESCRIPTION, OUTPUT 1 -- DEVELOPMENT OF AN INTEGRATED EASTERN ARC MOUNTAIN BIODIVERSITY CONSERVATION STRATEGY

Activity 1.1: An overall Eastern Arc Conservation Strategy, which addresses the Vision and Goal for the Eastern Arc Mountains; is developed and under implementation.

Rationale . This is based on lessons learned from the Queensland Tropical Forest Conservation Strategy in Australia. The QTFCFS has great similarity to the Eastern Arc, where successful conservation is dependent on several independent stakeholders each with different tenure and access rights to the resource. A commonly agreed vision and strategy provides a coordination framework for ALL stakeholders to participate. This Activity develops a strategic planning process, building on that established in the PDF activity. The process involves several stages from individual reserve management plans through district strategies and individual mountain block strategies³⁶. The Strategy process has a number of distinct component tasks. These include:

- (a) **Linkages from Forestry to Agriculture, Water and Energy sectors are maintained** This builds on the National Forest Policy and National Forest Programme directives. All sectors have major roles and interests in the eastern arc mountains – all have roles in the strategy.
- (b) **Forestry sector develops capacity building linkages to Districts.** Districts will not have ability to do this alone, they will need guidelines, training, networking and support This support will be into Local Government and between Local Government, the Central Government, private sector and the NGO community.
- (c) **The Forestry sector completes processes for holistic participatory reserve management plans** . These include Nature Reserves, Forest Reserves and Village and Private Forest Reserves. Forest Reserve management plans are the basic building blocks around which strategies are developed. These plans must be broad based and put each reserve in its overall development and community context. Forestry HQ must set guidelines as to both the process and the content for the holistic plans, and, after broad-based approval - procedures for joint implementation. Plans must integrate the conservation (biodiversity and catchment functions) with community demands for sustainable resource processes and increased access and tenure. Plans must have capability for adaptive response to management, as shown by strong monitoring systems
- (d) **District Conservation Strategies developed, integrating sector concerns and reserve plans.** Strategies integrate the overall district development processes with reserve conservation plans. These strategies address local, national and global values, seeking sustainable benefit flows to all stakeholders. District ownership within guidelines from central government is essential.
- (e) **Mountain Block Conservation Strategies developed, integrating district plans** . This will be an amalgamation of adjacent district plans, into a single mountain block strategy – e.g. the East Usambaras (2 Districts), West Usambaras (2), and Udzungwas (3)
- (f) **World Heritage Site nomination developed and implemented for whole Eastern Arc.** This is Tanzania affirming the global value of the Arc forests (just like Kilimanjaro, Ngorongoro, and Serengeti – which are already nominated as World Heritage Sites). There is a complex nomination process – including setting out conservation strategies. MAB status to be extended.

- (g) **A suite of planning tools developed, and used, through national and district capacity.** These tools will assist in earlier tasks, and will include: threat reduction analysis, participatory planning procedures and map-based forest biodiversity planning & assessment tools.

Activity 1.2: A set of thematic strategies for biodiversity conservation are developed and implemented, through macro frameworks and individual management plan processes

Rationale : The overall strategy will have two main components, the first which is geographic and cross-sectoral is described in 1 above. The other (described here) will be a series of thematic issues, which cut across all the district and mountain strategies. These themes are listed below:

- (a) **Developing biodiversity conservation strategies and guidelines for implementation.** This is a broad topic and includes: Species conservation strategies, guidelines for ICDP processes and links to Participatory Forest Management, option setting for sustainable use versus stricter Nature Reserve processes, and the linkages between biodiversity and catchment conservation will be important. Guidelines will include optimum funding and staffing intensities, compartment / beat management procedures, etc. This strategy component will be a major part of the GEF - UNDP activity, but will link to other developing co-finance (eg the WWF-IUCN Forest Restoration Project, the USAID - Sokoine University Forest Health Project).
- (b) **Developing procedures for selecting, setting up and implementing Nature Reserves.** At present there is no national framework for Nature Reserves, despite their prominence in the National Forest Policy and Program. This activity will develop a national framework and set up a Nature Reserve system across the Eastern Arc Forests that adequately covers the range of diversity.
- (c) **Fire management strategies.** Fire is a major threat to the arc forests in most mountain blocks – there are no overall control or prevention strategies in place. Again fire strategies need to be integrated into JFM agreements and buffer zone management practices.
- (d) **Forest health strategies.** The project will liaise with the US Forest Service Forest Health Project to develop further strategies. Dealing with invasive species (both plant and animal) will be a key issue here.
- (e) **Sustainable Use Strategies** developed for forest periphery communities; including sustainable collection of e.g. chameleons, violets; sustainable wood product use (poles, fuelwood, carvings etc); Insect farming (mantises and stick insects as well as butterflies are increasingly collected from Arc forests). This is a core concept in the long-term conservation of the arc forest, and links to the CBD as well as to Tanzania's Policies on Environment and Forestry. Sustainable Use links to income generation processes from forest products; and to community and joint forest management initiatives. Strategies include micro-enterprise, resource assessment, marketing etc.
- (f) **Alternative Income Generation Strategies** developed for forest edge communities; including: Agro-forestry inputs to sustainable agriculture, handicrafts, eco-tourism. The rationale here is finding AIG activity outside the forest, but linking support to conservation processes (the classic ICDP dilemma).
- (g) **Forest Restoration for Biodiversity and Catchment Capacity.** Large areas of the Arc forests have been degraded over time, with considerable canopy opening and fires reducing regeneration. Forest under-stories are no longer dense enough to allow many forest birds to pass or plants of conservation interest to regenerate; and catchment values are impaired. There is a need to have an overall restoration plan in place - for habitats and, where essential, key species.

Activity 1.3: A socio-economic monitoring program developed and under implementation.

Rationale . National development goals see forestry supporting rural communities. Past conservation paradigms have seen rural poverty as a major factor in resource degradation. There is little understanding of the relationships between these factors, nor how to integrate sustainable use into anti-poverty processes. This action provides linkages to the national PRSP process, and more especially the imperative to integrate environmental issues into the PRSP itself. Forestry has several entry points, two of which link to the main priority areas for PRSP. These are links from forests as catchments to **water**, and from forests to **agricultural incomes**. In addition PRSP recognizes the importance of **direct forest incomes** in impoverished rural areas, and lastly the need for poverty environment indicators. The poverty to forest conservation linkages need to be captured within policy frameworks. There are three tasks.

- (a) **A suite of monitoring tools and protocols developed around the people – forest interface .**
Whilst developing GEF documentation is beginning to address the community perspective – and how to quantify dependence and response to interventions, these have been little used in African forest situations. Good tested field tools are needed, which can be used within participatory situations.
- (b) **Baseline information on socio-economics** collected and analyzed around key forest sites. This builds from task 3.1 above, and uses the tools to collect baseline data, and continue monitoring to show both hoped for impact, and to show management how to adapt to community needs and pressures.
- (c) **Specific linkages to Poverty Reduction Strategy Paper (PRSP) process are developed**, to better integrate or mainstream forest dependent poverty processes into national planning and to seek specific funding into this project poverty related activity. At government level PRSP activity is the entry point to poverty reduction. PRSP – environment linkages have not been strong and need elaboration if both sectors (forest conservation through PFM; and poverty reduction through forest sustainable use of forests) are to see benefit.

Activity 1.4: Public expenditure management and the financing of forest biodiversity conservation

Rationale : This activity is intended to complement the Endowment Fund Activity (Output 4), by putting sustainable financing into a broader context. There are two main tasks:

- (a) **Royalty and fee based strategies based on biodiversity resources developed and in place .**
Whilst timber harvesting will be of minor importance in the Arc forests, it is important that resource harvesting (violets, poles) does attract meaningful fees and levies³⁷.
- (b) **Long term donor support processes canvassed.** The rationale here is that the EAMCEF should not be the endpoint of all donor investment in the arc. One of the world's 25 top biodiversity sites needs longer-term investment. Investment is needed into conservation directly, and into sustainable livelihoods and agriculture.

Activity 1.5: Forest conservation – water fee linkages from towns are explored and started.

This activity will be co-financed. This task is based on the comparative advantage of Danida program, with their Sustainable Cities Program in three Eastern Arc forest dependent cities: DSM, Morogoro and Tanga. This will allow greater interaction between the sectors that use and supply water.

Activity 1.6. Overall community conservation guidelines developed and under implementation.

This activity is intended to incorporate the findings of Output 3 into the strategy with respect to community-based forest biodiversity conservation guidelines. The task is listed here only to affirm that community interactions will be a major component of conservation strategies for the Arc forests.

- (a) **Information, education and communication strategies (IEC)** developed and implemented.
Overall framework for awareness raising developed, with stakeholders/ partners; Communication and outreach – advocacy program developed; Information Technology support to IEC activity.

Activity 1.8: Catchment Management Guidelines are elaborated and under implementation

This task integrates the on-going catchment forestry management activity (funded by NORAD and GoT) into this strategy process). Guidelines will be incorporated into broader strategy documents and specific management plans.

Activity 1.9: Adaptive monitoring program developed and under implementation.

This activity will be co-financed. The rationale behind these tasks and their linkages to Danida is that perhaps the greatest database on Eastern Arc biodiversity is in Copenhagen, and that Danish funds have supported much field research in the Arc forests. Danida funding therefore has comparative advantage in developing the following activities: A participatory M&E strategy which is accepted, and implemented in sites; A Research strategy which is prioritized, including species/communities recovery; A field research program that addresses priority issues through innovative pilot studies.

In addition, such research will need a small field research station to be set up in priority site; plus providing the capacity to implement conservation biology research/monitoring; and developing a suite of monitoring tools for forest biodiversity at species and habitat levels.

ANNEX 6: ACTIVITY DESCRIPTION, OUTPUT 2 -- INNOVATIONS IN COMMUNITY-BASED FOREST BIODIVERSITY CONSERVATION IN THE ULUGURU MOUNTAINS

Activity 2.1 Protected Area Management: Management and protection systems in the Uluguru South Forest Reserves are substantially improved, and biodiversity and hydrological values better understood.

This is the core activity, ensuring adequate conservation of the main forest block on the South Uluguru Mountains, with community involvement. There are 5 main tasks.

- (a) Develop participatory management plans for South Uluguru FR according to guidelines developed under the Eastern Arc Conservation Strategy, including upgrading status, developing buffer zone status and elaborating community rights and roles.
- (b) Collect baseline data on key biodiversity and hydrological values to support management plan development, and allow later M&E processes.
- (c) Implement the provisions of the management plan, including sustainable use harvesting, zonation, eco-tourism, species conservation inputs and habitat restoration.
- (d) Demarcate, maintain, and patrol forest boundaries to maintain reserve integrity and reduce illegal use.
- (e) Establish native species nurseries and promote community restoration and species regeneration.

Activity 2.2 Participatory Forest Management: Participatory forest management and other resource use arrangements are established to work with communities around the Ulugurus.

This activity puts in place the PFM processes around the Reserve, including capacity building, negotiating contracts, setting up sustainable use regimes, and monitoring. There will be five main tasks:

- (a) Develop awareness of participatory strategies and monitoring systems.
- (b) Build capacity within collaborating villages, hamlets and user groups.
- (c) Negotiate PFM contracts, around defined rights roles and responsibilities.
- (d) Develop sustainable use regimes with PFM practitioners.
- (e) Support monitoring and adaptive implementation processes.

Activity 2.3 Sustained Livelihoods through improved agriculture/agroforestry: and small enterprise/marketing. Selected opportunities for income generation in the Ulugurus are developed. The capacity of local communities in sustainable land use management is enhanced.

This will be working with forest adjacent communities to incorporate ecologically sustainable livelihoods into their agricultural practices and in further use of forest products. There are five tasks.

- (a) Identify and establish benchmark practices, and conduct marketing and feasibility studies on sustainable use of forest resources
- (b) Provide training: soil and water conservation, bio-intensive gardening, agro-forestry, crop diversification, traditional irrigation systems
- (c) Promote experimentation and extension activities.
- (d) Provide training and technical advice in income generating activities, marketing products, and small enterprise management.
- (e) Monitor activity including product use and impact on biodiversity by participants and feed back into integrated community development and management processes.

Activity 2.4 Information/Education: Conservation awareness is increased at all levels amongst key stakeholders around the Ulugurus (through education campaigns addressing politicians, schools, opinion leaders and local communities).

This builds on the Communication Information and Education Strategy, and develops a set of awareness tools and case studies. There are four main tasks.

- (a) Operationalize the communications, information, and education strategy
- (b) Conduct training workshops for awareness facilitators
- (c) Disseminate information through printed materials, radio, schools, wildlife clubs and other community based groups.
- (d) Monitor the impact of awareness – where does it work? Where does it fail? How can it be improved?

Activity 2.5 Institutional Development: Capacity of partners in planning and management of land, resource conservation, agriculture, forestry and environment around the Ulugurus is enhanced.

The need for capacity cannot be overstated, and this applies at all levels. It will be especially important in conflict resolution and networking between partners. Partners at village level are especially heterogeneous, a fact which implementation must accept. There are four main tasks:

- (a) Assess needs for technical and management skills and existing management mechanisms
- (b) Assist in establishing community-based organizations (CBOs) and provide linkages from CBOs to NGOs and government
- (c) Provide training and skills as assessed above.
- (d) Monitor capacity and learn from experience.

ANNEX 7: ACTIVITY DESCRIPTION, OUTPUT 4 -- ESTABLISHMENT AND OPERATION OF THE EASTERN ARC MOUNTAINS CONSERVATION ENDOWMENT FUND

Activities to be supported by GEF

GEF support is needed to support 5 major activities (including capitalization of the Endowment Fund itself).³⁸ Each activity will provide the necessary technical and financial assistance to develop the institutional and management capacity of EAMCEF, as well as within FBD, and (through collaborating NGOs) within communities.

- (a) **Endowment Administration.** The Endowment Fund Secretariat will be established in Morogoro and will consist of an Executive Director, three Program Officers, an Accountant, a Secretary, and support staff. These individuals will be the only full-time employees of EAMCEF. The Secretariat will be responsible for (i) developing the program content for each of the three priority areas of support (Community-based conservation, applied biodiversity research, and protected areas management); (ii) working in collaboration with FBD and suitable NGOs to implement activities in these three priority areas; (iii) submitting annual work plans and budgets to the EAMCEF Board for approval; (iv) disbursing approved funds and ensuring that proper disbursement, procurement and supervision procedures are followed; (v) maintaining financial records and accounting/reporting; and (vi) ensuring ongoing monitoring and evaluation of all work receiving EAMCEF funding.³⁹ Other activities which will be undertaken by the Secretariat include, communications and education and fund raising.
- (b) **Applied Biodiversity Research.** Under this component the EAMCEF will support research which strengthens an understanding of the extent and value of biodiversity and ecosystem health in priority geographic sites, and which can help to reduce the impacts of human pressures on the ecosystem and its biological resources. Research will be undertaken in the context of overall efforts to improve the management of the Eastern Arc forests in a way which maintains and increases their contribution to local and national economic development. GEF support will specifically ensure that biodiversity conservation is a clear focus of targeted research initiatives which are linked with forest management and conservation, along with other important objectives such as maintaining water supplies and providing sustainable supplies of valuable timber and non-timber products.
- (c) **Participatory Forest Conservation.** The objective of these activities is to increase the share of the benefits from forest conservation and management to local communities and to ensure that these continue on a sustainable basis. These activities are fully consistent with Government's policy for participatory forest management (including co-management) of forest reserves and forests on customary land. Implementation of policy has only just started largely due to a limited capacity within FBD and communities, and insufficient resources to develop and implement participatory forest management activities. The key stakeholders and actors in PFM and co-management and natural resource management are community-based organizations such as Village Environment Committees and other resource managers, local and District government, and District level forestry staff. With progressive implementation of the Government's decentralization policy, the role and importance of District government's, including District Councils and associated technical and executive committees will grow. GEF funds will support training, workshops and technical assistance to help mobilize these stakeholders and enhance their knowledge and skills to become effective forest management partners.

- (d) **Protected Forest Reserve Management** activities should strengthen the capacity of FBD or other institutions with jurisdiction over forest reserves. Improving forest ecological and economic viability will be of paramount importance. Priority forest management activities for funding under the Endowment Fund would include improvement of staff capabilities (e.g. training, skills development of reserve staff), forest management and ecotourism infrastructure (e.g.; trails, access roads, ranger stations, etc.), conservation education, management planning, and others. Where appropriate, activities should include a training component.
- (e) **Establishment of the Conservation Endowment Fund.** The purpose of the Conservation Endowment Fund is to provide sustainable in-country funding for biodiversity conservation of the Eastern Arc Forests, in the context of ecologically sustainable development. The EAMCEF Fund will be established as the long-term financing mechanism to support these activities.

