



Global Environment Facility

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January 12, 2001

Dear Council Member:

I am writing to notify you that the World Bank, the Implementing Agency for the project entitled, *Malawi: Mulanje Mountain Biodiversity Conservation Project*, has submitted the proposed project document for CEO endorsement prior to final approval of the project in accordance with World Bank procedures.

Council agreed this project for expedited endorsement at the May 1999 meeting. However, it is being sent to Council members for further review prior to endorsement because it has been modified in three substantial ways since Council approval:

- (a) The endowment trust will now be financed entirely by the GEF. The original project design had projected cofinancing, which at that time was an important indicator of counterpart commitment and project sustainability;
- (b) The GEF resources requested have increased by \$1.75m (35 percent) for conservation activities, including those to be funded through the endowment trust; and
- (c) The initial capacity building phase will be extended and strengthened.

Over the next four weeks, the Secretariat will be reviewing the project document to ascertain its consistency with GEF policies and procedures. The Secretariat will also ascertain whether the proposed level of GEF financing is appropriate in light of the project's objectives.

If by February 9, 2001, I have not received requests from at least four Council Members to have the proposed project reviewed at a Council meeting because in the Member's view the project is not consistent with the Instrument or GEF policies and procedures, I will complete the Secretariat's assessment with a view to endorsing the proposed project document.

We have today posted the proposed project document on the GEF website at www.gefweb.org. If you do not have access to the Web, you may request the local field office of UNDP or the World Bank to download the document for you. Alternatively, you may request a copy of the document from the Secretariat. If you make such a request, please confirm for us your current mailing address.

Sincerely,

cc: Alternates, Implementing Agencies, STAP

OFFICE MEMORANDUM

DATE: December 21, 2000

TO: Ken King, GEF Assistant CEO, GEF Secretariat
Att: GEF PROGRAM COORDINATION

FROM: Lars Vidaeus, GEF Executive Coordinator 

EXTENSION: 34188

SUBJECT: Malawi: Mulanje Mountain Biodiversity Conservation Project
Work Program Inclusion – Resubmission (if required)

The above-mentioned project was approved for Work Program entry at the May 1999 Council meeting, under streamlined CEO endorsement procedures. However, it is being re-circulated to Council because the total amount requested has been increased from US\$5 million to US\$ 6.75 million. The detailed explanation for the request is presented below.

Since the work program submission and approval of this project in May 99, the appraisal of the Malawi Mulanje Mountain Biodiversity Conservation Project was successfully completed. In this process, the project proposal has been modified in two main aspects: (i) an extension and strengthening of the initial capacity building phase; and (ii) an increase in the estimated funding requirement for the endowment trust in support of the projected conservation activities. None of these changes involves modification of the project objectives.

Modified Design of Initial Capacity Building Phase:

In the Project Brief approved by the GEF Council in May 99, a two year Phase 1 (start-up phase) at a cost of US\$700,000 was proposed. In the final Project Document, it is proposed to extend Phase 1 of the project to 3 years instead of two at a total cost of US\$ 1.25 million. This reflects the conclusion of the appraisal team that a three year time period is necessary to build the essential capacity within the Mulanje Mountain Conservation Trust (MMCT) and the capacity of its partners to carry out their respective roles in the management of the Trust and the conservation of the mountain.

Based on experience gained in other projects, a new activity for year 1, a baseline biodiversity assessment (\$150,000), has been added. This baseline survey will provide important benchmark data and identify key indicators which will be used for the monitoring and evaluation components of the project.

Completing the Assessment of Phase 2 Funding Requirements:

The appraisal team also reviewed the proposed budgets and financing arrangements for the project. While Phase 1 will establish the Trust and build the capacity of its partners, Phase 2 will provide MMCT with long-term operating income from an endowed trust fund. To deliver an effective and sustainable biodiversity conservation program, MMCT requires adequate trust fund income to meet recurrent costs and modest capital needs.

The appraisal has concluded that the annual MMCT expenditures will average between US\$300,000 and US\$350,000. To generate this level of income stream, an endowment fund of US\$5.5 million will be required. Based on these final appraisal calculations, the appraisal team met with the government and the major donors active in Malawi seeking opportunities for further financing for the endowment (above and beyond what is already being pledged as project co-financing which are included in the incremental costs analysis). However, while there is strong commitment to the project and the conservation of the mountain, at this stage no other source of endowment funds has been made available for the incremental costs of this project.

To reach this objective, the appraisal team concluded that the GEF contribution to the endowment will need to be scaled up from the US\$4.3 million as mentioned in the Project Brief to US\$5.5 million.

Co-financing Commitment

It should be emphasized that the original co-financing commitment from DFID remains (about US\$1.3 million as compared to the original estimate of US\$1.5). Please see page 22 for details. DFID has also indicated that there is potentially scope for additional support in the future based on the success of Phase I of the project. Every effort has been made to raise additional funds or secure commitments for contributions without success. Malawi is an extremely poor country with limited donor or international NGO attention or support. The opportunity for raising additional co-financing for incremental costs for biodiversity conservation in Malawi is extremely limited from either internal or external sources.

In light of the above, we are requesting an additional \$1.75 m for a total of \$6.75m for the Malawi Mulanje Mountain Biodiversity Conservation Project.

Attachments

cc: Messrs./Mmes. GEF PROGRAM COORDINATION (GEFSEC); Kiss, Crepin, Bingham, Johnson, Hornsby (AFTE1), Khanna, Aryal (ENV); ENVGC ISC, Regional Files

Document of
The World Bank

Report No: 20985-MAI

PROJECT APPRAISAL DOCUMENT
ON A
PROPOSED GRANT FROM THE
GLOBAL ENVIRONMENT FACILITY TRUST FUND
IN THE AMOUNT OF US\$6.75 MILLION
TO THE
GOVERNMENT OF MALAWI
FOR A
MULANJE MT. BIODIVERSITY CONSERVATION PROJECT
NOVEMBER 1, 2000

CURRENCY EQUIVALENTS

(Exchange Rate Effective November 1, 2000)

Currency Unit = Malawi Kwacha (MWK)
MWK 1 = US\$0.013
US\$1 = MWK 79.675

FISCAL YEAR

January 1 – December 31

ABBREVIATIONS AND ACRONYMS

CAS	Country Assistance Strategy
CITES	Convention on International Trade in Endangered Species
COP	Conference of the Parties
CTF	Conservation Trust Fund
DFID	Department for International Development
EBA	Endemic Bird Area
FD	Forest Department
FRIM	Forest Research Institute of Malawi
GDP	Gross Domestic Product
GEF	Global Environment Facility
GOM	Government of Malawi
GTZ	German Technical Assistance
IGA	Income Generating Activities
LCSC	Local Community Steering Committee
MMCT	Mulanje Mountain Conservation Trust
MMFR	Mulanje Mountain Forest Reserve
NEAP	National Environmental Action Plan
NGO	Non-Governmental Organization
PRA	Participatory Rural Appraisal
TAC	Technical Advisory Committee
TAU	Trust Administration Unit
TMU	Trust Management Unit
UNCED	United Nations Conference on Environment and Development

**MALAWI
MULANJE MT. BIODIVERSITY CONSERVATION PROJECT**

CONTENTS

	Page
A. Project Development Objective	
1. Project development objective	2
2. Key performance indicators	4
B. Strategic Context	
1. Sector-related Country Assistance Strategy (CAS) goal supported by the project	5
2. Main sector issues and Government strategy	6
3. Sector issues to be addressed by the project and strategic choices	7
C. Project Description Summary	
1. Project components	8
2. Key policy and institutional reforms supported by the project	15
3. Benefits and target population	16
4. Institutional and implementation arrangements	16
D. Project Rationale	
1. Project alternatives considered and reasons for rejection	19
2. Major related projects financed by the Bank and other development agencies	20
3. Lessons learned and reflected in proposed project design	20
4. Indications of borrower commitment and ownership	23
5. Value added of Bank support in this project	24
E. Summary Project Analysis	
1. Economic	24
2. Financial	24
3. Technical	25
4. Institutional	25
5. Environmental	25
6. Social	25
7. Safeguard Policies	27
F. Sustainability and Risks	
1. Sustainability	27
2. Environmental	27

Annexes

Annex 1: Project Design Summary	31
Annex 2: Detailed Project Description	34
Annex 3: Estimated Project Costs	41
Annex 4: Cost-Effectiveness Analysis Summary	42
Annex 5: Financial Summary	50
Annex 6: Procurement and Disbursement Arrangements	51
Annex 7: Project Processing Schedule	53
Annex 8: Documents in the Project File	54
Annex 9: Statement of Loans and Credits	55
Annex 10: Country at a Glance	57
Annex 11: Technical Review	59
Annex 12: Response to STAP Review	63
Annex 13: Additional Biodiversity Information	64
Annex 14: Letter of Country Endorsement	66

MAP(S)

IBRD 31130

MALAWI
Mulanje Mt. Biodiversity Conservation Project

Project Appraisal Document

Africa Regional Office
AFTE1

Project Financing Data

Grant

For Loans/Credits/Others:

Amount (US\$m): 6.75

Financing Plan:	Source	Local	Foreign	Total
GOVERNMENT		0.53	0.00	0.53
GLOBAL ENVIRONMENT FACILITY		1.11	5.64	6.75
OTHER SOURCES		0.00	0.74	0.74
Total:		1.64	6.38	8.02

Borrower/Recipient: GOVERNMENT OF MALAWI

Responsible agency: MINISTRY OF NATURAL RESOURCES & ENVIRONMENTAL AFFAIRS

Address: Capital Hill, Private Bag 350, Capital City, Lilongwe 3

Other Agency(ies):

Mulanje Mountain Conservation Trust

Address: P.O. Box 139, Mulanje

Contact Person: Jones Njala

Tel: (265) 465-241

Fax: (265) 465-241

Email: MMCT@Malawi.net

Project implementation period: 7 years

A. Project Development Objective

1. Project development objective: (see Annex 1)

1. Background

Biodiversity

Mulanje Mountain in south-eastern Malawi is the highest mountain in south-central Africa, rising to 3002 m above sea level. There are six different plant communities on the mountain, as the dominant vegetation varies with altitude, relief, aspect, rock form, soils, and incidence of fire. They range from miombo woodlands at its base to fire-induced grassland on the plateaus, to afro-montane forests near the summit. The afro-montane ecosystem in particular includes a large number of endemic flora and fauna species, many of which are endangered or threatened by extinction. This includes over 600 spp. of plants (including 41 endemics), the largest number of forest butterflies found in Malawi (118 spp, including five endemics), along with numerous endemic reptiles, fish, etc.). Mulanje Mountain is also one of Africa's key sites for threatened bird species, forming part of the Tanganyika-Nyasa Mountain Group Endemic Bird Area. (See Annex 4 for further details). Due to its species richness and high levels of endemism, Mt. Mulanje was identified by the World Wildlife Fund as one of 200 global ecoregions in the world for the conservation of biodiversity and designated as an Afromontane Regional Centre of Endemism. The massif also serves as the source of headwaters for nine rivers and represents an important source of timber and other products, traditionally including the commercially valuable Mulanje Cedar. Timber and fuelwood plantations (pine and eucalyptus) occupy about 8% of the massif's land area, and there are currently 40 licensed pit sawyers operating in the area.

Threats to Mulanje Mountain's Biodiversity and their causes

The major threats to the biodiversity of the massif include:

- unsustainable resource use stemming from high population density, pervasive poverty, and lack of awareness of and weak incentives for sound conservation practices;
- agricultural encroachment on the lower slopes;
- damaging bush fires due to an incomplete system of fire breaks and inadequate response capacity; and
- invasion of alien species.

Since its gazettement in 1927 (primarily to safeguard the water catchment and to control the extraction of Mulanje Cedar) the Mulanje Mountain Forest Reserve has been officially reduced in size at least five times, in response to increasing population pressures. A condition of project approval will be Government assurance that the Mt. Mulanje Forest Reserve boundaries will not be further reduced. Over 825,000 people live in the two districts of Mulanje and Phalombe, in 85 villages that collectively completely surround the mountain (population density of 185 persons/km²). Their main livelihood is

Man-made fires, often set by hunters attempting to drive animals out of hiding, frequently consume large areas within the Reserve due to the inadequate system of internal fire breaks. They present a major threat to the ecosystem, particularly to the survival and regeneration of the Mulanje Cedar and the *Brachystegia* forests, and are also affecting the capacity of the plateau to retain water. In addition, several invasive exotic plant species (e.g., pine and Himalayan Raspberry) are also threatening to crowd out elements of the indigenous biota.

The population of Mulanje Cedar, once widespread, has now been reduced to 48 small sites, mainly as a result of fires and of an exotic aphid which was introduced in 1985. The aphid killed an estimated 10,000 trees before being arrested by a predatory wasp introduced by the Forestry Research Institute of Malawi. While felling of live Mulanje Cedar was officially stopped in 1993, licenses are still being issued for sawing of dead trees, a practice which is subject to abuse by sawyers as a result of inadequate enforcement capacity of the Forest Department. With only an estimated 1,000 ha of live Cedar remaining on the mountain, regeneration of the Cedar forests is a high management priority.

Project Origin

Like many similar organizations in other countries, the Forestry Department in Malawi has experienced severe staffing and budget constraints in recent years. This, together with a strong movement towards democratization, has led to a move away from a "command-and-control" approach to managing the country's natural resources and towards one of partnership and cooperation with local communities. In 1996 and 1997, the Government of Malawi adopted a progressive policy framework and passed legislation which provides for the implementation of a "co-management" approach for its 71 gazetted Forest Reserves (including the Mulanje Forest Reserve), five National Parks and four Wildlife Reserves. Under this approach, neighboring communities are able to participate directly in the management of these protected areas, including both active engagement in their protection (e.g., community patrols and sanctions) and obtaining benefits from sustainable use of wood and non-wood products. With assistance from a number of donor-funded programs (including the Department for International Development (DFID-UK), USAID and the World Bank), the Forestry Department is assisting communities to assume their role in co-management, and also to reduce pressure on forest resources, for example by establishing private and community woodlots.

In 1994, a group of Malawians committed to preserving the unique biodiversity and ecosystems of the Mulanje massif established the Mulanje Mountain Conservation Trust (MMCT). While the Forestry Department's mandate includes biodiversity conservation, the primary emphasis for co-management of Forest Reserves across the country is on watershed protection and sustainable use of forest resources. The objective of the MMCT, therefore, is to ensure that biodiversity conservation receives a high priority in the management of the Mulanje Forest Reserve. The MMCT aims to achieve this by:

- raising awareness of the value and importance of the area's biodiversity within the FD and the surrounding communities:

Recognizing that biodiversity conservation is a continuing challenge, in the face of continuing threats and pressures, the MMCT aims to establish an endowment fund which would generate a modest but reliable income stream to support these activities over the long term.

2. Key performance indicators: (see Annex 1)

2. Project development objectives and key performance indicators

The government's main development objectives for the Mulanje massif, as for other key upland forest reserves in the country, is to maintain the vital watershed (headwater for nine rivers) and to benefit local communities by establishing sustainable management of the forest resources through cooperation between the Forest Department and local authorities and communities. This involves implementation of the FD co-management policy, through training and capacity building of FD staff and mobilization of participating communities, and will be supported mainly by the GOM in its normal operations and by DFID. Progress towards these objectives would be measured and monitored in terms of:

- completion and implementation of a Reserve Management Plan (including an embedded Biodiversity Conservation Plan) by FD in consultation with communities;
- effective mobilization of communities to participate in the management of the Reserve's resources (i.e. through the Village Natural Resource Management Committees);
- formal allocation of specific areas within the Reserve to particular villages or groups of villages for co-management and sustainable use purposes;
- preparation (by communities) and approval (by the FD) of “Constitutions” which outline agreed rules for access to and use of these forest areas and community-based sanctions for violation of those rules; and
- effective implementation of those Constitutions, resulting in a reduction of current illegal and/or unsustainable practices, as reflected in FD monitoring reports and minutes of Village Natural Resource Committee meetings.

3. Project global objectives and key performance indicators (see Annex 1):

The global environmental objective of the project is to preserve the globally significant biodiversity and unique ecosystems of the Mulanje massif, at a level beyond what could be expected based on the management objectives of watershed protection and sustainable use of forest products. Specifically, GEF funds would support activities to incorporate biodiversity conservation objectives effectively into Reserve management. This would include, i.e. monitoring populations and distributions of targeted species and other ecological indicators, identifying high priority conservation sites and the activities required to protect their biodiversity, including co-management of forest resources. GEF funds would also help raise awareness of the importance of biodiversity and healthy ecosystems, and strengthen the capacity of the FD and communities to implement conservation activities, through environmental/conservation education

- reversal of the trend of degradation and loss of globally significant biodiversity in the Mulanje Mountain ecosystem, determined through ecological/biodiversity monitoring program;
- contribution to the implementation of the Reserve Management Plan, focusing on the biodiversity conservation aspects;
- a decrease in the incidence and levels of activities and events which represent important threats to the area's biodiversity;
- implementation of specific conservation actions (e.g., firebreak maintenance, removal of invasive exotic vegetation), carried out to the extent possible by local communities;
- participation by local communities in co-management of the Forest Reserve, and implementation and success of co-management pilot projects;
- successful establishment and use of a Trust Fund to support conservation activities over the long term, with effective participation of key stakeholders and a positive reputation at local, national and international levels; and
- success in raising funds to increase the endowment and/or operational resources of the MMCT.

