Proposal for Review

Project Title:	Central African Republic: A Highly Decentralized Approach to Biodiversity Protection and Use: The Bangassou Dense Forest
GEF Focal Area:	Biodiversity
Country Eligibility:	Convention Ratified March 15, 1995
Total Project Costs:	$3.5 million
GEF Financing:	$2.5 million
Government Counterpart Financing of GEF Component:	$0.1
Cofinancing/Parallel Financing:	$0.9
Associated Project:	various
GEF Implementing Agency:	UNDP
Executing Agency:	To be determined
Local Counterpart Agency:	Ministère des Eaux, Forêt, Chasses, Pêches, Tourisme et de l'Environment (MEFCPTE); Government of CAR
Estimated Starting Date:	January 1, 1996
Project Duration:	Four Years
GEF Preparation Costs:	$15,000 (Pilot Phase & Admin costs Operational phase)

CENTRAL AFRICAN REPUBLIC: A HIGHLY DECENTRALIZED APPROACH TO BIODIVERSITY PROTECTION AND USE: THE BANGASSOU DENSE FOREST

COUNTRY/SECTOR BACKGROUND/CONTEXT

1. The Bangassou dense forest is a unique interface between Africa's Congo-Guinean and Sudano-Guinean domains, and also marks a transition between the continent's West Central and East Central biogeographical regions. Estimates of its area range between 9,500 km^2 (Pinglo 1988) and 16,600 km^2 (Doungoube 1991) - see map, attached;[1]. Bangassou has unusual ecosystem diversity by virtue of an extensive mosaic of primary and secondary semi- deciduous dense forests at varying stages of regeneration, and evergreen riparian forests and wetlands interspersed with islands of savanna habitat (Boulvert 1986).

2. Significant species richness is one result of these factors, and another is the presence of hybrid populations due to the mingling of subspecies. Bangassou has central Africa's northernmost population of common chimpanzees and endangered populations of wild dogs, and is a migration corridor for forest and savanna elephant sub-species. The area is also believed to be a refuge for large mammals fleeing intense poaching pressures in Sudan (pers. commun., R. Carroll; Fay 1991). Forest vegetation is found throughout the savanna communities, and forest and savanna fauna mingle extensively.

3. Land-use changes, late dry-season burning, indiscriminate hunting, and an apparent drying trend are placing pressure on the health of the Bangassou ecosystems. Pastoralists are reportedly moving herds into the Bangassou region for the first time in living memory, apparently as a result of deteriorating conditions in their customary lands to the north (pers. commun., M'Bringa-Takama). Yet despite these negative factors, the area remains relatively intact in comparison with other tropical forest zones.

4. The eastern half of C.A.R. is among the most remote regions of Africa. The human population in the proposed project area was below 1.4 persons per square kilometer (Ngounio-Gabia 1994). During the colonial era and the years immediately after independence, coffee plantations made Bangassou a minor economic and administrative center, but since the 1980's economic stagnation has been chronic. Plantations have declined due to the collapse of the agricultural marketing system and the advanced state of deterioration of the region's infrastructure, while some villages to the east have been abandoned because of cross-border raiding and related problems (Ngounio-Gabia 1994). With the exception of small-scale diamond mining in the Bakouma area, there is little economic activity to stimulate population growth. Commercial logging, which elsewhere has been invigorated by the recent CFA devaluation, remains impractical in isolated Bangassou.

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[1] information available from UNDP includes a map of the Bangassou region, a bibliography, and details of other environment projects in CAR.

5. Many government services have effectively ceased due to budgetary strangulation, including the management of protected areas and forest concessions. Recent political reforms and changes in economic policy have been positive developments, however, and the government is seeking cost-effective ways of protecting and managing the natural resource endowment. In October 1991, the Government of the C.A.R. published a major policy report, *Situation des Aires Protégées ou Proposées de la République Centrafricaine*. This document calls for the addition of several new sanctuaries and reserves (totalling over 2 million hectares), to incorporate ecosystems inadequately represented in the national protected area system. The plan also calls for the expansion of several existing sites, including the addition of multiple-use buffer zones, raising the total protected area system from 6.1 million hectares to 8.5 million hectares, a 34% increase. This plan will give the C.A.R. the highest percentage of national territory set aside for conservation within the central Africa region.

6. Since October 1993, the government has begun implementing a programme of decentralization and local empowerment together with down-scaling of the central administration. This provides an excellent opportunity to test innovative approaches which return control over natural resource use to the community level, together with sustainable methods for monitoring results and ensuring accountability.

7. Plans for a conservation project in Bangassou have been under development since 1991, based upon the concept of a multiple-use special forest reserve adjacent to a more strictly-managed national park. A Participatory Rural Appraisal (PRA) and rapid ecological assessment were conducted in Bangassou during March 1994, financed by the U.S. Fish and Wildlife Service (USFWS). This work will be followed-up by a more detailed ecological assessment and baseline data-collection effort, scheduled to begin during March - April 1995, also with funding from the USFWS. The field work will include transects to estimate chimpanzee and elephant populations, and to collect data on vegetation, terrain, soils, evidence of burning and other human impacts. This will provide a stronger basis for detailed project planning once the GEF has given its approval to the Bangassou proposal. The USFWS contribution toward planning of the Bangassou project has totalled $122,000 during the 1994 and 1995 fiscal years.

8. Following the PRA mission, the U.S. Peace Corps has placed four volunteers in Bangassou, carrying out agroforestry extension activities as a means of reducing the tendency of local villages to rely exclusively upon natural forest for such products as fuelwood and building materials. USAID has also met with UNDP and WWF to discuss Bangassou, which has been identified as a high-priority site under the planned regional USAID project "CARPE". USAID would work closely with UNDP/GEF to coordinate funding and technical inputs as well as policy-level coordination with other donors involved in the country's forest sector. Such coordination efforts would build upon the NEAP (National Environmental Action Plan) process, which UNDP strongly supports. USAID also plans to operate a small grants program for NGOs and community groups active in areas such as agroforestry, research on indigenous landraces of food crops, and environmental education.

9. The European ECOFAC program has produced airborne radar imagery of numerous forest sites in the region, including Ngoto forest, which is the location of an ECOFAC sustainable forestry project in the C.A.R. Some of the characteristics of Ngoto forest may have relevance to Bangassou,

and data and experience from the ECOFAC activity could prove useful at both the technical and management levels in implementing the proposed GEF project in Bangassou. Also, a forest ecologist who has worked in the ECOFAC project in Gabon, located in the Lopé-Okanda Reserve, is scheduled to participate in the March 1995 ecological baseline assessment in Bangassou.

10. The presence of such projects makes it important to establish effective and regular channels for coordination and planning. Together with the recent initiation of a National Environmental Action Plan (NEAP) process in C.A.R., this situation offers an opportunity to establish the Bangassou project in a well-defined context of land-use planning and environmental policy reforms.

PROJECT OBJECTIVES

11. The overall objective of this project is to protect and stabilize a key component of the tropical forest system of central Africa, by making hunting and other forms of resource use more sustainable, and controlling burning and other activities which inhibit natural forest regeneration, thereby protecting globally-significant biodiversity. Sub-objectives of the project are:

- To develop and test decentralized approaches to conservation which are sustainable in a context of economic and political uncertainty;
- To test methods of resource management and protection motivated by local community self-interest and executed through traditional authority structures rather than the formal administrative mechanisms of the state;
- To develop a framework for locally-controlled resource management and conservation, including appropriate forms of protected areas;
- To stimulate diversified economic activities in the project area in order to raise local incomes and provide alternatives to unsustainable resource exploitation, including activities such as forest crops, buffer zone crops, woody crops, and other means of increasing the economic value of sustainable use of the forest and wildlife resources;
- To strengthen recent environmental policy reform efforts with respect to land tenure and decentralization of authority for natural resource management; and
- To improve knowledge of the Bangassou dense forest and associated savanna - forest ecotones.

PROJECT DESCRIPTION

12. The strategy of this project is to test a highly-decentralized approach to natural resource management in protected areas, with extensive local participation in decision-making and accountability. Local leadership and traditional knowledge will be fundamental to the development

and implementation of resource management plans in Bangassou. The proposed GEF project will test the hypothesis that this knowledge can become an effective basis for a long-term shift in natural-resource management responsibility back to local levels, with better outcomes for biodiversity conservation than direct management by central government agencies. The government has committed itself to the conservation of the Bangassou Dense Forest zone which will become the second largest protected area system in the country. It has also accepted that primary responsibility for this venture must be taken up by local communities, sub-prefecture authorities, and NGO's. The GEF project would combine traditional resource management with effective modern techniques, rather than relying exclusively upon one or the other. The project will implement the following activities:

- Agreements with local communities to manage clearly-demarcated resource-use and protected zones, and effective mechanisms for local enforcement and control of exploitation;

- Modifications to the country's laws on tenure rights and access to natural resources, to provide a sound legal basis for local management, including procedures for mediation of disputes and clarification of roles of central and regional government agencies vis-à-vis local leadership;

- Protected Areas to preserve biodiversity, across a range of habitats from dense forest, through savanna woodlands, to wetlands, while at the same time assuring local communities' access to self-sustaining stocks of harvestable plants and animals for local use;

- Activities to protect and study forest regeneration in areas of anthropogenic savanna or abandoned farmland, for example through control of burning;

- Ecological inventory of the Bangassou dense forest and associated communities which determines the degree and distribution of endemic species and levels of biodiversity; and

- Research and education for continued inventory, monitoring, data-analysis and knowledge transfer, including such areas as ethnobotanical research and potential biodiversity prospecting.

13. The GEF project will negotiate agreements between the central government, sub-prefectures (Bangassou, Rafaï, and Bakouma), and community organizations such as the *Groupements d'Intérêts Ruraux* (GIR). This process will define the framework for local resource-management responsibility and for resolution of disputes, with full and effective participation by local communities, sub-prefectures, and the MEFCPTE. The NGO sector will play a vital role, including a major international conservation agency such as WWF, and national NGOs such as FOCSARENA, which has initiated dialogue with local residents on the proposed GEF project. The project will establish an experimental resource management approach, including communal resource-use zones and possible protected areas, in collaboration with the local communities which will be responsible to

manage these zones and guard the protected areas. Each community would be expected to control external encroachment, while regulating the forms and levels of resource use practiced by community members. The policing function of central government park wardens and forestry guards will be converted to one of monitoring and technical assistance for resource managers; enforcement will become primarily a local responsibility. The project will also initiate changes to the legal and tenure system needed to provide Bangassou communities explicit rights and responsibilities.

14. Baseline mapping and ecological inventory will be necessary because of the extreme scarcity of data concerning the Bangassou area. More data is needed on the biological diversity of the varied ecosystems of the Bangassou area, and on present and potential threats to its conservation. The ecological assessment scheduled for March - April 1995 provides a useful starting point for this work, which will directly influence the design and implementation of subsequent stages of the GEF project. Land-use planning and zoning will be introduced as the project develops.

15. Training will be an important activity in the GEF project. On-site training for project staff will be emphasized, although visits to other projects in C.A.R. , such as Ngoto and Dzanga-Sangha, would be included. Study tours to other parts of the region might also prove useful, for example to ECOFAC and/or GEF projects in Gabon, Congo, or Cameroon. Local residents will also benefit from training activities conducted by the Bangassou project; for example, collaboration between local herbalists and outside researchers has been effectively developed in other projects. The GEF project will use its training resources to build local capacities, as this will make many of its interventions more sustainable over the long-term.

RATIONALE FOR GEF FINANCING

16. This is a "Selected Preferential Project" in line with the GEF Operational Guidance for the 1995 Biodiversity work plan, and is also one of the programme priorities identified in the first Conference of the Parties to the Convention on Biological Diversity document on Policy, Strategy, Programme Priorities and Eligibility Criteria (December 1994).

17. The government of the CAR set forth its intention to extend its protected area network in 1991, and in 1993 Bangassou was formally added to its list of newly established protected areas. However, the government also recognized the limitations of "formal protection status" from a distant central administration and in 1993 commenced a major programme of decentralization. Bangassou is its first major test in the area of protected areas and biodiversity and as such, this project is accorded high priority by the government as part of its National Strategy for the Conservation of Natural Resources.

18. The project strategy is highly innovative and is a test case in Africa for such a highly decentralized approach to protected areas management. The project involves significant leverage, cofinancing and cooperation in terms of resources committed by other agencies and institutions including USAID, US Fish and Wildlife Service, and WWF. All of these have already committed significant resources to project development and are awaiting an indication of GEF commitment before finalizing their plans.

19. From a global biological diversity perspective the forests of the Zaire river basin contain globally significant biodiversity, which is increasingly threatened by commercial logging, shifting cultivation, road-building, mining, and other human activities. Present GEF support in the central Africa region has focused on areas already experiencing significant human impacts, notably commercial logging. In Bangassou, in contrast, it is possible to test innovative biodiversity conservation strategies in an area which has not yet experienced some of the threats faced by many other parts of the region. The proposed GEF project will help to stabilize and protect a key component of the northern edge of the central African tropical forest, using highly decentralized approaches which can be effective, accountable, and sustainable even in the absence of effective intervention from government agencies or external support. Without GEF support, the Bangassou ecosystems will continue to be degraded, risking the loss of unique ecosystems and biodiversity. Alternative proposals envisage investments in various forms of small and medium-scale enterprises within the region, but without specific measures to conserve the region's biodiversity.

20. In comparison with other major concentrations of tropical moist forest (i.e., the Amazon Basin, insular and mainland Southeast Asia) the central African forest has been little studied. Forest inventories in central Africa have typically been limited to species of commercial value, and wider ecological studies have been comparatively rare (BSP 1992). Remote areas such as Bangassou have, until fairly recently, been overlooked by scientists and conservation organizations, in spite of the fact that they may well be among the most important zones on the African continent with respect to biodiversity. The IUCN review of central African forests (1989) identified Bangassou as a priority site for conservation.

SUSTAINABILITY AND PARTICIPATION

21. The project will demonstrate biodiversity conservation methods more sustainable than those presently in use, which assume unrealistic levels of governmental intervention and work at cross-purposes with local resource users. The Bangassou project, by regulating resource use at the local level, has the potential to be more effective, sustainable, and participatory. Local livelihoods have become increasingly dependent upon hunting and subsistence agriculture, as well as fishing and collection of various wild products, as the region's coffee sector has deteriorated in recent years.

22. Sustainability of the project will be directly linked with development of effective mechanisms for participation. Three missions have taken place in Bangassou since 1993, and a fourth is due in March/April 1995. These missions have conducted extensive consultations with local communities, and initial project concepts have been substantially revised as a consequence of this dialogue. Local communities will exercise an unprecedented level of authority for management of resource use zones and protected areas under this project, and the national legal and policy framework will be revised to acknowledge and protect their new status.

23. The discussions with Bangassou-area communities have identified a number of issues which have affected the design and will influence implementation of this project. For example, the ecotourism potential of the region is called into question by the extreme isolation of many potentially interesting sites. It also appears that relatively little wildlife of interest to visitors is presently found

in the few areas accessible by vehicle. For these reasons, the establishment of a revenue-generating national park in the northern portion of the Bangassou forest may not be feasible until more information is available with which to assess wildlife populations and the threats they face. These and other issues need to be addressed through appropriate phasing of the Bangassou project. For example, the early stages of the project will build upon and expand the ecological and socio-economic baseline studies which have been initiated by the USFWS and WWF, and also begin putting into place basic agreements on resource-use authority and responsibilities among the central government, the prefectures, and local communities. As these efforts progress, it will become possible to better address issues such as land-use zoning and permissible modes of resource use.