Support for establishment and operation of the Fund will be phased. **Phase I**, which is expected to last three years, will build the capacity within the EAMCEF and its partners to carry out their respective roles in the management of the Endowment Fund and the coordination and implementation of the activities described above. A modest unallocated fund for technical programs will allow EAMCEF to address early needs and to gain experience in program planning and implementation. At the end of year 3, an assessment of the achievement of the agreed indicators of institutional capacity and readiness will serve to trigger the release of the endowment capital into the Fund. During year 4, the endowment will earn interest and these funds will finance **Phase II**, the implementation phase, which will begin at the start of year 5. Assistance from the GEF is requested to provide the initial endowment capital of US \$6.5 million for the EAMCEF, as well as US\$0.25 million for the three-year start-up phase.

Phase I. Phase I activities will complete the tasks launched with PDF/B resources (which totaled US\$ 160,000). Remaining preparatory tasks include the development of an investment strategy, and preparing a proposal for selection of an asset manager and establishing financial audit and control systems to international standards. Other preparation activities which remain to be completed include: (1) finalization of the *Financial, Operations, and Management Manual* which defines and clarifies procedures and operations for the EAMCEF; (2) formalization of cooperative working relationships with key national and local governmental entities; (3) integration into preparation of the Eastern Arc Conservation Strategy to ensure that the Endowment Fund is operated in a manner which addresses priority concerns in the Strategy.

Phase I activities will support capacity building activities at various levels to develop and strengthen an enabling environment for implementation. Some aspects of implementation will also begin, including the development of an applied research strategy, and the implementation of various pilot activities under the Participatory Forest Conservation and Forest Reserve/Nature Reserve Management Programs. The GEF budget for Phase I is US\$ 0.25 million and additional resources have been mobilized from other sources to finance this work. Phase I will commence when the GEF grant is declared effective, and will last for three years. The following activities will be undertaken:

- (a) **Endowment Administration:** this activity includes office accommodation, staffing and training. EAMCEF offices will be rented. Staff to be recruited are the Executive Director, three Program Officers, an Accountant, a Secretary and support staff. The administrative arrangements for the implementation of EAMCEF activities will also be established, including the finalization of criteria for disbursing and supervising sub-grants to key stakeholders and collaborating NGOs as approved by the Board. The Endowment *Financial, Operations, and Management Manual* will provide guidelines for all EAMCEF procedures. Training activities will provide the EAMCEF Board, the Secretariat and the FD staff with the skills needed for implementation.

- (b) **Applied Biodiversity Research** During Phase I, the emphasis will be on development of capacity, strategies and plans, and implementation of urgent actions on the ground. Activities will include: recruitment of the EAMCEF Biodiversity Program Officer; carrying out a detailed review and inventory of all biodiversity research in the Arc; developing an open, competitive, and peer reviewed process to enable national and international scientists to conduct short and medium-term studies for the purposes of filling critical gaps in knowledge (related to LKEMP); developing a roster of researchers in the Arc; and developing a research strategy focused on generating the information and tools needed to improve biodiversity conservation and management in the Arc.
- (c) **Participatory Forest Conservation.** The priority during Phase I will be to recruit the EAMCEF Participatory Forest Conservation Program Officer, who will then identify specific needs and opportunities and develop the Fund strategy for supporting communities and the forestry institutions in these areas, to complement work being carried out under other Government and donor-support programs. The strategy will involve EAMCEF supporting local implementation partners, who will work with local area institutions such as the Village Environment Committees, Village Councils, and other natural resource managers. A few target groups will be identified for intensive support, including the initiation of pilot PFM activities by Year 3. These pilot areas should be linked as directly as possible with improving the management of biodiversity resources which are currently under substantial threat. In order to demonstrate immediate, concrete benefits of EAMCEF to local stakeholders, the Participatory Forest Conservation will focus on the implementation of direct conservation activities which generate as much local employment as possible.
- (d) **Protected Forest Reserve Management.** During Phase I, a Reserve Management Program Officer will be recruited to develop a strategy for working to support conservation activities in Catchment Forest Reserves and in Nature Reserves in close collaboration with FBD and other partners. To the greatest extent possible, this strategy will focus on the development of long-term approach toward sustainable management of reserved areas.
- (e) **Capitalization of the Endowment Fund and fund-raising:** During **Phase I**, the EAMCEF will put in place the necessary legal and institutional instruments for establishing the endowment mechanism. The EAMCEF Board (with assistance from the World Bank) will actively seek donors and contributors to complement the GEF contribution to the EAMCEF. At the end of year 3 of Phase I, a comprehensive review of the institutional capacity of the EAMCEF will be undertaken to assess the progress in achieving the agreed “readiness” indicators (described below). When the indicators have been achieved the endowment funds of US\$ 6.5 million will be released to the agreed professional Asset Manager who will manage the Endowment based on an approved investment strategy.

Indicators that Phase I has been successfully completed and Phase II should begin include the following:

- (i) successful establishment and functioning of the Secretariat (i.e. key positions in the Secretariat have been filled, audits have been completed and are clear, an acceptable 2 year work plan is developed);
- (ii) finalization of the *Financial, Operations, and Management Manual* which defines and clarifies procedures and operations for the EAMCEF and its approval by IDA;
- (iii) establishment and functioning of the Endowment Fund Board (i.e. regular Board meetings, appointment of four new Board members, application of the procedures for Board members);
- (iv) development and launching of the fund raising strategy;
- (v) grant making activities have begun (proposals solicited, competitive selection procedures followed, grants awarded and pilot activities are under implementation);
- (vi) at least one Local Advisory

Committee has been established; (vii) documented adherence to the policies, procedures and principles set forth in the Deed of Trust; (viii) documented significant co-financing for the EAMCEF.

Phase II: The duration of Phase II will be 3 years, representing the period during which the World Bank will actively supervise implementation. In fact “Phase II” will continue in perpetuity, as the annual investment income from the Endowment Fund (estimated at US\$300,000-350,000 per year) will be used to maintain the EAMCEF and to implement its core activities, as follows:

- (a) **Endowment administration and support functions.** Income from the Endowment will support general administration, financial asset management, outreach and external relations (local, national and international), fundraising, and institutional overheads. Emphasis will be on achieving the minimum ratio of administrative costs to program costs that is compatible with good governance and achieving the Endowment’s objectives;
- (b) **Continuation and expansion of core activities.** Income from the Endowment will support the continuation of the three core operational activities (Applied Biodiversity Research, Participatory Forest Management, and Protected Forest Reserve Management). These programs will be continued, modified, reduced or expanded, based on the information and experience gained in Phase I.

For all programs, as for the EAMCEF overall, an adaptive management approach will be used to ensure that information from internal monitoring and evaluation and from independent reviews is fed back to decision-making processes. Key indicators of success vs. need for change will be improvements in biodiversity and ecosystem status and trends and reduction in threats, and stakeholder satisfaction as expressed through the annual stakeholder forum and formal and informal opinion surveys. Depending on needs identified and funds available, additional capital investments may be considered.

The GEF Grant Agreement will specify that the income from the GEF investment will continue to support the incremental cost of activities that directly enhance biodiversity protection, including both direct conservation activities and assistance for development of environmentally compatible alternative livelihoods for rural populations who would otherwise bear the opportunity costs of enhanced biodiversity protection. The income stream from the GEF grant therefore will not substitute for, but will remain complementary to, continuing support from GOT, Danida, DIDC, and others to meet the ongoing costs of meeting sustainable development objectives such as improving management of the reserve and its surroundings as a forestry resource and watershed, general institutional strengthening for forest management, and improving land use and management practices within the Eastern Arc.

Specific outputs

Activity 4.1 Mechanisms: The administrative and operational capabilities of the Endowment Fund Secretariat are established and effective.

- Full Board of Trustees is constituted
- Establish Secretariat (Administrative Unit) – staffing and office
- Form Local Advisory Committees

Activity 4.2 Activities: The Endowment Fund is soliciting, awarding, and monitoring grants for conservation and effectively educating target communities and stakeholders.

- Core activities are underway:
 - Participatory forest conservation
 - Applied Biodiversity research
 - Forest management/protection

Activity 4.3 Financing: The Endowment Fund is capitalized and effectively managed.

- Capitalization
- Fundraising
- Asset management

Activity 4.4 Sustainability: The Endowment Fund has achieved self-sufficiency in operations and grant making, and has a sufficient capital base to fund program activities.

- Core activities are underway:
 - Track record of effectiveness in grant making, administration and capital management established
 - Staff and board transitions managed
 - Capital and/or sinking fund monies obtained
 - Monitoring and evaluation systems providing effective feedback

ANNEX 8: INCREMENTAL COST ANALYSIS

Overview

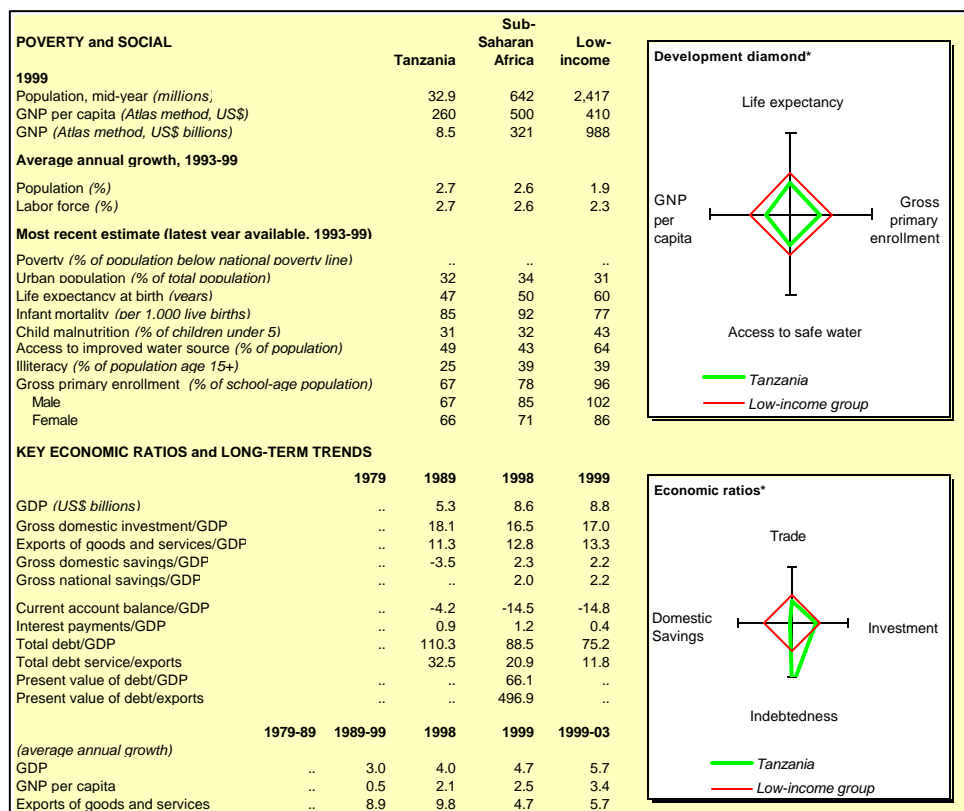
The principal objective of the GEF alternative is to provide resources to assist Tanzania in conserving the unique biological biodiversity of the Eastern Arc Mountain forests and their ecosystems, which are of global importance, as well as vital to the livelihoods of people living in surrounding areas. This objective will be achieved through a combination of capacity building, conservation activities, strengthened protection, environmental education, and the development and implementation of participatory forest conservation management strategies. The GEF alternative will provide resources for the development of an Eastern Arc Mountains Conservation Strategy. The process by which this is prepared will seek to establish a common platform through which multiple stakeholders with interests in the resources of the Arc can reach a consensus about the most constructive approach toward its conservation. Resources will be provided to establish a series of community-based conservation initiatives in the Uluguru Mountains, a priority site for action to reduce biodiversity loss, and will assist in creating a framework for incorporating forest biodiversity concerns into participatory forest management processes which are to be supported by a new forest institution, the Tanzania Forest Service.

The GEF alternative will also provide resources to enable the Eastern Arc Mountains Conservation Endowment Fund to begin its operations, and to capitalize the Endowment to improve the sustainable flow of resources to communities in the Arc. The Endowment Fund is expected to be capitalized by GEF at the end of the second project year after a period of institutional capacity building, which will lay the foundation for the EAMCEF and key stakeholders to implement a longer term operational conservation program. Net income generated by the fund, beginning in the fourth project year, will finance the following activities: trust fund administration, applied biodiversity research, forest conservation and participatory forest management, and forest/nature reserve conservation.

Context and broad development goals

Tanzania is a developing country with a GDP per capita of US\$ 260. Between 1989 and 1999, average annual GDP growth was 3 percent. Most social development indicators are below the means for sub-Saharan Africa. Recent social and economic development indicators are summarized in the table on the following page. Rates of population growth tend to be highest in areas of good agricultural potential, which are primarily highland areas with good forest cover. About 68 percent of the population lives in rural areas, subsisting largely on agriculture and the use of forest and woodland resources for a variety of timber and non-timber products. At the national level, agriculture contributes to 45 percent of GDP. Commercial tea and coffee are significant export crops, as are tobacco and cotton, and these are very important for rural income generation.

A primary development goal of the Government of Tanzania is to alleviate poverty through the sustainable management of natural resources, including the conservation of biological diversity. Within this policy framework, the protection of watersheds is critical to maintaining water supplies for urban areas and for hydroelectric generation. Tanzania has the largest gross area under protected status of any country in sub-Saharan Africa (around 13.8 million ha under IUCN Management Categories 1 to 4). As a proportion of total land area, it has the second highest percentage under protected area status (14.6 percent, compared with Botswana's 18 percent) in sub-Saharan Africa. A very constructive policy



framework seeks to capture this priority on the conservation of forest biodiversity, particularly through the National Forest Policy, and its program for implementation, the National Forest Program.

Tanzania has abundant tree resources, and over a third of the country (between 30 and 40 million ha) is under forest and woodland cover. A relatively small percentage of the country, however (less than 2 percent), comprises closed

tropical high forests, while the bulk is accounted for by open woodlands of the *miombo* type (dominated by *Brachystegia* species). About 40 percent of Tanzania's tropical high forest area is concentrated in a belt of geologically ancient crystalline mountain formations known as the Eastern Arc Mountains.

Biophysical aspects of the Eastern Arc

The Eastern Arc Mountains stretch from southeast Kenya through south central Tanzania. They consist of the Taita Hills in Kenya, and the Pare, Usambara, Nguru, Nguu, Ukaguru, Rubeho, Uluguru, Mahenge, and Udzungwa Mountains in Tanzania. The mountains range in altitude from 500m to 2,850m. Rainfall in some blocks is as high as 3000 mm per year, but falls as low as 600 mm in the western rain shadow. Formed 100 million years ago, the Eastern Arc forests represent one of the oldest and most stable terrestrial ecosystems on the continent. Their age, geologic origin, and proximity to the Indian Ocean are features which separate them from other highland regions in East Africa.

Currently, the total area of natural forest in the Tanzanian Eastern Arc Mountains is approximately 5,350 km². It has been estimated that this is around a third of what it was a century ago. Nearly three-quarters of the remaining natural forest in the Eastern Arc is open (and sometimes degraded) forest – forest in which the canopy is not contiguous. The total area of closed forest – forest in which the canopy is generally intact and contiguous – in the Eastern Arc is slightly more than 1,451 km².

The Eastern Arc forests have the highest known number of plant and animal species of any region in Tanzania. The Eastern Arc is also characterized by high concentrations of endemic species. The Eastern Arc forests are known as one of the most important sites in Africa for endemic birds, amphibians, reptiles, many groups of invertebrates, and plants. Indeed, the Eastern Arc contains one of the highest proportions of endemic species of any region worldwide.

The Eastern Arc is also the habitat for the majority of the globally critically endangered, endangered, and vulnerable mammal, bird, and tree species found in mainland Tanzania. Eighty-six percent of all mammal species and 90 percent of all bird species listed by IUCN (1996) as either critically endangered, endangered, or vulnerable in mainland Tanzania are found in the Eastern Arc forests. Furthermore, approximately 52 percent of the globally threatened tree species occurring in Tanzania are found in the Eastern Arc Mountains.