B. Strategic Context

1. Sector-related Country Assistance Strategy (CAS) goal supported by the project: (see Annex 1)

Document number: 18349-MAI **Date of latest CAS discussion:** August 27, 1998

The project's activities to improve environmental management and community welfare are consistent with the Bank's central focus of poverty reduction outlined in the Malawi Country Assistance Strategy. The sustainable management of natural resources is essential for poverty reduction in Malawi.

1a. Global Operational strategy/Program objective addressed by the project:

The project is consistent with the GEF Operational Strategy for Biodiversity Conservation and specifically with O.P.4 (Mountain Ecosystems). Consistent with this program, the project will address conservation and sustainable use in a mountain ecosystem in southern Africa which is under increasing human pressure and imminent threat of degradation. Mt. Mulanje is one of the 200 Global Ecoregions identified as conservation priorities by the World Wildlife Fund, and has been designated as an Afromontane Regional Centre of Endemism, and as a UNESCO World Heritage Site. It is one of Africa's key sites for threatened bird species, forming part of the Tanganyika-Nyasa Mountain Group Endemic Bird Area – see Annex 4 for further details of the area's biological values.

The project is consistent with COP guidance in that it seeks to encourage conservation and sustainable use of threatened habitats and endemic species within a vulnerable montane ecosystem. It responds to COP3 and COP4 guidance through capacity building for better forest management and by taking an ecosystem approach that fosters improved forest management and sustainable use across an altitudinal gradient of different habitat types under different management regimes. The project further responds to COP4

2. Main sector issues and Government strategy:

Malawi has one of the highest population densities in Africa, with an average 170 inhabitants per square kilometer of arable land, and an average growth rate of 2.8% (1998 estimate). Most of the population (85%) live in the rural areas where subsistence farming is the dominant livelihood activity. As of 1990, Malawi had a total area of 26,428 km² forest cover (28% of the total land area) consisting of forest reserves (7,905 km²), national parks and wildlife reserves (9,770 km²), and customary land forests (8,843 km²). Due to increasing population, insecure land tenure and pervasive poverty, many rural inhabitants see the forests as their only options for establishing farms and for obtaining income through sale of forest resources. Deforestation has been rapid in recent years (ca. 2.8%/year, 1996 estimate), with much of it occurring on customary land. However, since the forested area under customary tenure makes up only 33% of the total, protected forests in Malawi are and will continue to be under increasing pressure of exploitation. The capacity of the FD to protect and manage the protected forests is greatly constrained by its limited budgets and major staff reductions in recent years. The GOM's newly adopted "co-management" approach, which seeks to involve communities as partners in managing the protected areas, is expected to be more cost-effective and to provide better results. However, both the FD and local community members will require education, training and material support to fulfill their roles in co-management effectively. At present, the focus is on training FD staff in community consultation and mobilization techniques, on delineating areas of the Forest Reserves to be managed in collaboration with specific communities, and on assisting the communities to develop "Constitutions" governing access to and use of those areas and resources (these Constitutions, once approved by the Minister, will form the basis for Reserve co-management).

Some of the main government strategies considered in designing this project include:

- *Policy issues:* From the 1992 United Nations Conference on Environment and Development (UNCED) held in Rio de Janeiro, Malawi embarked on a new environmental management strategy which led to the preparation of the National Environmental Action Plan (NEAP). The NEAP was adopted in December 1994 and this was followed by development and adoption of the Environmental Support Program (ESP) and formulation of the National Environmental Policy, culminating in enactment of Act No. 23, Environment Management Act, 1996. Development of Guidelines for Conducting Environmental Impact Assessments were also subsequently completed and adopted. These government strategies have been developed in parallel with a Decentralization Policy for the empowerment of Districts, including environmental management.
- *Land tenure issue:* The Presidential Commission of Inquiry into Land Policy was set up in March 1996 to develop a more efficient, sustainable and equitable land tenure system. The report of this Commission is still awaited.
- *Forest policy:* The recently approved National Forest Policy (1996) and the new Forest Act (1997) provide for increased community involvement in forest management, recommending "the limited sustainable use of selected products" by local communities in specific areas. It also

3. Sector issues to be addressed by the project and strategic choices:

Despite their importance as watersheds, economic resources and reservoirs of biodiversity, the forests and forest ecosystems of Malawi are threatened by agricultural expansion and unsustainable exploitation, as a result of population pressures and pervasive poverty in rural areas. Furthermore, until recently, the Forest Reserves were seen as State-owned resources which the people had no incentives to protect or maintain. The co-management approach recently adopted by the Government provides an opportunity to involve local populations in forest protection and management in a positive way, but it will require sustained political, financial and technical support in order to be implemented effectively. The Government is receiving assistance for this purpose from several donors, including the World Bank. The MMCT complements this process by providing support for its particular mandate to ensure that the management of the Mulanje Forest Reserve, identified as a high priority, globally significant biodiversity site within the country, takes into account the need to protect biodiversity, over and above the standard of achieving sustainable use of the biological resources.

The main strategic choices made in developing this project were: (i) to channel support through the MMCT rather than the FD or another Non-governmental Organization; (ii) MMCT should work through implementation partners instead of developing implementation capacity in house; and (iii) to select a Trust Fund as the appropriate financing mechanism rather than a traditional project.

With regard to selection of the MMCT, it was recognized that the FD is a Government body, charged with sustainable management of forest resources in cooperation with local communities. While its mandate includes biodiversity conservation in principle, this is not its primary objective. By contrast, the MMCT was initiated by Malawian conservationists whose main goal is to help maintain the biodiversity of the massif. The MMCT Board brings together the key stakeholders, including the Government (FD), the local communities and conservationists. There is no other national or international NGO with the same conservation objectives and stakeholder focus working in Mulanje. However, there are NGO partners with implementation capacity working with communities on sustainable resource management and environmental education. MMCT will work in collaboration with FD and these NGOs rather than developing this implementation capacity in house.

With regard to the Trust Fund mechanism, it was recognized that the nature of the threats to the biodiversity of the Mulanje massif is such that they will not end or diminish over time, but will continue to be present and will probably increase. Therefore, the activities needed to counter these threats and support conservation objectives must also continue over the long term. These include creating and maintaining awareness and knowledge among the stakeholders, carrying out ecological and biodiversity monitoring, sustaining key conservation actions (e.g., maintaining firebreaks, controlling alien plant species), and supporting co-management of the forest reserve. The proposed Trust Fund provides the financial support to meet these needs over the long term, and also provides the flexibility for the stakeholders, through the MMCT Board, to respond to changing challenges and circumstances while ensuring adherence to the principles and objectives of the Trust as laid out in the Trust Deed. It also demonstrates to the stakeholders the international community's willingness to make a long-term

C. Project Description Summary

1. Project components (see Annex 2 for a detailed description and Annex 3 for a detailed cost breakdown):

The project has five major components (including capitalization of the Trust Fund itself) which will benefit from GEF financing. Each component will provide the necessary technical and financial assistance to develop institutional and management capacity within MMCT, within the Forestry Department and, through the Program Officers and collaborating NGOs, within the local communities.

(a) Trust Administration

The Trust Administration Unit (TAU) will be established in Mulanje and will consist of an Executive Director, three Program Officers, an Accountant, a Secretary, as well as support staff. These individuals will be the only full-time employees of MMCT. The TAU will be responsible for (i) developing the program content for each of the three components Biodiversity conservation, Research and Monitoring; Environmental Education; and Forest co-management and Livelihoods; (ii) working in collaboration with the FD and suitable NGOs to carry through the three programs in (i) above; (iii) submitting annual work plans and budgets to the TMB 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 MMCT funding. The basic operational rules and mechanisms of the MMCT are established in the Trust Administration Manual which is in draft form. Final approval of the Manual will be a condition of project effectiveness. The TAU will also be responsible for a fund raising strategy during Phase I which will attract donations from sources such as bilateral donors, the private sector and international NGOs which will contribute to the overall endowment fund of the MMCT. The capacity building element of this component will relate to the coordinating functions of MMCT, including training for the TMB in relation to its responsibilities, functions and procedures, training for the TAU administrative staff in aspects such as Trust accounts procedures, reporting requirements, supervision of contracts, etc. Note that the Program Officers will be recruited for their technical competence and therefore training requirements for them should be minimal, however, some specialized short courses maybe necessary. Attendance at technical meetings and conferences will fall under this budget line.

(b) Biodiversity Conservation, Research and Monitoring

Under this component the project will support activities to identify, protect, manage, and monitor the status of biodiversity and ecosystem health in the Reserve, and to reduce the impacts of human pressures on the ecosystem and its biological resources. This will take place in the context of Government's efforts to improve the overall management of the Reserve to maintain and increase its contribution to local and national economic development. The GEF support will specifically ensure that biodiversity conservation is recognized and adopted by the key stakeholders as an explicit objective of Reserve management, along with other important objectives such as maintaining water supplies and providing sustainable supplies of valuable timber and non-timber products. Related capacity building, particularly

biodiversity conservation and management, by putting in place the permanent financial and technical capacity needed to identify conservation needs and opportunities, and to develop and support well-informed, flexible strategies and programs of action.

Activities supported under this sub-component are divided into four categories:

- (i) **biodiversity baseline survey and monitoring:** carrying out a broad-based baseline biodiversity survey to establish baseline conditions; developing and beginning implementation of a practical, long-term monitoring program for tracking changes in biodiversity and ecosystem health;
- (ii) **capacity building for biodiversity protection, management and monitoring:** support to FD (and other implementation partners, as appropriate), for training, workshops, and specialized technical assistance to enhance their capacity to generate and use monitoring and research data and to incorporate biodiversity conservation objectives into Reserve management. In addition, the project will provide field, office and communication equipment to improve FD's management and reporting capability;
- (iii) **direct conservation activities:** support for equipment, tools, local labor and other operational costs to carry out priority actions identified in the Reserve Management Plan, such as maintaining firebreaks for particularly sensitive areas; boundary maintenance; development and implementation of conservation plans for Mulanje Cedar and for mid-altitude indigenous forests, eradication or control of alien species (particularly invasive plants and Cypress aphid); development and implementation of an ecological resource conservation plan for medicinal plants; and
- (iv) **research:** support for local researchers to carry out research to provide the information and tools needed to improve biodiversity conservation and management over the longer term and to ensure the Reserve Management Plan remains up to date.

A full-time Biodiversity Conservation and Research Program Officer will be recruited for the TAU to develop and supervise the implementation of this component. A number of high priority conservation activities have already been identified in the Reserve Management Plan, which could be started immediately, along with the baseline survey. Direct conservation activities will be implemented mainly by the Forest Department, in collaboration with local communities (including direct employment of community members for on-the-ground actions as appropriate). Biodiversity survey and monitoring and conservation/management-oriented research will be carried out by the Forest Department (Forest Research Institute of Malawi) and other local organizations, with national or international technical assistance as required.

c) Environmental education

A primary objective of the MMCT is to raise awareness of the value and importance of the MMFR within the FD and the surrounding communities. A full-time environmental education program officer

- an assessment of the local primary and secondary schools' involvement in promoting environmental awareness, and potential for promoting local biodiversity conservation;
- participatory planning and design of program activities by relevant stakeholders (school officials, FD, communities, NGOs, etc.);
- development of environmental education materials; and
- collection of resource materials.

The broad program, mechanism for delivery, and specific activities under this component will be defined in the first year. An agreed amount will be allocated for this component and disbursed against agreed annual workplans.

(d) Forest Co-management and Sustainable Livelihoods

The purpose of this component is to increase the share of the benefits from the Reserve going to local communities and to ensure that this is on a sustainable basis. It is fully consistent with the Government's policy for co-management of forest reserves and forests on customary land. However, implementation of this policy has lagged due to a lack of capacity within the Forest Department and communities, and insufficient resources to develop and implement co-management activities. The key stakeholders and actors in co-management and natural resource management are community-based organizations such as Village Natural Resource Management Committees and resource user groups, local and District government, and District level FD staff. With progressive implementation of the Government's decentralization policy, the role and importance of District government, 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 co-management partners. This support will mainly be focused around several co-management pilot projects which will be selected to emphasize the linkage between local economic benefits and maintaining indigenous biodiversity and natural ecosystems (e.g., restoration and management of selected stands of Mulanje cedar, reforestation of degraded areas with valuable indigenous species including *Prunus africanus*, and sustainable use of medicinal plants, and other non-timber forest products). It is expected that these enhanced opportunities and benefits will increase the value that local communities and local government place on the biodiversity and ecosystems of the Mulanje massif and therefore decrease pressures of over-exploitation and agricultural encroachment.

While local stakeholders have expressed considerable interest in MMCT supporting the development of "Income Generating Activities" (IGAs), studies undertaken during project preparation indicated only a very limited potential for small-scale IGAs based on sustainable use of forest resources (e.g., *Prunus africanus*, mushrooms, medicinal plants, ecotourism, handicrafts, etc.). Furthermore, community-based IGAs are complex and difficult to implement successfully, generally hard to link with conservation objectives, and have a substantial record of failure in Malawi and elsewhere. Therefore, the MMCT will

(e) Conservation Trust Fund

The purpose of the Conservation Trust Fund (CTF) is to provide sustainable in-country funding for biodiversity conservation of the Mulanje Massif and surrounding area, in the context of ecologically sustainable development. The MMCT Fund will be established as the financing mechanism for the above mentioned project components. **Phase I (start-up)**, which is expected to last three years, will build the capacity within the MMCT and its partners to carry out their respective roles in the management of the Trust and the coordination and implementation of the activities described above. A modest unallocated fund for technical programs will allow MMCT to address early needs and gain experience in program planning and implementation. Achievement of the agreed indicators of institutional capacity and readiness (see page 13) will serve to trigger **Phase II (implementation phase)**, in which the Trust will be endowed to finance conservation from investment capital in addition to funds from other donors. Assistance from the GEF is requested to provide the initial endowment capital of US\$5.5 million for Phase II of the project, as well as US\$1.25 for the three-year start-up phase.

During Phase I, the Conservation Trust Fund will be growing as the income will be reinvested in the capital to support activities in Phase II.

Table 1. Project Components

Component	Category	Actual Costs of GEF Alternative (\$US M)	% Share of GEF Alternative Cost	GEF Financing (\$US M)	% of GEF Financing (\$US M)	Financing From Other Donors and GoM (\$US M)	% of Other Financing (\$US M)
Trust Administration		0.58	7.2	0.58	8.6	0.00	0.0
Biodiversity Conservation, Research and Monitoring	I	0.94	11.7	0.40	6.0	0.53	42.5
Environmental Education and Communication	I	0.14	1.8	0.14	2.0	0.00	0.0
Forest Co-Management and Livelihoods	I	0.86	10.7	0.13	1.9	0.74	57.5
Conservation Trust Fund	F	5.5	68.6	5.50	81.5	0.00	0.0
Total		8.02	100.0	6.75	100.0	1.27	100.0

MMCT Board, with the assistance of the Program Coordinator and contracted specialists, developed an investment strategy and guidelines, prepared a proposal for selecting an asset manager and establishing financial audit and control systems to international standards. Other preparation activities included: (1) completion of an Administration Manual to define/clarify procedures and operations for the MMCT and its bodies; (2) formalization of cooperative working relationships with key national and local governmental entities; (3) studies including community consultation and participation, forest productivity, timber utilization, non-timber forest products, ecotourism, and institutional development and organizational strengthening. These studies were undertaken to support the preparation of the Reserve Management Plan and were financed primarily by DFID.

The consultative preparation of the Reserve Management Plan, which is currently nearing completion, included the following activities:

- identification of the significant biological resources of Mulanje mountain and the threats and trends on these resources;
- development of appropriate management objectives from information collected;
- development of strategies for habitat management, including a proposed zoning plan;
- development of a proposed implementation program involving activities such as pilot co-management projects, environmental education, livelihood enhancement, ecological research and monitoring, essential infrastructure and equipment for FD, and strengthening FD management capacity and external relations.

Phase I: Phase I of the project will support capacity building activities at various levels to develop and strengthen an enabling environment for project implementation. Some aspects of implementation will also commence including the baseline data collection under the biodiversity component as well as pilot projects under the Co-management and Livelihoods component. The budget for this phase totals US\$1.25 million. Phase I will commence when the project is declared effective, which is expected to be in January 2001, and will last for three years. The following activities will be undertaken:

- **Trust Administration:** this activity includes office accommodation, staffing and training. Project offices will be rented during the first two years, in the third year there will be provision in the budget for construction of offices. The release of those funds will depend on the agreement to proceed to Phase II and construction being shown to be a satisfactory economic alternative to renting. 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 the project will also be established under this component, including the finalization of criteria for disbursing and supervising sub-grants to the FD and collaborating NGOs as approved by the Board. The Trust Administration Manual will provide guidelines for all MMCT procedures. Training activities will provide the TMB, the TAU and the FD staff with the skills needed for implementation of the project.