LESSONS LEARNED AND TECHNICAL REVIEW

24. It is because of the failure of the "modern" resource management paradigm in central Africa - and the persistence of the traditional one - that the Bangassou project will focus on local communities and their leadership as the vehicle for conservation of the region's rich biodiversity. Conventional capacity building exercises, which focus upon improving the efficiency of state organisms, are insufficient, in part because of the severity of the economic crisis facing the country. Even in better economic times, conservation based upon the exercise of state authority had limited success. For these reasons the Bangassou project will build upon the more robust elements of African civil society and try to make these explicitly responsible - and accountable - for resource management.

25. Lessons will also be drawn from the various other conservation projects in CAR and the region (see section 1). All of these include significant training and capacity-building components, and establishing channels early-on for regional networking, information-sharing, and country-to-country study tours will be a valuable way of enhancing the aggregate impact of these initiatives. Policy-level consultations will be encouraged within the region, as GEF projects in neighboring countries offer an opportunity to initiate governmental contacts on a range of issues relevant to the conservation of biodiversity. These include such topics as common approaches to meeting national obligations under the Convention on Biological Diversity, policy reform issues related to the forest sector, land tenure, shifting agriculture, regulation of wildlife trade, common problems in control of cross-border trade in wildlife and timber, and a number of other important factors. As these projects proceed, the data and management experience they generate will represent an important resource which needs to be captured and made widely available.

26. Following STAP roster technical review in November 1994 this project has been extensively developed and rewritten, taking into account the recommendations of the technical reviewers as well as the results of the Participatory Rural Appraisals and discussions with government and community leaders. The technical reviews, by Gautier-Hion (Nov. 1994) and Harrison (Nov. 1994) focused particularly on the need for additional biological and socio-economic information, which has been added to the document. The same specialists have reviewed (Mar. 8, 1995) the modified proposal and further detail on the project activities and associated budget have been added to satisfy the concerns of Harrison. Further technical design will be carried out in consultation with the numerous

agencies and institutions involved in and co-sponsoring this project once an indication of GEF commitment is given.

PROJECT FINANCING AND BUDGET[2]

A. GEF Contribution - US$:

	Yr.1	Yr. 2	Yr. 3	Yr. 4	Total
1. Personnel					
a) national project manager	17,000	17,000	17,000	17,000	68,000
b) technical consultants	85,000	80,000	90,000	90,000	345,000
c) UN volunteers	30,000	60,000	60,000	75,000	225,000
d) DSS personnel	9,612	19,224	20,762	22,422	72,020
e) other staff	45,000	55,000	60,000	65,000	225,000
2. Operating costs	50,000	50,000	50,000	50,000	200,000
3. Subcontracts (evaluations, audits, other services)	75,000	75,000	100,000	100,000	350,000
4. Training					
a) travel	10,000	15,000	15,000	11,000	51,000
b) local training	56,000	56,000	56,000	56,000	224,000
c) materials and subsist.	39,000	40,000	41,000	42,000	162,000
5. Equipment (buildings, vehicles, computer, etc.)	11,6000	40,000	42,000	42,000	240,000
6. Support costs	28,761	25,361	27,588	28,521	110,231
SUBTOTAL	561,373	532,585	579,350	598,943	2,272,251
Contingency @ 10%	56,137	53,259	57,935	59,894	227,225
GEF TOTAL, US$	617,510	585,844	637,285	658,837	2,499,477

B. Government Contribution: CFA

1. Personnel	25,500,000	
2. Facilities & other support	11,940,000	
C.A.R. TOTAL	37,440,000	(= $72,000 at 520 CFA/$)

INCREMENTAL COSTS

27. At a global level the Bangassou area is a critical site for conservation attention. This is noted in the external technical review, dated November 1994, by A. Gautier-Hion: "*Bangassou Forest thus has a great significance for the flora and fauna history in Central Africa and it merits a high priority conservation status.*" However, the planning missions have emphasized the serious isolation of this

[2] the budget has been expanded in response to the technical review

region, calling into question income-generating activities which had initially been proposed (ecotourism, game ranching, etc.). While it would be attractive to consider such investments as contributions toward the long-term sustainability of conservation activities in Bangassou, the absence of markets and the area's extremely poor infrastructure pose serious handicaps which will not be easily overcome. Hence it is highly unlikely that the private sector or the government will make the necessary investments to halt this trend. Further, due to the difficult economic situation in CAR the government is unable to allocate sufficient resources for biodiversity conservation in general. Hence, the baseline is zero government investment and the incremental cost of this project is equal to the full project cost. Without GEF financing, the area will almost certainly continue the present trend of resource misuse and ecological degradation.

28. Bangassou will become the C.A.R.'s second-largest protected area, covering some 1.6 million hectares. This area will be managed under an innovative approach which minimizes reliance upon direct government administration and enforcement, instead strengthening and supporting local community responsibility and authority. In the long-term this will have substantial implications for reduction in recurrent costs of operation of a protected area system, while also improving the effectiveness of conservation. If successfully implemented, the Bangassou GEF project would be the most cost-effective protected area in the country.

ISSUES, ACTIONS AND RISKS

29. Revision of tenure policy and law is an important aspect of the proposed GEF project, which will help to draft a set of policy reforms to support and protect the integrity of local resource management. Without such measures, the long-standing presumption of central government supremacy poses a constant risk of arbitrary action and undermining of local authority. An experience of this type recently occurred when a logging concession was suddenly renewed in an area of the Dzanga-Sangha forest in which GTZ was negotiating a complete ban on timber harvesting. Coordination with other donors involved in policy reform in the forest sector will also be necessary (i.e. GTZ, World Bank, Coopération Française) to ensure that projects do not work at cross-purposes.

30. Another issue concerns local incentives for sustainable management and related topics such as interaction between local residents and others such as pastoralists or migrants. These matters involve complex questions of competing use rights and will require that the project undertake careful socio-economic and anthropological assessments. Failure to adequately understand existing use patterns, or to make provision for the needs of groups not necessarily represented in existing authority structures (i.e. pastoralists) could seriously undermine the project.

INSTITUTIONAL FRAMEWORK AND PROJECT IMPLEMENTATION

31. Primary collaboration will be between UNDP/GEF and the MEFCPTE, with a project oversight committee to be established in Bangui. UNDP/GEF's primary responsibilities will be to provide the financial support for the purchase of the proposed equipment, and for the costs of

consultants and researchers and other project running costs. This responsibility will include project back-stopping, logistical and administrative support, overall project monitoring, and donor coordination.

32. The project will also establish a local project advisory/consultation committee in Bangassou, providing a regular forum for consultation among the project's participants, including community organizations and local leaders. This body will provide feedback on project activities to project management, and will ensure that issues and disagreements concerning resource use and proposed interventions can be aired with full public participation. A project office will be established in the town of Bangassou in facilities provided by the MEFCPTE. Day-to-day responsibility for the project will rest with a national project manager. This office will coordinate the project activities, drawing upon the experience of a major international conservation organization, such as World Wildlife Fund, for ecological research and monitoring of the protected area system. It will work with regionally-based MEFCPTE personnel, the UNDP Sustainable Development Officer, and local communities to negotiate resource use agreements. The execution of these agreements will be the responsibility of the communities. The responsibility of the MEFCPTE and WWF will be to provide technical monitoring and to initiate corrective measures where problems arise.

33. Baseline data collected during the detailed project planning and in the early stages of the project will provide indicators which will be monitored over the course of the project. This will include items such as changes in the incidence and extent of fires, the incidence of wildlife poaching by non-residents, and population changes among selected indicator species. The project may also establish a set of ecological monitoring plots in order to better assess trends affecting Bangassou's vegetation. For example, the Missouri Botanical Garden has developed a relatively low-cost methodology based upon one-hectare botanical inventory plots which are subsequently used for monitoring project impacts on plant diversity, forest structure and dynamics. An appropriate and cost-effective technique of this type would be of great value not only for research, but also for assessment of project success and identification of problems.

TECHNICAL REVIEW

CENTRAL AFRICAN REPUBLIC: A HIGHLY DECENTRALIZED APPROACH TO BIODIVERSITY PROTECTION AND USE: THE BANGASSOU DENSE FOREST

1. Two technical reviews of the Bangassou proposal were prepared in November 1994. These reviews raised the following concerns:

- insufficient information on the present status of the Bangassou habitat and human population;
- inadequate emphasis given to the area's exceptional biogeopgrahical situation;
- insufficient discussion of threats to biodiversity;
- omission of explicit reference to the policy and legal context;
- insufficient information on the socio-economic context;
- lack of clarity and detail concerning outputs and activities; and
- the need for more detail in the project budget.

2. The project proposal was substantially revised in response to these points. Information generated by the Participatory Rural Appraisal and by the preliminary ecological reconnaissance was incorporated into the **Country/Sector/Background/Context** section. This material highlights the biological importance of the Bangassou region and briefly summarizes key aspects of the socio-economic situation and the threats to biodiversity in this region. The proposal now includes a phase of ecological assessment to precede demarcation of protected area boundaries (**Project Description**), as well as anthropological studies to better understand the role of pastoralist and other important socio-economic factors (**Sustainability and Participation**)

3. The description of project outputs and activities was also substantially revised and reorganized in response to the reviewer's comments. This material is found in the sections on **Project Objectives** and **Project Description.** Project interventions in the area of policy and legal framework have been more explicitly described, also in the section **Project Description.** Finally, the budget has been revised to show a greater level of detail (bearing in mind that the financial plan will be directly affected by the detailed project design stage as well as by agreements with co-sponsors and co-founders of the Bangassou project).

4. Copies of the November 1994 technical reviews are available form UNDP's GEF Unit, Regional Bureau for Africa. Following the revision of the Bangassou proposal, both reviewers provided a second assessment of the project brief; these are also available from UNDP. These reviews agreed that the current proposal has significantly addressed the earlier areas of concern, and noted that additional detail concerning budget, outputs, and activities should be a priority for the stage of detail concerning budget, outputs, and activities should be a priority for the stage of detailed project planning.

Proposal for Review

Project Title:	**Guatemala - Integrated Biodiversity Protection in the Sarstun-Motagua Region**
GEF Focal Area:	Biodiversity
Country Eligibility:	Convention Ratified February 21, 1995
Total Costs:	$ 9.7 million
GEF Funding:	$ 4.0 million
Country contribution:	$ 1.0 (cost-sharing)
Country contribution:	$ 2.0 million (in-kind)
Cofinancing:	$ 2.7
Implementing Agency:	UNDP
Executing Agency:	Government of Guatemala National Council for Protected Areas (CONAP)
Estimated Approval Date:	June 1995
Project Duration:	5 years
GEF Preparation Costs:	None (funded by Govt. of Guatemala and NGOs)

GUATEMALA - INTEGRATED BIODIVERSITY PROTECTION IN THE SARSTUN-MOTAGUA REGION

COUNTRY AND SECTOR BACKGROUND AND CONTEXT

1. In the Northeastern corner of Guatemala, bounded largely by the Sarstún and Motagua rivers, there is a biologically diverse region of 12,000 square kilometers which extends from the coast to the mountains. More than one third of this region comprises nine separate protected areas covering a total of 4,169 square kilometers with the remaining 7,800 square kilometers encompassing their buffer-zones and intermediate areas. The Sarstún-Motagua region surrounds Lake Izabal and the Bay of Amatique and contains a great range of ecological diversity with nine principle natural communities and five subcommunities. According to the Holdridge Life Zone classification system, the region includes tropical rain forests, subtropical rainforests, subtropical temperate humid forests, low montane rainforests, and tropical dry forests. The region also contains extensive tropical wetlands, fresh water lakes, mangroves, coastal zones and coral reefs. This heterogeneous region contains high levels of species endemism and contains various ecosystems whose biological resources have not yet been fully identified.

2. Containing one of the country's two UNESCO Biosphere Reserves, the Sarstún-Motagua region is one of the most biodiverse regions of a richly biodiverse country. Guatemala contains more than 8,000 of the 18 to 20,000 plant species in Central America and demonstrates high levels of endemicity. For example, out of the 527 orchid species in Guatemala, 57% of the taxa are endemic. Guatemala also contains the most diverse vertebrate fauna in Central America with 1453 species and 45 endemic species, the second highest level of vertebrate fauna endemicity in the region. Out of these species, there are 133 endangered species from freshwater ecosystems alone.

3. The Sarstún-Motagua region houses biodiversity which is important from a global perspective, as well as containing biological resources of significant economic value and potential; from forestry to tourism. The largest protected area within the region is the **Sierra de las Minas Biosphere Reserve** legally designated by UNESCO in February 1993 and currently in the process of being declared as a World Heritage Site. This reserve encompasses 236,300 hectares and contains some of the few pristine natural areas in Guatemala, including tropical cloud forests. This reserve provides habitat to a wide array of wildlife with several globally endangered species such as the quetzal (*Phaomacros moccino*), the jaguar (*Panthera onca*) and the tapir (*Tapirus bardaii*). Another area of ecological importance is the **Chocón-Machacas Biotope for the Protection of the Manatee.** This area covers 6,400 hectares along the banks of the Río Dulce and provides one of the only natural refuges for the manatee (*Trichechus manatus* L.) in Guatemala and one of the few in Central America. This area is also rich in bird life and is mostly comprised of wetlands, ranging from coastal areas to permanently flooded forests inland, as well as mangrove canals and estuarine lagoons. Among the other protected areas, Sarstún-Motagua also contains the **Punta de Manabique National Park.** This park of 38,400 hectares is one of the most important areas in Central America for several species of globally endangered marine turtles (*Dermochelys coriaceae, Eretmochelys imbricata, Caretta caretta,* and *Chelonia mydas*). Furthermore, the mangrove and flooded forest regions of this Park are the most extensive ecosystems of this type on Atlantic Coast of Guatemala. They provide habitat for the endangered Atlantic crocodile (*Crocodylus acutus*), manatees, tapir, and

for other endangered species. The other protected areas include: **The University Biotope Mario Dary Rivera** which contains cloud forests and critical habitats for the quetzal; **The Sarstún River Wildlife Refuge** which contains mangroves and other habitats for crocodiles, manatees and numerous birds; **The Sierra Santa Cruz Natural Monument Forest Reserve** with stretches of diverse tropical rainforest; **The Bocas del Polochic Refuge** which contains wetlands with endemic species and habitat for manatees along with freshwater sharks; **The Cerro San Gil Reserve** that includes highly endemic tropical forest; and the **Río Dulce National Park** which spans a region of great scenic beauty and diverse aquatic ecosystems containing manatees and crocodiles.

4. Guatemala and Central America as a whole suffers from the rapid destruction and fragmentation of natural ecosystems. This process leads to the loss of rare species and creates isolated patches of habitat which restrict migration and immigration and thus reduce the long-term viability of natural communities. In 1992, Guatemala contained 43,760 square kilometers of forests, covering 40% of the country. Deforestation is currently progressing at an annual rate of 2% or about 900 square kilometers per year.