As a result of the extensive threats facing the Eastern Arc forests and their exceptionally high concentrations of endemic species, the Eastern Arc and the coastal forests of Tanzania and southern Kenya have been identified as one of the 25 most threatened ecosystems worldwide – one of the so-called ‘global biodiversity hot spots’ – recognized by Conservation International, and are included in WWF’s listing of 200 ecoregions of critical global importance. The Eastern Arc Mountains and coastal forests of Tanzania and Kenya have the highest ratio of endemic plant and vertebrate species per 100 km² of all 25 biodiversity hot spots.

Socio-economic characteristics of communities around the Eastern Arc

The Eastern Arc Mountains are scattered over an enormous area. Because of the higher rainfall and better soils which are found at higher elevations in Tanzania, there are naturally much higher human population densities in the vicinities of these forested areas. Perhaps as many as 4 million people live within 10 km of one of the Arc’s 11 main forest blocks. Between 40 and 50 percent of this population lives below the poverty line. At least 80 percent of the population living in the vicinity of the Eastern Arc Mountains derive their principal livelihoods from agriculture and livestock husbandry, and many are heavily dependent on forest products and environmental services. Because of differences in rainfall and altitude, there are widespread differences in farming systems, and while there is little evidence of significant food insecurity, farmers have consistently reported that yields have declined. Soil erosion remains a serious problem in some areas.

Scope of analysis and assumptions

The analysis of baseline, GEF alternative, and incremental costs is focused on the forests of the Eastern Arc, and the areas where proposed GEF support is to be targeted, as well as on the broader set of institutional and policy changes which are expected to impact on forest biodiversity conservation in Tanzania. The benefits of biodiversity conservation within the forest reserve do extend further afield, particularly with respect to the benefits from watershed catchment protection which accrue in terms of water and hydroelectric energy supplies. The analysis consider the fully 6 year implementation period for the project.

Baseline Scenario

The baseline set of actions which are being undertaken on a ‘business-as-usual’ basis in the Eastern Arc includes the activities in the forest and agricultural sector. Both these sectors have significant linkages to the water and energy sectors. The baseline largely comprises: forest sector planning; forest catchment and protected areas management; planned forest institutional reforms; biodiversity conservation activities; and agricultural and rural development activities. We review as well the activities and outputs financed with PDF resources. In addition to donor-financed activities is the wage bill for forest officers deployed by FBD and staff of TANAPA in the Eastern Arc, as well for agricultural extension officers working on specific soil erosion and sustainable farming systems in the vicinity of the Eastern Arc.

Rural livelihoods and rural poverty

The Eastern Arc forests are extremely important for mitigating the impacts of rural poverty. Recent studies have shown that fully 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, and wild fruit and other foods (a point noted in Tanzania's Poverty Reduction Strategy Paper). In addition, forests and woodlands are an important source of dry season grazing, reducing households' exposure to environmental risk. Rural households generally use a wide variety of environmental resources from woodlands, and the sizable aggregate value of environmentally-derived income is made up of a fairly large number of smaller individual income sources. In other studies from the region, it has also been shown that there is a negative relationship between aggregate environmental income share and total household income, that the poor are more resource-dependent than the rich (though better off households are, in quantitative terms, the most significant users of environmental resources). There is considerable complexity in the factors which determine levels of resource use: different households use different resources for different reasons at different times. Still, the conclusions are inescapable: the rural poor are heavily dependent on resources derived from forests and woodlands, and deforestation and forest degradation poses a significant threat to rural livelihoods.

The Eastern Arc Mountain forests are inextricably linked to the social and economic fabric of the communities living adjacent to the forests. Indeed, these forests are important because they sustain livelihoods and because of the linkages between effective forest management, conservation, and poverty reduction. Studies have identified both the benefits associated with conservation (primarily related to water) and the costs associated with changing current practices. These costs include the potential loss of livelihood for residents engaged in timber felling, charcoal production, and agriculture (taking place within forest boundaries) and potential economic adversity for current users of those forest products – such as urban dwellers dependent on charcoal for fuel and poles for construction and women engaged in local brew making. Indeed discussions with community groups, foresters, and government officials have demonstrated convincingly that virtually all livelihoods in the communities adjacent to these forests are dependent in some way and to varying degrees on forest resources. These findings underscore the importance of developing accepted strategies which address socio-economic issues associated with developing and implementing biodiversity conservation initiatives in the Eastern Arc Mountains.

Eastern Arc forests and the national economy

While the biodiversity of the Eastern Arc Mountain forests is of extraordinary international significance and locally is of great value for mitigating the impacts of poverty, the value of these forests to the national economy, primarily through water and energy production, is of extreme national importance. The Eastern Arc forests cover several major catchments which collectively provide water for all of the nation's coastal communities (including Dar es Salaam with its population of 3 million). These mountain forests feed more than 22 rivers, including the Sigi, Ruvu, Ruaha, Kihansi, and Rufiji. The Uluguru catchment, for example, provides the main source of drinking water to both Morogoro town and Dar es Salaam. Hydroelectric energy production is similarly heavily dependent on maintaining the integrity of these forests. Nearly 70 percent of Tanzania's electricity is generated from sources derived from the Eastern Arc forests. Water from the Eastern Arc also supports river ecosystems, mangrove forests, coastal ecosystems and coral reefs. In short the value of water derived from the Eastern Arc forests cannot be overstated.

Other environmental services captured by the macro-economy associated with the Eastern Arc forests impact positively on agricultural production and also result from timber harvesting (both through the legal

and illegal felling of trees used in construction and to make furniture and charcoal). More recently a small ecotourism industry has developed. There are some indications of a growing trade in threatened species of insects and reptiles. Accordingly, there is a strong need for sustainable use of forest products for these purposes and activities such as tourism which maximize the non-destructive uses of forests.

The idea of collecting environmental rents, especially from the energy and water sectors, has been tabled in a general way a number of times. These proposals, however, are somewhat disconnected from an understanding of the tenuous – indeed, highly precarious – financial position of service delivery institutions such as the Tanzania Electricity Supply Company (Tanesco) and the Dar es Salaam Water and Sewerage Authority (DAWASA). While the capturing of environmental rents may seem to be a good idea in the abstract, the current public expenditure framework suggests that this would be unrealistic in the short term.

Forestry sector planning

The National Forest Program provides the overall planning framework which describes the need for interventions in the forestry sector. The plan was the product of extensive consultations and consensus-building activities between government and civil society. With respect to forest biodiversity conservation and management, the plan proposes to launch steps to reduce forest biodiversity loss, to promote village-based forest conservation, to identify and prioritize threatened forest ecosystems, to propose and support implementation of mitigation steps, and to prepare management guidelines for forest biodiversity conservation. The NFP Steering Committee has been established to see through the process of implementation, and has primary responsibility for ensuring that donor activities are implemented in a manner which is consistent with the NFP. (The NFP Steering Committee is comprised of representatives from MNRT, the Ministry of Finance, the Planning Commission, the Ministry of Regional Administration and Local Government, the National Land use Planning Commission, the Vice President's Office (Environment Division), Sokoine University of Agriculture, and the Private Sector Foundation.) The principal financial delivery mechanism for the National Forest Program is the planned US\$ 62.2 million Forest Conservation and Management Project (FCMP) (comprised in part of \$32.1 million in IDA financing) into which the proposed GEF financed alternative has been fully blended. The NFP Steering Committee has been given oversight for preparation of the FCMP, and monitoring of its implementation. Additional bilateral support for implementation of the NFP is in the process of being mobilized.

With respect to the Eastern Arc forests, the NFP explicitly recognizes their global biodiversity values, but also acknowledges that national resources to invest in their conservation are likely to be extremely constrained. The NFP fails to establish a strategic framework for how forest biodiversity conservation in the Eastern Arc can be brought about.

Forest catchment and protected areas conservation and management

Almost the only high forests in Tanzania over which Government has any immediate control are classified as catchment forests, which are maintained and protected for their watershed catchment values. Catchment management is essential for national power generation, to provide urban and rural water supplies, and for existing and potential irrigation. Linkages between management of the forest sector and the water and energy sectors are weak. No water or power user fees revert to forest managers, despite generalist suggestions to do so. Water supplies in Tanga, Morogoro and Dar es Salaam have been severely affected by the lack of a regulatory framework for water management.

As with many other areas, the policy framework for water management has improved considerably over the last several years, and national policy now places a priority on determining water rights partly on the basis of the need to maintain downstream environmental flows. The translation of policy into effective action to ensure upstream catchment protection may be a longer term outcome. Similarly, catchment protection remains critical for ensuring long term access to power, yet there is something of a disconnect between the energy, forest, and water sectors. Constrained installed hydroelectric generating capacity has meant that the impacts of reduced catchment flows as a result of poor land management practices are greatly amplified during drought periods.

The Forestry and Beekeeping Division has deployed staff to manage major catchment forests in the Eastern Arc, and these are concentrated in the Uluguru North, Uluguru South, and East Usambara Mountains. A total of 8 Forest Officers and 57 Assistant Forest Officers have been deployed by FBD to assist in managing catchment forests in these particular blocks. They are assisted with support from the Norwegian-financed Catchment Forestry Project as well as by the German-financed Natural Resources Management and Buffer Zone Development Program. Additional staff have been deployed by the Tanzania National Parks Authority (TANAPA) to manage the Udzungwa National Park. TANAPA has been preparing (with WWF support) a management plan for the Udzungwa National Park.

Planned forest institutional reforms

Government intends to establish the Tanzania Forest Service as a specialized 'executive agency' as defined by the Executive Agencies Act (1997), and consistent with the wider and on-going national program of civil service reform. It is envisaged that the Tanzania Forest Service will, among other things, have some responsibilities for the protection and management of natural forests. Establishment of the TFS is being supported by the World Bank. Planned investments are intended to focus on improving governance in the sector, and to develop means of ensuring that revenues collected from forest management are reinvested at the local level in forest protection and management through local institutions. In addition, the TFS is expected to establish vastly improved service-delivery mechanisms for participatory forest and woodland management, in particular, support for the establishment of Village Forest Reserves, forest and woodland conservation and management by individuals and communities, and Joint Forest Management, building on experiences piloted in earlier efforts.

With respect to the Eastern Arc, the capacity to plan, mobilize resources for, implement, and monitor biodiversity conservation initiatives is lacking. For the TFS to have any national mandate for forest biodiversity conservation, these types of skills will need to be upgraded and greatly enhanced. In particular, the inclusion of a particular focus on participatory forest biodiversity conservation in the emerging institutional framework is a critical need. The Baseline provides no resources to enable this kind of institutional strengthening.

Biodiversity conservation in the Eastern Arc

The bulk of the most significant biodiversity conservation activities which are being undertaken in the Eastern Arc are donor-financed. Donor support has been highly fragmented and inconsistent, and has primarily addressed national and local needs (important in their own right), with very little focus on globally significant biodiversity values. Some activities have provided much needed research about biodiversity in the Arc, and its conservation. However, because of the multiplicity of objectives, approaches, and outcomes, donor support has not reflected any particular set of strategic objectives.

In addition, donor support for work in the Eastern Arc has been irregular and inconsistent. National and local institutions are not able reliably to depend on long-term donor support for financing local biodiversity conservation initiatives, and the sustainability of many donor interventions is open to question. The certainty of long-term financing for forest biodiversity conservation in Tanzania remains problematic. Indeed, long term financing needs to conserve the Eastern Arc are enormous. One study concluded that, in order to address prevailing forest biodiversity policy priorities, public expenditures totaling around \$15 million per year would be required in the long-term – a five-fold increase over current total public financing levels. Subsequent efforts have sought to identify how the efficiency of expenditures could be increased, and whether alternative resource delivery models would be more effective (i.e. financing communities directly to assist them in undertaking forest conservation, rather than financing Government).

The extent of future donor commitments to biodiversity conservation in the Eastern Arc is not clear. While the Eastern Arc has, for instance, been identified for eventual support from the Critical Ecosystems Partnership Fund (CEPF), no specific commitments have been made, and the timing and scope of future support is uncertain. Most donors view potential GEF support as an important catalyst for their own actions, and are likely to make new commitments as the outcomes from the proposed Eastern Arc activity become clearer.

Agriculture and rural development activities

For the most part, the Eastern Arc Mountains have reliable rainfall of between 2200 mm and 1000 mm per year. Despite their rather poor soils, population densities are high - up to 450 people per km² in some areas. Agriculture consists of commercial estates (mainly tea, some cinchona, increasing horticulture) and intensive and extensive subsistence cultivation. Land shortages have forced cultivation onto ever steeper slopes and onto stream banks, and have brought about the conversion of remaining forest land to agriculture. Erosion is widespread, and has led to soil and nutrient losses, decreased catchment capability, flash floods and landslides, and reservoir siltation. Poor farming practices in much of the Eastern Arc area accentuates poverty and increases dependence on forest resources for alternative incomes.

Agricultural extension in Tanzania is provided as an advisory service by District Agriculture Officers. In the face of public expenditure constraints, these services have been in decline. Donor and government supported schemes have sought to increase the area under tea in recent years through out-grower schemes, to integrate agro-forestry, to increase horticulture, to encourage the adoption of stall fed cattle rearing. Pyrethrum is increasingly being cultivated, as is the cultivation of spices. Economic liberalization in the sector has greatly increased the incentive to expand agriculture, but advisory services are not in place adequately to address the increased demand.

GEF Alternative

Costs. The total cost of the Forest Conservation and Management Project is estimated at US\$ 62.2 million. Of this, US\$ 50.4 million is expected to be forthcoming from GEF, IDA, and other co-financing sources. The balance of \$11.75 million is associated financing which constitutes part of the baseline, and is funded from various sources. GEF Incremental costs are expected to total around US\$ 12 million. The proposed structure of Incremental cost financing is outlined in the Summary Table.

Table A8.1: Summary proposed financing of Incremental Costs (US\$ million)

Activities	Baseline		GEF Incremental Costs		Total Costs
	Co-financing	Associated financing	IDA	UNDP	
1. Development of an Integrated Eastern Arc Mountain Biodiversity Conservation Strategy	12.6	6.6	0.00	2.00	21.2
2. Community-based conservation in the Uluguru Mountains	12.4	4.4	0.00	3.00	19.8
3. Institutional reforms for forest biodiversity conservation	8.3	0.7	0.25	0.00	9.3
4. Establishment and operation of the Eastern Arc Mountains Conservation Endowment Fund	5.1	0.1	6.75	0.00	11.9
Total	38.4	11.8	7.00	5.00	62.2

Benefits. Implementation of the GEF Alternative would enable biodiversity conservation activities and programs to occur that would not have been undertaken through current baseline activities. The establishment of a financial mechanism, the EAMCEF, will ensure long-term support for biodiversity conservation activities in the Eastern Arc. Under the GEF alternative, Tanzania will strengthen the baseline scenario by contributing to the conservation of this globally significant mountain forest ecosystem, conserving rare and endangered species, maintaining watershed integrity and international water flows, improving tourism values, and building the capacity of communities (as well as national institutions) to manage the Eastern Arc's natural resources.

Incremental costs. The difference between the cost of the Baseline scenario (co-financing plus associated financing which totals US\$ 50.2 million) and the cost of the GEF Alternative (US\$ 62.2 million) is estimated at US\$ 12 million. GEF resources are required to meet these incremental costs for achieving long-term global environmental benefits as a result of developing an integrated Conservation Strategy for the Eastern Arc, undertaking community-based conservation activities in a priority site in the Arc (the Ulugurus), supporting institutional reforms which incorporate forest biodiversity conservation objectives into participatory forest management strategies, and from establishing a long-term sustainable financing mechanism for forest biodiversity conservation through the EAMCEF.

Co-financing. The Eastern Arc has already benefited from US\$ 373,000 in PDF/A and B resources which have been used to finance preparation costs. Co-financing and counterpart financing has been sought from a range of donors and from Government, and this totals an estimated US\$ 38.4 million.