- **Environmental Education and Communications:** The Environmental Education and Communications Program Officer will develop and implement an environmental education and communication program in collaboration with other stakeholders.
- **Co-management and Sustainable Livelihoods:** Studies undertaken during project preparation indicated both the need for greater community participation in the management and benefits of the Reserve, and the difficulty of achieving this given the weak local institutional capacity and structures to support collective decision-making and action. Implementation of the Government's co-management policy is also constrained by limited capacity within the Forestry Department, at national, district and local levels. In view of this, the priority during Phase I will be to recruit the MMCT Co-management and Livelihoods Program Officer, who will then identify specific needs and opportunities and develop a strategy for supporting communities and the FD in these areas, to complement work being carried out under other Government and donor-support programs. The strategy will involve MMCT supporting local implementation partners, who will work with local area institutions such as the Village Natural Resources Committees and/or resource-oriented user groups. A few target groups and areas/resources will be selected for intensive support, including the initiation of pilot co-management 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 MMCT to local stakeholders, the Co-Management and Livelihoods Program Officer will work with the Biodiversity Program Officer and the FD to ensure that implementation of direct conservation activities generates as much local employment as possible.
- **Establishment of the Endowment Fund and fund-raising:** During Phase I, the MMCT will put in place the necessary legal and institutional instruments for establishing an Endowment Fund. The TMB (with assistance from the World Bank) will actively seek donors and contributors to complement the GEF contribution to the MMCT. Once the agreement is made that GEF funds for the endowment will be released (based on agreed "readiness" indicators), MMCT will contract a professional Asset Manager and approve an 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 Trust Administration Unit;
- (ii) establishment and functioning of the Trust Management Board;
- (iii) completion and initial implementation of the Reserve Management Plan;
- (iv) development and launching of the fund raising strategy;
- (v) demonstration of adequate FD presence and activity on the mountain;
- (vi) adequate allocation of operating funds by Government of Malawi to FD and by FD to MMFR;
- (vii) adequate progress has been made towards restructuring the FD.

Phase II: The duration of Phase Two of the project is 4 years, representing the period during which the World Bank will actively supervise project implementation. In fact, however, "Phase II" continues in perpetuity, as the annual investment income from the Trust Fund (estimated US\$300,000-350,000 per year) is utilized to maintain the MMCT and implement its core activities, as follows:

and Communication). These programs will be continued, modified, reduced or expanded, based on the information and experience gained in Phase I. It is expected that:

the nature of direct biodiversity conservation activities should evolve from urgent protection towards maintenance and restoration, and from species and site-specific intervention to broader ecological management.. Research and monitoring activities will also emphasize support for and evaluation of management practices and strategies;

the pilot co-management and livelihoods program will be expanded to broader geographic/community coverage and greater diversity of activities; and

the environmental education and communications program will move from a focus on identifying and delivering key messages to target audiences through MMCT activities, towards institutionalizing the messages within existing educational and media structures for ongoing impact.

For all programs, as for the MMCT 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 (e.g., an EE Center or other infrastructure).

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 GEF grant therefore will not substitute for, but will remain complementary to, continuing support from GOM, DFID 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 project area.

Component	Sector	Indicative Costs (US\$M)	% of Total	Bank financing (US\$M)	% of Bank financing	GEF financing (US\$M)	% of GEF financing
Trust Administration	Environmental Institutions	0.58	7.2	0.00	0.0	0.58	8.6
Biodiversity Conservation, Research and Monitoring	Other Environment	0.94	11.7	0.00	0.0	0.40	6.0

2. Key policy and institutional reforms supported by the project:

Under the project, support will be provided to the environmental policy measures that have been introduced in Malawi, particularly those relating to the forest sector. These relate to:

- *Forest Act (1997)*: this instrument allows the involvement of community groups in decision-making about the use of resources and also to ensure that they benefit from the use of resources. Through the project, measures will be taken to obtain agreements/contracts from GOM to allow communities who enter into co-management arrangements for Mulanje mountain, to share in the proceeds from sustainable-use of these resources (e.g., cedar and NTFPs) where communities would receive a certain percentage of the revenue generated by the FD.
- *Memorandum of Understanding*: legally, the FD has the responsibility for the management of the Mulanje mountain resources, including allocating timber permits for the extraction of dead logs. Through the project a memorandum of understanding with the FD will be reached for transparent issuing of these permits and monitoring of the Mulanje cedar timber extraction and measures for regeneration.

3. Benefits and target population:

The main benefit of the project is the improved conservation of the Mulanje Mountain ecosystem through an innovative program in which a participatory conservation body - the Mulanje Mountain Conservation Trust (MMCT) - will be established. The project will generate local, national and global benefits from biodiversity conservation.

Local benefits will accrue to communities adjacent to the reserve through direct employment of individuals and increased community participation in the conservation and management of the biodiversity resources. The maintenance of ecological services (particularly watershed quality) will benefit local agriculture, in particular, commercial tea plantations, which are a major source of regional employment and income. Local benefits will also be generated through enhanced sustainable resource management within the reserve and reduced pressure on biodiversity resources. This will contribute to a more sustainable flow of non-timber forest products such as medicinal plants and wild fruit, which contribute differentially to the health of the poorest population segments. In some cases, compensation may be required where exclusion from traditional resources in certain parts of the Reserve serves the interests of conservation of globally important biodiversity. Maintaining the massif's unique biodiversity resources will also be instrumental in developing the tourism potential and associated socioeconomic benefits. The Forest Department and local communities will benefit from biodiversity education, extension, and capacity building and support for direct conservation activities, many of which will include community participation and employment. The project will contribute to the long-term viability of conservation activities by stabilizing recurrent cost financing.

National benefits will mainly be generated through conservation of biodiversity and ecological

management. One species, *Prunus africana*, has substantial potential global value as a pharmaceutical to treat certain forms of prostate cancer. The maintenance of water quality of major rivers from Mulanje headwaters flowing into Mozambique is a significant international benefit. Finally, foreign tourists to the reserve will demonstrate global preferences to experience the biodiversity values in the area.

Taken as a whole, the project offers the benefits and possibilities of demonstrating and testing a new conservation model in Malawi which, based on preliminary enthusiasm and experiences, shows potential for replication both locally.

4. Institutional and implementation arrangements:

Project coordination and implementation

Mulanje Mountain Conservation Trust (MMCT):

The MMCT is a charitable entity incorporated in Malawi as a Trust under the Trustees Incorporation Act. MMCT is exempt from tax and is a private organization operating independently of government. The mandate of the MMCT is not to participate directly in the reserve management, as this is the role and responsibility of the Forest Department and local communities. Rather, the MMCT will promote effective and biodiversity compatible management of the reserve by supporting: education/extension; co-management in pilot areas of the forest reserve; capacity building for the Forest Department and communities; and, by supporting specific actions and activities identified in the Reserve Management Plan. The MMCT's management structure provides for the participation of all the stakeholders - government departments, statutory bodies, local and international NGOs and the local communities concerned with the conservation, management and utilization of the natural resources of Mulanje Mountain. The proposed financial mechanism will operate as an endowment fund with the initial endowment capital provided by the GEF in year one of the project. Fund raising efforts to attract additional capital into the endowment fund will be the responsibility of the Trust Administration Unit (TAU) Executive Director.

The Trust will be governed by an independent **MMCT Board** composed of individuals of high public standing drawn from both civil society and government. The composition of the Board will be as follows:

- Ten Trustees who are the voting members with the Chairman holding a casting vote:
 - District Chief Executives or Councilors (2)
 - National Herbarium and Botanic Gardens, Director or permanent designated delegate (1)
 - Academia (1)
 - NGOs, Executive Director or permanent designated delegate (2)
 - Smallholder tea Authority, Chairman or permanent designated delegate (1)

Department of Environmental Affairs, Director or permanent designated delegate (1)
Donor Agencies who are involved in the programs of MMCT (1)
The Executive Director of MMCT as Secretary to the Board (1)
Local Asset/Financial Advisor (1)

One of the independent members will be drawn from the business community and will be from either the banking or financial sector to provide the Board with expertise on financial issues. The MMCT Board will be responsible for the overall direction, governance, financial management (including decisions regarding spending income from endowment investment) and monitoring of progress of the Conservation Trust fund. A register of Technical Advisers, comprised of individuals selected in their professional individual capacities, will be created and used by the TMB and TAU when advice on technical issues is required. The basic operational rules and mechanisms of the MMCT will be defined in the Trust Administration Manual.

Endowment funds will be invested off-shore and managed by a professional asset manager. A professional **Trust Administration Unit** to be headed by the Executive Director will be established under Phase I. The TAU will be responsible for the day-to-day operational activities of the Trust and report to the MMCT Board. The TAU will be responsible for project financial management, reporting and auditing, following procedures as reflected in the Trust Administration Manual. Project 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 reflected in the Trust Administration Manual.

Other implementing agencies/partners/co-financiers

Forestry Department (FD)

The Forestry Department is currently responsible for the management of the MMFR, but it lacks the required capacity and resources to manage the reserve and surrounding areas and coordinate activities effectively. It is envisaged that the project will assist the Forestry Department's capacity so that the Department can strengthen its core functions, particularly relating to revenue collection, monitoring of timber licensing, extension and co-management, and implementation of management activities specifically targeted to biodiversity conservation.

The Forest Department (with support from DFID and from MMCT through a GEF PDF-B preparation grant) has prepared a draft Mt. Mulanje Reserve Management Plan. This Management Plan incorporates a targeted biodiversity conservation plan which identifies locally and globally significant biodiversity resources, the main threats to them and urgent actions needed to address those threats. Studies undertaken during preparation of the Reserve Management Plan included community consultation and participation, forest productivity, timber utilization, non-timber forest products, ecotourism, biodiversity assets, etc. The results of these studies have been incorporated into the draft Management Plan, whose objectives include improving the interaction between the Reserve and surrounding communities as well

DFID

DFID provided ca. \$800,000 to support the development of the management plan for MMFR and other project preparation studies and project activities. This support was directly linked to the development of the GEF project proposal. It included consultancy support for elements such as the institutional issues and social data.

In terms of future co-financing, DFID is currently implementing a 5-year (ca. 25 million dollars) program of support to the Forestry Sector in Malawi. If successful, this will form part of a longer term program of DFID support. The program currently includes support for privatization, decentralization and the more effective delivery of services at a community level. These issues will be critical factors in the success of the GEF project and the program will include capacity building support for district Forest Departments, including Mulanje and Palombe. This support will directly support the implementation of the Reserve management plan, and therefore the GEF project.

DFID has committed to support the project by providing ca US\$ 500,000 for elements of the co-management and livelihoods component. This will help consolidate the directly poverty-focused elements of the Reserve management plan and complement support provided via the proposed Forest Sector program. In the longer term, future DFID co-financing of livelihoods based activities around the MMFR will be discussed based on joint appraisals of progress under Phase I, and progress of the wider Forestry Sector restructuring program.

The Surrounding Communities:

In 1996/97, the Government of Malawi approved a new Forestry Policy and Forestry Act, to allow the limited sustainable use of selected forest products by local communities in specific areas, and to seek community involvement in the management of the forest reserves and their surrounding areas. The target communities are defined as those which traditionally used the resources of the reserves on a regular basis, and are identified through consultation with traditional leaders. This approach has proven effective as the traditional use rights were well established in Malawi prior to the period of centralized government control and are still popularly recognized. Therefore, the same definition has been used to identify the key community stakeholders of the MMCT, who will also be the main participants and beneficiaries of the conservation (employment), co-management and educational programs. Overall, this comprises approximately 105,000 people living in ca. 100 villages located within 5 km. of the Reserve boundary. The principle mechanism for community participation in co-management is the Village Natural Resource Management Committee, which is appointed by the respective community members. In addition, it is proposed that specialized resource-user groups (with membership drawn from groups of neighboring villages) may be formed for management activities focused on sustainable use of specific resources such as medicinal plants, thatch, hardwood for handicrafts, etc. Some VNRMCs have been established in the project area, but they are generally not functioning due to a lack of mobilization and training, and lack of motivation in the absence of specific activities and resources to undertake them. This has been exacerbated by a lack of capacity within the FD staff, for which a

determine whether the expected impacts are successful, and provide timely feedback to ensure that problems are identified early in implementation and that appropriate actions are taken. M&E indicators will be developed in accordance with guidelines for GEF-financed projects during Phase I of the project and will measure project aspects such as: (i) ecological monitoring; (ii) co-management activities; and (iii) institutional effectiveness.

The monitoring and evaluation of ecological and conservation impacts would examine the overall changes and trends in the conservation status of the Mulanje Massif ecosystem and of keystone or focal species. This would include the following elements: collection of baseline data on a specified set of parameters to establish the starting condition; monitoring the status, change and trends in the indicators over time and; evaluating the significance of changes and trends observed through the research and studies program. Specific biological indicators to be included in the monitoring program will be defined in year one of the project by the biodiversity conservation and research program officer in consultation with the scientific team contracted to do the rapid baseline survey and assessment.

The socioeconomic and community assessments monitoring will focus on the effectiveness of the project in: improving local perceptions of the Reserve and understanding of the global and local benefits; implementing co-management, particularly in relation to the sustainable management of biodiversity resources; the nature and quality of relations between local stakeholders and the FD and the MMCT; and increasing the proportion of reserve benefits going to local communities.

The monitoring and evaluation of the overall institutional structure of the MMCT will focus on two aspects: (i) the effectiveness of MMCT as a mechanism for providing long-term reliable funding for conservation programs, and (ii) its effectiveness in enabling key stakeholders to decide jointly how best to allocate the available funds to achieve conservation and related development objectives.

D. Project Rationale

1. Project alternatives considered and reasons for rejection:

As noted in Section B, item 3, the alternative of providing support directly to the Forest Department was considered but rejected on the grounds that: (i) the project should be implemented by an entity that represents all the key stakeholders, and (ii) the FD's primary mandate and objective is the sustainable management of forest resources for economic development, rather than conservation of the globally important biodiversity of the massif. The alternative of a limited term project was rejected in favor of the proposed Conservation Trust on the grounds that the threats to the massif's biodiversity and therefore the conservation activities needed to help counter them, are long-term in nature and require a reliable, long term response.

The rationale for GEF funding of this project is that it will improve the protection and management of endangered or threatened species and indigenous forests under a program of collaborative management that explicitly includes rural communities as full parties to the management strategies and activities. Specifically, it will provide the necessary support to engage and build capacity within the FD and among

the GEF would serve a catalytic role in providing Malawi with the resources to develop a rational structure for managing Mulanje mountain forest reserve in a manner that preserves its biodiversity value. GEF support through the PDF-B has leveraged support from DFID for improved forest reserve management, and it is expected that successful implementation of the project will continue to leverage additional resources in the future for the Mulanje reserve and, by example, perhaps others in Malawi's forest reserve and wildlife reserve system. Equally important, the GEF support in the form of an ongoing Trust Fund will leverage continued commitment on the part of the stakeholders, both to ensure that the Trust meets its objectives and to support those objectives through their own activities.

2. Major related projects financed by the Bank and/or other development agencies (completed, ongoing and planned).

Sector Issue	Project	Latest Supervision (PSR) Ratings (Bank-financed projects only)	
		Implementation Progress (IP)	Development Objective (DO)
Bank-financed			
Environment	Environmental Management Project	U	U
Biodiversity Conservation	SADC Lake Malawi/Nyasa Biodiversity Conservation Project	S	S
Other development agencies			
DFID- Environment	Strategic Plan for the Mulanje Massif		
USAID – Environment	COMPASS Program		
DANIDA	Lake Chilwa Wetland and Catchment Management Project; District Environmental Capacity Building		
GTZ	Rehabilitation of River Banks, Social Forestry		
European Union	Forestry Sector		

IP/DO Ratings: HS (Highly Satisfactory), S (Satisfactory), U (Unsatisfactory), HU (Highly Unsatisfactory)

into account significant differences in the contexts and conditions under which the two are operating. For example, the MBIFCT aims to provide alternative income and a degree of compensation to communities which have been entirely excluded from the two national parks, whereas MMCT aims to facilitate community participation in sustainable management of biological resources within a Forest Reserve to which they have continued access. In addition, the prospects for income generation from sustainable use of biodiversity are lower in the Mulanje area than in SW Uganda, and the level and experience of political organization at the local level is substantially lower in Malawi than in Uganda, with decentralization of government authority to elected bodies at the District level just being introduced. These considerations have helped to shape the MMCT's approach to community participation and support, such that it will emphasize employment generation (in conservation activities) and capacity building for co-management rather than financing community micro-projects. The MMCT institutional structure has also been simplified relative to that of MBIFCT in view of the more limited individual and institutional capacity. This project will provide an opportunity to see how the successful MBIFCT model can be adapted to meet similar conservation challenges under different circumstances.