5. As in many other parts of the country, the advancement of the agricultural frontier is a major threat to biodiversity in the Sarstún-Motagua region. The population of the region is about half a million people and 40% of the region is composed of private farms--of which more than 75% are devoted to annual crops. This region is a relatively poor area, with a 79% rural population, which is marginal within Guatemala's national development priorities. There is low access to credit and to agricultural extension services which could facilitate improved agricultural practices. This region has traditionally been subject to migrations from the kek'chi people who typically practice migratory slash-and-burn agriculture and between the 1950s to 1970s, the region attracted heavy immigration from other areas of the country due to initial infrastructure development. Given this population influx and the low level of economic development, the advancement of the agricultural frontier for short-term slash-and-burn cultivation and for the expansion of cattle pasture is currently threatening the nine protected areas of Sarstún-Motagua region. In addition to the communities living in buffer zones and adjacent areas, about 21,000 people currently live within the Sierra de Las Minas Biosphere reserve and at least 4,000 live inside the other protected areas. Spontaneous colonization and agricultural encroachment are leading to rapid deforestation and habitat loss within and around the protected areas. In addition, water and soil pollution and unsustainable extractive practices in terms of fishing, hunting, timber and other forest products are further degrading the region's biodiversity. On the Atlantic cost there is also currently rapid tourism expansion and the shipping centers and other population centers in the region contribute to mounting pressure on surrounding ecosystems.

6. In 1986 Congress passed the Law for Environmental Protection and Improvement which established the National Commission for the Environment (CONAMA) as the coordinating body for environmental policy in the country. In 1989, the Law of Protected Areas established the National Council of Protected Areas (CONAP) as the lead managerial and coordinating institution for the Guatemalan System of Protected Areas (SIGAP). SIGAP includes 156 protected areas. CONAP has delegated the administration of protected areas and the implementation of master plans for these areas to several governmental organizations, such as the General Department of Forests and Wildlife (DIGEBOS), the Center for Conservation Studies (CECON) at the University of San Carlos de

Guatemala, and to different non-governmental groups such as the Defenders of Nature Foundation, the Ecodevelopment and Conservation Foundation (FUNDAECO), and the Mario Dary Rivera Foundation (FUNDARY).

7. After the UNCED Conference, the government of Guatemala through the National Commission for the Environment (CONAMA) defined the government's policies and strategy for environment and development within four main areas for action: 1) institutional strengthening; 2) institutional coordination; 3) environmental awareness, and 4) linkage between national and international strategies. CONAMA also seeks to integrate all its activities related to environmental management with the work of civil society, including NGOs, community groups and the private sector.

8. The government of Guatemala signed and ratified the Convention on Biological Diversity and the Convention on International Trade in Endangered Species. Several Guatemalan protected areas have been categorized as World Heritage and as Biosphere Reserves. At the regional level, Guatemala supported the establishment of the Central American Commission for Environment and Development (CCAD), in which the country is represented by CONAMA.

9. Parallel to its efforts in the field of environmental protection, the Guatemalan government has embarked on a process of decentralization of the public administration. As part of this process, in 1987 the Law of the Council for Urban and Rural Development established National, Regional, and Municipal Development Councils and promoted citizen participation in the identification and development of environment and development initiatives. In addition, the Preliminary Regionalization Law promoted local decision-making, particularly through the establishment of social investment funds. To strengthen local government, the Guatemalan constitution has allocated 10% of the national budget to municipal councils. As part of this process, both CONAP and CONAMA have decentralized their activities and established regional offices, despite budgetary restrictions which have hindered their effectiveness.

10. The legal and decentralized institutional framework is in place for conservation and sustainable resource use in the Sarstún-Motagua region. For five of the protected areas, CONAP has assigned different governmental organizations and NGOs to develop and implement management plans. These organizations have a history of operating at a local level together with local communities in the region. Up to date, however, while five management plans have been prepared, the effective administration of these areas has been restricted by lack of financial resources and a fragmented approach with emphasis on strict conservation of the core areas. While some progress has been made in terms of working with local communities to promote conservation and sustainable biodiversity uses as well as increasing overall public awareness, funding has been unavailable for a strategy coordination among the different protected areas or for conservation in the buffer zones or surrounding areas. Resources are also lacking to develop a system of corridors that integrate the protected areas into an ecological whole. The individual protected areas are not likely to provide as much habitat protection for endangered species over the long-term without a network of interconnecting corridors, linking them with each other and with adjacent areas in Belize and Honduras. By maximizing the area of continuous habitat, a system of corridors could increase the long-term feasibility of maintaining biological diversity in the region.

11. The project strategy responds to national, subregional, regional, and global plans and policies. The CCAD, in 1994, developed a "Central American Strategy and Action Plan for Development and Environment" officially endorsed by all Central American governments. This strategy recommended the formation of integrated Conservation and Sustainable Development Regions. In addition, the Global Biodiversity Strategy, the 4th National Congress of National Parks, the Centroamerican Forum for Biodiversity, and the Strategy and Action Plan of CCAD, among other sources, all stress the need to improve the management of protected areas, and networks of different types of areas. In particular, they highlight the importance of integrating the management of protected areas with the sustainable use of natural resources in the surrounding areas.

PROJECT OBJECTIVES

Global Environmental Benefits and Objectives

12. The project will protect a wide array of threatened ecosystems containing globally important biodiversity by launching an integrated program for resource conservation and sustainable use in the Sarstún-Motagua region, focusing on the management of the nine protected areas. The project is based upon the premise that programs for biological conservation must include the promotion of sustainable economic uses of biological resources by communities living in and around the protected areas. The project aims to reduce biodiversity loss due to the unsustainable patterns of agricultural expansion and the overextraction of biological resources by local populations. The project will be designed and implemented with community participation through a joint partnership of decentralized governmental and non-governmental organizations with a long history of work with local communities. The project will improve the management of the nine protected areas and will define and promote sustainable economic uses of biological resources by local populations in the protected areas, their buffer zones, and in key inter-areas. Several key inter-areas will be strategically selected to target communities which are currently dependent on the protected areas or on the potential biological corridors; communities will also be considered which seem likely in the future to encroach on or otherwise threaten the protected areas. This will be achieved through the following interrelated objectives:

Specific Project Objectives

13. **Objective 1: Integrated planning and management for the nine protected areas.** The project will design and implement an integrated and decentralized system for the management of the nine protected areas in the Sarstún-Motagua region coordinated by CONAP, NGOs, and municipal and departmental governments, with the involvement of local communities. The management plans will be coordinated with each other, and will promote sustainable biodiversity uses by local communities. The project aims to develop management strategies for all nine areas in a participatory manner, employing sound scientific information regarding biodiversity and its potential for sustainable use. This process will entail the coordinated design of plans for each protected area as well as the initial identification and planning for a network of biological corridors to connect the nine areas and link them to the Central American Biological Corridor.

14. **Objective 2: Development of economic strategies for sustainable use of biological resources by human population within the protected areas, their buffer zones, and key inter-areas.** Traditional resource use practices have led to continuing poverty and decreasing environmental quality in the Sarstún-Motagua region. The project will work with local communities to identify and implement a range of specific income-generating activities based upon the sustainable use of biological resources, including a programme for ecotourism and scientific tourism. In addition, the project will develop and launch a series of economically viable small-scale enterprises, including non-traditional value-added agricultural and agroforestry products, based upon the sustainable extraction and production of biological resources.

15. **Objective 3: Strengthen capacities of local government, NGOs, and communities to establish a financially sustainable management structure for the conservation and sustainable use of biological resources in the nine protected areas.** While the legal and institutional structures are in place for decentralized resource management, local organizations lack the necessary capacities to implement integrated biodiversity conservation in the Sarstún-Motagua region. Project activities will aim at strengthening the capacities of a wide range of groups, including NGOs and community groups, biodiversity management and conservation on a self-financing basis. This will include promoting a dialogue between communities, municipal governments, and Departmental Development Councils on how to best achieve the sustainable use of biological resources. The project will also support general awareness regarding the values and uses of biodiversity in the reserves, buffer zones, and key-inter areas.

PROJECT DESCRIPTION

16. **Objective 1: Planning for integrated biodiversity conservation in the nine protected areas.**

1.1) Design master plans for the four protected areas which do not yet have them and update the plans for the five areas which currently have them. The plans will be prepared by the NGO or government organization designated to implement the plan in each area together with municipal and departmental governments and the local communities living in and around the protected area. The different organizations working in each area will compare plans and share experiences with each other to avoid duplication, facilitate joint planning on similar issues, and draw on each others' particular resources and capacities.

1.2) Assessment of main community types and main species of vascular plans and vertebrates in the nine protected areas based upon existing information and rapid ecological assessments.

1.3) Identification, design, and feasibility plans for biological corridors to interconnect the nine protected areas and to link these with the larger Central American corridor. If possible, the plans for the corridors will be integrated with the plans for the protected areas.

1.4) The project will develop and conduct a program for ecological-economic zoning to establish tools for integrated biodiversity planning around the nine protected areas.

1.5) Develop a program to restore key ecosystems in and around the protected areas, together with a program for forest fire control with local communities, NGOs and local government.

1.6) Establish a program for long-term biodiversity identification including classification of species according to current or potential economic uses. Partnerships will be sought with both domestic and foreign institutions. Traditional uses and ethnobotanical knowledge will be researched along with possible new methods to sustainably use biological resources.

17. **Objective 2: Development of economic strategies for sustainable biodiversity use in the protected areas, their buffer zones and key inter-areas.**

2.1) Work with local communities to jointly implement sustainable biodiversity use projects financed through traditional mechanisms, such as bank loans and credit.

2.2) Explore, and if possible establish, innovative financial mechanisms, such as "eco-labelling" (the ecological certification of local products) and a Heritage Fund for the Sarstún-Motagua region, to provide self-sustaining sources of funds for conservation. Revolving funds will be established and managed by cooperative associations and local communities to finance productive activities and micro-enterprises.

2.3) Establish a Geographic Information System (GIS) using the information from the ecological-economic zoning to identify different agro-ecological regions and their potential productive uses.

2.4) Implement pilot programs, including training of local farmers, such as agroforestry plots and the production of value-added non-traditional commercial products including non-timber forest products, to provide economic alternatives to currently unsustainable methods of agriculture and natural resource use. Other experiences in this field will be reviewed and the commercial possibilities for different products from the region will be evaluated in light of the ecological zoning. Feasibility studies will be conducted for a set of the most promising products to identify production technologies, storage and transport needs, national and international markets, and financing possibilities.

2.5) Design of plans for scientific tourism and eco-tourism which provide benefits to local communities derived from biological conservation and which provide funds to support the on-going management of the protected areas.

18. **Objective 3: Capacity-building for self-financing conservation and sustainable use of biodiversity in the nine protected areas.**

3.1) Organization of consultative forums for each of the nine protected areas and their adjacent communities on biodiversity use and conservation. These consultations will involve community groups, NGOs, Municipal Environment and Development Commissions, Departmental Development Councils, and representatives from the private sector. In addition, the project will ensure the participation of all these groups in protected area

planning and the generation and analysis of information from the ecological-economic zoning activities.

3.2) Provide technical training and assistance to the Municipal Environment Councils and the Municipal Development councils to strengthen their capacities to participate in the design and implementation of biodiversity conservation and sustainable use programs in the nine protected areas, their buffer zones, and key inter-areas.

3.3) Develop a community-level training program for youth in the value and sustainable use of local biodiversity.

3.4) Design and implement a curriculum for primary schools in the communities within the nine protected areas, their buffer zones, and key inter-areas to improve the current environmental curriculum with information about the value and use of local biodiversity.

3.5) Review of legislative and administrative arrangements and processes regarding the conservation and use of biological diversity to promote mechanisms, such as environmental impact assessments, which will ensure biological conservation and sustainable resource use over the long term.

3.6) Disseminate results at national and international levels to share lessons for other protected areas and organize donor round tables and consultations to mobilize new resources from domestic and foreign sources.

RATIONALE FOR GEF FINANCING

19. This project falls within the mandate of the GEF to contribute to the protection of globally endangered biological diversity. The nine protected areas of the Sarstun-Motagua region and their surrounding areas contains a diverse matrix of ecosystems--including dry, humid, and very humid forests, wetlands, mangroves, coastal zones, and coral reefs--which provide critical habitat for a wide range of endangered species such as jaguars, manatees, marine turtles, and quetzals. On a regional scale, this project will help to integrate the protected areas in the Sarstún-Motagua region with protected areas on the frontier with Belize to the North (the Temash-Sarstoon Wildlife Sanctuary) and Honduras to the south (the Cusuco National Park and the proposed Barra del Rio Motagua National Park). In this way, this project will further the integrated protection of biodiversity along the length of the Meso-American Biological Corridor extending into Mexico.

20. This project falls under the *Guidance for Programming GEF Resources for 1995* "to promote conservation through protection, management, and sustainable use of biodiversity and its elements," in accordance with the Biodiversity Convention (CBD), especially in terms of capacity building, training, research, development of strategies, and information dissemination. This project also falls under the scope of Article 6 of the CBD which calls for the development of programs for the sustainable use of biodiversity resources. Article 8, moreover, calls for the promotion of sustainable development in communities adjacent to protected areas so as to further their protection.

21. The project will also provide a model for a participatory and integrated approach to the conservation and sustainable use of biodiversity resources. Lessons and experiences from various components of this project will be valuable for the development of protected area plans and the management of biological resources in other parts of Guatemala, the broader region, and the world.

SUSTAINABILITY AND PARTICIPATION

22. This project proposal resulted from an extensive series of consultations and workshops at local and national levels involving national and local government organizations, NGOs, and local community representatives. Through this participatory process, which included two broad-based workshops, the project proposal was identified, formulated and officially endorsed by representatives from fifty-two different groups from around the country. The project's objectives and activities stress the development of a participatory process and recognize that the involvement of local communities is a fundamental pillar of integrated biodiversity conservation. The project activities are designed to involve community groups in the management of the protected areas and to strengthen the capacities of local organizations to participate in the process of conservation planning and implementation.

LESSONS LEARNED AND TECHNICAL REVIEWS

23. Based upon the review of this project proposal by an expert from the STAP Roster, CONAP and the project partners revised their original proposal. These participating agencies held a follow-up workshop with national and local government organizations, NGOs, and local stakeholders to discuss the revision and to secure their involvement and endorsement.

PROJECT FINANCING AND BUDGET

24. The total cost of the project is **$9.7 million**. The GEF contribution to the project amounts to **$4.0** million. In-kind contributions from the Guatemalan Government and the NGO community total **$ 2.0 million**. **$1 million** in cost-sharing has been secured, and **$2.7 million** in co-financing are being actively pursued. A detailed break-down of project costs by objectives and projected outputs is provided below:

PROJECT BUDGET*

Objective 1:	**US$**
Output # 1	2,500,000
Output # 2	340,000
Output # 3	550,000
Output # 4	600,000
Output # 5	240,000
Output # 6	300,000

TOTAL:	4,530,000
Objective 2:	
Output # 1	510,000
Output # 2	915,000
Output # 3	400,000
Output # 4	670,000
Output # 5	200,000
TOTAL:	2,695,000
Objective 3:	
Output # 1	150,000
Output # 2	50,000
Output # 3	50,000
Output # 4	100,000
Output # 5	75,000
Output # 6	50,000
TOTAL:	475,000
Total Project Cost	7,700.000

* This budget does not include in-kind contributions.

INCREMENTAL COSTS

25. All the costs associated with achieving the global benefits described in this project can be considered incremental. Until now conventional assistance to the region has come from international donors, NGOs, and foundations which have provided government and NGOs with assistance for specific projects in and around the individual protected areas of the Sarstún-Motagua region. This assistance, while significant and haing laid the groundwork and foundation for this project, has been mostly channelled toward the acquisition of new lands to be added to the protected areas, (particularly Sierra de las Minas), demarcation and zoning of core areas, and preliminary agricultural extension assistance. While the overall priorities and legal framework are in place for biodiversity conservation, the Guatemalan government does not have sufficient resources to implement a long-term program for conservation which promotes the sustainable use of biological resources by local communities. As a result, full GEF assistance is necessary to protect the unique biodiversity of the protected areas of the Sarstún-Motagua region. Without GEF funds, national and international funding will not fill the gap, and the protected areas will remain subject to increasing encroachment and unsustainable exploitation.