Table A8.2: Incremental Costs Matrix

Project Component	Category	US\$ Million (actual)	Domestic Benefit	Global Benefit
Development and implementation of an Integrated Eastern Arc Biodiversity Conservation Strategy	Baseline	16.18	Limited capacity to implement new forest, water, and land policies in a manner that conserves and protects vital forest resources and values, including water and local livelihoods.	No focal point for biodiversity conservation activities in the region.
			No framework or other approach to consider the Eastern Arc Mountains as an entire unit and implement an integrated set of policies for conservation.	No mechanism to integrate disparate policies, districts, and government agencies into a comprehensive set of strategies for biodiversity.
				Limited recognition that biodiversity is an important value to protect.
	With GEF Alternative	21.18	Implementation of strategies that serve to conserve catchment forests and improve the socio-economic conditions of forest dependent communities.	Implementation of strategies to conserve biodiversity throughout the region.
			Monitoring programs to provide feedback on effectiveness, change, and threats to forest resources.	Adaptive monitoring and evaluation to measure biodiversity status and field program impacts.
			New capacity at the national and regional level to address Eastern Arc issues as a whole.	Potential new funding strategies that can finance conservation of forests with maximum biodiversity.
	Total Incremental Cost of the GEF Alternative	5.0		
	Incremental provided by leveraged co-financing	3.0		
	Incremental resources required from GEF	2.0		

Table A8.2: Incremental Costs Matrix

Project Component	Category	US\$ Million (actual)	Domestic Benefit	Global Benefit
Community-based conservation in the Uluguru Mountains	Baseline	13.38	Rapid loss of Uluguru Mountains catchment forests, which provide water for several million people and support the livelihoods of forest-adjacent communities.	Loss of biodiversity, specifically species endemic to the Ulugurus and most seriously species found in the mid-mountain zone.
			Research and monitoring of catchment forest resources; development of capacity to conserve forests.	Further fragmentation of forests.
				Collection of data on biodiversity values; pilot projects to establish boundaries and involve communities in conservation.
	With GEF Alternative	19.78	New resources to demarcate and protect forest reserves; training and assistance in an integrated set of activities to conserve forest resources while improving livelihoods.	New resources to protect endemic species, through improved forest management, enforcement of boundaries, and participatory management schemes.
			Use of conservation capacity developed in the baseline.	Leverage conservation capacity already developed for global benefits.
	Total Incremental Cost of the GEF Alternative	6.40		
	Incremental provided by leveraged co-financing	3.40		
	Incremental resources required from GEF	3.0		
Institutional reforms for forest biodiversity conservation	Baseline	8.3	Implementation of forest sector reform just underway at the national level.	No capacity in the Eastern Arc Mountain districts to address biodiversity issues.
			Commitment to Participatory Forest Management as an alternative approach to involve all stakeholders in managing forests.	Limited capacity nationally to address these issues.
	With GEF Alternative	9.3	New capacity within the Eastern Arc Mountain districts to implement reforms that are to lead to improved management and protection of catchment and other forests.	National and regional capacity to address and act on conservation of globally significant biodiversity.
	Total Incremental Cost of the GEF Alternative	1.05		

Table A8.2: Incremental Costs Matrix

Project Component	Category	US\$ Million (actual)	Domestic Benefit	Global Benefit
	Incremental provided by leveraged co-financing	0.8		
	Incremental resources required from GEF	0.25		
Establishment of the Eastern Arc Mountains Conservation Endowment Fund	Baseline	0.0	No long-term sustainable financing mechanism for conservation in place.	No long-term sustainable financing mechanism for conservation in place.
	With GEF Alternative	11.9	EAMCEF endowment is capitalized. Ongoing, long-term financing for conservation projects that will improve livelihoods and preserve water and energy values.	Ongoing long-term financing for projects that will conserve the globally significant biodiversity resource.
	Total Incremental Cost of the GEF Alternative	11.90		
	Incremental provided by leveraged co-financing	5.15		
	Incremental resources required from GEF	6.75		
Totals	Baseline			
	Co-financing	38.4		
	Associated financing	11.8		
	GEF financing	12.00		
	Total GEF Alternative	62.2		

**Table A8.3: Summary, Co-financing and GEF financing
Eastern Arc Forests Conservation and Management (US\$ million)**

Activities	Indicative Co-financing (US\$ million)								GEF	Total Costs
	IDA FCMP	IDA LKEMP	Danida	UNDP	EC	GOT	Other	Sub-total, co-financing		
1. Development of an Integrated Eastern Arc Mountain Biodiversity Conservation Strategy	9.6	..	2.5	..	..	0.5	..	12.6	2.0	14.6
2. Community-based conservation in the Uluguru Mountains	9.0	..	2.0	0.3	..	1.1	..	12.4	3.0	15.4
3. Institutional reforms for forest biodiversity conservation	8.1	..	..	..	..	0.2	..	8.3	0.2	8.5
4. Establishment and operation of the Eastern Arc Mountains Conservation Endowment Fund	2.0	0.9	..	..	1.1	0.1	1.0	5.1	6.8	11.9
<i>Total</i>	<i>28.7</i>	<i>0.9</i>	<i>4.5</i>	<i>0.3</i>	<i>1.1</i>	<i>1.9</i>	<i>1.0</i>	<i>38.4</i>	<i>12.0</i>	<i>50.4</i>

Table A8.4: Development of an Integrated Eastern Arc Mountain Biodiversity Conservation Strategy (Output 1)

Baseline Activity	Location	Agency/ Donor	Status	Period	Total project cost (US\$ million)	Percent of funds expended	Percent of total commitment considered	Costs (US\$ million)
Reducing Biodiversity Loss at Crossborder Sites in East Africa Community-based Natural Woodland Management Project, Phase 1	Taita, South Pare	UNDP/ GEF	ongoing, Regional	99-04	12.5	25%	10%	\$0.94
	Iringa	DANIDA	ongoing	99-02	2.3		50%	\$1.15
East Usambaras Conservation Area Management Project	Iringa	DIDC/EU	ongoing	98-01	5.0	75%	100%	\$1.25
MBOMIPA Community-based Wildlife Management		DFID	ongoing	98-02	3.2		50%	\$1.60
Udzungwas Mountain Forest Management & Biodiversity Conservation Project	Iringa	DANIDA	ongoing	99-02	2.5		50%	\$1.25
Management of Miombo Woodlands	National	EU/SADC	ongoing	99-02	2.0		10%	\$0.20
FCMP (Establishment of the Tanzania Forest Service)	National	IDA	planned	02-07	32.1		20%	\$6.41
FCMP (Improving Revenue Collection from Forests and Woodlands)	National	IDA	planned	02-07	32.1		5%	\$1.60
FCMP (Improving service delivery mechanisms for Participatory Forest Management)	National	IDA	planned	02-07	32.1		5%	\$1.60
Management of Catchment Forest Reserves (Counterpart financing)	National	GOT	planned	02-07	1.8		10%	\$0.18
Total, Baseline Activities Associated with Output 1								\$16.18
GEF Alternative								
Baseline activities associated with Output 1								\$16.18
Development of an Integrated Eastern Arc Mountain Biodiversity Conservation Strategy								\$2.00
Leveraged co-financing								\$2.50
Counterpart financing								\$0.50
Total, GEF Alternative								\$21.18
Incremental Cost of GEF Alternative								
Incremental Cost								\$5.00
Leveraged and Counterpart financing								\$3.00
GEF Resources required to finance balance of costs of GEF Alternative								\$2.00

Table A8.4: Innovations in community-based forest biodiversity conservation in the Uluguru Mountains (Output 2)

Baseline Activity	Location	Agency/ Donor	Status	Period	Total project cost (US\$ million)	Percent of total commitment considered Baseline	Costs (US\$ million)
Uluguru Mountains Biodiversity Conservation Project	Uluguru	DOF/ DANIDA	ongoing/ renewed	02-06	2.0	100%	2.00
West Ulugurus Project	Ulugurus	GTZ	..	..	1.0	100%	1.00
Catchment Forestry Program	Morogoro	NORAD	ongoing	98-01	2.5	50%	1.23
FCMP (Establishment of the Tanzania Forest Service)	National	IDA	planned	02-07	32.1	10%	3.21
FCMP (Improving Revenue Collection from Forests and Woodlands)	National	IDA	planned	02-07	32.1	3%	0.96
FCMP (Improving service delivery mechanisms for Participatory Forest Management)	National	IDA	planned	02-07	32.1	15%	4.81
Management of Catchment Forest Reserves (Counterpart financing)	National	GOT	planned	02-07	1.8	10%	0.18
Total, Baseline Activities Associated with Output 2							13.38
GEF Alternative							
Baseline activities associated with Output 2							13.38
Innovations in community-based forest biodiversity conservation in the Uluguru Mountains		UNDP/GEF					3.00
Leveraged co-financing		UNDP					0.30
Leveraged co-financing		DANIDA					2.00
Counterpart financing		GOT					1.10
Total, GEF Alternative							19.78
Incremental Cost of GEF Alternative							
Incremental Cost							6.40
Leveraged and Counterpart financing							3.40
GEF Resources required to finance balance of costs of GEF Alternative							3.00

Table A8.6: Institutional reforms for forest biodiversity conservation (Output 3)

Baseline Activity	Location	Agency/ Donor	Status	Period	Total project cost (US\$ million)	Percent of total commitmen t considered Baseline	Costs (US\$ million)
FCMP (Establishment of the Tanzania Forest Service)	National	IDA	Planned	02-07	32.1	12%	\$3.91
FCMP (Improving Revenue Collection from Forests and Woodlands)	National	IDA	Planned	02-07	32.1	7%	\$2.12
FCMP (Improving service delivery mechanisms for Participatory Forest Management)	National	IDA	Planned	02-07	32.1	7%	\$2.08
Management of Catchment Forest Reserves (Counterpart financing)	National	GOT	planned	02-07	1.8	10%	\$0.18
Total, Baseline Activities Associated with Output 3							\$8.29
GEF Alternative							
Baseline activities associated with Output 3							\$8.29
Institutional reforms for forest biodiversity conservation		IDA/GEF					\$0.25
Leveraged co-financing: Forest Conservation and Management Project (Participatory Forest Management Sub-component)		IDA					\$0.60
Counterpart financing		GOT					\$0.20
Total, GEF Alternative							\$9.34
Incremental Cost of GEF Alternative							
Incremental Cost							\$1.05
Leveraged and Counterpart financing							\$0.80
GEF Resources required to finance balance of costs of GEF Alternative							\$0.25

Table A8.7: Establishment and operation of the Eastern Arc Mountains Conservation Endowment Fund (Output 4)

Baseline Activity	Location	Agency/ Donor	Status	Period	Total project cost (US\$ million)	Percent of total commitment considered Baseline	Costs (US\$ million)
Baseline Activities are incorporated into other project components and are not repeated here							
Total, Baseline Activities Associated with Output 4							0.00
GEF Alternative							
Baseline activities associated with Output 4							0.00
Establishment and operation of the Eastern Arc Mountains Conservation Endowment Fund		IDA/GEF					6.75
Leveraged co-financing: Lower Kihansi Environmental Management Project (Applied Biodiversity Research)		IDA					0.90
Leveraged co-financing: Forest Conservation and Management Project		IDA					2.00
Leveraged co-financing: Forest Ecosystem Conservation in the Southern Highlands and the Eastern Arc Mountains of Tanzania		EC					1.10
Local Partnerships		WWF/Songas/others					1.00
Counterpart financing		GOT					0.15
Total, GEF Alternative							11.90
Incremental Cost of GEF Alternative							
Incremental Cost							11.90
Leveraged and Counterpart financing							5.15
GEF Resources required to finance balance of costs of GEF Alternative							6.75

Table A8.8: IDA co-financing through FCMP of activities related to Eastern Arc Mountains Conservation and Management

	Total IDA FCMP Financing (US\$ million)	Allocation of IDA resources from the FCMP across GEF-financed activities related to Eastern Arc Forests Conservation and Management (US\$ million)				
		Development of an Integrated Eastern Arc Mountain Biodiversity Conservation Strategy	Innovations in community- based forest biodiversity conservation in the Uluguru Mountains	Institutional reforms for forest biodiversity conservation	Establishment and operation of the Eastern Arc Mountains Conservation Endowment Fund	Total IDA co-financing of Eastern Arc activities
Forest Conservation and Management Project						
Supporting Institutional Change and Improving Service Delivery						
Establishment of the Tanzania Forest Service	13.5	6.4	3.2	3.9	0.0	13.5
Improving revenue collection from forests and woodlands	4.7	1.6	1.0	2.1	0.0	4.7
Improving service delivery mechanisms for Participatory Forest Management	8.5	1.6	4.8	2.1	0.0	8.5
Private Sector Involvement in Industrial Plantation Management						
Developing systems and implementing pilot operations to involve the private sector in industrial plantation management	3.4	0.0	0.0	0.0	0.0	0.0
Eastern Arc Forests Conservation and Management						
Establishment and operation of the Eastern Arc Mountains Conservation Endowment Fund	2.0	0.0	0.0	0.0	2.0	2.0
Total	32.1	9.6	9.0	8.1	2.0	28.7

ANNEX 9: LOGICAL FRAMEWORK

Long term objective			
To conserve the biodiversity of the Eastern Arc mountain forests, which contain globally significant biodiversity assets, at a level beyond what could be expected based on the prevailing management objectives of watershed catchment protection.			
Immediate objectives and goals			
<p>There are four immediate objectives of GEF support.</p> <ul style="list-style-type: none"> to seek to bring together multiple stakeholders with interests in the Eastern Arc to develop a consensus about how best its biodiversity is to be conserved and to elaborate that consensus as a comprehensive and wide ranging strategy for the Eastern Arc. to support the implementation of community-based conservation initiatives in priority pilot areas (in the Uluguru Mountains) and to develop lessons which can be extended to other areas. to support a process of institutional reform which will strengthen the capacity of national institutions to undertake participatory forest biodiversity conservation. to improve long-term financial flows for forest biodiversity conservation in the Eastern Arc by developing and implementing a sustainable financing and delivery mechanism. 			
Output 1	Output 2	Output 3	Output 4
An Eastern Arc Forests Conservation Strategy is developed, which incorporates the views of multiple stakeholders, and which has mobilized support for implementation of priority actions.	Community-based conservation initiatives are underway in the Uluguru Mountains.	Institutional reforms are completed which strengthen the capacity of national forestry institutions to provide services which strengthen processes of participatory forest biodiversity conservation in the Eastern Arc	The Eastern Arc Mountains Conservation Endowment Fund is operating and is investing in forest/nature reserve management, community-based forest biodiversity conservation, and applied biodiversity research
Purpose			
Key stakeholders in the Eastern Arc forests are actively planning and implementing, integrated and equitable efforts to halt and reverse forest and biodiversity loss, manage forest resources, and ensure sustainable use of forest components	Improved forest management and conservation and improved land husbandry practices in the Uluguru mountain forests and adjacent villages are implemented by local communities, government authorities and other stakeholders	National forestry institutions integrate forest biodiversity conservation perspectives into service-delivery oriented participatory forest management activities.	Long-term sustainable financing for conservation and community development activities in the Eastern Arc Mountains is available to preserve biodiversity and provide local communities with tangible benefits from conservation.

Outcomes			
An integrated Eastern Arc Mountains Forest Conservation Strategy is developed and under implementation.	The conservation of the Eastern Arc forests in the Ulugurus is improved, and communities dependent on the forests are increasingly adopting sustainable land-use practices.	Participatory Forest Management approaches are adopted to improve forest biodiversity conservation.	The administrative and operational capabilities of the Endowment Fund Secretariat are established and effective.
<ul style="list-style-type: none"> A set of thematic strategies for biodiversity conservation are developed and implemented – through both macro frameworks and individual management plan processes. 	<ul style="list-style-type: none"> Participatory forest biodiversity conservation and management and other resource use arrangements are under implementation in the Ulugurus 	<ul style="list-style-type: none"> An evaluation of Participatory Forest Management (PFM) activities and their impacts, is completed with the objective of preparing a ‘best practice’ evaluation of PFM and forest biodiversity conservation; 	<ul style="list-style-type: none"> The Endowment Fund is soliciting, awarding, and monitoring grants for conservation and effectively educating target communities and stakeholders
<ul style="list-style-type: none"> Adaptive monitoring programs are developed and under implementation 	<ul style="list-style-type: none"> The capacity of local communities living in the vicinity of the Ulugurus to undertake sustainable land use management is enhanced 	<ul style="list-style-type: none"> On the basis of the findings of the ‘best practice’ study, guidelines will be developed to expand the existing <i>Community-based Forest Management Guidelines</i> so that they incorporate forest biodiversity conservation as a key element of PFM; 	<ul style="list-style-type: none"> The Endowment Fund is capitalized and effectively managed
<ul style="list-style-type: none"> Socio-economic monitoring program developed 	<ul style="list-style-type: none"> Selected opportunities for income generation in the Uluguru mountains are developed (emphasizing sustainable use of forest resources). 	<ul style="list-style-type: none"> In conjunction with the PFM sub-component of the FCMP, capacity building and training programs to implement the revised <i>Guidelines</i> will be developed and under implementation. 	<ul style="list-style-type: none"> The Endowment Fund has achieved self-sufficiency in operations and grant making, and has a sufficient capital base to fund program activities
<ul style="list-style-type: none"> Information, education and communication strategies (IEC) are developed and implemented 	<ul style="list-style-type: none"> Conservation awareness around the Ulugurus is increased at all levels (through education campaigns politicians, schools, opinion leaders and local communities). 		