While co-management is just being introduced as the central approach within the Forestry sector, there have been some pilot programs over the past 10 years, following up on an experimental program of the Forest Research Institute of Malawi, financed by DFID (formerly ODA). While implementation and official recognition have been slow overall, several of these pilot sites have successfully established co-management of forest areas. There are also several ongoing donor-funded initiatives (GTZ, EU, IDA) supporting capacity building for co-management within the Forest Department. These are largely site-specific and none currently target the Mt. Mulanje Forest Reserve (a gap which the MMCT aims to help fill), but they provide useful guidance for the co-management capacity-building component of this project. For example, it was decided that MMCT should support NGOs to provide capacity building directly to communities in addition to working with the FD, and that the co-management support should be built around a limited number of specific pilot projects to ensure that there are activities on the ground as soon as possible.

Malawi has also gained valuable experience in involving local communities in natural resource management through projects in other sectors. One particularly successful example is the GTZ-sponsored Lake Malombe community-based fisheries management pilot project which empowered traditional leaders and their subjects to play a self-regulatory role in fisheries management, such as ensuring that appropriate fishing gear (with correct net sizes) is used. This has resulted in a recovery phase in the fisheries and a change in attitude of the communities towards sustainability. The success of the program has been attributed to both empowering local communities as well as providing effective community education. Both these lessons have been incorporated into the design of the MMCT. Another co-management project which has been ongoing for a longer time is the GTZ-funded Bee-keeping Project in the Nyika National Park and the Vwaza Wildlife Reserve, which involves adjacent communities harvesting non-timber products and honey from the parks. The MMCT project will build on this experience in both the designing and implementation of the community biodiversity conservation and sustainable use programs.

The lessons from these projects are generally corroborated in the November 1995 World Bank report, *Mainstreaming Biodiversity in Development: a World Bank Assistance strategy for implementing the Convention on Biological Diversity*, and by the 1996 Bank report *GEF Pilot Phase Portfolio Project Implementation Review* which support the need for (a) independent professional management of financial accounts, (b) more creative cooperation among implementing agencies and other global organizations working in the field of biodiversity; (c) provision for long preparation time required to achieve regional collaboration and build local ownership; (d) participation by local communities in productive activities especially in buffer zones; and (e) ensuring early on that the implementing agency understands Bank/GEF procedures and guidelines. The design of this MMCT project has taken into account the recommendations detailed in these and other reports.

The *GEF Evaluation of Experience with Conservation Trust Funds* identifies certain 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 achieve its mission. Four of these were identified as critical, and they are in place for the MMCT:

(a) A commitment of at least 10-15 years

The individuals who came together to initiate the MMCT are all Malawians who have a long-term interest and commitment to the Mulanje massif and its biodiversity, either from a background of academic research or ecotourism or as members of the local community. They have all contributed considerable time in project preparation, without compensation except for occasional travel costs, and they remain committed to seeing the program launched and implemented successfully as a Trust in perpetuity. The Government's commitment is also long term as Mulanje represents an essential economic resource at both national and local levels. This commitment will be manifested in the Government's agreement to ensure the future integrity of the Mulanje reserve. DFID has also indicated its commitment for long term support to the Forestry sector, which is an important base upon which the incremental GEF activities are built. Finally, although the actual period of the GEF project, and therefore active World Bank supervision, is only seven years, the Bank is committed to long-term support to the natural resources management sector in Malawi, which will enable the technical support to continue beyond that period on an informal basis.

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

The Government of Malawi has been fully supportive of the creation and MMCT and has endorsed the proposed role that has been established for the Trust in the conservation of Mt. Mulanje. This is demonstrated, for example, by the participation of FD ongoing and very positive collaboration between FD and the MMCT in the preparation activities and development of the Forest Reserve Management Plan. Finally, GOM willingness to devolve control is demonstrated

(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 MMCT Board which has been actively involved in the preparation activities for the GEF funding was made up of three Trustees who were the only voting members, and 12 non-voting members. The new constitution will nominate ten Trustees who will be the voting members, three independent, two from NGOs, two from Local Government, one from the Smallholders Tea Agency, one from the Herbarium and one from Academia. There will also be twelve non-voting members.

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

Malawi has in place the necessary laws for establishment of a Trust 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 World Bank-financed projects are making use of private firms for auditing or financial management support. There is also useful precedent and experience within Bank-financed projects (e.g., Environment Management Project; Malawi Social Action Fund) of community groups assuming responsibility for management of and accounting for resources provided for the benefit of the community at large benefit.

Most of the other “success conditions” are also present, as discussed in previous sections, e.g.: (i) the existence of a valuable, globally significant biodiversity resource whose conservation is politically, technically, economically, and socially feasible (given that the GEF resources will build upon a larger base of strong support for improving management of the Mulanje reserve, and promoting sustainable use of the area’s natural resources), and which requires long-term support; (ii) mechanisms in place to involve a broad set of stakeholders during the design process, and willingness of stakeholders to use these mechanisms (as evidenced by the consultative processes underway for development of the Reserve Management Plan and the MMCT project); (iii) “mentors” supporting the Fund’s establishment and operations (the already established relationship with the Bwindi Trust in Uganda and to be established with the Cape Peninsula Trust in South Africa, as well as access to the broader GOM program of developing co-management of forest and wildlife resources, which is being supported by a number of donors and NGOs around the country); and (iv) an effective demand for the fund’s product (the demand is there in terms of the interests and needs of the stakeholders, although the MMCT will need to help mobilize this demand effectively through its community capacity building activities in Phase 1).

4. Indications of borrower and recipient commitment and ownership:

The Government of Malawi (GOM), through the Ministry of Forestry, Fisheries and Environmental Affairs (MoFFEA), is a signatory to many regional and international biodiversity conventions which provide a conceptual framework for this project. The GOM has given strong support to MMCT. At its

which comprised traditional and political authorities and prominent representatives held in September 1993, where it received their unanimous endorsement, together with recommendations for the Trust's actions. The FD, NHBGM, WSM, and the University sit on the Board and continue to contribute towards making MMCT a reality. The country is committed to key sector reforms, and willingness to borrow for these reforms is a clear indication of commitment. Over the years, the Bank has established a comprehensive dialogue with the GOM, especially the MoFFEA, and also with MMCT.

The Government of Malawi, acknowledging the need for the MMCT to help preserve the Mulanje ecosystem, requested the GEF through the World Bank in June, 1995 to provide assistance for the project. A Project Preparation Grant, requested by the Government of Malawi in August 1996, was approved by the GEFSEC in December 1996. The GEF grant, with additional support and collaboration from DfID, funded the project preparation activities which included the following: community conservation awareness and resource use/surveys; the identification of sustainable use initiatives for implementation by the communities under forest co-management arrangements; surveys on timber utilization, non-timber forest products, and eco-tourism potential. As a key indicator of commitment and ownership, it should be noted that during this whole project preparation period, until the PDF became available, the MMCT had no financial resources, and depended on the sponsorship of the National Herbarium and Botanical Gardens of Malawi for very modest resources for transport and costs for meetings. Many of the Board members contributed their spare time and out of pocket expenses to attend meetings, respond to correspondence, and interact with the World Bank and other agencies.

In summary, there is widespread realization in government that improved forest management, conservation and environmental protection of Mulanje Mountain are an important component of a sustainable and ultimately successful development process. An endorsement letter requesting GEF support to the Mulanje Mountain Conservation Trust has been provided by the Ministry of Finance.

5. Value added of Bank and Global support in this project:

The World Bank has recognized the value of trusts as an instrument for providing long-term support for biodiversity conservation. It has been a leader in supporting the establishment of conservation trusts in Africa and has gained valuable experience through these operations. In Malawi, the Bank has developed strong and positive relationships with international and local NGOs and the donor community involved in natural resource management. The value added of the Bank's support lies in providing technical support for preparation and implementation, supervision capacity, strengthening linkages between MMCT and the Ministry of Environment and Natural Resources, and mobilizing additional support from bilateral donors and other partners.

A number of bilateral donors and other organizations (e.g., DFID, GTZ, DANIDA, EU, OXFAM) are currently involved in supporting improved forest resource management and sustainable livelihoods in the Mulanje area. GEF support will ensure that biodiversity conservation is an explicit objective of the natural resource management in this globally significant ecosystem. The threats to the biodiversity in this region are persistent and growing. Providing GEF support in the form of a Trust will ensure the

3. Technical:

Least cost methods of: (a) protection of the Mulanje Cedar; (b) eradication of invasive species; (c) selection and design of systems for monitoring and enforcement in mountain operations; and (d) facilitating community participation and involvement in forest co-management and conservation.

4. Institutional:

4.1 Executing agencies:

Weakness of the Forestry Department (FD) is of major concern as the FD is an important partner in implementing the project. Project activities include institutional strengthening of the FD in those aspects that MMCT will need for effective project implementation, particularly community relations and co-management, and biodiversity conservation planning and activities. Implementation of community-based activities will be through the Village Natural Resource Committees and other community based organizations, which are in place but require strengthening. The Program Officers of the TAU will develop relevant programs to achieve the objectives of MMCT and will then work through the FD, appropriate NGOs and consultants to assist them with carrying out the program. The TAU with the approval of the TMB will make grants to the agencies selected for the operational work and the Program Officers will closely supervise the implementation of the work.

4.2 Project management:

The operations of the project will be overseen by the MMCT Board through the TAU. The Headquarters will be established in the Mulanje project area. Activities financed under the project will be co-ordinated by the TAU. The project will create a register of Technical Consultants to advise the Board and TAU on technical issues. The Program Officers will identify suitable partners (FD, NGOs, CBOs) and make grants to them for the implementation of their respective programs.

4.3 Procurement issues:

None.

4.4 Financial management issues:

None.

5. Environmental:

Environmental Category: C

6. Social:

6.1 Summarize key social issues relevant to the project objectives, and specify the project's social development outcomes.

Inadequate arable land is a serious problem and a source of rural poverty in much of Malawi. In Mulanje,

security” projects in the area aimed at improving agricultural productivity through extension and credit services and inputs, but with a population density already 19% above the national average and rapidly growing, there is clearly a limit to the potential for meeting peoples’ livelihood needs through agriculture in this area.

Communities bordering and near the Reserve supplement their livelihoods and income with a wide variety of natural products including fuelwood, mushrooms, fruit, thatching grass, bamboo, medicinal plants, small game (increasingly scarce in most of the area), hardwoods for carving, etc. Fuelwood is collected mainly from the lower elevation miombo woodlands which are not highly significant in terms of global biodiversity value, but present a good potential for development of more productive and profitable sustainable utilization through better management and organization (this is expected to be a major focus of the DFID program in the area). Many of the other natural products come from the mid-altitude indigenous forests which are of high biodiversity significance, have already been significantly reduced and fragmented, and are far more susceptible to over-exploitation and degradation. Any utilization of these resources through co-management programs would have to be closely monitored and controlled, and should be supplemented by initiatives to restore depleted natural populations and ex-situ cultivation. The high altitude Mulanje cedar is very valuable but is currently harvested primarily by outsiders licensed by the Forest Department. Local benefits are in the form of limited and low-paying employment mainly for carrying boards down the mountain. Local community members indicate they would like to participate more in this industry but lack the capital needed to obtain and utilize the cedar licenses themselves. It is proposed that one of the initial pilot co-management projects focus on enabling a few community groups to restore and manage some of the degraded areas of cedar forest. (Improved overall management of cedar harvesting is essential and will be an important indicator of the FD’ s capacity and commitment for better management of the MMFR, thereby justifying the movement to Phase II of the project).

6.2 Participatory Approach: How are key stakeholders participating in the project?

Strong participation from diverse stakeholders, including government, civil society, the private sector and communities surrounding the mountain, are central to the success of the project. Project preparation involved extensive consultations and stakeholder participation, and this will be continued during project implementation. As part of project preparation, DFID and the GEF PDF-B grant supported extensive community consultations and socio-economic studies to elucidate local institutional structures and communities’ use of timber and non-timber Reserve resources. The consultation process was organized in three phases: Phase I - Definition of Usage Zone - consultations were conducted with various stakeholders including local communities (500 people) line ministries (10) and NGOs (7). Phase I provided details of the scope and kind of resource use. Phase II - Perceptions of the Forest and its Resources - consultations were conducted to determine peoples perceptions of the use and state of the forest reserve and its natural resources as well as perceptions of participatory development and community based management of the forest reserve (650 people). Phase III - Social and Political Structure of the Communities and Resource Use - PRAs involving 1700 people were conducted to validate information collected in Phase II and to map the use of resources, kinship relationships, access to

	<u>Identification/ Preparation phase</u>	<u>Project Start-up Phase</u>	<u>Implementation Phase</u>
Beneficiaries/Community Groups	COL/CON	COL/CON	COL/CON
Intermediary NGOs	COL/CON	COL/CON	COL/CON
Local Government	COL/CON	CON/COL	COL/CON
Academic Institutions	COL/CON	COL/CON	COL/CON
Other Donors	COL/CON	CON/COL	COL/CON
Bank	CON/COL	CON/COL	CON/COL

7. Safeguard Policies:

7.1 Do any of the following safeguard policies apply to the project?

Policy	Applicability
Environmental Assessment (OP 4.01, BP 4.01, GP 4.01)	No
Natural habitats (OP 4.04, BP 4.04, GP 4.04)	No
Forestry (OP 4.36, GP 4.36)	No
Pest Management (OP 4.09)	No
Cultural Property (OPN 11.03)	No
Indigenous Peoples (OD 4.20)	No
Involuntary Resettlement (OD 4.30)	No
Safety of Dams (OP 4.37, BP 4.37)	No
Projects in International Waters (OP 7.50, BP 7.50, GP 7.50)	No
Projects in Disputed Areas (OP 7.60, BP 7.60, GP 7.60)	No

F. Sustainability and Risks

1. Sustainability:

The establishment of the MMCT specifically aims to overcome the common problem of lack of sustainability of funds for conservation activities in traditional projects. The establishment of a Conservation Trust Fund will ensure that a dependable and constant stream of income will be available to

Risks

The main risks relating to the project would include:

- lack of Forest Department capacity or commitment to effectively manage the MMFR and maintain its biodiversity and ecological values;
- failure of MMCT governance structure and institutional bodies to function effectively;
- failure of fund-raising efforts to increase the capital of the Trust Fund to a level where its investment income can sustain an adequate level of activity to achieve the anticipated conservation benefits;
- local stakeholders expectations exceed what MMCT can provide in terms of assistance and of what MMFR can provide in terms of resources on a sustainable basis.

Given the strong commitment on the part of the stakeholders who set it up and the strong support from Government, and the consultative process that has been followed and will be continued in establishing the Trust mechanisms and procedures, there is only a risk that the institutional mechanism will fail to function properly, or that the specific activities to be funded by the Trust will not be implemented effectively. The much greater risk is in relation to the expectations of the local communities with respect to what the MMCT can provide in terms of financial assistance and what the MMFR can provide in terms of resources extracted on a sustainable basis. There is a risk that the MMCT project activities will be not be adequate to have a measurable positive impact, in view of the underlying factors which threaten the massif's biodiversity, i.e. population growth, poverty and land insecurity. It is recognized that the MMCT activities will build upon other important initiatives in the area that are also aimed at addressing these underlying causes of unsustainable natural resource use, and consequently of biodiversity loss.

2. Critical Risks (reflecting the failure of critical assumptions found in the fourth column of Annex 1):

Risk	Risk Rating	Risk Mitigation Measure
From Outputs to Objective		
See Annex 1		
From Components to Outputs		
Lack of Forest Department capacity or commitment to effectively manage the MMFR and to maintain its biodiversity and ecological values, or to collaborate with MMCT in these objectives.	S	Support for building FD capacity and strengthening policy under this project and others (DFID, GTZ, EU, etc.), includes major sectoral program which emphasizes sustainable resource management and co-management aspects; FD has participated actively in design of MMCT and project preparation and expressed strong commitment to it;

Risk	Risk Rating	Risk Mitigation Measure
Local stakeholders' expectations exceed what MMCT can provide in terms of assistance, and what MMFR can provide in terms of resources on a sustainable basis.	S	Community-oriented activities of MMCT will focus on co-management of MMFR resources, and will not include "micro-projects" or "income generating activities" which typically raise unrealistic expectations. EE&C component will communicate MMCT's objectives and limitations and stress the finiteness and importance of sustainable use of MMFR resources. MMCT will generate some local employment (highly valued by local stakeholders), directly and clearly linked with conservation activities;
Failure of MMCT governance structures and institutional bodies to function effectively, e.g., due to lack of knowledge, experience or commitment by Board members; political interference, etc.	M	Individual and institutional Board members and government have demonstrated commitment during the long preparation period; Board members are drawn from public, private and NGO sectors; Phase 1 will focus on capacity building, including training and TA to assist Board members and staff to understand and fulfill their roles; movement to Phase 2 (release of capital endowment) will depend on key institutional performance indicators;
MMCT's endowment will not be adequate to generate an income stream sufficient to support critical conservation and co-management activities.	M	DFID Forestry Sector support program will provide substantial co-financing particularly for implementation of co-management/ sustainable livelihoods aspects of MMCT programs; Phase 1 activities and objectives will include active fund-raising, and demonstrating effectiveness of MMCT in order to attract support; administrative and program costs are kept as low as possible to match realistic expectations of income stream from the anticipated endowment.
Overall Risk Rating	M	

Risk Rating - H (High Risk), S (Substantial Risk), M (Modest Risk), N (Negligible or Low Risk)

G. Main Conditions

1. Effectiveness Condition

Receipt of written assurance that the integrity of the MMFR will be maintained and there will be no

H. Readiness for Implementation

The procurement documents for the first year's activities are complete and ready for the start of project implementation.