ISSUES, ACTIONS AND RISKS

26. The attainment of project objectives rests on the on-going participation, involvement and input of stakeholders in all stages of project implementation. As such the project will need to establish

the appropriate mechanisms to effect this, including conflict resolution mechanisms, while at the same time providing the technical assistance required for the sustainability of project objectives. While the change in national and local government personnel may present a risk in terms of continuity, this risk is addressed by the important role accorded to NGOs and local resource users.

INSTITUTIONAL FRAMEWORK AND PROJECT IMPLEMENTATION

27. The project will be implemented by a partnership of decentralized government agencies and non-governmental organizations, working in close collaboration with municipal and departmental governments, and with community groups. This decentralized framework provides a rare opportunity for local communities to participate in the development of an integrated strategy for the management of the region. Each protected area will be managed by an NGO or government agency particularly designated for that area. CONAP has already assigned a different institution, mostly NGOs, to manage each of five of the protected areas. In terms of government organizations, the General Directorate of Forest and Wildlife (DIGEBOS) is managing the Río Dulce Park while by the Center for Conservation Studies (CECON) of the University of San Carlos de Guatemala is managing the Biotope for the Protection of the Quetzal. In terms of NGOs, the Mario Dary Rivera Foundation (FUNDARY) is managing the Chocon-Machacas Biotope for the Protection of the Manatee while the Defenders of Nature Foundation is managing the large Sierra de la Minas Biosphere Reserve. The Cerro San Gil is also managed by an NGO, the Ecodevelopment and Conservation Foundation (FUNDAECO).

28. These five groups are all locally based and have a history of working with the local communities. The will continue to manage their respective areas. Lead organizations for the management of each of the four other protected areas will be selected through a competitive process by a committee jointly led by CONAP and UNDP giving preference to locally-based organizations with a history of community work and support.

29. To coordinate project activities, a Coordinating Council for the Sarstún-Motagua Region will be established with the participation of CONAP as executing agency, along DIGEBOS, CECON; and the various NGOs which will be responsible for implementing management activities in the protected areas. These NGOs will include the Defenders of Nature Foundation, FUNDAECO, and FUNDARY. The Coordinating Council will also include other organizations designated to manage the protected areas along with representatives from the local development and environmental councils and local community groups. This Coordinating Council will be responsible for developing conflict resolution mechanisms to ensure stakeholder consensus regarding project activities.

Project Monitoring and Evaluation

30. In addition to standard UNDP monitoring and evaluation procedures, a special panel of independent high level experts will be identified to provide, at key moments in project implementation, substantive technical support in the different areas addressed by the project (i.e. ecosystem and protected area management, participation methodologies, legislative and regulatory reform, financial and economic instruments to ensure financial sustainability). Systematic feedback of project stakeholders will also be ensured by holding regular meetings in which the project's operational strategy and workplan will be reviewed and agreed upon.

TECHNICAL REVIEW

GUATEMALA: INTEGRATED BIODIVERSITY PROTECTION IN THE SARSTUN-MOTAGUA REGION

SUMMARY:

1. The Sartún-Motagua Region is a unit of component elements that together represent one of the most significant remaining areas of biological diversity in Central America. It covers species in a full range of habitats from one of the most humid to one of the driest areas on the isthmus. There are many important endemic species of flora and fauna and the region is vitally important to migratory birds. This is an excellent opportunity for GEF and UNDP to assist NGOs and government in their efforts to conserve one of the few remaining biological jewels of Central America. Unless a coordinated effort is made to conserve this area soon, it will succumb to the pressures now operating along its edges.

2. From an economic point of view, over 60 rivers and streams originate in the high mountain forests of the Sierra de las Minas alone. This "water factory" supports subsistence and commercial agriculture, entire municipalities and industries. Seeds from species of conifers found only in the Sierra de las Minas have proven to be some of the most valued for use in reforestation programs worldwide.

3. The project design is innovative and exciting. The proposal does an excellent job of balancing the need to address human needs while seeking to conserve and protect threatened natural areas. It takes into account the needs of previously marginalized sectors of society, including indigenous groups, and promotes their active participation in the implementation of the project. The proposal builds on existing initiatives and relationships in order to decentralize protected areas management. The document demonstrates that the project was developed through a consultative process that bodes well for the groups working together to implement the project and achieve its many goals.

4. In my judgement, the project is feasible as described, particularly if part of the funding goes directly to NGOs without passing through government (along the lines of the Philippine GEF project). I question whether the amount of funding budgeted ($7.7 million) is sufficient to cover all the project goals.

5. This area has enjoyed strong commitments from government and local and international NGOs for quite some time, and there are no signs that interest in the area is subsiding. A commitment by GEF and UNDP would enhance the long-term biological and social security of the region by supporting the decentralization of protected areas management and bringing an overarching linkage between activities.

Detailed Comments:

Relevance to biodiversity issues:

6. **Global:** As described in the project document, the project contributes to the conservation of biodiversity of global importance. The Sarstún-Motagua zone covers wide range of habitat that are home to many endemic species of flora and fauna. This is where the North American and Caribbean tectonic plates converge, and because of this, it is a zone where there is a wide variety of plants and animals from both South and North America. By far the treasures of the proposed project is the Sierra de las Minas, a unique and sizable stretch of mountains and forest. In the Sierra de las Minas (the largest intact protected area in the region), seven genera and 17 species of conifers are found. Seeds from this area are some of the most valued for reforestation and timber plantations projects around the world. The Sierra de las Minas is also one of the most extensive and secure quetzal (Pharomacros mocinno mocinno) habitats left in the world.

7. Of addition significance, the Sarstún-Motagua zone contains some exceptional and relatively pristine examples of a wide variety of globally threatened ecosystems ranging from marine and wetland to lowland forest and montane cloud forest habitats.

8. **Regional:** The project will complement conservation sites in Belize, Mexico and Honduras. Protection of such a large continuously forested area such a the Sierra de las Minas will help ameliorate local and regional climate change that has already been observed in some part of Guatemala. The marine and coastal portion of the project is extremely important for the conservation of marine turtles.

9. The Sarstún-Motagua region is important for the habitat it provides to migratory birds. The Bocas del Polochic wetlands and the Sierra des las Minas mountain range are particularly important in this regard.

10. **Local:** The Sarstún-Motagua Conservation Region will complement other conservation activities in Guatemala. The unique habitats found in the zone - ranging from the most humid to the driest in all of Central America - complete the representation of ecosystems not covered by the expanse of lowland tropical forest being protected in the northern province of the Petén. Conservation of this area is particularly important as it comes under increasing threat from subsistence and commercial pressures.

11. The Sierra de las Minas is the source for most of the water that flows int the Polochic and Montagua reivers; 62 rivers and streams flow from this mountain range alone. these waterways are the primary source of drinking water, irrigation, and industrial use for most of southeastern Guatemala. Ensuring this supply of water is essential to agricultural and livestock productivity and human existence in the zone. In addition, the waters of the Polochic river are the main source for the Bocas del Polochic wetlands, Lake Izabal, and the Río Dulce river.

12. The Sarstún-Motagua is home to many groups of indigenous peoples as well as ladino populations. From the Biotopo el Quetzal, along the Polochic river, across Lake Izabal and down the Río Dulce river, mostly Q'eqchí people are found. As the proposal notes, may Q'eqchí are semi-nomadic and, traditionally, have not enjoyed legal land tenure security. By involving the Q'eqchí

directly in the project, and addressing disparities in land tenure, the project has a very good chance of stabilizing the agricultural frontier and reducing habitat fragmentation in the region.

Adequacy of design:

13. The design is innovative and represents a significant shift in the way protected areas are managed in Guatemala. It decentralizes administrative authority and control, with local NGOs and governments playing an active role in the execution of the project.

14. Another extremely important aspect of the design is that it very carefully builds on existing institutional experience and capacities in the zone. It does not force some new and untested scheme that will disrupt the successful activities that are already taking place in the area. Organizations like CECON, Defensores de la Naturaleza and FUNDAECO have worked successfully for years in the region. Their involvement in the project and experience in protected areas management in this extremely complex zone will greatly increase the likelihood that RECOSMO will be successful. The participatory nature of the design and execution of the project is also notable.

15. Of particular importance is the initial investment to sort out issues related to land tenure. This subject presents serious problems throughout Guatemala, but it is especially apparent in the Sarstún-Motagua region. Especially in the mountain areas along the Polochic and around Cerro San Gil, tenure is ill-defined and once steps are taken to resolve this issue, more effective land-use planning and protected area management will be possible.

16. Another innovative aspect of the proposal is the inclusion of a significant level of funding for the establishment of trust and revolving funds. They will provide the long-term access to capital that is crucial for the success of the community development activities of the project.

17. The comprehensive program combines the necessary elements for conservation and development: protected areas management; environmental and informal education; training, workshops and seminars; market development; and research. The market development component is a particularly important addition to the usual set of components.

18. Although not explicitly stated in the proposal, it can be inferred that monies earmarked for the "Implementing Agencies" will be dispersed directly from UNDP to each group. This is absolutely essential to ensures that finances do not get delayed because of bureaucratic red-tape within the Guatemalan central government. Having the finances go directly to the implementing agencies also ensures their semi-autonomy which, as suggested in the proposal, is vital to the success of the project.

19. This proposal speak clearly of including many different actors like NGOs, communities,s the private sector, women and indigenous people. As I stated above, this is commendable. However, what is not clear is exactly how these various groups will be included and will interact with each other. What power will they have? Will they truly participate in decision-making or will they simply be consulted? Who will represent the isolated indigenous communities of areas like the Polochic valley? How will conflicts between the private commercial sector, private land owners,

and the landless poor be reconciled? Whose needs will take priority over the others'? Implementors need to develop mechanisms for addressing these issues.

20. The mechanisms for accountability should also include mechanisms to enable local communities to evaluate the project and its impact on biodiversity conservation.

Feasibility:

21. Given the strong local NGO partners in the project (like Defensores de la Naturaleza and FUNDAECO), the project has the excellent chances for success. Defensores has made an absolute commitment to the conservation of the Sierra de las Minas as evidenced by their presence, programs and past level of expenditure in the area. In addition to Defensores, the Guatemalan Government, and International NGOs like The Nature Conservancy and World Wildlife Fund, have made firm and long-standing commitments to the Sierra de las Minas. These efforts would be bolstered by the UNDP project and their long-term chances for success enhanced by decentralization of the governments role in protected areas management.

22. In recent years, the country has made strides in addressing human rights issues and including previously marginalized groups in mainstream society. The proposal makes it clear that the indigenous and rural ladino communities will be the beneficiaries; even more important, it makes it clear that they will actively participate in the project. Although there may be some hesitation to advocate the full participation of marginalized groups given the country's violent past, the force of democracy in Guatemala is growing stronger and should be supported.

23. As stated above, two of the major strengths of the proposed project are its participatory nature, and its decentralized management structure. For the project to succeed, it is absolutely vital that these conditions be established. Authority must not be concentrated solely in CONAP or CONAMA. Those non-government groups traditionally working in the zone like Defensores de la Naturaleza and FUNDAECO must continue to play a leadership role in collaboration with local government.

24. To be effective, CONAP's role should be only one of coordination and not implementation. It should rely on its NGO partners and their local community partners to execute project activities. The planned decentralized approach should address this point. Also as stated previously, finances designated for NGO partners must flow directly to them from UNDP, and not be disbursed through CONAP.

25. As illustrated by the newspaper articles included in the Appendix of the proposal, there is a serious problem of illegal logging in some areas of the proposed conservation region. This has been going on for may year, well after zones were given protected area status. All of this illegal timber harvesting is the result of one or a few wealthy and impetuous individuals who act with impunity. CONAP and the Guatemalan Government must bring these illegal activities under control if the project is to succeed.

Miscellaneous comments:

26. Given the level of effort and financial resources that have been invested in the project region since the 1980's, the budget amount seems to be relatively small. More funds should be earmarked for the implementing agencies under the "Management of Protected Areas" section, especially for those groups like Defensores that have a very good track record and will be there long after the UNDP project has gone. Given the complexity and enormity of the problem that face the groups that administer the various project sites, funding for management should take first priority.

27. There is a considerable amount of money budgeted for socio-economic and biological studies. UNDP should refer to the Defensores de la Naturaleza document entitled "Informe Final: Diagnóstico para la Integración Humana a la Reserva de la Biósfera Sierra de las Minas" (September 1993) for an extensive study of Mayan and ladino knowledge, attitudes and practices in the Polochic and Motagua valleys. UNDP should also refer to Rapid Ecological Evaluation work done by CECON and Defensores in the Sierra de las Minas. Finally, when considering non-traditional use of non-timber forest products in the region, UNDP should refer to the Defensores document entitled "Conservation for Health: Small-Scale Commercial Utilization of Non-Timber Forest Resources and Human Health in the Sierra de las Minas Biosphere Reserve" (July 1994).

28. Some budget figures found on pages 63 - 66 do not coincide with values found after page 71 (Section: J. Presupuestos). These include the Fondos Patrimonial and Rotatorio, Estudios de Factibilidad, the "Consultores" lines, and Miscellaneous (Operaciones y Mantenimiento, Informes y publicaciones, varios).

29. Page 2 of Annex 1: "Disposiciones Financieras y Contables." Section C. "Pagos Directos por el PNUD." This should be clarified. If NGOs are to receive funds directly from UNDP/GEF (as NGOs in the Philippines do, for example), line 1 should include "ONGs ejecutores"; direct payment should be made to them as well as "individuals" and "companies".

Proposal for Review

Project Title:	**Indonesia Kerinci-Seblat Integrated Conservation and Development Project**
GEF Focal Area:	Biodiversity
Country Eligibility:	Convention Ratified August 23, 1994
Total Project Costs:	US$39.0 Million
GEF Financing:	US$13.5 Million
Government GEF Counterpart Financing:	US$11.5 Million
Co-financing:	IBRD US$14.0 Million
Associated Project:	Indonesia Kerinci-Seblat Integrated Conservation and Development Project
GEF Implementing Agency:	World Bank
Local Counterpart Agency:	BAPPENAS
Estimated Starting Date:	March 1996
Project Duration:	6 years
GEF Preparation Costs:	PRIF US$0.9 Million

INDONESIA: KERINCI-SEBLAT INTEGRATED CONSERVATION AND DEVELOPMENT Project

COUNTRY CONTEXT

1. **Biodiversity Value.** Indonesia is rich in biodiversity. It contains nearly 10% of the world's closed tropical forests. It also has extensive coral reefs and more marine coastline than any other tropical country. Although the archipelago represents only 1.3% of the earth's land surface, it contains an estimated 25% of the world's fish species, 17% of all bird species, 16% of reptile and amphibian species, 12% of mammal species, 10% of plant species, and unknown numbers of species of invertebrate animals, fungi, and microorganisms. These habitats and species are now threatened by logging, mining and overfishing as well as by agricultural development and other competing land uses.