	<ul style="list-style-type: none">• Capacity of partners operating in the Ulugurus in planning and management of land, conservation, agriculture, forestry and environment is enhanced.		

Output 1: Development and implementation of an Integrated Eastern Arc Mountain Biodiversity Conservation Strategy			
<i>Objective: to seek to bring together multiple stakeholders with interests in the Eastern Arc to develop a consensus about how best its biodiversity is to be conserved and to elaborate that consensus as a comprehensive and wide ranging strategy for the Eastern Arc.</i>			
Intervention Logic/Outputs	Objectively Verifiable Indicators	Means of Verification	Assumptions
<i>An integrated Eastern Arc Conservation Strategy is developed and under implementation.</i>			
<ul style="list-style-type: none"> Mountain Block strategies developed District based Conservation Strategies developed Capacity building linkages to Districts Linkages to Agriculture, Water, Energy sectors are established and maintained Forest resource use and rural poverty linkages explored Planning tools are developed and used through national and district capacity: threat reduction analysis, participatory planning, map-based planning, and assessment 	<ul style="list-style-type: none"> Strategic planning processes conducted; written strategies produced within 2 years Integrated district planning teams functioning within 1 year; conservation strategies in place within 3 years Cross-sectoral meetings and planning activities occurring with plans and strategies produced as a result within 3 years Research and studies initiated and completed on poverty/forest use linkages within 4 years Planning tools handbook produced within 2 years; workshops training, and planning activities implemented over 5 years 	<ul style="list-style-type: none"> Reports and documents Meeting minutes Review of management plans Interviews with stakeholders and government officials 	<ul style="list-style-type: none"> Government entities at the national, district, and local levels willingly participate in the strategy process and commit to implementing the strategies developed. Agencies across sectors are willing and able to work together to develop strategies.
<i>A set of thematic strategies for biodiversity conservation are developed and implemented – through both macro frameworks and individual management plan processes</i>			
<ul style="list-style-type: none"> Biodiversity protection, including Nature Reserve Management Sustainable use Fire management Sustainable/Alternative Use practices for forest periphery 	<ul style="list-style-type: none"> Number of district and forest management plans developed, addressing use, fire, forest health Management plans implemented Nature reserves established, 	<ul style="list-style-type: none"> Reports Review of management plans Official recognition of nature reserves status Documentation of # of programs in place Mapping and satellite 	<ul style="list-style-type: none"> Government entities at the national, district, and local levels willingly participate in the strategy process and commit to implementing the strategies developed. Alternative use/livelihood

Output 1: Development and implementation of an Integrated Eastern Arc Mountain Biodiversity Conservation Strategy			
<i>Objective: to seek to bring together multiple stakeholders with interests in the Eastern Arc to develop a consensus about how best its biodiversity is to be conserved and to elaborate that consensus as a comprehensive and wide ranging strategy for the Eastern Arc.</i>			
Intervention Logic/Outputs	Objectively Verifiable Indicators	Means of Verification	Assumptions
communities <ul style="list-style-type: none"> Alternative incomes for forest periphery communities, including agro-forestry and sustainable agriculture guidelines 	with management plans developed and implemented <ul style="list-style-type: none"> Forest adjacent communities using forests in a sustainable way; have alternatives to agriculture encroaching in the forests Number of alternative income programs in place 	imagery of forest boundaries and encroachment activities before and after project <ul style="list-style-type: none"> Ward/district reports 	activities are possible and will be accepted by residents
<i>Adaptive biodiversity monitoring programs are developed and under implementation</i>			
<ul style="list-style-type: none"> A participatory M&E strategy is outlined, accepted, and implemented in sites Research strategy outlined and prioritized, including species/communities recovery Pilot issue field research program addresses priority issues Field research station set up in priority site Capacity to implement conservation biology research/monitoring is developed A suite of monitoring tools developed 	<ul style="list-style-type: none"> Processes used to develop programs and strategies Written protocols and monitoring tools developed within 1 year Establishment of field research station and pilot projects within 3 years Monitoring programs implemented locally on an ongoing basis 	<ul style="list-style-type: none"> Project reports Meeting minutes M&E reports Written documentation of field program activities Brochures and evaluation materials produced 	<ul style="list-style-type: none"> Stakeholders will participate and assist in the development of M&E protocols

Output 1: Development and implementation of an Integrated Eastern Arc Mountain Biodiversity Conservation Strategy			
<i>Objective: to seek to bring together multiple stakeholders with interests in the Eastern Arc to develop a consensus about how best its biodiversity is to be conserved and to elaborate that consensus as a comprehensive and wide ranging strategy for the Eastern Arc.</i>			
Intervention Logic/Outputs	Objectively Verifiable Indicators	Means of Verification	Assumptions
<i>Socio-economic monitoring program developed</i>			
<ul style="list-style-type: none"> • A suite of monitoring tools and protocols developed 	<ul style="list-style-type: none"> • Processes used to develop monitoring programs • Written protocols and monitoring tools developed within 1 year 	<ul style="list-style-type: none"> • Meeting minutes • Project reports • Published protocols and tools 	<ul style="list-style-type: none"> • Linkages between poverty reduction and forest use can be established.
<i>Information, education and communication strategies (IEC) are developed and implemented</i>			
<ul style="list-style-type: none"> • Overall framework for awareness raising developed, with stakeholders/ partners • Communication and outreach – advocacy program developed • Information Technology support to IEC activity 	<ul style="list-style-type: none"> • Processes used to develop IEC framework. Number of stakeholders involved; number of meetings conducted • Written communications plan within 1 year • Communications activities ongoing after 1 year per plan • Investment in and staffing for technology support 	<ul style="list-style-type: none"> • Written reports • Meeting minutes • Interviews with stakeholders • Published communication materials • Written documentation of communication activities (# of people reached, materials distributed) 	<ul style="list-style-type: none"> • A region wide education and communications strategy can be effectively designed and implemented – given the geographic dispersion of the Eastern Arc Mountains.

Output 2: Community-based conservation initiatives are underway in the Uluguru Mountains.			
<i>Objective: to support the implementation of community-based conservation initiatives in priority pilot areas (in the Uluguru Mountains) and to develop lessons which can be extended to other areas.</i>			
Intervention Logic/Outputs	Objectively Verifiable Indicators	Means of Verification	Assumptions
Sustainable conservation of the Uluguru Mountain forests with their associated locally, nationally and internationally significant biodiversity and water catchment values, while at the same time improving welfare of forest-adjacent communities. Improved forest management and conservation and improved land husbandry practices in the Uluguru mountain forests and adjacent villages implemented by local communities, government authorities and other stakeholders	<ul style="list-style-type: none"> • Forest area maintained • Populations of key indicator species maintained at current levels or increased • Quantity and quality of water outflow maintained at current levels or increased • Increased wealth of poorer households in forest adjacent communities (assessed both in terms of income and assets) 	<ul style="list-style-type: none"> • Satellite imagery • Biodiversity monitoring • Hydrological monitoring • Livelihood survey • Attitude survey • Patrol reports • Report of management plan mid term review • Reports of CFR Officer in Charge • Reports of CFR Officer in Charge • Interviews with CFR staff 	<ul style="list-style-type: none"> • Current condition of the forest ecosystem is ecologically sustainable in the long term • Long term financing mechanisms will be identified to ensure sustainability of conservation measures
<i>Protected Area Management: Management and protection systems in the Catchment Forest Reserves (CFRs) of the Ulugurus are substantially improved, and biodiversity and hydrological values better understood.</i>			
<ul style="list-style-type: none"> • Develop management plans • Demarcate, maintain, and patrol forest boundaries • Establish native species nurseries and promote forest regeneration • Monitor biodiversity and hydrological status 	<ul style="list-style-type: none"> • Management plans developed • Patrol schedule developed and implemented • CFR boundaries surveyed and clearly marked • Biodiversity and hydrology baselines completed • Basic office and equipment for CFR field staff in place at 8 locations 	<ul style="list-style-type: none"> • Review of management plans • Reports of CFR Officer in Charge • Reports of CFR Officer in Charge • Review of study reports • Direct observation at field sites 	<ul style="list-style-type: none"> • Farmers will be willing to adopt improved land-use management practices • Raising income reduces forest degradation • Joint Forest Management agreements will lead to reduced forest degradation • Increased awareness leads to reduction in forest utilization • No outbreak of diseases affecting planted trees • Agricultural improvement reduces resource degradation

Output 2: Community-based conservation initiatives are underway in the Uluguru Mountains.			
<i>Objective: to support the implementation of community-based conservation initiatives in priority pilot areas (in the Uluguru Mountains) and to develop lessons which can be extended to other areas.</i>			
Intervention Logic/Outputs	Objectively Verifiable Indicators	Means of Verification	Assumptions
<i>Participatory Forest Management is introduced in the Ulugurus</i>			
<ul style="list-style-type: none"> • Participatory forest management and other resource use arrangements are established • Develop participatory strategies and monitoring systems • Support implementation 	<ul style="list-style-type: none"> • CFR staff collecting and analyzing data on forest products harvested and ecological impact • Agreements for resource use in CFRs negotiated, agreed and being implemented • An institution or institutions for participation of local communities in CFR management established and meeting at least once a year 	<ul style="list-style-type: none"> • CFR records • Review of agreements • Minutes of meetings 	
<i>Capacity of local communities for sustainable land use management is enhanced through improved practices</i>			
<ul style="list-style-type: none"> • Establish benchmark practices • Provide training: soil and water conservation, bio-intensive gardening, agro-forestry, crop diversification, traditional irrigation systems • Promote experimentation and extension activities 	<ul style="list-style-type: none"> • Number of farmers trained in agricultural and agroforestry interventions (by intervention) • Number of farmers involved in experimentation • Number of farmers involved in farmer to farmer extension (by type of event) • Number of tree nurseries established 	<ul style="list-style-type: none"> • Project Reports • Interviews with stakeholders • Direct observation 	

Output 2: Community-based conservation initiatives are underway in the Uluguru Mountains.			
<i>Objective: to support the implementation of community-based conservation initiatives in priority pilot areas (in the Uluguru Mountains) and to develop lessons which can be extended to other areas.</i>			
Intervention Logic/Outputs	Objectively Verifiable Indicators	Means of Verification	Assumptions
<i>Selected opportunities for income generation in the Uluguru mountains are developed (emphasizing sustainable use of forest resources and small enterprise development/marketing).</i>			
<ul style="list-style-type: none"> • Conduct marketing and feasibility studies on agricultural products and sustainable use of forest resources • Provide training and technical advise in income generating activities, marketing products, and small enterprise management • Provide materials for self-help road repairs 	<ul style="list-style-type: none"> • Number of potential products for which feasibility studies/sub-sector analysis has been conducted • Number of people trained in income generating activities based on forest products (by intervention) • Number of people trained in processing and marketing of agricultural products (by intervention) • Number of marketing linkages facilitated 	<ul style="list-style-type: none"> • Project Reports • Review of feasibility studies • Interviews with stakeholders 	
<i>Environmental education and information program launched in the Ulugurus</i>			
<ul style="list-style-type: none"> • Conservation awareness is increased at all levels (through education campaigns politicians, schools, opinion leaders and local communities). 	<ul style="list-style-type: none"> • Number of local leaders attending education events • Number of local people attending education events • Quality and quantity of materials produced • Number of radio features broadcasted • Number of schools with active wildlife clubs 	<ul style="list-style-type: none"> • Project reports • Review of marketing materials 	

Output 2: Community-based conservation initiatives are underway in the Uluguru Mountains.			
<i>Objective: to support the implementation of community-based conservation initiatives in priority pilot areas (in the Uluguru Mountains) and to develop lessons which can be extended to other areas.</i>			
<i>Intervention Logic/Outputs</i>	<i>Objectively Verifiable Indicators</i>	<i>Means of Verification</i>	<i>Assumptions</i>
<i>Institutional capacity building</i>			
<ul style="list-style-type: none"> Capacity of partners in planning and management of land, conservation, agriculture, forestry and environment enhanced. 	<ul style="list-style-type: none"> Number of staff of partner/collaborating agencies receiving training (by skill area) Number of local NGOs and CBOs trained in group organization and management Environment committees at village, ward and district level meeting at least once per quarter Environmental action plans at district + ward levels 	<ul style="list-style-type: none"> Project reports 	

Output 3: Institutional Reforms for Forest Biodiversity Conservation			
<i>Objective: to support a process of institutional reform which will strengthen the capacity of national institutions to undertake participatory forest biodiversity conservation.</i>			
Intervention Logic/Outputs	Objectively Verifiable Indicators	Means of Verification	Assumptions
<i>Participatory forest conservation guidelines are developed and are under implementation</i>			
<ul style="list-style-type: none"> • GEF support will finance an evaluation of Participatory Forest Management (PFM) activities and their impacts, with the objective of preparing a 'best practice' evaluation of PFM and forest biodiversity conservation; • On the basis of the findings of the 'best practice' study, guidelines will be developed to expand the existing <i>Community-based Forest Management Guidelines</i> so that they incorporate forest biodiversity conservation as a key element of PFM; • In conjunction with the PFM sub-component of the FCMP, capacity building and training programs to implement the revised <i>Guidelines</i> will be developed and under implementation. 	<ul style="list-style-type: none"> • 'Best practice' is produced • Processes used to develop guidelines: meetings, workshops, seminars • Written documentation of practices and guidelines • Guidelines being received and implemented at the district authority level • Number of strategies developed and documented in written form 	<ul style="list-style-type: none"> • Meeting minutes • Brochures • Reports • Published guidelines • Interviews with stakeholders and officials at the local level 	<ul style="list-style-type: none"> • Participatory forest management strategies and programs developed at the national level are applied within the Eastern Arc Mountain range, with resources provided from the national level. • Participatory management strategies can effectively protect resources of international significance.

Output 4: Establishment and Operation of the Eastern Arc Mountains Conservation Endowment Fund			
<i>Objective: to improve long-term financial flows for forest biodiversity conservation in the Eastern Arc by developing and implementing a sustainable financing and delivery mechanism.</i>			
<i>Intervention Logic</i>	<i>Objectively Verifiable Indicators</i>	<i>Means of Verification</i>	<i>Assumptions</i>
Provide long-term sustainable financing for conservation and community development activities in the Eastern Arc Mountains to preserve biodiversity and provide local communities with tangible benefits from the conservation effort.	<ul style="list-style-type: none"> • Endowment Fund financing mechanism established • Endowed capital is adequate to fund programs and operations using income and capital appreciation • Endemic and threatened species are preserved. • Forest cover is maintained or increased. • Forest-adjacent communities are engaged in conservation and development project activities. • Livelihoods are maintained or improved. 	<ul style="list-style-type: none"> • Secretariat reports on activities and finances • Review of investment account assets and performance. • Ecological monitoring record; data compared to baseline • Reports on # and size of projects receiving grant funding from the Endowment • Socio-economic studies of status of forest adjacent communities 	<ul style="list-style-type: none"> • Adequate capital can be raised to provide a sustainable source of financing • Community based projects can result in protection of biodiversity • Communities can benefit from biodiversity conservation projects, with improved livelihoods realized • Alternative livelihood opportunities are available
<i>The administrative and operational capabilities of the Endowment Fund Secretariat are established and effective</i>			
<ul style="list-style-type: none"> • Board is fully constituted • Operational staff are employed • Pilot operations launched 	<ul style="list-style-type: none"> • Board of Trustees fully constituted and meeting on a regular basis • Secretariat office established, Executive Director and key staff hired • Equipment and facilities are in place • Field staff are deployed • Local Advisory Committee(s) established 	<ul style="list-style-type: none"> • Endowment Fund Secretariat reports • Meeting agendas and minutes • Audits and WB/UNDP assessment of Secretariat and Board activities • Written work plans, terms of reference 	<ul style="list-style-type: none"> • Board of Trustees effectively manages and oversees Secretariat • Operating funds are sufficient to launch activities • Well qualified personnel are available and recruited within the available budget

Output 4: Establishment and Operation of the Eastern Arc Mountains Conservation Endowment Fund			
<i>Objective: to improve long-term financial flows for forest biodiversity conservation in the Eastern Arc by developing and implementing a sustainable financing and delivery mechanism.</i>			
Intervention Logic	Objectively Verifiable Indicators	Means of Verification	Assumptions
<i>The Endowment Fund is soliciting, awarding, and monitoring grants that are having a positive impact on poverty alleviation and conservation; target communities and stakeholders are being effectively involved.</i>			
<ul style="list-style-type: none"> • Grant making plan developed in coordination with other project components (Uluguru and Strategy) • Grant management system in place • Proposal solicited, received, and awards made • Pilot projects implemented • Education and outreach programs designed and implemented and having a positive impact 	<ul style="list-style-type: none"> • 50 percent of funding to community based projects • Ongoing selection and funding of community, research, and forest protection projects. • Forest cover and biodiversity habitat is protected. • Forest-dependent communities are able to improve their livelihoods 	<ul style="list-style-type: none"> • Reports and project documents • Funds distributed • Evaluation team assessments • Marketing materials produced and distributed • For community projects: reports on number and amount of projects funded • For research projects: reports on number of research projects completed and results published; number of students completing fieldwork and studies in project area. • For forest protection projects: reports on change in number of forests with protection and management; • Ecological monitoring studies • Socio-economic studies 	<ul style="list-style-type: none"> • Coordination and cooperation between project components can be achieved. • There is sufficient demand for conservation funding in the Eastern Arc region to ensure a steady stream of proposals. • People will translate awareness of environmental issues into specific action. • Government maintains its commitment to decentralization and participatory forest management. • Monitoring and socio-economic studies are effectively implemented through the strategy component of the project.