I. Compliance with Bank Policies

1. This project complies with all applicable Bank policies.

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Team Leader

Charlotte S. Bingham
Sector Manager

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Country Manager

Annex 1: Project Design Summary

MALAWI: Mulanje Mt. Biodiversity Conservation Project

Hierarchy of Objectives	Key Performance Indicators	Monitoring & Evaluation	Critical Assumptions
<p>Sector-related CAS Goal:</p> <p>Support sustainable management of natural resources vital to Malawi's economic growth and environmental protection.</p>	<p>Sector Indicators:</p> <p>Increased IDA and GEF assistance for lending and non-lending services in natural resources management and biodiversity conservation</p>	<p>Sector/ country reports:</p> <p>GOM budget and programs; IDA/GEF pipeline</p>	<p>(from Goal to Bank mission)</p> <p>Existence of strong political will and commitment to ensure sustainable use and management of natural resources</p>
<p>GEF Operational Program:</p> <p>Biodiversity conservation and sustainable use in a mountain ecosystem which is under increasing human pressure and imminent threat of <u>degradation</u></p>	<p>Trends of degradation/loss of biodiversity halted or reversed</p> <p>Sources/impact of human pressure reduced (encroachment, over-exploitation, fire, spread of invasive alien spp.)</p>	<p>Biodiversity monitoring data;</p> <p>Forest Department reports;</p> <p>Community attitude surveys</p>	<p>Improved overall management of MMFR</p>

Hierarchy of Objectives	Key Performance Indicators	Monitoring & Evaluation	Critical Assumptions
<p>Global Objective:</p> <p>1) Maintain Mulanje Mountain ecosystem, including globally significant biodiversity and vital ecological services.</p> <p>2) Increase awareness, understanding and appreciation of the value of the Mulanje Mountain ecosystem, at local and national levels</p> <p>3) Improve sustainability of biological resource use and enhance the value of the MM ecosystem to local communities</p> <p>4) Establish long-term income stream and institutional capacity to ensure continuation of 1-3;</p> <p>MMCT appreciated and respected by stakeholders at local, national and international levels</p> <p>Demonstrate the appropriateness of Conservation Trust Fund as financing mechanism for biodiversity Conservation</p>	<p>Outcome / Impact Indicators:</p> <p>Biodiversity conservation aspects of MMFR Mgmt. Plan under implementation</p> <p>Ecosystem of MMFR maintained in good condition</p> <p>Community knowledge and appreciation increased re target messages;</p> <p>Decrease in FD/Community conflict relating to Reserve access and use</p> <p>Allocation of funds for Reserve mgmt. (through Forest Fund and other mechs., e.g., water users tax)</p> <p>Proportion of MMFR resources under co-management</p> <p>Effective biodiversity conservation program maintained over time in the face of changing circumstances</p> <p>Local stakeholders' aware of and positive towards MMCT and its objectives</p> <p>Contributions to the MMCT (operating costs and/or endowment)</p> <p>MMCT cited as positive example and model by GEF</p>	<p>Project reports:</p> <p>Biodiversity monitoring program</p> <p>Mapping of encroached areas and ecological monitoring</p> <p>Community attitude surveys</p> <p>FD field reports</p> <p>FD operating budget for MMFR;</p> <p>Documents establishing tax</p> <p>Co-management agreements (FD/Community)</p> <p>Reports of Co-Mgmt./ Livelihoods Program Officer</p> <p>M&E reports from components</p> <p>WB supervision reports</p> <p>Awareness/attitude surveys</p> <p>MMCT financial statements, annual progress reports</p> <p>GEF and WB reports, biodiversity conservation literature</p>	<p>(from Objective to Goal)</p>

Hierarchy of Objectives	Key Performance Indicators	Monitoring & Evaluation	Critical Assumptions
<p>Output from each Component:</p> <p>1) Good baseline, monitoring and research information available to FD to improve MMFR management</p> <p>FD staff trained and equipped to protect and manage biodiversity</p> <p>Local employment generated through conservation actions</p> <p>2) Env. Education and Communications strategy and program developed and ongoing</p> <p>3) Improved FD and community capacity to implement co-management policy in MMFR (trained, organized, equipped);</p> <p>Co-management pilot projects</p> <p>4) MMCT institutional structure established and operational</p> <p>MMCT adequately endowed</p>	<p>Output Indicators:</p> <p>Biodiversity/ecosystem baseline completed;</p> <p>Practical long-term monitoring program approved and initiated</p> <p>Biodiversity conservation needs/actions reflected in MMFR management plan and FD annual work plans, and being carried out by FD, with community employment</p> <p>Key messages and educational/communication approaches identified</p> <p>Agreement(s) with implementation partner(s) established</p> <p>Requests made to MMCT for information</p> <p>VNRMCs and other relevant community structures established and operational;</p> <p>Forest resource co-management pilot activities underway (up to 4 in Phase 1)</p> <p>TMB and TAU fulfilling their functions as outlined in TAM</p> <p>Sufficient income to implement priority biodiversity conservation aspects of MMFR Mgmt. Plan</p>	<p>Project reports:</p> <p>Biodiversity/ecosystem baseline completed;</p> <p>Practical long-term monitoring program approved and initiated</p> <p>Biodiversity conservation needs/actions reflected in MMFR management plan and FD annual work plans, and being carried out by FD, with community employment</p> <p>Strategic documents, TMB approval reflected in minutes</p> <p>MOUs or Grant Agreements</p> <p>EE&C Program Officer' s reports</p> <p>Co-Mgmt. & Livelihoods Program Officer' s reports</p> <p>NGO Implementation partner reports</p> <p>FD reports</p> <p>Minutes of meetings, Audit reports, WB supervision reports, interviews with key officials</p>	<p>(from Outputs to Objective)</p> <p>FD committed to biodiversity conservation as a major objective of MMFR management</p> <p>Political will for improving MMFR management</p> <p>FD has capacity (qualified personnel, operational resources) to effectively manage MMFR; GOM and donor support (esp. DFID) provided</p> <p>Capable implementation partners available and interested in collaborating with MMCT</p> <p>Messages identified which are relevant to stakeholders' needs, and stakeholders are receptive to information provided</p> <p>FD at all levels committed to co-management policy</p> <p>Validity of the Co-management approach</p> <p>Local/District level support for community-based resource mgmt.</p> <p>Viable sustainable resource use opportunities identified</p> <p>Local, District and National Government support MMCT objectives, do not politicize it</p> <p>Board Members/Trustees committed to objectives and devote sufficient time</p>

Annex 2: Detailed Project Description

MALAWI: Mulanje Mt. Biodiversity Conservation Project

The project has five major components (including capitalization of the Trust Fund itself) which will benefit from GEF financing. Each component will provide the necessary technical and financial assistance to develop institutional and management capacity within MMCT, within the Forestry Department and, through the Program Officers and collaborating NGOs, within the local communities.

The following provides a more detailed description of the financing structure of the project, i.e. the objectives and activities of Phase I and Phase II, as well as the preparatory phase, now largely completed, which was financed partly by the GEF and partly by DFID and others:

Preparatory Phase: Activities to establish the CTF were undertaken. The expenditures reflected in the budget for this (US\$300,000 from GEF plus an equivalent amount from DFID, University of Malawi, National Herbarium and Botanic Gardens of Malawi, and the Wildlife Society of Malawi) generally represent one-time, ground-laying costs including technical support. During the preparation period, the MMCT Board, with the assistance of the Program Coordinator and contracted specialists, developed an investment strategy and guidelines, prepared a proposal for selecting an asset manager and establishing financial audit and control systems to international standards. Other preparation activities included: (1) completion of an Administration Manual to define/clarify procedures and operations for the MMCT and its bodies; (2) formalization of cooperative working relationships with key national and local governmental entities; (3) studies including community consultation and participation, forest productivity, timber utilization, non-timber forest products, ecotourism, and institutional development and organizational strengthening. These studies were undertaken to support the preparation of the Reserve Management Plan and were financed primarily by DFID.

The consultative preparation of the Reserve Management Plan, which is currently nearing completion, included the following activities:

- identification of the significant biological resources of Mulanje mountain and the threats and trends on these resources;
- development of appropriate management objectives from information collected;
- development of strategies for habitat management, including a proposed zoning plan;
- development of a proposed implementation program involving activities such as pilot co-management projects, environmental education, livelihood enhancement, ecological research and monitoring, essential infrastructure and equipment for FD, and strengthening FD management capacity and external relations.

Phase I: Phase I of the project will support capacity building activities at various levels to develop and

renting. 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 the project will also be established under this component, including the finalization of criteria for disbursing and supervising sub-grants to the FD and collaborating NGOs as approved by the Board. The Trust Administration Manual will provide guidelines for all MMCT procedures. Training activities will provide the TMB, the TAU and the FD staff with the skills needed for implementation of the project.

- **Biodiversity Conservation, Research and Monitoring:** During Phase I, the emphasis will be on development of capacity, strategies and action plans, and implementation of some urgent actions on the ground. Activities will include: recruitment of the MMCT Biodiversity Program Officer; carrying out a detailed baseline biodiversity and ecosystem survey and development of a practical long-term monitoring plan, including indicators and methods of data collection and analysis; implementation of urgent conservation actions identified in the Reserve Management Plan (e.g., maintenance of boundaries and firebreaks, clearing of exotic plants at priority sites, improved patrols, etc.); in collaboration with the FRIM and other local partners, developing a research strategy focused on generating the information and tools needed to improve biodiversity conservation and management in the Reserve.
- **Environmental Education and Communications:** The Environmental Education and Communications Program Officer will develop and implement an environmental education and communication program in collaboration with other stakeholders.
- **Co-management and Sustainable Livelihoods:** Studies undertaken during project preparation indicated both the need for greater community participation in the management and benefits of the Reserve, and the difficulty of achieving this given the weak local institutional capacity and structures to support collective decision making and action. Implementation of the Government's co-management policy is also constrained by limited capacity within the Forestry Department, at national, district and local levels. In view of this, the priority during Phase I will be to recruit the MMCT Co-management and Livelihoods Program Officer, who will then identify specific needs and opportunities and develop a strategy for supporting communities and the FD in these areas, to complement work being carried out under other Government and donor-support programs. The strategy will involve MMCT supporting local implementation partners, who will work with local area institutions such as the Village Natural Resources Committees and/or resource-oriented user groups. A few target groups and areas/resources will be selected for intensive support, including the initiation of pilot co-management 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 MMCT to local stakeholders, the Co-Management and Livelihoods Program Officer will work with the Biodiversity Program Officer and the FD to ensure that implementation of direct conservation activities generates as much local employment as possible.
- **Establishment of the Endowment Fund and fund-raising:** During Phase I, the MMCT will put

adequate FD presence and activity on the mountain; (vi) adequate allocation of operating funds by Government of Malawi to FD and by FD to MMFR; (vii) adequate progress has been made towards restructuring the FD.

Phase II: The duration of Phase Two of the project is 4 years, representing the period during which the World Bank will actively supervise project implementation. In fact, however, “Phase II” continues in perpetuity, as the annual investment income from the Trust Fund (estimated US\$300,000-350,000 per year) is utilized to maintain the MMCT and implement its core activities, as follows:

- (i) **Trust administration and support functions.** Income from the Trust 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 Trust’s objectives;
- (ii) **Continuation and Expansion of Core Program Activities.** Income from the Trust will support the continuation of the three core operational programs (Biodiversity Conservation, Monitoring and Research; Co-Management and Sustainable Livelihoods; Environmental Education and Communication). These programs will be continued, modified, reduced or expanded, based on the information and experience gained in Phase I. It is expected that:
 - the nature of direct biodiversity conservation activities should evolve from urgent protection towards maintenance and restoration, and from species and site-specific intervention to broader ecological management. Research and monitoring activities will also emphasize support for and evaluation of management practices and strategies;
 - the pilot co-management and livelihoods program will be expanded to broader geographic/community coverage and greater diversity of activities; and
 - the environmental education and communications program will move from a focus on identifying and delivering key messages to target audiences through MMCT activities, towards institutionalizing the messages within existing educational and media structures for ongoing impact.

For all programs, as for the MMCT 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 (e.g., an EE Center or other infrastructure).

The GEF Grant Agreement will specify that the income from the GEF investment will continue to support

By Component:

Project Component 1 - US\$0.58 million

(a) Trust Administration

The Trust Administration Unit (TAU) will be established in Mulanje and will consist of an Executive Director, three Program Officers, an Accountant, a Secretary, as well as support staff. These individuals will be the only full-time employees of MMCT. The TAU will be responsible for (i) developing the program content for each of the three components Biodiversity conservation, Research and Monitoring; Environmental Education; and Forest co-management and Livelihoods; (ii) working in collaboration with the FD and suitable NGOs to carry through the three programs in (i) above; (iii) submitting annual work plans and budgets to the TMB 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 MMCT funding. The basic operational rules and mechanisms of the MMCT are established in the Trust Administration Manual which is in draft form. Final approval of the Manual will be a condition of project effectiveness. The TAU will also be responsible for a fund raising strategy during Phase I which will attract donations from sources such as bilateral donors, the private sector and international NGOs which will contribute to the overall endowment fund of the MMCT. The capacity building element of this component will relate to the coordinating functions of MMCT, including training for the TMB in relation to its responsibilities, functions and procedures, training for the TAU administrative staff in aspects such as Trust accounts procedures, reporting requirements, supervision of contracts, etc. Note that the Program Officers will be recruited for their technical competence and therefore training requirements for them should be minimal, however, some specialized short courses maybe necessary. Attendance at technical meetings and conferences will fall under this budget line.

Project Component 2 - US\$0.40 million

(b) Biodiversity Conservation, Research and Monitoring

Under this component the project will support activities to identify, protect, manage, and monitor the status of biodiversity and ecosystem health in the Reserve, and to reduce the impacts of human pressures on the ecosystem and its biological resources. This will take place in the context of Government's efforts to improve the overall management of the Reserve to maintain and increase its contribution to local and national economic development. The GEF support will specifically ensure that biodiversity conservation is recognized and adopted by the key stakeholders as an explicit objective of Reserve management, along with other important objectives such as maintaining water supplies and providing sustainable supplies of valuable timber and non-timber products. Related capacity building, particularly for the Forest Department staff responsible for the MMFR will be an important element during Phase I.

To be effective, biodiversity conservation activities must be sustained over long periods of time and respond to changing physical, social, economic, institutional and political conditions. Conventional

Activities supported under this sub-component are divided into four categories:

- (i) **biodiversity baseline survey and monitoring:** carrying out a broad-based baseline biodiversity survey to establish baseline conditions; developing and beginning implementation of a practical, long-term monitoring program for tracking changes in biodiversity and ecosystem health;
- (ii) **capacity building for biodiversity protection, management and monitoring:** support to FD (and other implementation partners, as appropriate), for training, workshops, and specialized technical assistance to enhance their capacity to generate and use monitoring and research data and to incorporate biodiversity conservation objectives into Reserve management. In addition, the project will provide field, office and communication equipment to improve FD's management and reporting capability;
- (iii) **direct conservation activities:** support for equipment, tools, local labor and other operational costs to carry out priority actions identified in the Reserve Management Plan, such as maintaining firebreaks for particularly sensitive areas; boundary maintenance; development and implementation of conservation plans for Mulanje Cedar and for mid-altitude indigenous forests, eradication or control of alien species (particularly invasive plants and Cypress aphid); development and implementation of an ecological resource conservation plan for medicinal plants; and
- (iv) **research:** support for local researchers to carry out research to provide the information and tools needed to improve biodiversity conservation and management over the longer term and to ensure the Reserve Management Plan remains up to date.

A full-time Biodiversity Conservation and Research Program Officer will be recruited for the TAU to develop and supervise the implementation of this component. A number of high priority conservation activities have already been identified in the Reserve Management Plan, which could be started immediately, along with the baseline survey. Direct conservation activities will be implemented mainly by the Forest Department, in collaboration with local communities (including direct employment of community members for on-the-ground actions as appropriate). Biodiversity survey and monitoring and conservation/management-oriented research will be carried out by the Forest Department (Forest Research Institute of Malawi) and other local organizations, with national or international technical assistance as required.

Project Component 3 - US\$ 0.14 million

(c) Environmental education

A primary objective of the MMCT is to raise awareness of the value and importance of the Mulanje Mountain Forest Reserve within the FD and the surrounding communities. A full time environmental education program officer will be recruited in the TAU to develop a program for environmental education which targets the local communities and forest department officers in the area.

development of environmental education materials; and
collection of resource materials.

The broad program, mechanism for delivery, and specific activities under this component will be defined in the first year. An agreed amount will be allocated for this component and disbursed against agreed annual workplans.