2. **Economic Importance.** Indonesia's biological resources are economically important both globally and nationally. Many plant species originated in Indonesia, including cloves, black pepper, sugar cane and several tropical fruits. Indonesians use over 6,000 species of plants and animals. Daily they gather or cultivate these species for food, handicrafts, medicines, fuel and building materials. Some 40 million people directly depend on a wide range of forest and non-forest products for subsistence. Natural ecosystems, and the environmental functions they protect, strongly influence Indonesia's agriculture, forestry, livestock and fisheries which together contributed about 19% of GDP in 1992.

3. **Biodiversity Areas.** The biodiversity and natural habitats most at stake for priority in situ conservation are the 49 million ha of terrestrial areas, as well as the 20 million ha of marine and littoral habitats, which GOI has identified for conservation by the year 2000. In addition, there are some 65 million ha designated for production forests, which have an equally important share of the biodiversity and natural habitats, particularly the lowland forests. While certain of these lowland forests would therefore also call for conservation, as a priority, most of these areas require sustainable management. Out of the established conservation areas, there are 31 national parks, covering nearly 8 million ha, one of which is Kerinci Seblat. The Kerinci-Seblat National Park (KSNP) which spans four provinces in Sumatra covers almost 1 million ha. The park and its adjacent forests have been internationally recognized as one of the most important conservation areas in Southeast Asia (IUCN Review of the Protected Areas System in the Indomalayan Realm, 1986).

4. **Biodiversity Action Plan.** This plan, prepared in 1991/2, is the main policy statement by GOI for Indonesia's biodiversity conservation strategy. The Plan provides a framework for biodiversity conservation during the 5-year development plan (Repelita VI) and for the 25 year development plan. The main objectives of the Plan are to i) reduce the loss of terrestrial and marine habitats of primary importance for biodiversity; ii) expand biodiversity data and information to policy makers and the public; and iii) foster the sustainable use of biological resources. The strategy to attain these objectives would be carried out through an integrated process of institutional, policy and legal reform and development coupled with investment through selected projects. The Plan has four components. First, in situ conservation in national parks, reserves and protection forests; second, in situ conservation outside the protected area network in forests, wetlands and agricultural landscapes; third, in situ conservation of marine and coastal resources; and fourth, ex-situ conservation, including gene and seed banks, preservation of crop varieties, and captive breeding programs. An important prerequisite for the Plan's implementation is an increased participation by the public, particularly by communities living in and

adjacent to areas of high biodiversity value. The Plan also provides for local NGOs to play an active role in fostering such participation.

5. **Constraints in Protected Areas Conservation.** There are several institutional and policy constraints facing GOI as it attempts to implement its protected areas conservation strategy. The Directorate General of Forest Protection and Nature Conservation (PHPA) and other institutions with responsibility for biodiversity conservation suffer from an acute lack of trained and dynamic staff, frequent transfer of experienced staff, and a lack of adequate funding. PHPA field offices fall directly under the Ministry of Forestry (MOFr) and coordination between these forestry agencies and the regional governments in the management and enforcement of rules and regulations in and around protected areas is often totally lacking. This situation is exacerbated by the few incentives for local governments and smallholders to protect biodiversity, and the lack of integrated management plans that link management of protected areas with district (Kabupaten) or provincial development plans.

PROJECT OBJECTIVES

6. **Project Concept.** The project would address the first objective of the Biodiversity Action Plan (in situ conservation of natural habitats). While it would primarily focus on the protection of one of the country's largest national parks (Kerinci-Seblat), it would deal with major institutional, policy and development issues whose resolution is vital for the development of an integrated protected area system covering all major terrestrial habitats in Indonesia. It would strengthen PHPA, the main agency responsible for conservation areas. On the developmental side, it would use an integrated conservation and development approach (ICDP) that reconciles park management with the social and economic needs of the local people and within the framework of some of the development goals set for the four provinces bordering the park. This requires a steady decentralization of management authority to local agencies and governments. It would aim at finding better modus operandi for local community participation and the use of NGOs in management decision making concerning park boundary demarcation and land use and bufferzone regulations.

7. **Project Location and Park Description.** The KSNP is the largest conservation area in Sumatra, straddling the four provinces of West Sumatra, Jambi, Bengkulu, and South Sumatra. With an area of nearly 1 million ha (one third the size of Belgium), the park is one of the largest conservation areas in South East Asia. The park and its environs encompass a spectrum of habitats from species-rich lowland forests through hill forests and unique highland wetland systems to montane forests and subalpine habitats on Sumatra's highest mountain. The park is remarkable for its species richness with more than 4000 plants (1/60 of the world total), 180 birds (1/50 of all birds), including at least 14 of the 20 Sumatran mainland endemics, and 144 mammals (73% of the Sumatran mammal fauna and 1/30 of the world total, including 5 island endemics). Many of the habitats and species protected within the park and its immediate forest buffer zone are poorly represented or absent from other conservation areas in Sumatra or elsewhere in Asia. This area harbors some of the last viable populations of endangered mammals such as the endemic Sumatran hare Nesolagus netscheri, Sumatran rhinoceros Dicerorhinus sumatrensis, Sumatran tiger Panthera tigris sumatrensis, clouded leopard Neofelis nebulosa, Malay tapir Tapirus indicus and Asian elephants Elephas maximus. Many of the large predators and forest herbivores require large areas of lowland forests and other natural habitats to protect their home ranges and ensure access to vital mineral-licks. The high biodiversity value of the park and surrounding forests is a result of both

the area's large size and wide range of habitats and is dependent on the long-term protection of an adequate continuum of habitats from lowland forests to subalpine montane systems. The integrity of the park and its high biodiversity values are threatened by encroachment for shifting cultivation and cinnamon plantations, fragmentation and logging in the lowland forests.

8. **Specific Project Objectives.** The overall objective of the project is to secure the biodiversity of KSNP and stop further habitat fragmentation by improving park protection and management, including the involvement of local communities, and by promoting sustainable management and the maintenance of permanent forest cover in the remaining bufferzone concession areas. The project will develop a model for ICDP which can be applied to other parks in the Indonesia protected area system (and elsewhere in Asia) to reconcile conservation and regional and district development. The ICDP would follow an integrated two pronged approach to help stabilize the park boundary and protect biodiversity within the park and adjacent areas, as well as to enhance the livelihoods of poor households living around the KSNP by providing them with alternative livelihood opportunities consistent with park conservation objectives. The project design proposes to meet this objective by institutional strengthening in the areas of integrated planning, coordinated implementation and regular monitoring and enforcement at provincial and local levels; building institutional capacity through increased staffing and in-service training; and improving livelihoods through improved resource management and services delivery.

PROJECT DESCRIPTION

9. To support the above project objectives, the ICDP would include the following components:

Project Components.

- *Park Management* The park management component will facilitate boundary and land use rationalization, demarcation and gazetting. This component will also strengthen park protection and management through participatory planning and institutional development, preparation and implementation of a park management plan, and the promotion of collaborative linkages with communities in the bufferzone and local governments in surrounding districts. It will also support species inventory, ecological monitoring, socio-economic and other research necessary for park and bufferzone planning and management.

- *Rural Development* The rural development component will help villagers adjoining the park: obtain secure access to the natural resources they utilize in the bufferzones (provided that such use is on a sustainable basis), rationalize land use within the park, and plan and implement improved livelihood opportunities or social benefits that relieve pressure on the park. The component will be facilitated by local NGO catalyzers, and will target 134 villages in ten priority clusters where park habitats and biodiversity is most threatened. In addition, where villages adjoin forest concessions, the component will also promote community forestry management.

- *Concession Management* The concession management component will help MOFr manage and stabilize the remaining lowland forest areas bordering the park. MOFr will

review and reallocate forest land to appropriate land use and management regimes as needed in the seventeen concessions bordering the park through the KPHP process. The KPHP is a new program instituted by MOFr as a planning mechanism to redefine concession boundaries based on land use and biophysical considerations. As part of this process, areas of high biodiversity or watershed conservation values would be identified so that they can be left as protected forest areas within the concession or returned to the park. The project will provide technical assistance through training, ecological assessment surveys, monitoring and independent audits of forestry conservation practices. Project personnel will work with the forestry agency and local communities to promote improved land use, including community forestry, consistent with biodiversity conservation and maintenance of permanent forest cover.

Project Support Activities.

- *Policy and Planning* The project will improve the regulatory guidelines for inter-provincial spatial planning and regional planning practices. This technical support will provide policy and planning advice both at the national and provincial levels. It will ensure that the regulatory system for planning incorporates integration of biodiversity conservation to facilitate ICDP implementation. In addition, this activity will (i) support inter-regional spatial planning for the 4 provinces; and (ii) strengthen the regional and spatial planning capacity of provincial and Kabupaten planning agencies covering the park.

- *Conservation Awareness* This activity will play a key role within park management and rural development activities by disseminating information to people in boundary villages, government agencies and the community at large on the value of the park for biodiversity, watershed protection, and local development. It will assist in the survey of current awareness levels and attitude, and design multi-media programs aimed at specific target groups, building on local practices and traditions wherever possible.

- *Training and Extension* Specific training activities have been identified for each component that are necessary for capacity building and successful project implementation. The project will assist in designing and conducting a training needs assessment of all involved stakeholders, the implementation of relevant theoretical and practical training programs, contracting of training services, and supervision and monitoring of training impacts. The project will also assess the extension capability of agencies' field personnel and help to produce extension materials.

- *Monitoring & Evaluation* Participating management and planning agencies will undertake M&E programs in order to collect information about biodiversity indicators, human/development impacts, and the effectiveness of conservation/sustainable use programs. This information will be used to adjust and strengthen planning and enforcement processes during the project period. This activity will support technical assistance, GIS equipment, data collection and analysis, and M&E training.

10. A detailed project preparation report has been prepared for Government, utilizing funds authorized under a Pilot Phase Pre-Investment Facility (PRIF) Advance. This document may be requested by contacting the Bank Public Information Center (PIC) or by contacting the Bank Task Manager, Mr. Ben van de Poll (ext. 458-2549).

PROJECT BENEFITS

11. The proposed ICDP project offers the chance to halt the loss of unique biodiverse habitats and rare and endemic species native to Kerinci-Seblat, and to conserve for the use of current and future generations these rich biological resources. With the project focus on conservation, improved agricultural systems and forest management practices, it will also play an important role in improving watershed protection for the four surrounding provinces. The project would directly benefit poor households and communities living in park boundary villages by giving them more control over the long-term management of their resource base and provide them with better income-generating opportunities. The proposed institutional strengthening (e.g. concession management and integration of spatial/regional planning with park management) provides an innovative pilot model, which if successful, could be replicated to other conservation areas in Indonesia.

RATIONALE FOR GEF FUNDING

12. The proposed project is fully consistent with the Convention on Biological Diversity and guidance from the Conference of the Parties. It has been identified as a national priority in the Biodiversity Action Plan, and proposed activities will: strengthen conservation, management and sustainable use of ecosystems and habitats (including threatened lowland and hill forests as well as montane habitats); demonstrate innovative measures (linking conservation and district development) to conserve biodiversity; and involve local people in park and natural resource management. KSNP and its surrounding forests have been recognized as an area of both global and national biodiversity significance and can be regarded as one of the last opportunities in Southeast Asia to conserve a diverse and complex mammal predator-prey system. Forestry management to integrate conservation values into forestry practice and maintain permanent forest cover in the Kerinci forest buffer zone will not only effectively increase the conservation estate by maintaining natural habitat beyond park boundaries, but could provide a model for sustainable forestry throughout Indonesia.

13. The proposed Kerinci-Seblat ICDP project is a logical progression of the Bank's past support for conservation and environmental and social impact issues. These include efforts at supporting park planning and management (para.18) and the on-going Biodiversity Collections project (para. 16) which will improve GOI's capacity in biodiversity inventory and monitoring. The proposed project is fully integrated into the Bank's future natural resource and conservation program which will be implemented over the next three to five years. This program of assistance will focus on watershed management and conservation, integrated management and

conservation of national parks (both terrestrial and marine), and coral reef rehabilitation and management. The proposed Kerinci-Seblat ICDP project is viewed by GOI as the demonstration model for future national park interventions elsewhere in the country, if implementation experience proves successful.

SUSTAINABILITY AND PARTICIPATION

14. KSNP will require a long-term sustained program of investment and institutional development to achieve its overall goal of conserving biodiversity through integrated bufferzone development. The proposed project would contribute to long-term sustainability through its emphasis on capacity-building and community involvement in project design and implementation. In addition, recurrent costs associated with proposed project activities will be financed by GOI during the project period, reflecting the national commitment to effective operation of KSNP and ICDP activities. To ensure financial sustainability beyond the project period, GOI wishes to explore what options would be available for future recurrent cost/investment financing and development assistance for both the park and bufferzones, including the feasibility and requirements for establishing an endowed Trust Fund. Consequently, during years 2-3 of project implementation, a special study will be commissioned to assess options and make recommendations for future action.

15. Community and stakeholder consultation activities have played a major role in project preparation and design. Beginning in 1992, preparation teams have engaged in rapid rural appraisal exercises in boundary villages with the objective of creating village profiles, understanding land use patterns and people-park interactions, and eliciting stakeholder feedback on ICDP design. Such consultation and participatory activities will continue to play an important role during further project processing (for example, a workshop to review the final preparation and RIA document is scheduled with local stakeholders on March 27/28, to be followed by a similar workshop in Jakarta (March 31) with the appropriate central ministries and provincial representatives) and implementation. Wherever possible, project activities will build on local knowledge and practices that are compatible with biodiversity conservation and sustainable use of resources in and around KSNP. Annex 1 provides a summary table of the major consultation activities that have taken place during the preparation phase.

LESSONS LEARNED FROM PREVIOUS EXPERIENCE

16. GEF has supported two biodiversity conservation initiatives in Indonesia: the Biodiversity Collections Project (US$7.2 million) and the Conservation Strategies for Rhinos in Southeast Asia Project (US$ 2.0 million). A PRIF (US$ 1.56 million) was approved to finance preparation of the Biodiversity Collections Project, Kerinci-Seblat ICDP, and a Conservation Awareness Program. Project implementation under the Biodiversity Collections Project is proceeding well, with technical advisors recruited and workshop and key planning/consultation activities well

underway. The Southeast Asia Rhinos Project will develop organized and trained rhino protection units in KSNP to assist in anti-poaching and community outreach programs.

17. Bank support to parks and protected areas has grown rapidly over the last five years. The Bank's IBRD/IDA portfolio of biodiversity related activities has included some 27 projects with a total loan/credit value of US$ 287 million equivalent between FY92-95. In addition, the Bank (as GEF implementing agency) has worked closely with local project sponsors on 31 biodiversity programs, for which the GEF Participants have allocated $244 million between FY92-95. In an independent evaluation of the GEF pilot phase (11/93), the assessment of some 30 UNDP/WB biodiversity projects showed that: (i) too little consideration had been given to local people, their expertise and priorities; (ii) NGO involvement was found to be inadequate, and (iii) long-term financing of such projects was sometimes doubtful. Similar observations are found in the 1991 OED analysis of forestry and conservation lending, which also concluded that: (a) realistic incentives are needed for conservation activities, and (b) conservation and buffer-zone management components should be based on a clear prioritization of areas and a realistic plan for related rural development activities targeted to nearby populations.