Output 4: Establishment and Operation of the Eastern Arc Mountains Conservation Endowment Fund			
<i>Objective: to improve long-term financial flows for forest biodiversity conservation in the Eastern Arc by developing and implementing a sustainable financing and delivery mechanism.</i>			
Intervention Logic	Objectively Verifiable Indicators	Means of Verification	Assumptions
<i>The Endowment Fund is capitalized and is being effectively managed</i>			
<ul style="list-style-type: none"> • Endowment is established • Management systems fully in place and effective 	<ul style="list-style-type: none"> • Financing strategy developed • Capital contributions • Fund performance 	<ul style="list-style-type: none"> • Reports and documents • Audit of Endowment Account • Financial Reports 	<ul style="list-style-type: none"> • Donors are willing to explore innovative financing arrangements. Government entities willing to explore charges for environmental services. • Capital markets deliver a rate of return over the next 5-10 years, in line with or better than historical averages.
<i>The Endowment Fund has achieved self-sufficiency in operations and grant making, and has a sufficient capital base to fund program activities</i>			
<ul style="list-style-type: none"> • Co-financing is generated; • Fund is fully operational. 	<ul style="list-style-type: none"> • Size of endowment • Level of program activities: # of grants, scope of geographic activities • Board and staff transitions managed 	<ul style="list-style-type: none"> • Financial Reports • Independent program evaluation • Annual reports • Board meeting notes 	<ul style="list-style-type: none"> • Adequate capital and/or operating funds are raised from donors • The Fund has performed effectively in its first five years – managing its endowment, awarding grants to worthy recipients in a transparent manner, and grants are resulting in tangible community and environmental benefits.

ANNEX 10: STAKEHOLDER CONSULTATIONS AND LESSONS LEARNED AND INCORPORATED INTO PROJECT DESIGN

This section summarizes some of the outcomes of stakeholder consultations and lessons learned which have been incorporated into the project design. It is based on the results from a ‘Lessons Learned’ workshop held in Dar es Salaam in February, 2001, as well as on a review of various evaluations of the effectiveness of Conservation Endowment Trust Funds.

Lessons learned from Forest Biodiversity Conservation activities in the Eastern Arc

Introduction

This summary is based on the findings of the ‘Workshop on Lessons Learned’ organized by CARE Tanzania in Dar es Salaam on February 12, 2001. The workshop was financed as part of the GEF PDF/B process, and as part of the overall development of the Eastern Arc activities within the framework of the National Forest Program and the Tanzania Forest Conservation and Management Project. The workshop brought together representatives from central and local government, NGOs, donors and project personnel with extensive experience in the Eastern Arc.

‘Lessons Learned’ are summarized in three main areas: Conservation Practice (both biological and field issues); Ownership and Participation; and Project Design. ‘Lessons Learned’ were drawn from six main contributions to the workshop. These were derived from experience in the Ulugurus (DOF/WCST, Phase I Project); the East Usambaras (EUCAMP), Norad support to the Catchment Forestry Project; the UNDP GEF Cross Borders Project in the South Pares, CARE Tanzania’s experience in Zanzibar, Uganda and with Integrated Community Development Projects; inputs from Regional and District Forest Officers, and from the discussion during the workshop itself.

1) Conservation Practice:

A) Biological Issues

- a) Field surveys show that for vertebrates, most endemic species are confined to dense forest habitats. Maintenance of such primary forest is essential for biodiversity. Plants and e.g. butterflies have a significant proportion of endemic species on other habitats e.g. bogs, montane grassland, rocky cliffs; but the majority are on forest habitats.
- b) There is concern about impacts of disturbance to forest cover on populations of endemic taxa. The little available evidence points to the fact that heavy disturbance leads to a loss of endemics and a replacement by more generalist ‘farm-bush’ taxa. Disturbance is problematic in both canopy and the understory. There is thus need to develop low intensity use strategies, for e.g. poles, fuel, and medicinal plants.
- c) Red data book assessments of population status and risk are useful criteria for M&E.
- d) Few mountain blocks have good baseline data on forest loss (exceptions are East Usambaras and the Uluguru Mountains). There is a need to develop initial baseline information as a prelude to better monitoring. Levels of fragmentation, patch size, forest edge analysis and forest area; by altitude category, are important in this respect.

B) *Field Issues*

- a) Whilst field patrolling to curb illegal activity is essential, and requires considerable staff inputs, on its own it is not sufficient. Field patrolling, with convictions for illegal use is a necessary input, but it has to be linked to awareness and extension.
- b) Adequate staff inputs are needed for such fieldwork; as the level of PFM increases, the field staff would undertake less patrolling and provide more extension support to PFM. PFM itself requires considerable staff inputs to ensure success.
- c) The participation of local communities in the survey and monitoring process for forest resources is an essential part of trust and capacity building, and increases ownership for both the resource and project activity.
- d) Whilst illegal activity (e.g. logging) is undertaken by local people; it is often driven and financed by outsiders, middlemen, and financiers who may be supported by powerful interests in government.
- e) Capacity building and awareness is needed at all levels of government and civil society. Capacities are weak, and there are many different agenda in the institutions.

2) *Ownership and Participation*

- a) PFM is a slow and gradual process, which requires trust on both sides. Initially it is costly (time, manpower, financing).
- b) PFM approaches without demonstrating realistic benefit streams to people will not work.
- c) There is the need to have a common set of approaches to PFM across the Arc as a whole.
- d) Social impact assessment of conservation activity is an important part of M&E.
- e) Transparency is a key attribute. This applies to both planning and implementation.
- f) Equitable benefit sharing is essential; emphasizing those most dependent on the forest.
- g) Project planning must recognize the existence of powerful interests in forestry; conflict resolution is important.
- h) Adequate linkages between local government who have responsibility, and central government who have technical skills, are important.
- i) Continuing awareness of project activity is essential for proper participation. Awareness is achieved through networking, through education, through involvement.
- j) Donor collaboration is important.
- k) There is a need to increase linkages between forest conservation and alternative livelihoods; sustainable use, improved agriculture. Conservation on its own will not work.
- l) Full participation and understanding is essential at the lowest levels of local institution - in the hamlets and sub villages. Village situations differ; and PFM needs to be site specific. Villages are not homogenous; different stakeholders and user groups exist in village society. The landless and unemployed youth are often the most dependent on forests for income.

3) *Project Design*

- a) Conservation processes involving communities need a long time period. The impacts of EUCAMP, HIMA etc, are clear (projects over ten years).
- b) Field activities need focus; with considerable and continued capacity building amongst all stakeholders. NGOs at district and CBOs at community level are weak.
- c) Poverty implications are important; and the poor do have a considerable impact on forest resources. Mechanisms to link anti-poverty processes (e.g. through the PRSP) to forest dependent people will be important.

- d) Conservation versus utilization is still a major debate. There is little real experience with sustainable utilization; and there is little regulatory capacity. There are emerging field lessons; from a variety of field sites in Tanzania. There is little interaction or hard analysis and feedback. Many examples are based on robust woodland vegetation types, which can absorb considerable and repeated impact, and which do not have global and national biodiversity and catchment values.
- e) Lesson 'd' above suggests that project design should build in activities to synthesize and to generate lessons learned. Plus lesson 'd' suggests that new projects should have flexibility to adapt to emerging wisdom.

The processes of stakeholder consultation, and the various technical inputs, discussion papers, and background documents which were prepared in conjunction with activities undertaken during the PDF/B process with respect to the preparation of the Conservation Strategy for the Eastern Arc and of community-based conservation activities in the Ulugurus are summarized in Tables A7.1 and A7.2

Table A10.1: Stakeholder Consultations and Outputs from Preparation of the Framework for an Integrated Conservation Strategy for the Eastern Arc Mountains of Tanzania.

Activity/Product	Title of Output	Date	Authors / Partners
Main Strategy Document	A Framework for the Development of an Overall Strategy for the Eastern Arc Mountains of Tanzania	February 2001 Update June 01	CARE. R Wild and B Matunda
Support Document	1 Forest Threat Analysis across 69 forest areas in the Eastern Arc 2 Lessons Learned from Ongoing Donor Initiatives in the Eastern Arc 3 Discussion on the Queensland Australia conservation Strategy 4 Discussion on using GIS / Satellite data for M&E in the Eastern Arc Forests 5 ICDP Overview in Forest Conservation 6 Conservation Issues in the Eastern Arc - Lessons from the Ulugurus	November 2000 February 2001 December 2000 February 2001 November 2000 February 2001	Rob Wild et al CARE and Wild et al Jon Lovett N. Sengupta Burgess, Lovett, Franks Burgess et al
Task Force Meeting	Three Meetings. All sectors and key institutions, including agriculture, districts	July to Dec 2000	Minutes by CARE
District Workshops	1 Morogoro (For Ulugurus, Udzungwas Ukagurus): District staff, NGO, CBO 2 Korogwe (For Usambaras, Ngurus): Political leaders at local 3 Same (For Pare Mountains).	In July to December	Minutes by CARE

Table A7.2: Stakeholder Consultations and Outputs with Respect to Preparation of Community-based Conservation Activities in the Eastern Arc Mountain Forests

Outputs/Activities	Title of Output and Nature of Consultations	Date	Authors / Partners
Main Document	Uluguru Mountains Environmental Management and Conservation Project	June 2001	CARE Tanzania
Support Document	<ul style="list-style-type: none"> Overview of Biodiversity Values of Uluguru. Assessment of Forests and Forest Threats in Ulugurus Institutional Policy and Livelihoods Analysis for Communities Designing a Forest Management and Conservation Project for the Uluguru Mountains - Discussion Notes 	Drafted from August 2000 until November 2000.	Burgess, Doggart, Temu and Nsolomo; Hymas (WCST/DOF) D Hartley and S Kaare P Franks: CARE

Table A7.2: Stakeholder Consultations and Outputs with Respect to Preparation of Community-based Conservation Activities in the Eastern Arc Mountain Forests

Outputs/Activities	Title of Output and Nature of Consultations	Date	Authors / Partners
Workshops	Start Up Stakeholder Workshop. Program Design Workshop. Stakeholders Forum (farmers, women, traditional leaders, CBOs, local government). Review Workshop. Dar es Salaam Task Force Consultations for main project themes	7/2000 11/2000 10/2000 2/2001 6-11/2000	Catchment Forestry Project; Morogoro District Council; Morogoro Municipality; WCST/DOF; UMADEF/SUA/ CARE
Field Studies and Village Level Discussions	Village Interviews and Household Discussions Local Government (Ward / Division) Discussions Forest Threat Analysis, Interviews with Traditional Leaders Biodiversity Reviews, Analysis of patterns of Forest Loss	July - Nov 2000	Consultant teams and task force members

Lessons Learned from the Design of Conservation Trust Funds, and their Incorporation into the EAMCEF

The *GEF Evaluation of Experience with Trust Funds* identifies key conditions associated with trust fund success, including internal and external factors that contribute to the Fund's ability to become a viable institution and to achieve its objectives. Four conditions were identified in the evaluation as critical, and have been addressed during the design, preparation, and establishment of the EAMCEF: a commitment of at least 10 to 15 years; active Government support for a public-private mechanism outside of Government control; a critical mass of people from diverse sectors who can work together; and the existence of a basic fabric of legal and financial practices and supporting institutions in which people can have confidence.

a) A commitment of at least 10 to 15 years.

The Inaugural Board of the EAMCEF is constituted of a range of professionals in the public, private, and NGO sector with extensive experience in forest biodiversity conservation in Tanzania, and who have all had a long-standing interest and commitment to the conservation of the Eastern Arc forests either as researchers and academics, policy makers, conservationists, or as members of communities in the Eastern Arc. The private sector is also represented, because of its interest in being seen to be deeply committed (as it is) to the task of forest biodiversity conservation and management in Tanzania. All members of the Inaugural Board have contributed substantial time to the establishment of the EAMCEF without compensation. They remain committed to seeing that the program is launched and implemented successfully as a Trust, in perpetuity. The maximum term of the Inaugural Board members is 7 years.

Government's commitment to the Eastern Arc Mountain forests is also long-term because of their economic value as watershed catchments. Government has been deeply committed to preparation of proposed GEF support for the Eastern Arc through MNRT and FBD. Although the actual period of implementation is 6 years, the World Bank has also indicated its commitment to mainstreaming forest biodiversity conservation activities into its lending program in Tanzania.

b) Active government support for a public-private sector mechanism outside government control

The Government of Tanzania has been fully supportive of the creation of the EAMCEF, and has endorsed the proposed role that has been established for the Trust in the conservation of the Eastern Arc forests. This has been demonstrated by the critical role played by FBD in preparation of the Endowment Fund,

and in its wider support for the overall package of GEF support to the Eastern Arc. MNRT has formally endorsed the establishment of the Endowment, and Government has registered EAMCEF as a legally-constituted trust under the laws of Tanzania. The commitment to devolving control over forest management and conservation features strongly in the National Forest Policy and in the National Forest Program. Support for the EAMCEF is an indication of Government's support for a diversity of approaches to forest conservation and management.

c) *A critical mass of people from diverse sectors of society who can work together despite their different approaches to biodiversity conservation and sustainable development*

The Trust Deed for EAMCEF requires that the Board of Trustees is constituted in a manner so that there is expertise in conservation in the Eastern Arc Mountains, forestry, academia/research, law, business and financial matters, community development, and the work of local and international conservation NGOs. The Founding Board has been constituted of representatives from the Forestry and Beekeeping Division of the Ministry of Natural Resources and Tourism, the National Environment Management Council (NEMC), the Lawyers Environmental Action Trust (an environmental NGO), WWF Tanzania, and Songas (a private company with interests in off-shore gas field development). The Deed requires the appointment of four additional Trustees who shall represent a reputable NGO which has the objective of supporting community-based conservation and natural resource management, a representative from the academic/research community from a national institution, and two members representing communities in the areas of operation of the Endowment.

The Deed also provides for the establishment of Local Advisory Committees in the areas of EAMCEF operation, and that these will be constituted of representatives from Village Environmental Committees. LACs will be constituted to provide guidance and advice to the Board.

Collectively, these various mechanisms provide for representation of diverse interests in the conservation and management of the Eastern Arc.

d) *A basic fabric of legal and financial practices and supporting institutions (including banking, auditing, and contracting) in which people have confidence*

This indeed, was an important 'prior' for the establishment of the EAMCEF, and was evaluated during the feasibility study carried out during the PDF/A exercise. The feasibility study concluded that Tanzania has in place all the necessary laws for the establishment of the Endowment Fund, including legal remedies for beneficiaries who believe their interests are not being adequately represented. There are also adequate regulations and capacity for auditing and accounting practices and banking, and a number of IDA-financed projects are making use of private firms for auditing or financial management support. There are also useful precedents which have been established within IDA-financed projects (e.g. Forest Resources Management project, Lake Victoria Environmental Management Project, Tanzania Social Action Fund, etc.) where communities have assumed responsibility for management of and accounting for resources provided for the benefit of the community-at-large.