Project Component 4 - US\$0.13 million

(d) Forest Co-management and Sustainable Livelihoods

The purpose of this component is to increase the share of the benefits from the Reserve going to local communities and to ensure that this is on a sustainable basis. It is fully consistent with the Government's policy for co-management of forest reserves and forests on customary land. However, implementation of this policy has lagged due to a lack of capacity within the Forest Department and communities, and insufficient resources to develop and implement co-management activities. The key stakeholders and actors in co-management and natural resource management are community-based organizations such as Village Natural Resource Management Committees and resource user groups, local and District government, and District level FD staff. With progressive implementation of the Government's decentralization policy, the role and importance of District government, 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 co-management partners. This support will mainly be focused around several co-management pilot projects which will be selected to emphasize the linkage between local economic benefits and maintaining indigenous biodiversity and natural ecosystems (e.g., restoration and management of selected stands of Mulanje cedar, reforestation of degraded areas with valuable indigenous species including *Prunus africanus*, and sustainable use of medicinal plants, and other non-timber forest products). It is expected that these enhanced opportunities and benefits will increase the value that local communities and local government place on the biodiversity and ecosystems of the Mulanje massif and therefore decrease pressures of over-exploitation and agricultural encroachment.

While local stakeholders have expressed considerable interest in MMCT supporting the development of "Income Generating Activities" (IGAs), studies undertaken during project preparation indicated only a very limited potential for small-scale IGAs based on sustainable use of forest resources (e.g., *Prunus africanus*, mushrooms, medicinal plants, ecotourism, handicrafts, etc.). Furthermore, community-based IGAs are complex and difficult to implement successfully, generally hard to link with conservation objectives, and have a substantial record of failure in Malawi and elsewhere. Therefore, the MMCT will be very cautious in its approach, and will only consider providing support for IGAs if a clear conservation linkage is demonstrated and if it is proposed and executed by an NGO partner with demonstrated capacity and experience in this area.

MMCT will recruit a full-time Co-management and Livelihoods Program Officer to develop and

Project Component 5 - US\$5.5 million

(e) Conservation Trust Fund

The purpose of the Conservation Trust Fund (CTF) is to provide sustainable in-country funding for biodiversity conservation of the Mulanje Massif and surrounding area, in the context of ecologically sustainable development. The MMCT Fund will be established as the financing mechanism for the above mentioned project components. **Phase I (start-up)**, which is expected to last three years, will build the capacity within the MMCT and its partners to carry out their respective roles in the management of the Trust and the coordination and implementation of the activities described above. A modest unallocated fund for technical programs will allow MMCT to address early needs and gain experience in program planning and implementation. Achievement of the agreed indicators of institutional capacity and readiness will serve to trigger **Phase II (implementation phase)**, in which the Trust will be endowed to finance conservation from investment capital in addition to funds from other donors. Assistance from the GEF is requested to provide the initial endowment capital of US\$5.5 million for Phase II of the project, as well as US\$1.25 for the three-year start-up phase.

During Phase I, the Conservation Trust Fund will be growing as the income will be reinvested in the capital to support activities in Phase II.

Annex 3: Estimated Project Costs

MALAWI: Mulanje Mt. Biodiversity Conservation Project

Project Cost By Component	Local US \$million	Foreign US \$million	Total US \$million
Trust Administration	0.51	0.07	0.58
Biodiversity Conservation, Research & Monitoring	0.33	0.07	0.40
Environmental Education and Communication	0.14	0.00	0.14
Forest Co-Management and Livelihoods	0.13	0.00	0.13
Conservation Trust Fund	0.00	5.50	5.50
Total Baseline Cost	1.11	5.64	6.75
Physical Contingencies	0.00	0.00	0.00
Price Contingencies	0.00	0.00	0.00
Total Project Costs	1.11	5.64	6.75
Total Financing Required	1.11	5.64	6.75

Project Cost By Category	Local US \$million	Foreign US \$million	Total US \$million
Civil Works	0.06	0.00	0.06
Vehicles	0.10	0.00	0.10
Equipment & Supplies	0.06	0.00	0.06
Specialist Services & Training	0.13	0.14	0.27
Recurrent Costs	0.76	0.00	0.76
Endowment Fund	0.00	5.50	5.50
Total Project Costs	1.11	5.64	6.75
Total Financing Required	1.11	5.64	6.75

Annex 4

MALAWI: Mulanje Mt. Biodiversity Conservation Project Incremental Costs and Global Environment Benefits

Overview

The principle objective of the GEF Alternative is to help Malawi conserve the unique biological biodiversity of Mulanje Mountain and its ecosystem, which are of global importance as well as vital to the sustained livelihoods of people living in the surrounding areas. This objective will be achieved through a combination of capacity building, conservation activities, strengthened protection, environmental education, and the development of co-management projects to improve the sustainable flow of natural resources to participating local communities. The GEF Alternative will establish the Mulanje Mountain Conservation Trust (MMCT) to help in the preservation of the Mulanje ecosystem. The trust fund is expected to be endowed after a three-year pilot phase, which will lay the foundation for MMCT and key stakeholders to implement a longer-term operational conservation program. The net income generated from the trust fund will finance the following activities: (1) trust fund administration; (2) biodiversity conservation, research and monitoring; (4) environmental education and communications; and (5) forest co-management and livelihoods.

Context and Broad Development Goals

Malawi is a developing country with Gross Domestic Product (GDP) per capita (exchange rate based) of only US\$151 in 1995, the fifth lowest in Africa (WRI 1999). Annual average GDP growth from 1985 to 1995 was 2.1 percent. The country has a population density of 120 per km² of arable land, one of the highest in Africa. Malawi's annual population growth rate of 2.8 percent has created pressure on biodiversity in association with the need to increase economic growth. Approximately 85 percent of the population live in rural areas, subsisting largely on agriculture and exploitation of biological resources such as forests for a variety of timber and non-timber products. At the national level, agriculture contributes 42 percent to total GDP. Commercial tea and coffee are significant export crops and source of employment in rural areas. A high proportion of commercial agricultural production is based on irrigation from surface water. Agriculture accounts for 86 percent of total freshwater withdrawals.

A primary development goal of the Government of Malawi (GoM) 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 maintain surface water flows in support of agricultural development. Recognizing the environmental deterioration occurring in the country, and the resulting social and economic impacts, the GoM prepared a National Environmental Action Plan (NEAP), which was formally launched in December 1994. The NEAP identified priority environmental issues and formulated a broad inter-sectoral environmental strategy to integrate environmental concerns with development efforts.

cedar forest, sub-montane evergreen forest, grasslands and secondary scrub (1600 to 2400 meters); and finally an alpine ecology above 2400 meters (EDG 2000).

The reserve is one of Africa's key sites for threatened bird species. Its forests are part of the Tanganyika-Nyasa Mountain Group Endemic Bird Area (EBA) which includes the mountains between SouthEastern Kenya and northern Mozambique, and support four of the 35 restricted-range bird species of the EBA. The massif's habitat has 250 bird species. Above 1,800 meters, 94 species of birds have been recorded, of which seven are endemic or near endemic to Mulanje. The reserve is home to 27 species of smaller mammals, a few of them rare and isolated in their distribution. Larger mammals have been heavily hunted although several species are commonly sighted, including several ungulates, monkeys, hyenas and leopard. The number of invertebrates within the reserve is estimated in the range of 25,000 to 30,000 and only a fraction have been described and named.

There are over 1,100 species of higher plants, of which 57 are strict endemics. The higher plants include flowering and non-flowering trees, shrubs, and herbs in six different plant communities. Two tree species are especially valuable; *Prunus africana*, whose bark has potential pharmaceutical value for treating prostate cancer; and *Widdringtonia whytei* (Mulanje cedar), which has outstanding timber quality. Both species are rare and threatened.

The mountain is the headwaters of nine major rivers. Virtually every major river and stream in the Phalombe and Mulanje districts originate from the massif. The majority of the local population and all commercial tea and coffee estates draw water from the Mount Mulanje watershed. The water also serves small-scale irrigation in surrounding customary lands. One river (Ruo) generates hydroelectric power for a commercial tea estate. Water flowing from the north of the massif flows into Lake Chirwa and the bordering wetlands. The shores of this lake are home to a large bird population and the lake itself supports important fish species for commercial and subsistence use. Four major rivers (Ruo, Lujeri, Lichenya, Likhubula) flow south through Mozambique.

Malawi's NEAP identified Mulanje Mountain as a high conservation priority. The preparation and implementation of the Mulanje Mountain Conservation Project will be an important component of the government's overall environmental program over the next few years.

Socioeconomic Characteristics of Mount Mulanje

The Phalombe and Mulanje districts support over 800,000 people. Approximately half of this population lives in the immediate area surrounding Mount Mulanje. The massif is completely surrounded by villages and small-scale cultivation on customary land, and large commercial tea and coffee estates. On customary land, the average farm size is just 0.4 ha, reflecting the high population density in the region, and more generally throughout Malawi. Average household size is 5.5 persons. Given the rate of population growth (2.8 percent per annum), the number of rural inhabitants will continue to cause a reduction in average farm size. The Mulanje region is characterized by high poverty and food insecurity relative to other regions of Malawi. Subsistence agriculture is based on maize, sweet potato, and cassava.

Scope of Analysis and Assumptions

The analysis of baseline, GEF Alternative, and incremental costs is focused on the Mulanje Mountain forest reserve and communities largely within 4 km of the reserve boundary. Konstant (2000) found that communities within this distance were more active in resource exploitation than more distant communities. The benefits of biodiversity conservation within the forest reserve do extend further afield however. The best example is the ecological service benefits of water flows from the mountain, both to a wide geographic area in Malawi and extending into Mozambique. The analysis notes these benefits but the cost estimates are largely restricted to the forest reserve and bordering area.

The analysis considers the first three years of the project, that is Phase I, which will build local capacity of MMCT, undertake baseline surveys, develop a monitoring program, and implement priority projects related to biodiversity conservation. Phase II would simply establish an endowed trust fund to provide annual operating budgets for MMCT over time. Finally, the endowment of the trust fund is assumed to occur at the end of Year 3 so it can be included in the analysis.

Baseline Scenario

Trends in local biodiversity use and benefits without the GEF alternative

Biodiversity plays a central role in social and economic development in the Mulanje region. The commercial agriculture sector and a high proportion of subsistence agriculture are heavily dependent on nine major rivers and many smaller streams flowing from the massif headwaters. In the Phalombe district, there are more than 100 irrigation schemes within a 30 to 40 km radius from the mountain. Without the project, human encroachment into the surrounding miombo forest and onto the plateau itself will continue with an associated impact on the critical ecological service functions related to water supply. In the longer-term, declining water quality and quantity would have a serious negative impact on agriculture, particularly for the commercial tea and coffee plantations. Detailed records of water flows were not available, however anecdotal evidence from tea estate managers suggest that water flow from the massif is declining. Compounding the problem is that water is essentially a free resource; no tariffs are paid and thus no incentive exists to conserve.

Local communities surrounding the mountain are actively engaged in harvesting timber and non-timber forest products for subsistence consumption and commercial sale. Non-timber products include wild fruit, mushrooms, wild vegetables, medicinal plants, thatching grass, bamboo, grass brooms, palm leaves for furniture, honey, wood for carvings, small mammals, insects and fish. Most of the non-timber products originate in the miombo forest surrounding the base of the massif. Generally, most households living within two to four km of the massif harvest non-timber products from reserve and the bordering miombo forest. The contribution of these products to total household income could not be assessed from consultant reports completed during the preparation phase, however even small financial returns are important in a region characterized by high poverty. For example, the daily financial returns for firewood

Small-scale commercial lumber and wood for carvings are derived from scattered stands of Mulanje cedar, which are located on the plateau of the massif. In 1994, 43 percent of the 110,000 m³ of standing cedar volume was dead or dying. The volume of cedar presently being harvested is not precisely known, but estimates are as high as several thousand m³ per year. Licenses are presently issued to small-scale operators to harvest dead cedar, mainly for pit sawing on the plateau, with the lumber carried down by head-load. Much of the harvesting is unsupervised and can be destructive. Evidence suggests that some loggers ring-bark healthy trees in more accessible areas to cause mortality, thus allowing a permit to be issued for harvesting a "dead" tree. Without the project, the cedar resource could be exhausted over the next few decades. Rising scarcity values and poor regulation may combine to increase the pace of illegal harvesting.

Poles and firewood are harvested from approximately 5,000 ha of old, unmanaged pine and eucalyptus plantations on the plateau and lower slopes within the reserve. Managed plantations also exist outside the reserve within the tea estates. Much of the commercial harvest of pine and eucalyptus from the reserve is directed to the tea and coffee plantations for drying leaves. Without the project, the plantations will continue to be exploited; however their contribution to the unique biodiversity values in the reserve is minimal.

Tourism is presently a minor economic activity, with perhaps 1,000 visitors per year climbing the mountain for an average 3.5 nights per trip. Approximately 39 percent of visitors are from outside Malawi. The mountain attracts visitors from a small market segment, mainly those who enjoy hiking and rustic conditions. The present income generated is very low, mainly for guides, porters, and forest department fees. Existing services and infrastructure are in decline. Without the project, tourism won't increase as much as hoped, thus reducing potential opportunities for higher revenue generation.

Global biodiversity objectives and benefits without the GEF alternative

The global environmental objective is to improve the conservation of biological diversity and ecosystem management of the Mulanje Mountain region. This area is a center of endemism. The World Wildlife Fund has identified Mulanje Mountain as one of 20 global areas for the conservation of biodiversity. Due to the richness of its plant and animal life, it has also been included among UNESCO's 13 World Heritage Sites. The mountain also plays a critical ecological service function for international waters flowing into Mozambique. Finally, foreign tourists to Mulanje are expressing their preferences for global tourism values. In the absence of project interventions, continued encroachment and degradation of these global biodiversity values is likely to accelerate due to rapidly increasing population pressure, fire damage and the invasion of alien species.

Current conservation activities and expenditures-Government of Malawi

In the absence of GEF support, there are very few activities being undertaken in the Mulanje area to conserve its biodiversity. The Forestry Department is responsible for the management of the Mulanje

The baseline scenario includes Forest Department contributions towards salaries and allowances for forest guards; and operating costs related to cedar management and forest protection. The Forest Research Institute of Malawi, which is under the Forest Department, is responsible for research but little, if any biodiversity research is being undertaken at present. Information on Forest Department expenditures was available from the review of actual financial records, and detailed staff costs in the Mount Mulanje Management Plan. Based on these sources, estimated annual expenditures by the Forestry Department in the area are approximately MWK 25 million. Discussions with Department officials and MMCT suggest that one-third of this expenditure (US\$176,000) is directly related to biodiversity conservation as opposed to plantation management. Therefore, over Phase I, the total estimated baseline expenditure by the Forest Department is approximately US\$528,000. The Forest Department is presently developing a Statutory Forest Fund, designed to allow the Department to retain revenues from various fees and charges. The process would have the revenues sent to the parent Ministry in Lilongwe, with 20 percent directed to Ministry of Finance and some portion of the balance returned to Mulanje. Current revenues collected from local forestry activities are minimal but could increase if more effective rent capture is implemented, particularly for cedar. In terms of the GEF project structure, the Forest Department baseline costs are linked to Biodiversity Conservation, Research and Monitoring.

Current conservation activities and expenditures-donors

Information on donor programs and expenditures resulted from direct discussions with senior officials involved in each organizations.

At present, two development agencies (GTZ and Oxfam) are funding some activities in the Mulanje Mountain region, which are targeted towards natural resource management through community co-management. **GTZ** is undertaking a tree-planting project along the riverbanks to improve watershed management and soil conservation, at an estimated cost of US\$130,000 per year. These expenditures represent approximately 10 percent of a much larger rural food security program in the Mulanje region, located in villages quite a long distance from the forest reserve. The project is scheduled to end in 2003. The tree planting costs are directly related to biodiversity conservation in the forest reserve by extending ecological service benefits of water management. The larger program of food security is less relevant because of the distance of the villages from the forest reserve. As Konstant (2000) showed, villages that exploit the forest reserve are generally located within a few kilometers. **Oxfam** has a soil and water conservation initiative within a larger livelihood security program. The biodiversity conservation elements of the Oxfam program are two-fold in this case. First, the soil and water program will assist in water conservation as with the GTZ program. Secondly however, the program is presently expanding to villages located immediately along the southern boundary of the reserve who presently harvest forest products. This program will improve the sustainability of timber and non-timber forest products, particularly in the miombo forest on the reserve boundary. Estimated annual expenditures related to biodiversity conservation are US\$160,000. These will continue over the first phase of GEF support and beyond. In terms of the GEF project structure, all relevant costs from GTZ and Oxfam are linked to the Forest Co-Management and Livelihoods element in the baseline scenario.

Total baseline costs and benefits

Costs. The total cost of baseline investments of the Government of Malawi and the donor community, as described above, is estimated to be US\$1.27 million over the three years of Phase I.

Benefits. Implementation of the baseline case will result in limited protection from encroachment and unsustainable resource use, and most likely will not halt the decline in biodiversity within the forest reserve. Baseline activities are unlikely to ensure protection of globally significant biological resources, ecological services linked to watershed protection, and global tourism values.