18. In Indonesia, the Bank has supported investment in management and infrastructure development in 15 national parks through the Forestry Institutions and Conservation Projects I & II. These Projects have revealed PHPA institutional weaknesses which KSNP will also have to face, namely, frequent movement of senior staff, moratorium of recruiting guard staff with low educational qualities, lack of incentives for technicians and guards to perform their assigned tasks, and overemphasis on blue prints and planning rather than learning by trying and doing. More generally, experience with the Bank's Indonesia portfolio has highlighted difficulties associated with: (a) inter-agency coordination; and (b) timely appointment of consultants and their effective interaction with government staff. In addition to these important lessons, the proposed project will build on some very positive experiences learned from ICRAF activities focussing on alternatives to slash and burn agriculture, and from WWF and WARSI (local NGOs) involvement in community participation and village development in Kerinci-Seblat. Project design has built on the lessons learned from conservation project experience in Indonesia and elsewhere.

Technical Review Process

19. An earlier version of the proposed project, comprising three components (Biodiversity Collections, KSNP ICDP, and Conservation Awareness) was endorsed by GEF Participants and admitted to the Pilot Phase Third Tranche work program in May 1992. Due to diverging preparation timetables, the three components were subsequently separated into distinct projects in order to avoid delaying approval of components ready for implementation. Following completion of the detailed project preparation report (para. 10), the revised Kerinci-Seblat ICDP proposal was reviewed in March 1995 by a Technical Review Panel, which included two technical reviewers from the STAP roster of biodiversity specialists.

INSTITUTIONAL FRAMEWORK AND PROJECT IMPLEMENTATION

31. **Institutional Framework.** The three main interventions, i.e. park management, rural development and concession management would each be managed by a project manager responsible for contracting services, implementing activities and preparing reports. The three components will be coordinated by an inter-provincial Steering Committee, supported for day-to-day management by a secretariat made up by planning staff seconded by the four provincial BAPPEDA I, project technical assistance and the Director of KSNP as secretary. In addition, there will be an overall Project Steering Committee chaired by the National Planning Board (BAPPENAS), with members representing the Ministries of Finance, Home Affairs, Agriculture, Forestry, National Land Agency, the four Governors, the Indonesian Institute of Sciences and representatives of national environmental NGOs. This Committee will meet annually to review project performance and deal with policies, laws and regulations, particularly those "perverse" incentives that discourage conservation. Each intervention component will have its own project fund channelling mechanism, with monitoring being attached to both the park management and the rural development component budget.

32. Implementation Plan. The project will be implemented over six years. A draft project implementation plan, showing the key events of project implementation, was prepared during pre-appraisal and will be finalized during appraisal. The proposed project monitoring activity will support three major planning and resource management functions: (i) technical and financial progress monitoring; (ii) impact analysis; and (iii) performance evaluation. During appraisal the list of monitoring and performance indicators to be used over the life of the project will be developed but will only be finalized during the first year of implementation once key staff are in place and key TA personnel are mobilized. A mid-term review (MTR) will be carried out in year 3 of project implementation. The MTR will review project effectiveness in meeting ICDP goals and in stabilizing Park boundaries and reducing biodiversity loss. It will also be used for making appropriate technology and institutional adjustments in project design if required.

Summary Information on Consultation During ICDP Preparation 1992-1993

Consultation Acuvity	Stakeholders Involved	Duration	Output
Rapid Rural Appraisal Exercise in 12 Boundary Villages in 4 provinces by DHV-Kepas preparation consultants	Boundary village Communities: W. Sumatra (3 villages); Jambi (4 villages); Bengkulu (4 villages); S.Sumatra (1 village).	November - December 1992, 1 week per village	Village profiles, land use sketch maps, institutional diagrams, transects, identification of people-park interactions.
Consultation and village profile of 6 KSNP boundary villages by WWF	Boundary village communities in: W. Sumatra (1); S.Sumatra (1); Bengkulu (2); and Jambi (2)	November 1992- February 1993	Identification of adat institutions, and major social and economic issues facing communities in target villages
Consultation meetings with local and National NGOs by NGO facilitator on DHV preparation team	Local NGOs from WARSI network in Jambi, W.Sumatra, S.Sumatra, and Bengkulu; and with representatives of national environmental NGOs	November 1992- March 1993	Consultation meeting in Palembang; consultation meeting in Padang; consultation meeting in Jakarta; 6 NGOs participated in inception report meeting; inter-provincial consultation meeting in Singkarak W.Sumatra; consultation meeting in Jambi; NGO round-table discussion in Jakarta; and background report on NGO role in ICDP.

Consultation Activities During ICDP Preparation 1994-1995

Consultation/Participation Activity	Stakeholders Involved	Duration	Output
Provincial meeting with principal sectoral and planning agencies to discuss ICDP preparation reports and design	Bappeda I, Forestry, Agriculture, Transmigration, Land Agency, Park Management, Local Government, NGOs	July - September 1993	Feedback from stakeholder on preliminary ICDP design; identification of need for further participatory preparation and phased project implementation approach
Japanese Grant Facility (JGF) to WWF for participatory pilot project identification activities in six boundary villages, base-line survey, database and preparation of manuals	WWF working with 6 boundary communities in: Rantau Kermas, Muara Hemat and Renah Kayu Embun villages (Jambi province); and Sukamerindu, Sungai Ipuh, Talang Arah villages (Bengkulu Province).	July 1994 - June 1995	Data set of biophysical and socio-economic information; analysis and profile of people-park interaction; implementation model; field guide, and identification of institutions and training of individuals as community organizers for project implementation.
WARSI assistance in strengthening community participation in proposed KSNP ICDP activities	12 local NGOs in four provinces working with communities in four boundary villages: Sungai Kalu (W.Sumatra), Pesisir Bukit (Jambi); Napal Licin (S.Sumatra); and Kataneng I (Bengkulu).	July 1994 - June 1995	Strengthening of local NGO network to help implement ICDP activities, survey of local institutions and analysis of potential for ICDP involvement; development of participatory information collection techniques; development of media and information packets for boundary communities on proposed ICDP
ZOPP participatory Planning Workshops in Jambi, West Sumatra, Bengkulu and Sungai Penuh	Bappeda I and II from target Kabupatens, Camats, Head of Dinas agencies for forestry, agriculture, tree crops, livestock, tourism, cottage industry, PHPA, Kanwil Kehutanan, concessionaires, adat leaders, village heads, local NGOs and WWF	August - December 1994	Participatory problem identification and analysis; prioritization of target areas and activities for ICDP implementation; identification of implementing agencies and mechanisms for coordinating activities; consensus building between stakeholders holding divergent views.

25. **Park Boundaries and Biodiversity.** The park as originally proposed in 1982 consisted of nearly 1.4 million ha. Subsequent revisions reduced the park to its present size of nearly 1 million ha at the cost of species rich lowland and hill forests. The excised areas are now allocated to some 17 timber concessions bordering the Park. These areas are classified as production, and protection forests. While these decisions are difficult to reverse, the conservation objective needs to be a central consideration in decisions determining revised park boundaries. The project proposes to redefine the boundaries between the park and the concessions on the basis of the KPHP program (para 9). The project intends to retrieve significant portions of these lowland and hill forests from the concessions through a series of project actions (through the KPHP method and other survey tools to delineate areas of high biodiversity value and classify these areas on its merits as protected forest areas). These project actions will be reinforced through a number of proposed (dated) covenants. As an initial step to controlling logging on fragile and biodiversity rich lands, the GOI plans to conduct rapid ecological assessment surveys on two to four priority concession blocks adjacent to KSNP prior to negotiations with a view to tabling specific recommendations for boundary adjustment by the end of 1995.

26. Apart from concessions, KSNP is also surrounded by estate crop areas, mining areas and transmigration settlements. The park boundary demarcation process is nearly completed and most boundaries adjoining settlements have been demarcated. The non-demarcated boundary areas remaining are within forest concessions (mainly in Jambi to the east of the park) where there are no settlements. There are over 400 villages in the nine Kabupaten which share common boundaries with the park. The population of the sub-districts closest to the park is approximately 1.75 million. In some villages, communities are not happy with the boundary demarcation, as some of their agricultural land has fallen within the park. The project will focus on these villages and provide funds for "boundary rationalization" so that modifications can be made to the boundary, and communities can "buy-in" to the ICDP. No villages have been resettled through this demarcation process. The new GOI (MOFr and Local Government) policy is to avoid involuntary resettlement by creating enclaves, and demarcating the boundary to exclude human settlements.

27. **Encroachment and Resettlement.** The GOI has agreed that there will be no involuntary resettlement during the first three years of project implementation. During this initial three year period the Project will identify key areas for biodiversity conservation park zoning and identify criteria for resettlement if any. The project will generally seek to find all possible alternatives to involuntary resettlement through the use of zonation and land use improvement. If there is any required involuntary resettlement, this would only proceed on the basis of resettlement action plans meeting Bank policy requirements (OD 4.30), including restoration of income, budgets, timetables and full public consultation. However, even under the worst scenario, the total population affected by any possible future involuntary resettlement is likely to be small (eg., less than 300 families).

28. **Roads.** There is currently a verbal agreement from GOI that there will be no new road

development through the Park. However, there are indications that provincial governments may still want to proceed with road construction. This potentially could have a major impact on biodiversity through subsequent human encroachment. The project intends to mitigate this potential problem by requiring, as a condition for negotiations, the following actions: (i) that no new roads are constructed until a regional spatial plan covering the Park and bufferzone areas has been completed and agreed upon by the 4 provincial governments; (2) that all biodiversity assessments required for the Park management plans have been completed; and (3) that subsequent road construction would meet the requirements of the Park management plan and have an environmental impact assessment (ANDAL) acceptable to the Bank. It is intended to address these issues through project covenants.

29. **Mining.** The impact of mineral development on the ICDP is currently minimal. No new mining leases should be issued by the Ministry of Mines and Energy within the original 1982 Park boundary till the final KSNP boundary is gazetted. Feasibility studies of the three existing exploration concessions would be allowed, with the understanding that if no viable deposits are found within 5 years, the concessions will be cancelled. If commercial mineral deposits are found, the acceptability of mining activities will be considered on a case-by-case basis through an ANDAL acceptable to the Bank. No open pit extraction or infrastructure would be allowed inside the Park or within 5 Km of the bufferzone. It is intended to have these issues appropriately addressed in project covenants.

RISKS

30. As outlined above, the major risks associated with the project are the threats to KSNP from sources such as road development, human encroachment, and poor logging and concession management practices, thus causing further biodiversity impoverishment and potential park fragmentation. Unless GOI shows clear commitment to controlling these risks, the park's biological diversity will not be maintained over the long-term. The issue of park integrity will be addressed in certain policy agreements and interventions by GOI prior to and during project implementation. Other risks concern the present lack of integrated management plans, coordination between agencies, and enforcement of regulations within the park and the bufferzones. These risks will be addressed by an ICDP project approach which will introduce a greater participatory role of local government officials and local communities, integration of regional and park planning, and the establishment of an interprovincial project secretariat. This will be linked to a strong project environmental and socio-economic monitoring program to provide feedback to project management and allow refinement or corrections in proposed project interventions. Over the coming months, GOI commitment will be closely monitored before proceeding with appraisal and project approval. A direct measure of this commitment in the short term would be for GOI to publicly disclose the RIA and endorse its recommendations, and to officially transmit the report to the Bank.

20. In their comments, the technical reviewers strongly supported the project, and confirmed that Kerinci-Seblat National Park is a site with globally significant biodiversity facing severe threats and needing immediate action. Their reviews commented positively on the project's many strengths and innovations, such as its sensitive assessment and priority treatment of sociological issues facing the park, its involvement of local actors (communities, provincial governments, NGOs, universities), the rural development component and formal Community Conservation Agreements, and the inter-provincial regional development plan led by the Inter-Provincial Coordination Committee. Project documentation was commended for its honest discussion of the many challenges facing project managers and its emphasis on the need to focus on cooperative local and regional solutions. The technical reviewers recommended that particular attention be given to: promoting traditional, sustainable resource management practices, identifying alternative, non-destructive income sources for **all** strata of village society, putting in place local sources of long-term funding for park and buffer zone activities, and clarifying implementation plans and timetables, with particular reference to training. The project concept and documentation have been revised to incorporate these comments. A summary of the technical reviewers' comments and how they have been addressed in the revised project documentation is attached as Annex 2.

PROJECT COSTS AND FINANCING

21. Total project costs have been estimated at US$39 million (see Annex 3), including a foreign exchange component of about US$ 8 million (21% of project costs). Park management activities account for about 35% of total project costs, rural development/buffer zone activities for about 43%, timber concession management activities for about 13%, and monitoring and evaluation activities for about 9%. The proposed GEF grant of US$ 13.5 million equivalent (net of taxes) would finance elements of the project that contribute wholly or largely to achievement of global biodiversity objectives (56% of foreign costs and 35% of local costs). The proposed Bank loan of US$ 14 million, net of taxes, would finance 35% of foreign costs and about 44% of local costs. The balance of project costs, US$11.5 million equivalent, including taxes and all recurrent costs during the project period, would be financed by GOI. It is estimated that the "baseline" project scenario (without global benefits) would have cost about US$15.0 million (see para.12), and that the incremental costs of achieving biodiversity conservation and sustainable use goals in the KSNP and its buffer zones are estimated at about $24.0 million, which would be financed out of the GEF grant and IBRD loan.

INCREMENTAL COSTS

22. Under the **baseline scenario** (ie, without the proposed ICDP approach), it is estimated that GOI would have spent between US$5-6 million on Kerinci-Seblat **park management** activities during the project period (these figures are based on actual expenditure trends over the past 10 years). With respect to likely **rural development** expenditures, significant sums of

money are programmed for rural infrastructure for villages in KSNP buffer zones over the next 5-6 years under various government programs, but these expenditures and development activities as currently implemented give no attention to biodiversity conservation or sustainable use objectives; given the importance of the buffer zones for watershed management functions, it is assumed for baseline purposes that the GOI would have initiated the process of reorienting such development programs during the proposed project period, by investing about US$7-8 million towards such a goal. Currently, supervision of timber **concession management** by GOI is seriously lacking, and it is assumed for baseline purposes that GOI would have begun to address this weakness by investing in field programs and personnel to begin to bring the situation under better control; likely investments during the project period without the proposed project for concession management related activities are estimated at about $1.5 million. In the absence of the proposed project, limited **monitoring and evaluation** activities would have been undertaken in the project area (US$0.5-1 million).

23. In the absence of the proposed project and the GEF grant catalyst, it is likely that park encroachment (human and road development) would lead to further major biodiversity loss and habitat fragmentation in the park and park buffer-zones (particularly the bordering concessions). Continued degradation and poor management in the park and buffer-zones would result ultimately in the loss of these ecosystems' watershed, habitat, and biodiversity conservation functions. It is believed that the most effective way to prevent such ecosystem dysfunction and biodiversity loss is through regionally-based programs, fully supported by local stakeholders, such as will be tested under the proposed ICDP project. The **incremental cost financing** provided by the GEF grant and IBRD loan will make possible activities and programs that would not have been possible under the baseline scenario, including: (a) strengthened park management and enforcement (US$8 million); (b) intensified use of NGOs, and specialized efforts to resolve human conflicts and minimize encroachment (US$9.5 million); (c) ecological assessment surveys and training for the new and improved timber concession inspection service (US$3.5 million); and (d) expanded monitoring and evaluation oriented to documenting trends related to biodiversity indicators (US$3.0 million).

Issues and Actions

24. The project has extensive environmental, land use and socio-economic development implications. The project has addressed these implications by including a number of policy, administrative and fiscal measures in the project design. Understandings on these points will be captured in specific project covenants in the legal agreement between GOI and the Bank. The major environmental impacts on the park, including recommendations for mitigating these impacts, are described in a Regional Impact Assessment (RIA) report prepared for BAPPENAS in December 1994. The major threats to biodiversity within the park identified by the RIA are from four sources: roads, mining, loss of lowland forest habitat, and human encroachment. The proposed project would implement specific activities that support RIA recommendations as outlined below.