Most of the other 'success conditions' outlined in the GEF Evaluation are also present. These include,

- The existence of a valuable, globally significant biodiversity resource whose conservation is politically, technically, economically, and socially feasible (given that GEF resources will build upon a larger base of strong support for improved management of the Eastern Arc);
- mechanisms are in place to involve a broad set of stakeholders in the design process, and stakeholders are willing to use these mechanisms (as evidenced by the highly consultative process

which was launched during preparation of the Uluguru activities, and of the framework for the Conservation Strategy for the Eastern Arc.)

- ‘mentors’ supporting the Fund’s establishment and operations (these include relationships which have been established with the Mgahinga-Bwindi Conservation Trust) and the involvement of the Interagency Planning Group on Environmental Funds (Africa Working Group) in the design of the EAMCEF, as well as the broader GOT program of participatory forest management which is to be supported by IDA and Danida as well as a range of Tanzanian NGOs.
- An effective demand for the fund’s product. Demands are strong in terms of the interests and needs of stakeholders, and the EAMCEF will need to mobilize this demand effectively through community-based activities in the first phase.

ANNEX 11: DEED OF TRUST FOR THE EASTERN ARC MOUNTAINS CONSERVATION ENDOWMENT FUND

Form T.I. 8



The Trustees' Incorporation Ordinance (Cap. 375)

CERTIFICATE OF INCORPORATION

THIS IS TO CERTIFY that THE REGISTERED TRUSTEES OF THE EASTERN ARC MOUNTAINS CONSERVATION ENDOWMENT FUND (EAMCEF).

is a body incorporated under the provisions of the Trustees' Incorporation Ordinance, 1956; SUBJECT to the following conditions, that is to say—First that such body corporate shall not, without first obtaining my consent in writing acquire any estate or interest in land; and Secondly, that such body corporate shall not, without like consent, use or permit or suffer to be used any land vested in it otherwise than in direct fulfilment of the trusts for which such body corporate is established.

EASTERN ARC MOUNTAINS CONSERVATION
ENDOWMENT FUND


GIVEN at Dar es Salaam under my hand this 6TH day of JUNE 19 2001


(C.O. KAISI)
Administrator-General of Trustees.

ANNEX 12: INDICATIONS OF UNDP AND GOVERNMENT COUNTERPART FINANCING

The United Republic of Tanzania
MINISTRY OF NATURAL RESOURCES AND TOURISM

Telegraphic Address: "TOURISMI",
Telephone: 111062-5



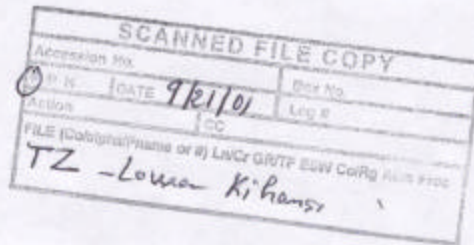
P.O. Box 9372,
DAR ES SALAAM

In reply please quote:

Ref. No. JA.88/168/01/33

13 September, 2001

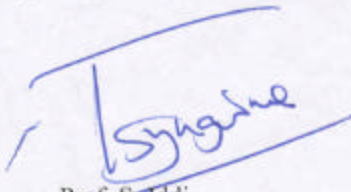
Mr. Peter Dewees
Senior Environmental Economist
Environmental and Social Development Unit
Africa Region World Bank
1818 H St. N.W.
Washington, D.C. 20433
Tel: 202 473-3959
Fax: 202 614 0959



RE: GEF CO-FINANCING

"I refer to your request for clarification with respect to expected Government counterpart financing to assist in implementation of the Eastern Arc Forests Conservation and Management Project."

Government is committed to providing required incremental in-staff and in-kind counterpart resources to assist in implementation of the proposed GEF project in an amount equivalent to US\$ 1.95 million for the 6 years of the project. Counterpart financing will be required to assist in preparation of the Eastern Arc Mountain Conservation Strategy, implementation of the Uluguru community-based conservation activities, and representation on the Eastern Arc Mountains Conservation Endowment Fund Board, as well as in undertaking institutional reforms with respect to incorporating forest biodiversity concerns into the work of the Forest and Beekeeping Division."


Prof. S. Iddi
For Permanent Secretary

URT/97/G31

25 October 2001

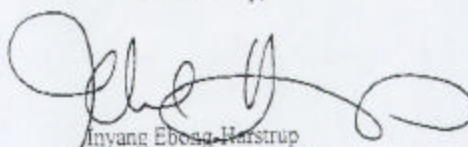
Dear Ms. Fuller-Niamir,

Co-Financing for GEF Project Proposal Conservation and
Management of the Eastern Arc Mountain Forests

I refer to past discussions on the role of the UNDP Country Office in working with the development and implementation of this project. I confirm that this project is considered of great importance to the long-term work programme of this office, especially given the strong linkages to communities and the Government through the Poverty Reduction and Local Governance programme initiatives.

I expect that over the six years life of the project, this office will be able to make available at least one or two grants per year for developing sustainable livelihoods within forest dependent communities using UNDP TRAC Country Resources allocated to the Small Grants Programme. Whilst we cannot put a definitive figure on this total, it is likely to be in the region of US\$ 300,000 over the project duration.

Yours sincerely,



Inyang Ebong-Harstrup
Resident Representative a.i.

Ms. Mariam Fuller-Niamir
Regional Coordinator
UNDP - GEF Biodiversity
UNDP
LUSAKA, ZAMBIA

c.c. Dr. W. A. Rodgers
Sub Regional Coordinator
ARUSHA

c.c. Permanent Secretary
Ministry of Tourism and Natural Resources
P.O. Box 9352
DAR ES SALAAM

**ANNEX 13: TECHNICAL REVIEW OF THE
CONSERVATION AND MANAGEMENT OF THE EASTERN ARC MOUNTAIN FORESTS
PROPOSED PROJECT**

by John Mugabe, African Center for Technology Studies

1. GENERAL REMARKS

I read with the proposal on the Conservation and Management of the Eastern Arc Mountain Forests project prepared by the World Bank and the United Nations Development Programme (UNDP) with great interest. It reads well and is coherent. Analytical rigor and empirical material have been brought to the effort. I have just two general comments to make.

- The proposal is unnecessarily too long; with repetitions.
- There is a tendency to make general assertions—essentially, some of the statements made in the proposal may require clarification/explanation (see below for specifics)

In terms of scope, it covers a broad array of problems, issues and has well sequenced activities. For its core objectives to be achieved it will require a strong inter-agency mechanism with about to ensure that the proposed activities are implemented in a coherent or synergistic way.

2. KEY ISSUES

Scientific and Technical Soundness

The proposal provides a good description of the ecological structure and socio-economic benefits of the Tanzanian Eastern Arc Mountain forests. It adequately identifies and analyses some of the root causes of the degradation and loss of forest biodiversity of the Eastern Arc. On the whole, it is scientifically and technically sound. There are, however, a number of comments I wish to make on the conceptual framework and analysis issues.

First, the notions of conservation, management and protection are sometimes used interchangeably and often loosely. Such phrases as “the protection of forest biodiversity conservation” (page 6, para 23) are confusing.

Second, there are a number of strong assertions, with very little or no empirical evidence given. For example, what is the basis for judging whether Tanzania’s policy for forest conservation is ‘very strong’? Compared to? I suggested that the proposal avoids making judgment of the adequacy/strength of the policy, particularly the National Forest Policy that is relatively new. Its strengths can be effectively assessed during its implementation.

Third, the proposal stresses the need to cast discussion of and solutions of forest degradation and loss problems in Tanzania generally and in the Eastern Arc in the overall wider policy reform context. However, the analysis is restricted to the explicit new National Forest Policy and some reference made to the draft national biodiversity strategy and action plan, water policy and agricultural policy. How are forests in general and the Eastern Arc Mountain forests in particular (as national economic wealth) addressed by the Tanzania’s Poverty Reduction Strategy Paper (PRSP) that is likely to be the framework and with priorities for development assistance and lending to the country? What specific actions for better/improved forest management are outlined in the PRSP apart from the mere recognition of the direct economic importance of forests (page 22, para 81). A discussion of forest management (conservation and

sustainable) issues as addressed by the PRSP would be useful; and particularly give a context for the cluster of activities and outputs proposed under Activity 1.3 on page 22 as well as Activity 1.2 e and f.

Fourth, the long-term objective of the proposed project is show be clearly state as to accommodate/articulate sustainable use goals or imperatives. To address some of the socio-economic challenges faced in the Arc, a strategy for forest conservation and protection per se would be limited. Para 63 last phrase is confusing/unclear—“incorporate biodiversity conservation objectives more effectively into forest management”. What are these objectives? Those in Article 1 of the Convention on Biological Diversity? What isn’t forest management biodiversity conservation? Are there specific biodiversity conservation not incorporated into forest management? Which ones? These are some of the questions that emerge from reading and reflecting on the long-term objective stated on page 16 (para 63)

Fifth, on the institutional arrangements for forest management, the proposal refers to reforms aimed at establish a ‘service-delivery mechanism’. Are there mechanisms being established for the regulatory and enforcement roles? Are/will regulatory and enforcement functions integrated into the operation of the ‘service-delivery mechanism’?

Identification and Articulation of Global Environmental Benefits

The proposal does not explicitly identify and articulate global environmental benefits that the project would generate. There are such global environmental benefits as its potential contribution to the management of climate change—e.g. sinks for emissions and carbon sequestration, should be described; in addition to what are largely national benefits outlined on page 68.

Coherence with GEF Goals and Council Guidance

The proposed project would contribute to the achievement of overall GEF goals and in particular to those pertaining to the conservation and sustainable use of biodiversity. Its proposed activities are within the GEF operational. It is being proposed with operational programmes 2 and 3. It is within one of the priority areas that were identified by the 5th Conference of Parties to the Convention on Biological Diversity, and thus GEF investment in the project would be within the framework CBD/COP decisions, particularly Decision V/13 that calls on the Facility to support, as priority, projects that implement the Convention’s programme of work on forest biodiversity. It would contribute to the implementation of the elements of the programme of work that focus on:

Holistic and inter-sectoral ecosystem approaches that integrate the conservation and sustainable use of biological diversity, taking account of social and cultural and economic considerations;
Comprehensive analysis of the ways in which human activities, in particular forest-management practices, influence biological diversity and assessment of ways to minimize or mitigate negative influences.

The proposed project would enable Tanzania to engage in the implementation of several of the provisions of the Convention on Biological Diversity (e.g. Articles 6, 8, 10, 11 and 20). For example, it would create incentives for local communities to engage in conservation of forest biodiversity (Article 11 of the CBD). It is

Replicability of the Proposed Project

Problems associated with the conservation and sustainable use of the Eastern Arc Mountain forests are common to many other forest ecosystems in Tanzania and elsewhere in Africa. The role of local communities in the conservation and sustainable use of forests, and the need to enlarge institutional capacities as well as to ensure reliable, predictable and adequate financing of conservation efforts are issues that preoccupy national policy-makers and international agencies. The proposed project activities are sequenced in such a way as to maximize learning during the life of the project and make strategic

interventions to address root causes of the problems. A rich body of information and knowledge that may be used to establish similar activities/interventions will be generated by the proposed project. The involvement of Non-governmental Organizations (e.g. WCST and LEAT) and such donor agencies as DANIDA offers an opportunity to replicate the project in other parts of the Tanzania with similar ecological and socio-economic conditions and forest management challenges.

Sustainability of the Project

There is an explicitly recognition to establish sustainability measures for the project. The proposed endowment fund would be a major source of financial sustainability of conservation and sustainable use efforts that the project intends to stimulate. In addition, if the project succeeds in mobilizing local communities and enlarging the range of socio-economic opportunities available to them, it will have built a constituency for conservation and sustainable use of the ecosystem. This constituency together with strong participation of national public (central and local governments) institutions would manage initiated processes and activities at the end of its planned life/duration. Some of the proposed project activities are aimed at transferring ownership of the processes and outputs to local actors.

3. SECONDARY ISSUES

1. Linkage to other focal areas—The proposed project links well to climate change, international waters, land degradation,
2. Linkages to other programmes and action plans at regional or sub-regional—The project has direct linkage to such initiatives as the GEF financed project ‘Reducing Biodiversity Loss at Cross-Boarder Sites in East Africa’,
3. Degree of involvement of stakeholders—The proposed project would bring together at least four groups of stakeholders: local households living and interacting with forests in the Arc; national policy-makers and conservation agencies; private sector; and international donors. It offers relatively high opportunities of mobilizing and engaging these groups. It is being developed with a reasonable measure of their participation.
4. Capacity building—The proposed project is largely about capacity building of at least four types: institutional strengthening (central and local government authorities and local community institutions), resource mobilization, environmental education for local communities, and improvement of overall national and local policy contexts.

ANNEX 14: RESPONSE TO THE TECHNICAL REVIEW

The STAP Technical Review confirms that the proposed GEF project support for the Eastern Arc Mountain Forests would contribute to achievement of overall GEF goals and in particular to those pertaining to the conservation and sustainable use of biodiversity. Further the proposal is consistent with GEF Operational Programs, and the priorities identified by the 5th COP. The STAP review acknowledges the elements of sustainability which have been incorporated into the project design, and suggests that there is good scope for replicability. Finally, the review confirms that the many linkages across sectors, institutions, and among stakeholders are clearly articulated and will contribute to meeting the project's objectives.

The Technical Review makes several general and specific points about the Project Brief. We respond to several of these issues in some detail:

Length of the proposal. The length of the proposal is an outcome of the complexity of the project, the need for clarity about institutional and implementation arrangements in light of this complexity, and the need for an understanding of how GEF support fits within the broader forest development framework in Tanzania. The proposal has been prepared to address the many and varied questions which have been raised internally by both IAs, and so the proposal represents a consensus between the Bank and UNDP about the way forward. Much information has been moved, from earlier drafts, to the Annexes.

A need to clarify certain assertions in the Project Brief about the strength of the National Forest Policy in Tanzania. This was a professional judgment, and was based on experience with similar policy processes and outcomes elsewhere in Africa. The fundamental question about the effectiveness of policy implementation is a different question, and this can only be judged in the medium term. We continue to have the view that the policy framework for forest biodiversity conservation in Tanzania is very strong. This is in comparison to the past forest policy (which was very out of date), and in comparison to other natural resource policies in the eastern Africa Region. The forest policy itself makes explicit reference to other policies – including that of decentralization, as well as water and energy. That determined the focus on the forest policy itself in the analysis process.

We agree the need for a continuing and wider discussion of the Poverty Reduction Strategy Paper and what it says about forest and woodland management. The PRSP was prepared by Government and published in October 2001. The PRSP recognizes explicitly that the poor in Tanzania area heavily dependent on the environment, and states that the poorest households in some areas are those most dependent on forest and woodland resources for income. The PRSP proposes to find ways of incorporating environmental quality indicators into its poverty monitoring system in a way which captures these levels of dependency. Future iterations of the PRSP and the Medium-term Expenditure Framework are expected to capture more fully these linkages and to help define a more consistent framework for managing activities aimed at protecting the environment. The development of this Eastern Arc project established contact with PRSP processes seeking as to how to elicit further support from PRSP, and to link the monitoring of enhanced livelihoods to PRSP M and E methods. This is stated in para 83 (p22). Further description of process will be dealt with during project implementation.

What are biodiversity conservation objectives? Why is biodiversity conservation not synonymous with forest management? They have certainly not been synonymous in the past – which is a main reason for the new policy. Biodiversity conservation focuses attention away from trees to all taxa and to all products and services not just woody products from trees. Definitions of forest biodiversity do follow from the CBD and the CBD has been a guiding force in Tanzania's National Forest Policy. Issues of sustainable

use and equitable use are important. It is important to note that the Objective of the project (para 63) states “..... to incorporate biodiversity conservation objectives MORE EFFECTIVELY into forest management.” Yes biodiversity is more integrated than in the past, but the effectiveness of this integration is not always obvious.

The Review states the need for **clarity about the regulatory/enforcement mechanisms** and revenue collection that are to be introduced through the new institutional arrangements. These mechanisms are under active development in Tanzania at the moment, through a number of field projects. Lessons learned are being sought – suitable for both forests of high biodiversity value and forests of local resource benefit. With respect to revenue collection (primarily royalty on logging) proposals are under consideration that would remove much responsibility for revenue collection from District Forest Officers and place it in the hands of private sector contractors working on behalf of Government, subject to monitoring by the Tanzania Revenue Authority. However logging bans continue for the Eastern Arc Forests, and revenues there are likely to be those through ecotourism and NTFP collection, collected through community forestry arrangements. New tenure arrangements which give primary responsibility for forest management to villagers are expected to provide the best form of decentralized regulation over forest use.