GEF Alternative

Program structure

The project is designed to operate in two Phases; the first Phase (3 years) will build local capacity (particularly within MMCT), gather baseline biophysical information and develop a monitoring plan, and implement modest programs to address priority conservation issues. In the last year of Phase I, a major review will occur, and if evaluation criteria are met, the trust fund will be endowed to a level that will provide a sustainable income to MMCT in the order of US\$300,000 to US\$350,000. For the purpose of this analysis, a trust endowment of US\$5.50 million is assumed to occur at the end of Year 3. Phase II would use the annual return on trust fund investments to finance long-term biodiversity conservation programs in the forest reserve.

GEF alternative – costs and benefits

Costs. The total cost of the GEF Alternative is estimated at US\$8.02 million, detailed as follows; (i) trust fund administration - US\$0.58 million (*GEF financing – US\$ 0.58 million*); (ii) biodiversity conservation, research and monitoring - US\$ 0.94 million (*GEF financing – US\$ 0.40 million*); (iii) environmental education and communication - US\$0.14 million (*GEF financing – US\$ 0.14 million*); (iv) forest co-management and livelihoods - US\$0.86 million (*GEF financing - US\$ 0.13 million*); (v) Endowment Conservation Trust Fund - US\$5.5 million (*GEF financing - US\$ 5.5 million*).

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 Endowment Conservation Trust fund, will ensure long-term support to biodiversity conservation activities in the Mulanje Mountain area. Under the GEF Alternative, Malawi will strengthen the baseline scenario by; contributing to the conservation of the Afro-montane forest ecosystems; conserving rare and endangered species; maintaining watershed integrity and international water flows; improving tourism values; and building capacity of local communities to manage the massif's natural resources.

Co-Financing and Revenue Generation

The project has already benefited from a US\$300,000 PDF grant from GEF that was used to finance preparation costs. In addition, DFID contributed an additional US\$ 800,000 to help prepare a long-term strategy for the utilization and conservation of the Mulanje Mountain forest reserve and other project preparation and conservation activities. The long-term development strategy is based on a number of technical, economic, social and institutional studies. DFID has agreed to co-financing certain elements of the incremental cost, particularly those activities linked to forest co-management and livelihoods. The baseline contribution of current GTZ and Oxfam programs, primarily involved with food security, have already been discussed. Although the GTZ program will end in 2003, German technical advisors felt there was a high probability of further support.

Aside from donor baseline contributions and incremental cost co-financing, there are options for the GoM to increase revenues from the forest reserve. One obvious priority is water, which is currently used at zero rent by commercial agricultural producers and households in the wider Mulanje and Phalombe regions. The sustainable supply of high quality water is largely due to maintenance of biodiversity, particularly vegetation, on the massif plateau and its slopes. It seems reasonable that downstream users of water such as commercial tea plantations should contribute to the cost of maintaining the biodiversity within the forest reserve. Revenues can be generated through a simple environment tax on land under production, or a more complex approach based on estimated water consumption per ha.

There appears to be great scope for increasing revenues from the utilization of various timber and non-timber forest products from the reserve. While the Forest Department has statutory regulations governing permits and fees for many forest products, collection is sporadic and ineffective. Also, the rates themselves do not appear to have any economic basis. The various forest charges need to be comprehensively reviewed and revised to better reflect resource rents and Forest Department costs of monitoring and enforcement. Highly valuable products such as cedar could have harvesting rights auctioned, perhaps with preference given to local bidders to increase regional income.

Incremental Cost Matrix

Component Sector	Category	US\$ Million (actual)	Domestic Benefit	Global Benefit
Trust Fund Administration	Baseline	0.00	No capacity built to administer conservation programs	No capacity built to administer conservation programs
	With GEF Alternative	0.58	Capacity to administer Trust Fund which will finance long-term activities to conserve locally important biodiversity in Mulanje	Capacity to administer Trust Fund which will finance long-term activities to conserve globally important biodiversity in Mulanje
	Incremental	0.58		

Component Sector	Category	US\$ Million (actual)	Domestic Benefit	Global Benefit
Environmental Education and Communication	Baseline	0.00	Poor local and national awareness of biodiversity in Mulanje, contributing to unsustainable exploitation	Lack of awareness of global biodiversity values and partner contributions by international organizations and tourists to Mulanje
	With GEF Alternative	0.14	Increased national awareness of biodiversity conservation and participatory schemes for sustainable natural resource management in region	Increased awareness of global biodiversity values and partner contributions by international organizations and tourists to Mulanje
	Incremental	0.14		
Forest Co-Management and Livelihoods	Baseline	0.74	GTZ and Oxfam projects will continue to improve local food security and reduce pressure on reserve	
	With GEF Alternative	0.86	Greater involvement of communities bordering reserve in sustainable resource use programs	
	Incremental	0.12		
Conservation Trust Fund ^a	Baseline	0.00	Inadequate financial resources for biodiversity conservation in Mulanje	
	With GEF Alternative	5.5	Sustainable programs for local biodiversity conservation based on Trust Fund income	Conservation trust fund to finance activities to conserve globally important biodiversity
	Incremental	5.5		
Totals	Baseline	1.27		
	With GEF Alternative	8.02		
	Incremental	6.75		

^a Although the Trust Fund is listed as a separate component, it serves to finance (through interest income) the other components, in the second phase of the project.

Annex 5: Financial Summary

MALAWI: Mulanje Mt. Biodiversity Conservation Project

**Years Ending
December 31**

	IMPLEMENTATION PERIOD						
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
Total Financing Required							
Project Costs							
Investment Costs	0.3	0.1	5.6	0.0	0.0	0.0	0.0
Recurrent Costs	0.2	0.3	0.3	0.0	0.0	0.0	0.0
Total Project Costs	0.5	0.4	5.9	0.0	0.0	0.0	0.0
Total Financing	0.5	0.4	5.9	0.0	0.0	0.0	0.0
Financing							
IBRD/IDA	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Government	0.2	0.2	0.2	0.0	0.0	0.0	0.0
Central	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Provincial	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Co-financiers	0.2	0.2	0.2	0.0	0.0	0.0	0.0
User Fees/Beneficiaries	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Others	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Project Financing	0.4	0.4	0.4	0.0	0.0	0.0	0.0

Annex 6: Procurement and Disbursement Arrangements

MALAWI: Mulanje Mt. Biodiversity Conservation Project

Procurement

Table A: Project Costs by Procurement Arrangements
(US\$ million equivalent)

Expenditure Category	ICB	Procurement Method ¹		N.B.F.	Total Cost
		NCB	Other ²		
1. Works	0.00 (0.00)	0.05 (0.05)	0.01 (0.01)	0.00 (0.00)	0.06 (0.06)
2. Goods	0.00 (0.00)	0.00 (0.00)	0.06 (0.06)	0.00 (0.00)	0.06 (0.06)
3. Services (Specialist services & Training)	0.00 (0.00)	0.00 (0.00)	0.27 (0.27)	0.00 (0.00)	0.27 (0.27)
4. Vehicles	0.00 (0.00)	0.00 (0.00)	0.10 (0.10)	0.00 (0.00)	0.10 (0.10)
5. Recurrent Costs	0.00 (0.00)	0.00 (0.00)	0.76 (0.76)	0.00 (0.00)	0.76 (0.76)
6. Endowment Fund	0.00 (0.00)	0.00 (0.00)	5.50 (5.50)	0.00 (0.00)	5.50 (5.50)
Total	0.00 (0.00)	0.05 (0.05)	6.70 (6.70)	0.00 (0.00)	6.75 (6.75)

1/ Figures in parenthesis are the amounts to be financed by the Bank Grant. All costs include contingencies

2/ Includes civil works and goods to be procured through national shopping, consulting services, services of contracted staff of the project management office, training, technical assistance services, and incremental operating costs related to (i) managing the project, and (ii) re-lending project funds to local government units.

Table B: Thresholds for Procurement Methods and Prior Review¹

Expenditure Category	Contract Value Threshold (US\$ thousands)	Procurement Method	Contracts Subject to Prior Review (US\$ thousands)
1. Works	25	NCB	25
2. Goods	10	NSH	10
3. Services (Specialist Services & Training)	10	CQB	10

Overall Procurement Risk Assessment

Average

Frequency of procurement supervision missions proposed: One every 6 months (includes special procurement supervision for post-review/audits)

¹ Thresholds generally differ by country and project. Consult OD 11.04 "Review of Procurement Documentation" and contact the Regional Procurement Adviser for guidance.

Disbursement

Table C: Allocation of Grant Proceeds

Expenditure Category	Amount in US\$million	Financing Percentage
Civil Works	0.06	0.9
Vehicles	0.10	1.5
Equipment & Supplies	0.06	0.9
Specialist Services & Training	0.27	4.0
Recurrent Costs	0.76	11.3
Endowment Fund	5.50	82.8
Total Project Costs	6.75	

Annex 7: Project Processing Schedule

MALAWI: Mulanje Mt. Biodiversity Conservation Project

Project Schedule	Planned	Actual
Time taken to prepare the project (months)		42
First Bank mission (identification)	08/15/95	10/30/95
Appraisal mission departure	01/09/99	04/09/2000
Negotiations	1/25/2001	
Planned Date of Effectiveness	03/15/2001	

Prepared by:

Project Team (Bank and non-Bank staff),
coordinated by Nathalie W. Johnson (Team Leader) and Ella Hornsby (Program Assistant)

Preparation assistance:

GEF1 PPG, PHRD and DFID/UK

Bank staff who worked on the project included:

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John Wilson	Chairman, MMCT Technical Committee
Uche G. Mbanefo	Consultant, Sr. Financial Management Specialist
Ken Creighton	Consultant. Environmental Assessment

Annex 8: Documents in the Project File*

MALAWI: Mulanje Mt. Biodiversity Conservation Project

A. Project Implementation Plan

To be prepared as draft for Negotiations and in final form for Effectiveness.

B. Bank Staff Assessments

C. Other

Draft Trust Administration Manual

Mulanje Mt. Conservation Trust Constitution (MMCT)

Draft Reserve Management Plan

MOU between the Forest Department and MMCT

Sustainable Utilisation of the Mulanje Massif, ODA, December 1995

Recommendations on Investment Strategy and Financial Management of GEF-supported Endowment Fund for MMCT, Diane Osgood, March 8, 1996

Back-to-Office Report and Aide-Memoire of Project Appraisal, April 2000

*Including electronic files

Annex 9: Statement of Loans and Credits

MALAWI: Mulanje Mt. Biodiversity Conservation Project

				Original Amount in US\$ Millions			Difference between expected and actual disbursements ^a		
Project ID	FY	Borrower	Purpose	IBRD	IDA	Cancel.	Undisb.	Orig	Frm Rev'd
P001664	1997	Malawi	ENV. MANAGEMENT	0.00	12.40	0.00	8.39	1.24	0.00
P001648	1996	Malawi	FISCAL RESTR&DERE	0.00	112.20	0.00	0.57	-2.45	3.17
P001658	1991	Malawi	FISHERIES DEV.	0.00	8.80	0.00	0.64	0.83	0.13
P001657	1994	Malawi	INSTIT.DEV.II	0.00	22.60	0.00	6.40	7.05	0.00
P001636	1992	Malawi	LOCAL GOVT.	0.00	24.00	0.00	5.60	5.07	-0.67
P049599	1999	Malawi	MASAF II	0.00	66.00	0.00	59.96	26.98	0.00
P001667	1995	Malawi	NAT WATER DEV	0.00	79.20	0.00	31.76	23.18	0.00
P001646	1991	Malawi	PHN SECTOR CREDIT	0.00	55.50	0.00	7.55	9.91	0.00
P036038	1999	Malawi	POPULATION/FP PROJEC	0.00	5.00	0.00	4.38	2.53	0.00
P001662	1992	Malawi	POWER V	0.00	55.00	0.00	4.77	5.78	5.34
P042305	1996	Malawi	PRIMARY EDUCATION EM	0.00	22.50	0.00	0.57	2.39	0.00
P001666	1999	Malawi	ROAD MAIN. & REHAB	0.00	30.00	0.00	27.79	4.21	0.00
P001670	1998	Malawi	SECONDARY ED PROJECT	0.00	48.20	0.00	42.94	10.53	0.00
P001668	1996	Malawi	SOCIAL ACTION FUND	0.00	56.00	0.00	5.52	1.15	0.00
Total:				0.00	597.40	0.00	206.84	98.40	7.97

MALAWI
STATEMENT OF IFC's
Held and Disbursed Portfolio

In Millions US Dollars

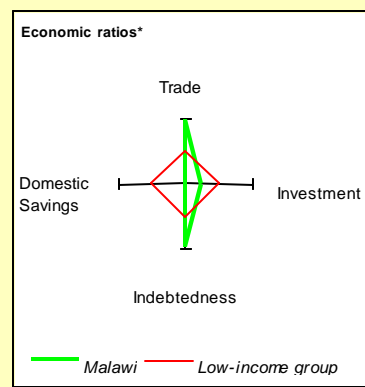
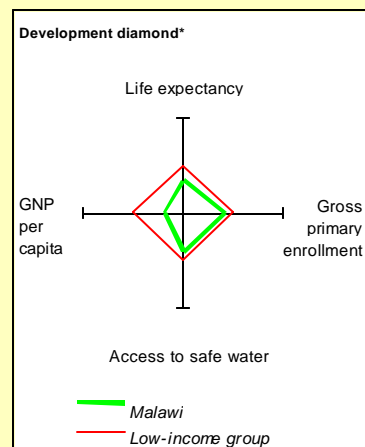
		Committed IFC				Disbursed IFC			
FY Approval	Company	Loan	Equity	Quasi	Partic	Loan	Equity	Quasi	Partic
1995	AEF Mal Stkbrkrs	0.00	0.11	0.00	0.00	0.00	0.11	0.00	0.00
1997	AEF Maravi	0.42	0.00	0.00	0.00	0.42	0.00	0.00	0.00
1996	AEF Mwaiwathu	0.00	0.81	0.00	0.00	0.00	0.81	0.00	0.00
1998	AEF Ufulu Garden	0.29	0.00	0.00	0.00	0.24	0.00	0.00	0.00
1986/90	LFCM	0.00	0.11	0.00	0.00	0.00	0.11	0.00	0.00
2028	NICO	0.00	1.04	0.00	0.00	0.00	1.04	0.00	0.00
Total Portfolio:		0.71	2.07	0.00	0.00	0.66	2.07	0.00	0.00

		Approvals Pending Commitment			
FY Approval	Company	Loan	Equity	Quasi	Partic
1999	AEF City Lodge	640.00	0.00	0.00	0.00
1998	HOFICO	0.00	0.00	300.00	0.00
1998	IDHM	0.00	0.00	500.00	0.00
	Total Pending Commitment:	640.00	0.00	800.00	0.00

Annex 10: Country at a Glance

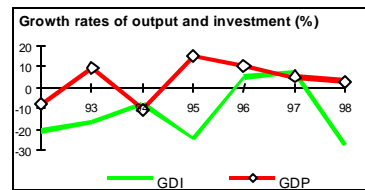
MALAWI: Mulanje Mt. Biodiversity Conservation Project

POVERTY and SOCIAL	Malawi	Sub-Saharan Africa	Low-income		
1998					
Population, mid-year (<i>millions</i>)	10.5	628	3,515		
GNP per capita (<i>Atlas method, US\$</i>)	200	480	520		
GNP (<i>Atlas method, US\$ billions</i>)	2.1	304	1,844		
Average annual growth, 1992-98					
Population (%)	2.6	2.6	1.7		
Labor force (%)	2.3	2.6	1.9		
Most recent estimate (latest year available, 1992-98)					
Poverty (<i>% of population below national poverty line</i>)	..	..	..
Urban population (<i>% of total population</i>)	15	33	31		
Life expectancy at birth (<i>years</i>)	43	51	63		
Infant mortality (<i>per 1,000 live births</i>)	133	91	69		
Child malnutrition (<i>% of children under 5</i>)	30	..	..
Access to safe water (<i>% of population</i>)	60	47	74		
Illiteracy (<i>% of population age 15+</i>)	42	42	32		
Gross primary enrollment (<i>% of school-age population</i>)	89	77	108		
Male	92	84	113		
Female	86	69	103		
KEY ECONOMIC RATIOS and LONG-TERM TRENDS					
	1977	1987	1997	1998	
GDP (<i>US\$ billions</i>)	0.8	1.2	2.5	1.7	
Gross domestic investment/GDP	24.7	15.7	12.3	13.7	
Exports of goods and services/GDP	30.0	25.9	24.3	32.5	
Gross domestic savings/GDP	20.1	13.3	2.1	0.7	
Gross national savings/GDP	20.1	13.3	-0.3	-3.4	
Current account balance/GDP	..	-5.2	-12.6	-17.1	
Interest payments/GDP	0.9	2.5	1.2	1.6	
Total debt/GDP	55.7	117.8	88.5	144.9	
Total debt service/exports	10.2	33.2	15.1	19.3	
Present value of debt/GDP	53.6	83.9	
Present value of debt/exports	215.1	246.1	
	1977-87	1988-98	1997	1998	1999-03
<i>(average annual growth)</i>					
GDP	2.2	3.7	5.1	3.1	5.9
GNP per capita	-0.9	0.9	2.5	0.4	3.3
Exports of goods and services	3.7	4.7	12.9	1.5	4.0