ANNEX B: SUMMARY OF TECHNICAL REVIEW AND OUTCOMES

INDONESIA: KERINCI-SEBLAT INTEGRATED CONSERVATION AND DEVELOPMENT PROJECT

Observations:

1. Comments provided by the STAP Technical Reviewers strongly supported the project, and confirmed that Kerinci-Seblat National Park is a site with globally significant biodiversity facing severe threats and needing immediate action. The reviews commented positively on the project's many strengths and innovations, such as its sensitive assessment and priority treatment of sociological issues facing the park, its involvement of local actors (communities, provincial governments, NGOs, universities), the rural development component and formal Community Conservation Agreements, and the interprovincial regional development plan led by the Inter-Provincial Coordination Committee. Project documentation was also praised for its honest discussion of the many challenges facing the project (eg., administrative difficulties, concerns of development activities acting as immigration magnets, problems with timber concessions and infrastructure), and its emphasis of the need to focus on cooperative, local and regional solutions. The Regional Impact Assessment report (which identifies management opportunities for mitigating damaging impacts) was considered by the technical reviewers to be a significant improvement in project preparation procedures, as it was fully integrated into the project development process, rather than added on retrospectively after the project design was defined.

Recommendations:

2. Kerinci-Seblat National Park should be proposed as a World Heritage Site, and because of the ICDP approach to its management, it should be considered for Biosphere Reserve status. This could increase its demonstration value. Initial enforcement activities should focus on critical areas rather than the entire park. With time enforcement could spread to the entire park.

3. The descriptions of human settlements in and around the park, their resource uses and claims, and how this fits into the context of the park should be strengthened. There should be an explicit project policy of identifying and promoting sustainable, traditional, local management practices as models. This would clarify where sustainable technologies would come from for components such as "community forestry," and would make explicit that local economies and technologies are understood before alternatives are introduced. Buffer zones should be perceived as areas delivering benefits to local peoples, not as areas buffering the park from encroachment. At the same time, strong efforts should be made not to let the rural development component act as a magnet for new settlers.

4. The project should not assume that the poorest villagers pose the greatest threats to the forest and biodiversity. Rather, the wealthier villagers may hire the poorest to do the work when the former are the motivating force behind forest encroachment. Identifying alternative, non-destructive income sources with wealthy AND poor villagers is thus important. To promote non-destructive resource use,

the best examples of sustainable technologies (agroforestry, forest mgt., etc.) used by ANY member of the circum-park population should be identified. In this respect, disincentives (policies, protection, fines, etc.) for unsustainable resource management are necessary in addition to incentives to protect resources.

5. The conservation awareness component should build on local knowledge of resource management and a commitment of GOI to a new relationship between people and biological resources. It should not consist simply of exhortations to conservation or appreciation of the park. It should acknowledge the opportunity costs to local populations of restricted or forbidden resource use. It should draw upon traditional resource management knowledge in established villages, and assist the transfer of knowledge to newer villages whose inhabitants are less familiar with resource management in the region. Training and extension should build on local knowledge whenever possible, rather than general knowledge from around the world.

6. More thought should be given to identifying local sources of finance to ensure the long-term funding requirements of the park; for example, rents from timber concessions could be tapped as a possible source. Similarly, Indonesia's large reforestation fund was considered an appropriate source of medium- to long-term funding for the proposed concession management activities (the latter were strongly endorsed by the technical reviewers as essential; GEF funds would not subsidize concession operations). Concerning ecotourism, the tourism potential must be assessed realistically, looking at market saturation and competition. Kerinci would need to be part of other regional attractions in order to make it a popular tourism destination.

7. Specific timetables for the various project activities need to be set out, while maintaining flexibility to accomodate developments during project implementation. In addition, staff training needs (and time tables) need to be defined.

Outcomes of Technical Review:

8. Regarding comments on proposed buffer zone activities, WWF village involvement in Kerinci Seblat over the last few years suggests that buffer zone communities are eager to participate in new sustainable use arrangements based on the "incentives" concept. This local participation will be encouraged through various measures: extra rural development budgets, security of access to natural resources/land use, jobs as park volunteers, and village development grants. Such incentives, coupled with appropriate conservation awareness programs and PHPA enforcement teams, should substantially strengthen the enforcement of park regulations. The proposed phased project implementation approach will allow for a certain amount of on-the-job-learning and design modifications.

9. Community and stakeholder consultation activities were a major part of project preparation and design and will continue to play an important role in implementation. The proposed rural development and conservation awareness interventions will in large part be based on local community traditions (e.g. the hutan adat or community forestry tradition). The lessons learned from five years of local WWF involvement in village and community development activities around the park will continue to be taken in consideration during implementation. Finally, the project will also build on

local knowledge, practices and technologies through participatory processes (such as ZOPP planning and participatory rural appraisal) with the goal of empowering communities to identify problems and potential solutions. In view of the comments raised, these points are now explained more fully in the project brief and technical annexes, and a summary table on consultation activities has been included in the revised project brief.

10. Long-term funding requirements for park and buffer-zone/timber concession activities will be studied during the project and recommendations made for government action well before the end of the project period. As a result of technical comments received, the scope of the proposed study has been broadened from the initial focus on an endowed trust fund to an examination of various funding options.

11. Project success depends on a realistic scheduling of planned activities so that monitoring can fully measure the effectiveness of each of these interventions. The project implementation plan, to be agreed during appraisal with the relevant central and provincial government agencies, will cover both the phasing of physical activities **and** the timing of specific institutional interventions, including training and incentives. Regarding the adequacy of park staffing, training and motivation, BAPPENAS and PHPA have agreed to additional staff and expanded budgets to achieve project objectives. Training activities will be fully covered in the project timetables and implementation plan.

Annex 6

Kerinci-Seblat ICDP
Component and Expenditure Accounts by Financiers
(US$)

	Totals including Contingencies			
	GOI	GEF	IBRD	Total
1. Park Management				
Mgt Planning & Park Zoning	30,060	120,239	-	150,299
Equipments	110,435	302,993	-	413,428
Vehicles	842,645	-	-	842,645
Technical Assistance	360,715	3,389,837	-	3,750,552
Training	53,270	479,434	-	532,704
Extension Activities	33,271	636,980	-	670,251
Civil Works	1,231,466	1,231,466	-	2,462,932
Boundary Activities	155,842	623,367	-	779,209
Biodiversity Research	105,000	1,180,174	-	1,285,174
Recurrent Costs	2,582,173	-	-	2,582,173
Total	**5,504,877**	**7,964,490**	**-**	**13,469,367**
2. Rural Development				
Park/Village Coordination Meeting	72,255	131,818	108,383	312,456
Village Devt. Activities \a	1,692,813	334,782	5,401,112	7,428,707
Technical Assistance				-
Technical Assistance \b	511,142	1,830,701	3,269,496	
Support Staff	46,116	-	501,861	
Equipment & Vehicles	239,059	-	9,854	
Miscellaneous Costs	-	-	942,979	
Training	31,728	142,775	142,775	
Recurrent Costs	1,387,230	-	-	1,387,230
Total	**3,980,343**	**2,440,076**	**10,376,460**	**16,796,879**
3. Concession Management				
Field Activities & Equipment \c	99,103	256,909	1,339,815	1,695,827
Technical Assistance	226,252	-	2,211,881	2,438,133
Office Equipment	26,428	-	39,642	66,070
Recurrent Costs	806,070	-	-	806,070
Total	**1,157,853**	**256,909**	**3,591,338**	**5,006,100**
4. Monitoring & Evaluation Activities				
Equipment	77,968	116,952	-	194,920
Mapping	262,113	393,169	-	655,282
Vehicles	27,373	-	-	27,373
Technical Assistance	104,845	1,131,198	-	1,236,043
Data Collection	88,200	991,288	-	1,079,488
Training	26,287	236,581	-	262,868
Recurrent Costs	104,083	-	-	104,083
Total	**690,869**	**2,869,188**	**-**	**3,560,057**
Total Project Costs	**11,333,942**	**13,530,663**	**13,967,798**	**38,832,403**

Footnotes:

\a These are areas along the park boundaries which require special management to prevent further encroachment.

\b GEF would be financing the support of local NGOs and LCOs.

\c Training for inspection services and surveys for community forestry.

Proposal for Review

Project Title:	**India Ecodevelopment Project**
GEF Focal Area:	Biodiversity
Country Eligibility:	Convention Ratified February 18, 1994
Total Project Cost:	US$74 million
GEF Financing:	US$20 million
Government Cofinancing:	US$13 million
Other Cofinancing:	IBRD US$36 million, Local People US$5 million
Associated Project:	India Ecodevelopment Project
GEF Implementing Agency	World Bank
Local Counterpart Agency	Ministry of Environment and Forestry (MOEF)
Estimated Starting Date	April 1996
Project Duration	5 years
GEF Preparation Costs	UNDP PRIF of US$213,000

INDIA: ECODEVELOPMENT PROJECT

Country Background and Government Conservation Strategy

1. **Rich but Threatened Biodiversity.** India is one of the twelve "megadiversity" countries in the world that collectively account for 60-70% of the world's biodiversity. Its ten biogeographic zones represent a broad range of ecosystems. India has 6% of the world's flowering plant species, 14% of the world's birds and 81,000 identified species of animals. There are over 45,000 identified plant species and one-third of its 15,000 flowering plants are found only in India. Some 14% of its 1,228 bird species, 32% of its 446 reptile species, and 62% of its 204 amphibians are unique to India. However, India's rich biodiversity is increasingly endangered, due to high population density, widespread poverty and rapid population growth.

2. **Biodiversity Conservation Strategy.** India's strategy for biodiversity conservation reflects extensive analysis and significant, ongoing commitment. India's Environmental Action Plan (EAP), published in 1993 lists "conservation of and sustainable utilization of biodiversity in selected ecosystems" as one of the top seven priorities for future action. The National Wildlife Action Plan (1983) identified broad goals of:

(a) establishing a representative network of protected areas;

(b) developing appropriate management systems for protected areas, with due regard for the needs of local people and ensuring their support and involvement;

(c) protecting biodiversity within multiple-use areas; and

(d) extending conservation efforts beyond protected areas.

3. **Protected Areas System.** During the past twenty five years, state governments, with national assistance, have developed an extensive protected area network backed with strong Forest Department enforcement. From only 10 parks and 127 sanctuaries in 1970, the number of officially designated protected areas (PAs) had grown to 75 parks and 421 sanctuaries by 1993. These areas now cover some 14 million hectares (i.e., 4.3% of the total land area). While some have few or no human inhabitants, others have small communities with significant human populations in the aggregate. Village economies in the peripheries of these protected areas are based on long-established sedentary agricultural systems.

4. **Protected Area Management.** There is a long history of communities, especially tribal groups, inhabiting or using forests that are subsequently designated as protected areas. These local people have always been involved (usually without government recognition or sanction) in managing the forest and wildlife. Increasing government protection and legal control have often curtailed local communities' management roles and incentives for sustainable resource use. In recent years the Government has recognized that enforcement alone is not sufficient and that there is a need to increase local people's involvement in protected area management.

5. **Community Participation in Forest Management.** The initial government effort to increase community participation was focused not on protected areas, but rather on forests officially designated for local or commercial harvest. This effort, called Joint Forest Management (JFM), shares products, responsibilities, control, and decision-making authority over forest lands between forest departments and local user groups. Contracts specify the distribution of authority, responsibility, and benefits. Initiated in the 1970s, early success led to expansion of JFM programs throughout India. Several now receive support through Bank-funded state forestry projects. The Government is now beginning to address the special issues regarding participatory management of areas reserved for biodiversity protection.

6. **Ecodevelopment.** Recognizing the historic, current, and potential role of local communities, and in response to pressures on protected areas, national and state Governments are developing an "ecodevelopment" conservation strategy. It aims to conserve biodiversity by addressing both ***the impact of local people on the protected areas*** **and** ***the impact of the protected areas on local people***. Ecodevelopment thus has two main thrusts: (a) improvement of PA management, and (b) involvement of local people. It improves the capacity of PA management to effectively conserve biodiversity, involves local people in PA planning and protection, develops community incentives for conservation, and supports sustainable alternatives to harmful use of resources. It supports collaboration between the state forest departments and local communities in and around ecologically valuable areas. It addresses the welfare and behavior of local people, and integrates these concerns into management of protected areas. It also builds private sector stakeholder support for conservation among NGOs, nature tour operators, and the general public.

7. **Potential Scope of the Ecodevelopment Approach.** Should it prove feasible, ecodevelopment potentially might benefit 100-200 of India's protected areas. As an initial step, the Government is seeking support for an experimental demonstration and capacity-building project that would address seven globally significant protected areas and prepare additional sites. Such a project would build on and integrate existing forestry experience, and would be large enough to establish the feasibility of ecodevelopment and provide for expansion in the long term. This proposed national project would have the potential to address multi-state ecodevelopment issues and management processes, and to establish a basis for programmatic financing. Proceeding now with a seven-site ecodevelopment project is justified by the extent and urgency of human pressures on protected areas and the comparative failure of traditional "enforcement style" management. However, incorporating full-scale ecodevelopment of more sites at this time would not be appropriate, given the complexity of issues, lack of implementation experience, and amount of participatory preparation required.

Project Objectives

8. The proposed project would conserve biodiversity by implementing the ecodevelopment strategy in and around seven protected areas (PAs) that contain globally significant biodiversity populations and are representative of India's varied ecosystems. The specific objectives would be to:

(a) improve the capacity of PA management to conserve biodiversity, increase opportunities for local participation in PA management activities and decisions and reduce negative impacts of PAs on local people;

(b) reduce negative impacts of local people on biodiversity and gain support of local people for conservation;

(c) develop better understanding of the approach and more effective and extensive support for PA ecodevelopment;

(d) prepare other future biodiversity projects that are high on India's list of conservation priorities.

Project Description

9. The proposed project would be implemented over a five-year period from April 1996 through March 2001. The components correspond to the objectives listed above and comprise:

(a) *Improved PA Management* (18% of the costs), with emphasis on achieving more effective conservation, increasing consultation and collaboration with local people and on reducing negative impacts of PAs by increasing employment of local people and by controlling damage by wildlife outside PAs. Funding would be provided for:

(i) managing ecosystems within the PA;

(ii) managing human enclaves;

(iii) improving and implementing PA management plans;

(iv) incorporating PA concerns into regional planning and regulation; and

(v) upgrading PA amenities for field staff.

(b) *Village Ecodevelopment* (60% of the costs, including contribution of local people) would reduce negative interactions of local people on biodiversity and increases support of local people for conservation by:

(i) conducting participatory impact assessment of PA and local people interactions; using participatory microplanning to develop reciprocal agreements that address negative interactions of the PA and local people; identifying alternative livelihood opportunities; analyzing the feasibility of the proposed programs; and strengthening capacity of implementing institutions (e.g. village groups, park personnel, NGOs, etc.) to carry out impact assessment, microplanning, feasibility analysis, and implementation;

(ii) facilitating the implementation of the microplans and reciprocal agreements; and

(iii) implementing agreed programs which develop alternative livelihoods and resource uses that reduce negative impacts on biodiversity in and around the PAs, to be financed by a "village ecodevelopment fund" and to be directly associated with the reciprocal agreements[1].