The STAP review stated **the need to identify other global benefits** (in particular carbon sequestration) that the project would generate. The project is not intended to address carbon sequestration issues, and so little work has been carried out on the extent of these benefits. What little data there is with respect to the miombo woodlands of Tanzania, (which comprise the largest woody cover type in the country), suggests that the greatest benefits from carbon sequestration can be accrued through better fire management and reduced loss of woody cover. In general, any conservation process that reduces forest loss and reduces annual cropping in favor of woody crop agriculture will contribute positively to carbon sequestration. We still do not see the need to develop detailed carbon models for the Eastern Arc.

The **biodiversity global values** are described in some detail for the Eastern Arc as a whole, and some level of description given for some individual forest blocks. The Uluguru Mountains are a major field site for this project (see paragraphs 88 to 97). The Uluguru Mountain Forests score highly for species endemism despite having had most low altitude forest cleared for agriculture. The East Usambaras and Udzungwas do still have considerable low altitude forest – typically warmer and wetter. This emphasizes the extreme biodiversity values of the higher altitude forests of the Ulugurus, with extensive radiation in several genera of the Rubiaceae plant family for example.

ANNEX 15: LETTER OF ENDORSEMENT

THE UNITED REPUBLIC OF TANZANIA

Telegrams: "MAKAMU",
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VICE-PRESIDENT'S OFFICE,
P. O. BOX 5380,
DAR ES SALAAM,
TANZANIA

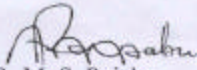
Date: 11 October, 2001

Chief Executive Offices and Chairman,
GEF Secretariat,
1818 H Street NW,
Washington DC 20433
USA
Fax No. 202 533 3240/3245

**RE: ENDORSEMENT FOR GEF FULL PROJECT PROPOSAL : THE CONSERVATION
AND MANAGEMENT OF THE EASTERN ARC MOUNTAIN FORESTS**

1. The Government of the United Republic of Tanzania has reviewed the above mentioned project proposal.
2. This project has gone through a progression from PDF A activity through PDF B activity into this major full Proposal for GEF funding. The proposal is the outcome of collaboration between the Government of Tanzania (Ministry of Natural Resources and Tourism) and two GEF Implementing Agencies: UNDP and World Bank. Proposal preparation has been participatory, involving communities at District level, many government and non-government agencies and the donor community. The GEF project is linked to co-finance via Government, via IDA support and via Government of Denmark.
3. We look forward to GEF support to the Eastern Arc Mountain Forests. Tanzania acknowledges her global responsibilities as custodian as what has been declared as one of the world's most important areas of biodiversity.
4. We thank you for your continued cooperation.

Yours sincerely,


A. R. M. S. Rajabu
PERMANENT SECRETARY

c.c. Permanent Secretary
Ministry of Natural Resources and Tourism
P. O. Box 9372
DAR ES SALAAM

Endnotes

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- ¹ Of the total proposed for GEF support, UNDP would be responsible for managing \$5 million of the proposed program, and the World Bank would be responsible for managing \$7 million of the proposed program.
- ² This Project Brief focuses on the Tanzanian Eastern Arc Mountain forests. Kenya's small share of the Eastern Arc is primarily found in the Taita Hills (around 800 ha). Conservation and management of these forests is being addressed through other donor assisted projects such as the GEF –UNDP Cross Borders Project.
- ³ Key references setting out the biodiversity values of the Eastern Arc are:
Burgess, N.D., Nummelin, M., Fjelds , J., Howell, K.M., Lukumbyza, K., and Mhando, L. (eds). (1999). *Biodiversity and Conservation of the Eastern Arc Mountains of Kenya and Tanzania*. Proceedings of a Conference on the Eastern Arc, held in Morogoro, Tanzania, December 1 to 5, 1997.
Hamilton, A.C., and Bensted-Smith, R. (eds.) (1986). *Forest Conservation in the East Usambara Mountains, Tanzania*. Gland, IUCN.
Lovett, J.C., and Wasser, S.K. (eds) (1993). *Biogeography and Ecology of the Rain Forests of Eastern Africa*. Cambridge, Cambridge University Press.
Myers, N. (1988). Threatened biotas: 'hot spots' in tropical forests. *The Environmentalist* **8**:187-208.
Myers, N. (1990). The biological challenge: extended hot-spots analysis. *The Environmentalist* **10**: 243-256.
Rodgers, W.A., and Homewood, K.M. (1982a). Species richness and endemism in the Usambara mountain forests, Tanzania. *Biological Journal of the Linnean Society* **18**: 197-242.
Rodgers, W.A., and Homewood, K.M. (1982b). Biological values and conservation prospects for the forests and primate populations of the Udzungwa Mountains, Tanzania. *Biological Conservation* **24**: 285-304.
- ⁴ In the medium term, it is expected that resources will be mobilized through Conservation International and the Critical Ecosystems Partnership Fund (CEPF) for forest biodiversity conservation in the Eastern Arc. The timing and extent of this possible support are unknown.
- ⁵ Hartley, D. and Kaare, S. (2001). Institutional, Policy, and Livelihood Analysis of Communities Adjacent to Uluguru Mountains Catchment Reserves, Eastern Arc Mountains. Dar es Salaam, CARE Tanzania.
- ⁶ Wild, Robert (1998). A Framework for the Development of a holistic strategy for the Eastern Arc Mountains of Tanzania. Dar es Salaam, CARE Tanzania.
- ⁷ The Udzungwa Mountain National Park (comprising the eastern forests of the Udzungwa Mountains) was gazetted in 1992. The Amani Nature Reserve in the East Usambaras was established under the Forests Act, but the practical implications of its status (in terms of legal status, staffing etc) are being determined.

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- ⁸ These statistics apply primarily to National Parks and Game Reserves, established by Parliament. If Forest Reserves are included, the total area rises to over 23 percent.
- ⁹ Over half of the country falls within the boundaries of Tanzania's 9,000 or so registered villages, which have a recognized legal status of their own (and locally-elected representatives governments).
- ¹⁰ Ministry of Natural Resources and Tourism (2001). *Community-based Forest Management Guidelines*. Dar es Salaam, Forestry and Beekeeping Division.
- ¹¹ There is and rich a growing literature about the effectiveness of village-based approaches for forest conservation and management in Tanzania. See for instance, Wily, L.A. and P.A. Dewees (2001). *From users to custodians: changing relations between people and the state in forest management in Tanzania*. Washington, D.C., World Bank Policy Research Working Paper No. 2569, March.
Wily, L.A. (1999). Moving forward in African community forestry. Trading power not use rights. *Society and Natural Resources*. **12**, 49-61
Wily, L.A. (1997). Finding the right legal and institutional framework for community-based natural forest management. The Tanzanian case. CIFOR Special Publication. Bogor (Indonesia), Center for International Forestry Research.
- ¹² This section is derived from the Implementation Completion Report for the IDA-supported Forest Resources Management Project.
- ¹³ Several threat assessments were carried out relying on methods outlined in, Salafsky, N. and Margolius, R. (1999). Threat reduction assessment: a practical and cost effective approach to the evaluation of conservation and development projects. *Conservation Biology*. 13(4):830-841.
The results are reported in, Hymas, Olivier (2001). *Assessment of the remaining forests of the Uluguru Mountains and the pressures they face*. Dar es Salaam, CARE Tanzania and the Wildlife Conservation Society of Tanzania;
Care Tanzania (2001). Rankings by District Forest Officers of threats to the Eastern Arc forests. Unpublished report.
Persha, L. and Rodgers, W.A. (2001). Threat reduction analysis in the South Pare Mountains and Taita Hills forests of the Eastern Arc. Unpublished report. Arusha, UNDP GEF Cross Borders Biodiversity Project.
- ¹⁴ The definition of the incidence of poverty is problematic because of the lack of agreement about what should constitute the poverty line. Annex 4, for instance, suggests the incidence of poverty is much lower (though still significant) largely because of the use of a different poverty line. Poverty indicators are in the process of being updated. The figures cited in the text date from 1996.
- ¹⁵ See, in particular, Charumbira, F. (2000). *Institutional Diagnostic Review*. Interim Report. Dar es Salaam, Ministry of Natural Resources and Tourism.
Salmi, J. and Monela, G. (2000). *Study on Financing in Forestry*. Prepared for the National Forest Program formulation in Tanzania. Helsinki and Dar es Salaam, Indufor Oy and FTP International.

National Forest Program (2000). The Status of Institutions and Human Resources in Tanzania and Vision for the Future. Proceedings of a workshop, held April 4-5, 2000, Dar es Salaam.
National Forest Program (2000). The Status of Ecosystem Conservation and Management in Tanzania and Vision for the Future. Proceedings of a workshop, held February 29 – March 1, Dar es Salaam.

¹⁶ The Baseline definition here is necessarily restrictive to focus on specific activities of relevance in the Eastern Arc. In fact, there are a huge range of development interventions underway in the vicinity of the Eastern Arc forests: primarily, health, education, infrastructure, agriculture activities. These have not been captured in this definition of the Baseline. If a broader definition of the Baseline were employed in this analysis, which captured these activities, the Baseline would be increased several-fold.

¹⁷ Total installed electric generating capacity in Tanzania (maximum annual firm energy) is 1323 GWh (1:60 year reliability). Hydroelectricity accounts for 720 GWh (54 percent) of the total. Of the 6 hydroelectric stations (Mtera, Kidatu and Lower Kihansi in the Rufiji Basin, and Nyumba ya Mungu, Hale, and New Pangani Falls on the Pangani River), only 2 (Mtera and Kidatu) have seasonal storage capacity. The rest are ‘run-of-the-river’ facilities which depend on more or less constant river flow. See, Acres International (2000). *Power System Master Plan*. 2000 Update prepared for the Tanzania Electric Supply Company.

¹⁸ Ministry of Natural Resources and Tourism (1996). *Long term financing of forestry*. Forestry and Beekeeping Division.

¹⁹ The closest parallel to this is the Overall Conservation and Management Strategy for the Forest Resources of Queensland, Australia. This Eastern Arc development process benefited from a lessons learned seminar from the Queensland situation

²⁰ See, in particular, Charumbira, *op cit.* which should be read in conjunction with commitments to forest biodiversity conservation in the National Forest Policy and the National Forest Program. See also the review of FBD’s weak institutional capacity in this area in, Ishengoma, R.C. (2001). Interim report on human resources development. Unpublished report, Dar es Salaam, Forest and Beekeeping Division.

²¹ Ministry of Natural Resources and Tourism (2001). *Op cit.*

²² An excellent example of the problem is captured in the East Usambaras, where long support from the Government of Finland (in partnership with Government) through the East Usambaras Conservation Area Management Project, and associated technical and financial resources, helped to establish (among other things) the Amani Nature Reserve – the only reserve of its kind in Tanzania. Despite the widely acknowledged successes of DIDC support in establishing a viable new protected area in the Eastern Arc, there is no mechanism in place to ensure that longer term resource flows can maintain the Reserves’ operations or the other activities launched by the project.

²³ There is something of a terminology problem in discussion GEF Conservation Trust Funds in Tanzania because of the way the term ‘trust fund’ is understood in Tanzania. Because of this, a decision was made to describe the proposed GEF Conservation Trust Fund as a Conservation *Endowment* Fund, in order to capture this distinction. See the report of the feasibility assessment,

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- Moye, M (1998). Memorandum: Consultancy on the potential for establishing an Eastern Arc Conservation Endowment Fund, Tanzania. Unpublished report to the World Bank.
- 24 The PDF/B supported a Study Tour to the Mgahinga-Bwindi Impenetrable Forest Conservation Trust in Uganda, as well as a Fund profile, and preparation of a draft Operational Manual.
- 25 The Deed of Trust requires that the Board of Trustees is to be constituted in a manner so that there is expertise in conservation in the Eastern Arc Mountains, forestry, academia/research, law, business and financial matters, community development, and the work of local and international conservation NGOs. The Founding Board has been constituted of representatives from the Forestry and Beekeeping Division of the Ministry of Natural Resources and Tourism, the National Environment Management Council (NEMC), the Lawyers Environmental Action Trust (an environmental NGO), WWF Tanzania, and Songas (a private company with interests in off-shore gas field development). Four additional members of the Board are to be appointed according to terms specified in the Deed of Trust.
- 26 The US\$ 6.4 million Lower Kihansi Environmental Management Project is intended to put in place a series of medium-term measures to ensure the long term conservation of the Kihansi Gorge ecosystem and upstream catchment areas. The project was developed as a response to the threats to the ecosystem which have been posed as a result of the construction of the Lower Kihansi Power station, which has reduced water flows through the Gorge. The Gorge is found in an otherwise pristine part of the Eastern Arc, and is the subject of an increasing body of research.
- 27 Close linkages will be established with other activities financed by GEF. In a sense, the distinction between different GEF activities is an artificial one: the operations of the EAMCEF will be fully informed and influenced by the Conservation Strategy for the Eastern Arc, and will build on the lessons learned in the Uluguru Mountains community-based conservation activities. Both of these activities are critical for the success of the EAMCEF in meeting broader strategic objectives.
- 28 The basic operational rules and mechanisms of the EAMCEF are established in the *Financial, Operations, and Management Manual* which has been prepared in draft. The Secretariat will also be responsible for a fund raising strategy during Phase I to attract donations from sources such as bilateral donors, the private sector, and international NGOs to contribute to the overall endowment fund of the EAMCEF. The capacity building element of this activity will relate to the coordinating functions of EAMCEF, including training for the EAMCEF Board in relation to its responsibilities, functions and procedures, training for the Secretariat administrative staff in aspects such as Endowment accounts procedures, reporting requirements, supervision of contracts, etc. Program Officers will be recruited for their technical competence and therefore training requirements for them should be minimal, however, some specialized short courses may be necessary. Attendance at technical meetings and conferences will fall under this budget line.
- 29 The Eastern Arc Mountains Conservation Endowment Fund has prepared a proposal ('Forest Ecosystem Conservation in the Southern Highlands and the Eastern Arc Mountains of Tanzania') through the Wildlife Conservation Society for financing of Phase I of Fund establishment to the European Commission through its 'Co-financing Program in Support of the Environment and Tropical Forests and Other Forests in Developing Countries'. About two thirds of the proposed request for €1.9 million would co-finance operations of the EAMCEF. A decision about this proposal is expected by December, 2001.

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- 30 In late August, a Bank account was established and each member of the EAMCEF agreed to deposit TSh 50,000 into the account as start-up financing.
- 31 cf. Jenkins, M. and Kapos, V. (2000). Biodiversity Indicators for Monitoring GEF Program Implementation and Impacts. Report of the World Conservation Monitoring Center to the Global Environment Facility;
- 32 World Bank (1998). Biodiversity conservation projects in Africa: Lessons learned from the first generation. Environment Department Dissemination Notes, No. 62.
- 33 For example,
Smith, S.E. and Martin, A. (2000). Achieving Sustainability of Biodiversity Conservation. Report of a GEF Thematic Review. (Monitoring and Evaluation Working Paper No. 1). Washington, D.C., Global Environment Facility;
Singh, S. and Volonte, C. (2001). Biodiversity Program Study. GEF/C.17/Inf.4.
- 34 See for example,
Mikitin, K. (1995). Issues and options in the design of GEF-supported trust funds for biodiversity conservation. Environment Department Paper No. 11. World Bank.
GEF Council (1998). GEF Evaluation of Experience with Conservation Trust Funds. GEF/C.12/Inf.6
UNDP et al. (1997). Report on the First Asia-Pacific Forum on Environment Funds. A regional consultation on National Environmental Funds in Asia and the Pacific. UNDP, Nature Conservancy, Foundation for the Philippine Environment.
- 35 The EAMCEF and its Operational Manual was designed with inputs by the IPG, particularly from Melissa Moye and Ray Victurine.
- 36 Some mountain blocks cover more than one District – e.g. the Udzungwa Mountains have three Districts in two Regions. The Uluguru Mountains in contrast fall in one District.
- 37 See for example the recent papers on forest valuation in East Africa (from Innovation Magazine Nairobi {ed Lucy Emerton et al} based on an IUCN – UNDP GEF project process).
- 38 Close linkages will be established with other activities financed by GEF. In a sense, the distinction between different GEF activities is an artificial one: the operations of the EAMCEF will be fully informed and influenced by the Conservation Strategy for the Eastern Arc, and will build on the lessons learned in the Uluguru Mountains community-based conservation activities. Both of these activities are critical for the success of the EAMCEF in meeting broader strategic objectives.
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