STRUCTURE of the ECONOMY

	1977	1987	1997	1998
<i>(% of GDP)</i>				
Agriculture	41.8	49.0	36.3	38.3
Industry	18.7	24.9	17.5	19.0
Manufacturing	11.7	16.8	13.6	14.8
Services	39.6	26.1	46.1	42.7
Private consumption	66.4	67.2	85.3	85.0
General government consumption	13.5	19.5	12.7	14.3
Imports of goods and services	34.6	28.3	34.5	45.6

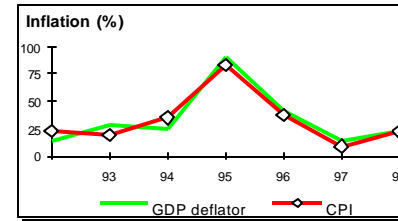


	1977-87	1988-98	1997	1998
<i>(average annual growth)</i>				
Exports of goods and services	3.7	4.7	12.9	1.5

	1977-87	1988-98	1997	1998
<i>(average annual growth)</i>				
Imports of goods and services	34.6	28.3	34.5	45.6

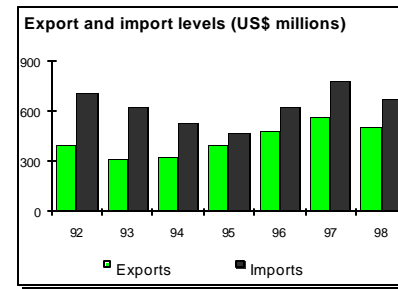
PRICES and GOVERNMENT FINANCE

	1977	1987	1997	1998
Domestic prices (% change)				
Consumer prices	..	25.2	9.1	22.1
Implicit GDP deflator	13.4	14.8	13.4	22.8
Government finance (% of GDP, includes current grants)				
Current revenue	10.1	22.8	16.1	22.5
Current budget balance	-1.8	-2.2	-5.1	-3.8
Overall surplus/deficit	-6.4	-10.7	-12.3	-6.3



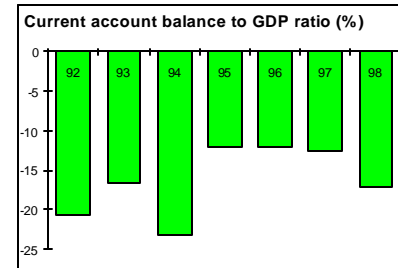
TRADE

	1977	1987	1997	1998
<i>(US\$ millions)</i>				
Total exports (fob)	..	278	567	509
Tobacco	..	173	331	270
Tea	..	28	69	63
Manufactures
Total imports (cif)	..	291	783	677
Food	..	2	33	29
Fuel and energy	..	40	79	71
Capital goods	..	82	340	285
Export price index (1995=100)		92	113	99
Import price index (1995=100)		76	93	84
Terms of trade (1995=100)		120	121	118



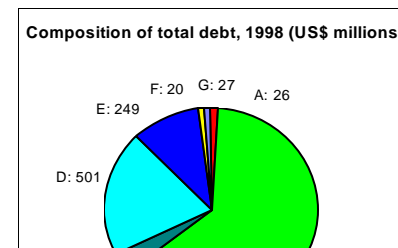
BALANCE of PAYMENTS

	1977	1987	1997	1998
<i>(US\$ millions)</i>				
Exports of goods and services	213	301	615	549
Imports of goods and services	300	324	872	769
Resource balance	-87	-23	-258	-220
Net income	..	-57	-41	-49
Net current transfers	..	..	-19	-20
Current account balance	..	-60	-318	-289
Financing items (net)	..	86	265	400
Changes in net reserves	-51	-26	53	-111
Memo:				
Reserves including gold (US\$ millions)	89	92	310	258
Conversion rate (DFC: local/US\$)	0.9	2.2	16.4	31.1



EXTERNAL DEBT and RESOURCE FLOWS

	1977	1987	1997	1998
<i>(US\$ millions)</i>				
Total debt outstanding and disbursed	449	1,367	2,229	2,446
IBRD	3	104	34	26
IDA	84	509	1,375	1,542
Total debt service	22	101	95	111
IBRD	0	14	8	13
IDA	1	5	18	21
Composition of net resource flows				
Official grants	..	..	83	157



Annex No.: 11

Technical Review

**GLOBAL ENVIRONMENT FACILITY TECHNICAL REVIEW
Mulanje Mountain Biodiversity Conservation Project**

STAP Reviewer: Kenton R. Miller, Ph. D.

Date: 5 March 1999

1. OVERALL IMPRESSION

This is a well-conceived and well-written project proposal. The target audience is clear. The model is simple and straightforward. The odds of success are very high. The GEF intervention is also very important for technical and scientific reasons, and for social priorities in the region.

2. RELEVANCE AND PRIORITY

The proposal is important because of the uniqueness of the biodiversity to be safeguarded and carefully utilized. It is clearly a priority area for action for the government, and it addresses priorities set by the CBD/COP.

3. BACKGROUND AND JUSTIFICATION

Generally, sufficient ecological, economic and social information has been provided to substantiate the proposal. The project appears to fit well within national priorities and commitments. Malawi has been very active in the CBD/COP including a special project with the Dutch on ecosystem management. This latter perhaps warrants mention in the document.

Clearly the biodiversity of the Mulanje Mountain is under threat, and without serious intervention, is doomed to become a totally domesticated landscape. Already the majority of the larger faunal species have disappeared. The vegetation, birdlife and other taxa are now facing extinction. Furthermore, the Department of Forestry lacks the resources to manage and protect the area.

4. SCIENTIFIC AND TECHNICAL SOUNDNESS

The proposal itself is sound. Clarifying the state of knowledge and methods for watershed management, habitat restoration, plant propagation,

planners may have in mind that this type of inquiry and research may take place once the project is implementation. In any case, it is not possible to judge from this proposal whether there is sufficient know-how and technical background to meet the objectives.

5. OBJECTIVES

The project development objectives are valid. The lack of direct reference to watershed protection, restoration, and management is curious, however. Perhaps that role is covered by another project. If so, mention should be made. Otherwise, the fact that nine rivers are born on the massif raises questions about management, and importantly, capturing rents from downstream water users to help upstream communities and the protected area agency defray their costs/share in the benefits.

6. ACTIVITIES

The division of implementation into three phases is important. During the preparatory phase, it might be helpful to explicit refer to the search for existing knowledge and methods for propagation of native plants, restoration of habitats, reintroduction of animal species, eradication of invasives, etc. I would also like to see a search for background on watershed management techniques, institutional arrangements and existing policies for rent capture.

Of particular interest is silvicultural and plant ecology background on the Cedar forest species. Apparently, the commercial use of this species, assuming proper management treatment and controls could serve as the economic backbone for local communities. Perhaps this is included implicitly in the third activity under Phase I.

The Conservation Trust Fund is a singularly important feature of this project. Waiting until Phase II to begin using Trust income is also valid, pending development of capacity, community arrangements and education.

Again, I would explicitly add watershed management activities in the program of work. While they are of national or baseline levels of work, they could help generate income to support the Trust, and strengthen justification for area conservation.

7. PARTICIPATORY ASPECTS

Early project preparation appears to have adequately involved relevant stakeholders. During implementation, the major effort of the project will be by and through stakeholders together with the Forest Department. The co-management activities promise to ensure equitable benefit sharing.

8. GLOBAL BENEFITS

The global community will benefit from the preservation of the biodiversity and unique ecosystems of the Mulanje massif. The proposal defends well these values and justification.

9. GEF STRATEGIES AND PLANS

The relationship of the project to the GEF Operational Strategy for Biodiversity Conservation, and specifically with its Mountain Ecosystem Operational Program, is clear and significant. The Project also aligns well with the program priorities (mountain) and provisions (conservation, sustainable use, equitable sharing of benefits) of the CBD.

10. REPLICABILITY

While mountain massifs vary ecologically, they are a frequent part of the African landscape. Typically, they are sources of stream flow, and provide sources of distinct plant and animal resources to people living in the lowlands. The model and practices developed by this project can serve other massif communities to launch their own programs of restoration and development. (see #15 below)

12. PROJECT FUNDING

Funding appears adequate for the proposed activities.

13. TIME FRAME

The time line is not clear. Apparently the preparatory phase will last from 18-24 months, and the entire project 7 years. But there are no other indicators of mileposts, outputs/unit time, or outcomes by dates in the future. These should be added before approval.

14. SECONDARY ISSUES

Some of the waters flowing from the massif flow into Mozambique, making this project relevant to the international waters focal area. Any work to improve agriculture with organic materials and techniques, and reforest degrading areas, also relate to Climate Change goals.

The design and management of the Trust are innovative features of this project.

15. ADDITIONAL COMMENTS

This is a well-conceived proposal. I urge the GEF to give it their full consideration.

The document could be strengthened by:

- Adding a time line, with mileposts, outposts and outcomes.
- Clarifying the status of knowledge and practice on the plants of the area, restoration, soils, invasives, etc.
- Making explicit tie to international waters and climate (through soil restoration work).
- Elaborating on watershed management as an objective, and add appropriate activities.
- And, elaborate more on developing and using the areas for demonstration and extension purposes. This is important and deserves

Annex No.: 12

Response to STAP Review

Background and Justification: The technical reviewer confirms that sufficient ecological and economic and social information has been provided to substantiate the proposal. He also states that the project fits well within the national priorities and commitments. The reviewer mentions a special project financed by the Dutch on *ecosystem management* and suggests that there is merit in including mention of this program in the project proposal. The World Bank project team and our Malawian counterpart are unfortunately not aware of this special program. We are seeking clarification on the program from the STAP reviewer and we will follow up with the Dutch to learn more about the program and its relevance to the proposed project.

Scientific and Technical Soundness: The STAP reviewer's view is that the proposal is scientifically and technically sound. He seeks clarification of the state of knowledge of methods for watershed management, habitat restoration, plant propagation, etc., as they relate to project implementation. These are of course critical issues in the management and conservation of the Mt. Mulanje Reserve. Comment on the state of knowledge of all these issues could not be accommodated in the PCD proposal, but this information will be included in the final Reserve Management Plan which is currently being drafted and will be finalized at the end of the project preparation phase. Any gaps in the state of knowledge of these critical issues will be addressed as a priority under the studies and monitoring component.

Activities: The reviewer suggested that more details on the opportunities for revenue generating schemes and the sources of alternative income generating activities should be provided. The details of the specific kinds of activities, which will be eligible for GEF support under this component, are being developed as part of the socioeconomic study now underway as part of project preparation. These details will be included in the Trust Administration Manual which spells out the basic operational rules and mechanisms.

The reviewer also suggested explicit watershed management activities be included in the program of work. Activities supported under the program which address watershed management include: establishment and rehabilitation of firebreaks; development and implementation of the conservation plan for cedar; implementation of a plan for alien species eradication.

Time Frame: The reviewer suggests that a time line be added which describes the project phasing, milestones and outcomes. While the outcomes have been incorporated in the Annex A logframe, we have added dates and indicators for the completion of Phase I and the start of Phase II in the text. A more detailed project implementation plan will be prepared in advanced project preparation which will detail the conditions of the phasing and the agreed bench marks for transition from preparation to Phase I and on to Phase II.

Secondary Issues: The reviewers suggests that the project is relevant to not only the biodiversity focal area but also the international waters and Climate Change goals. Evaluation into the additional

Annex No.: 13

Additional Biodiversity Information

Mulanje Mountain, located in south-eastern Malawi, lies between latitudes 15°50' -16°03' S and longitudes 35°30' -35°47' E. It extends over 640 sq. km. (64000 hectares) and its precipitous flanks rise from an average 700m to 3002m above sea level. It is the highest mountain in south-central Africa. The mountain is an area of afro-montane vegetation and has a large number of endemic flora and fauna species, many of which are endangered or threatened by extinction. The massif is completely surrounded by villages, small-scale cultivation, and tea estates. There is a marked difference in the annual geographic distribution of rainfall ranging from about 300mm in the rain shadow of the massif's southwest section to almost 3000mm on the Lichenya Plateau. Drainage is radial and the mountain serves as the source of headwaters for nine rivers.

The massif's dominant vegetation varies with altitude, relief, aspect, rock form, soils, and incidence of fire. It ranges from the **miombo** woodlands dominated by *Brachystegia* species at its base to afro-montane forest near its summit. An analysis of the predominant vegetation composition indicated that the afro-montane indicator species increase from 22% of total species in the lowland forest to 44% in the mid-altitude forest to 76% at altitudes between 1600m and 1950m on the upper slopes and plateaus. A fire-induced grassland dominates on the massifs plateaus, broken only by forested ravines and gullies.

The following six different plant communities exist on the mountain: (1) The High Altitude Zone (2400m to 3000m above sea level) which includes the endemic grass *Aloeachete oreogena*, *Aloe arborescense*, *Aloe mawii*, *Helichrysum whyteanum* (Whyte's Everlasting Sun Flower) and *Xerophytica splendens* (Stag Horn Lily); (2) The Plateau Grassland Zone (1800 to 2200m.a.s.l.) which contains many temperate species, including *Erica johnstonia* and *Morea schimperi* (Mulanje Iris) both of which are endemic; (3) The Montane Evergreen Forest Zone (1675 to 2500 m.a.s.l.) which is dominated by the *Widdringtonia cupressoides* (Mulanje Cedar, the National Tree) and *Olea capensis*; (4) The Mid-Altitude Evergreen Forest Zone (900 to 1500 m.a.s.l.) whose forests comprise *Newtonia buchananii*, *Chrysophllum gorungosum* and *Podocarpus* with a rich understorey; (5) The Relic Lowland Semi-Evergreen Forest Zone (600 to 950m.a.s.l.) which is dominated by *Khaya anthotheca*, *Adine microcephale* and *Newtonia buchananii*; and (6) The Closed Canopy Miombo Woodland Zone (700 to 900 m.a.s.l.) which is dominated by *Brachystegia* spp.

Mulanje Mountain is one of Africa's key sites for threatened bird species. Its forests are part of the Tanganyika-Nyasa Mountain Group Endemic Bird Area (EBA) which includes the mountains between southeastern Kenya and northern Mozambique, and support four of the 35 restricted-range bird species of the EBA. Three of the EBA species occurring in the mountain are the endangered Thyolo Alethe (*Alethe cholonsis*), the rare spotted ground-thrush (*Turdus fischeri*), and the white-winged Apalis (*Apalis chariessa*). The massif's habitat has 250 bird species, 41 of which are endemic. Mount Mulanje also has

The first published account of Mulanje' s vegetation was that of Alexander Whyte in 1891 whose collections include the Mulanje Cedar (*Widdringtonia cupressoides*) and two *Erica* species. There are over 600 species of vegetation, of which 41 are endemic non-flowering and flowering trees, shrubs, and herbs in the six different plant communities. Due to its high endemism, Mt. Mulanje was identified by the World Wildlife Fund as one of 20 areas in the world for the conservation of biodiversity. It was designated as an Afromontane Regional Centre of Endemism: CPD site AF64. As a result of Mulanje Mountain' s uniqueness as a special ecosystem of international importance, rich in plant and animal life, the massif has also been included among the World Heritage Sites as designated by UNESCO.

The timber and fuelwood plantations (making up only about 8% of the massif' s area) are managed according to the Forestry Department Planning Unit recommendations. Pine plantations were established on the Chambe plateau and Likhubula (575 ha), Fort Lister (657 ha), Muloza drift (1 298 ha) to produce timber. *Eucalyptus* plantations at Nanchidwa (2,800 ha) were established in 1980 under the World Bank Wood Energy Project around parts of the reserve boundary to provide fuelwood and poles and to stop encroachment. There are 40 licensed pine pit sawyers.

Annex No.: 14

**Letter of Country Endorsement
By Designated Operational Focal Point**

Telegrams: FINANCE, Lilongwe
Telephone: Lilongwe 782 199
Telex: 44407
Fax: 781 679

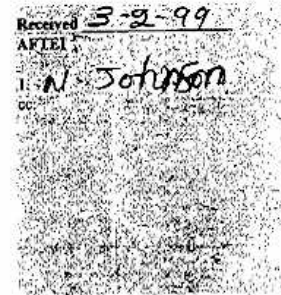


MINISTRY OF FINANCE
P.O. BOX 30049
LILONGWE 3
MALAWI

REF. NO.32/1/

2nd March, 1999

The World Bank
1818H Street N. W.;
Washington D. C. 20433
U.S.A.
(Attention : Ms. Cynthia Cook)



Dear Sir,

**MULANJE MOUNTAIN BIODIVERSITY CONSERVATION PROJECT(GEF -
PPG TF028356)**

As you are aware, the GEF/World Bank granted a sum of US\$300,000.00 as a Project Preparation Grant to prepare the above mentioned Project. The preparation process of the project has now been completed and requires GEF funding.

We wish to advise the Bank that the Government of Malawi supports the Project and would be grateful if the project could be financially supported by GEF through the Bank.

Your usual assistance will be greatly appreciated.

Yours Faithfully

A handwritten signature in dark ink, appearing to be 'M. M. Sibande', written over a horizontal line.

McCallum M. M. Sibande