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1 On the basis of PRA surveys in sample communities in and around the PAs, the project preparation teams have identified an indicative list of possible ecodevelopment investments. These investments can be grouped into the following categories: biomass substitution (e.g. alternative fuels), biomass generation and forestry, ecotourism, agriculture including watershed management, small irrigation and livestock, agro-processing, and artisanry. These

(c) *Research, Education, and Institution-building* (15% of the costs) that develops more effective capacity and extensive support for PA ecodevelopment by:

(i) improving understanding of issues and solutions relevant to PA management and interactions between PAs and people by :

a. ecological research, including monitoring, on ecosystem and species population dynamics, human impact within PAs, topics relevant to the concerns of local people (e.g. ways to control depredation by wildlife, benefits such as watershed protection that PA ecosystems provide local people), and impacts of landscapes (e.g. fires, floods);

b. research, including monitoring, on ethnobiology and indigenous resource management systems, cultural heritage, participatory processes and other socioeconomic concerns;

c. policy and management studies (e.g. ecotourism development strategies, financial sustainability and legislative frameworks); and

d. capacity building and communication programs to facilitate experimental learning and demonstration, increase compatibility of approaches and disseminate findings;

(ii) promoting public support for conservation through environmental education and awareness campaigns; and

(iii) integration of experience and development of an institutional framework for future expanded support for ecodevelopment including preparation of a project proposal for a Second Ecodevelopment Project.

(d) *Preparation of other Priority Biodiversity Projects* (3% of the costs);

(i) Freshwater Wetlands Project;

(ii) Coastal Biodiversity Project;

(iii) Biodiversity Information Project; and

(iv) Ex-situ Conservation Project.

(e) *Project Management* (4% of the costs).

10. **Project Areas.** The seven PAs in the project comprise Buxa, West Bengal; Gir, Gujarat; Nagarhole, Karnataka; Palamau, Bihar; Pench, Madhya Pradesh; Periyar, Kerala; and Ranthambhore, Rajasthan. The seven target areas include the gazetted and proposed parks and sanctuaries as well as periphery land within a 2-10-km radius (the extent of herding and other impact factors). Most of the village ecodevelopment investments would take place in the periphery area. In consultation with NGOs and state governments, MOEF selected these PAs from a list of areas where the threats to biodiversity stem largely from local rural dependencies. Selection criteria comprised global biodiversity importance, biogeographic representation and likelihood of success. The success factor took into account the extent of human pressures, PA management capacity, existing infrastructure (which accounts for five of the seven sites being tiger reserves),

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investment ideas will required additional site-specific review to judge whether they meet eligibility criteria. Not all investments would necessarily be adopted; others may be identified during more detailed planning.

accessibility, state and national government support, and state government responsiveness to community and NGO involvement in forest management. The Bank has excluded one proposed site, Similipal in Orissa, due to issues involving ongoing population relocation activities. Further information on the ecological and demographic features of the seven project areas can be obtained from the Bank's Public Information Center (Fax # (202) 522-1500).

Rationale for GEF Financing

11. **Urgent Global Priority.** The project meets GEF eligibility criteria by addressing urgent global biodiversity conservation needs. The project would conserve biodiversity in seven critical protected areas in a "megadiversity" country. Five of the seven sites have been recognized as globally significant through reviews and programs sponsored by United Nations agencies. One of the seven areas, Gir, has the world's only population of Asian lions. The other six project sites support vital populations of tigers, one of the world's most endangered carnivores. The Government is using the tiger as a symbol of national heritage in order to protect a wide range of ecosystems and the other species which depend on them. In combination, these sites give good biogeographic and habitat coverage (e.g., dry deciduous open forests, semi-evergreen forests, moist deciduous open forests, and wet evergreen forests). The project would conserve ecosystems in danger of fragmentation and degradation. The level of threats to biodiversity in the seven sites is high and requires a substantial effort on an urgent basis. The project, combined with the country's demonstrated commitment to conservation, should help to counteract these threats on a sustainable basis.

12. **Innovative Integrating of Conservation and Development.** The project would address an important GEF concern by developing an innovative means of linking conservation and development. The project would strengthen the involvement of local and indigenous people in conservation and sustainable resource management. The objective, content, and methodology of the project's collaboration between government officials and local communities, and the active role of NGOs and researchers would establish valuable precedents. The GEF-financed participatory project preparation already provides a valuable model for other countries that face the challenging issues associated with the interaction of people and protected areas. The project itself would develop this participatory approach through experiment-based learning and establish a replicable model and institutional framework for conservation support in other sites.

Sustainability and Participation

13. Preparation for the proposed project has emphasized client ownership, local participation and public consultation. MOEF prepared the project with the assistance of professional institutes, NGOs and state forestry departments, and financing from the UNDP/GEF Preinvestment Facility. Bank staff and foreign consultants provided limited periodic comments and advice. The preparation applied rapid rural appraisal techniques and indicative planning, based on sample views of local people, to biodiversity issues in an innovative way. Indian NGOs with a professional institute as national coordinator, two professional ecological/wildlife institutes, four specialists as national consultants, and twelve state-level workshops, and seven national consultation meetings. Substantial additional capacity has been created through the preparation process alone.

14. **Project Sustainability.** By enabling forest departments to share biodiversity conservation responsibilities with local communities, the project will improve the PAs' chances of long-term

survival. Site-specific participatory microplanning, development of incentives, empowerment of local communities, and successful conflict resolution are designed to achieve sustainability. Local contributions to and ownership of village ecodevelopment investments will also contribute. Sustainability will also depend on the design of administrative arrangements, and on access to future, post-project financing. The use of permanent organizational structures, the preclusion of external financing for government staff salaries, and a clear process for defining technical assistance and training requirements will contribute to sustainability. Efforts to increase public support for PAs, to provide tangible measures of project benefits, and to explore the potential of endowment financing, tourism and other sources of conservation revenue will increase prospects for more adequate long-term financing from a variety of sources.

Lessons Learned and Technical Review

15. Lessons from integrated conservation and development programs (ICDP), although limited, are important. Initial experience in conservation projects has highlighted the importance of ensuring that economic investments outside the protected areas are directly related to conservation objectives and of maintaining project size within realistic, achievable limits. The extensive project preparation workshops involving local people, government officials at all levels, local and national NGOs and researchers, and donors, and plans for further project orientation workshops will help India to avoid the problems experienced in other countries associated with a lack of understanding or consensus of the relatively new concept of ICDP.

16. **Lessons Learned from Forestry Projects.** Joint forest management (JFM), currently being supported under recent state forestry projects, provides examples of successful participatory resource management, as well as models for contractual agreements between government entities and local communities. JFM experience provides a rich store of successful activities: (a) applying site-specific participatory microplanning methodology, (b) organizing relatively small and homogeneous villages and hamlets; (c) ensuring participation of disadvantaged groups, (d) developing guidelines for composition and skills of microplanning and implementation support teams, (e) defining contractual agreements between state forest departments and local communities, and (f) using cost and benefit sharing arrangements. Experience from Indian social forestry projects highlights the need to carefully assess incentives for beneficiaries (e.g., preferences for timber over lower-value fuelwood species, negative impacts of timber transport and price policies, increased commitment and success on private rather than public land).

17. **Lessons Learned from Multi-state Projects.** Multi-state projects in India have been more successful when disbursing funds to states in response to past performance and to work plans meeting clearly specified criteria, and when state governments have had a significant financial stake in the project. At the national level, the central coordinating unit needs to have a clear identity and mandate, designated full-time staff, and adequately delegated financial and administrative powers.

18. **Technical Review.** The project design meets Bank requirements for environmental and social review, including careful consideration of aspects involving indigenous people, women, and other disadvantaged groups, as well as people living within the PAs. Copies of the environmental and social data sheets and a description of project strategy for people in the PAs can be obtained from the Bank's Public Information Center (Fax # 202-522-1500). Independent Technical Reviews of the project were obtained in December, 1994 from two very experienced biodiversity

conservation specialists - Ms. Amy Vedder of the Wildlife Conservation Society (STAP member) and Mr. Thomas Mathew of the World Wildlife Fund. They are both supportive of the participative, community-based approach to conservation that the project will develop and test. On their advice, the project description was modified to clarify the PA management component and the links between community ecodevelopment and regional planning. A summary of Ms. Vedder's review is attached.

Project Financing and Budget

19. **Cost.** Current cost estimates are tentative and subject to revision during appraisal. Total costs are currently estimated at US$74 million (Rs. 2640 million) in current prices.

20. **Financing.** It is proposed that an IDA credit would provide US$36 million (Rs. 1285 million), a Global Environment Trust grant would cover US$20 million (Rs. 713 million), the national and state governments would finance US$13 million (Rs 464 million), and the local people would finance a notional US$5 million (Rs 178 million), mainly through labor contributions. The IDA and GEF financing would be allocated on a pro-rata basis to all components except for the preparation of other biodiversity projects (paragraph 9 d above), which would be financed solely by IDA. The table below summarizes the project components by financiers.

Preliminary Project Financing Plan (US$ million)

	GEF	IDA	State Govts & GOI	Local People	Total
Improved PA Management	2	3	8	0	13
Village Ecodevelopment.	14	23	3	5	45
Research, Env. Educ. & Future Inst. Building	3	6	2	0	11
Prep. of Other Biodiversity Projects	0	2	0	0	2
Project Management	1	2	0	0	3
Total	20	36	13	5	74

IDA has also provided a US$2 million (Rs. 64 million) Project Preparation Facility advance to finance completion of project preparation and project startup activities planned for FY95/96.

20. **Relation of Cost Estimates to Annual Budgets.** Cost estimates indicate the overall size of the project and amount of required financing but do not provide an approved "blueprint" for specific expenditures at each site. In the course of the project, managers at each site would allocate specific expenditures according to an annual work plan and budget, which would be subject to a formal review process to ensure consistency with project objectives. These annual budgets would specify the location and unit size of the "village ecodevelopment funds". These funds would then be allocated for specific activities as agreed with village groups through participatory microplanning and feasibility analysis, in conjunction with reciprocal agreements that promote conservation.

Incremental Costs

21. Without the project, although India's extensive funding for traditional park management would continue, baseline ecodevelopment funding would be limited to small-scale NGO efforts, a national government program which has only nominal funding (currently US$2.2 million annually for all of India), and initiatives by individual states. Even if it is assumed that, in the absence of a GEF project, the national and state government financing of US$13 million and local community financing of US$5 million earmarked for this project would be added to the current baseline ecodevelopment funding levels, these efforts would not provide the critical mass of financing required for a meaningful national pilot program. This funding gap has arisen because the challenges of biodiversity conservation in India are growing and currently outpacing available revenue. One of the most important challenges is the increasing pressure on protected areas that requires new, initially more costly, participatory approaches to conservation. With widespread poverty causing many competing demands for scarce public funds, national and state governments can not currently provide sufficient funding to meet the burgeoning conservation agenda. A larger scale of funding is therefore needed to address urgent threats to biodiversity, to ensure coverage of

globally significant sites, to test the ecodevelopment concept in a representative range of climatic, habitat, and socioeconomic environments and to develop a framework for expanded future support. The total cost of this first major ecodevelopment project is US$74 million. Baseline funding that India can contribute to the project totals US$18 million. The incremental cost is therefore US$56 million. However, the Government of India realizes that, in view of the scale of external funding required, it cannot expect to receive a GEF grant sufficient to cover the entire incremental cost. It is so strongly committed to the objectives of the project that it is willing to borrow up to US$36 million of IDA resources to cover 64% of the incremental cost. A GEF grant of US$20 million is therefore requested to cover the remaining 36% of the incremental cost.

Issues, Actions and Risks

22. **External Risks.** The project has significant external risks. The pressures of population growth, poverty, and commercial interests may undermine project efforts, at least in some of the PAs. It is not possible to fully address these risks within the project design. The project should proceed nevertheless, because of the importance of conserving biodiversity, and the critical role of local people in conservation. Its flexible design will be adapted to respond to the risk factors as and when they arise.

23. **Internal Risks.** Internal risks and areas of uncertainty associated with the implementation of the project include:

(a) state government commitment to local participatory decision-making;

(b) ability of PA authorities to withstand pressures exerted by resource users from other government agencies and the private sector;

(c) trust of local communities, disadvantaged groups, and NGOs;

(d) feasibility and effectiveness of village ecodevelopment investments and associated obligations;

(e) institutional and technical constraints in research and training;

(f) adequacy and sustainability of counterpart financing; and

(g) adequacy of management support.

24. **Measures to Address Internal Risks.** Allocating project financing annually according to a review of work plans and progress reports and avoiding an up-front "blueprint" approach would encourage sustained state government commitment to participation. Strengthening the capacity of PA authorities to incorporate PA concerns into regional planning and regulation would help them withstand pressures from other resource users. Provision for a participatory planning process, careful and comprehensive monitoring of social considerations, and important roles for NGOs, would facilitate a gradual increase in trust. The requirement for community cost-sharing (which would provide local judgment on feasibility), the use of specialist reviews, and experimental learning through the dynamic planning, monitoring and adjustment process should facilitate the feasibility and effectiveness of village ecodevelopment. Agreement on procedures to develop realistic strategic work plans, sound provisions for oversight, and pragmatic contracting arrangements would help ensure appropriate use of existing and future research and training capacity. Including full budgets and financing plans in the annual work plans would help ensure

6. Eligibility criteria have now been outlined for selecting village ecodevelopment activities that: (i) require compliance with sound conservation practice; and (ii) encourage substitution of resources and incomes from sources outside the PA. Ecodevelopment investments will be too small to have significant "magnet" effect and these effects will be closely monitored. Several financial sustainability initiatives will be pursued, including endowments, increased eco-tourism revenue and income generation through ecodevelopment. Successful implementation will encourage replication.

31. **Evaluation and Dissemination.** The project would also build in independent evaluation and mechanisms for effective dissemination. Independent specialists would monitor project progress and also evaluate the long-term impact of project activities, beginning by designing studies and collecting baseline information on environmental and social factors. Dissemination, including the use of computer networks, would enable the project to share monitoring, evaluation, and other research findings among the seven sites and with external groups. All progress and evaluation reports would be made public.

ANNEX A: SUMMARY OF THE TECHNICAL REVIEW

INDIA: ECODEVELOPMENT PROJECT

1. The choice of India and its protected areas is appropriate, due to its high degree of biological diversity, species richness, and endemism, combined with a high degree of endangerment. Given the great human pressure on this diversity, and level of poverty surrounding these reserves, it is also appropriate that an integrated, comprehensive program be designed to ensure the conservation of biological diversity by addressing both the direct problems of protection as well as unsustainable resource use in bordering areas. Policies established by the Government of India appear to provide a suitable context for the implementation of the described program and preparation of the project has included significant participation by various stakeholders as well as technical experts.

2. The project is designed to place emphasis on the local people -- seen as both the current threat to conservation and the necessary stewards of natural resources. It provides for their increased participation in conservation planning and management, and for incentives for more sound resource use. However, the other side of the equation is not fully described in the project. There must be strong, informed and capable parties to represent conservation interests. Hence improving PA management will be an essential step in the process. Improvement of management plans and implementing systems should be linked to ecological research and monitoring in order to assure ecological integrity and protection of key and endangered species, and provide timely feedback on the effectiveness of management.

3. Project assistance for development of alternative economic options could provide increased income which could in fact fuel further natural resource depletion. In order to avoid this pitfall, the project must ensure that: (1) all ecodevelopment activities are compatible with conservation -- including maintaining ecological integrity of systems and species; (2) ecodevelopment activities address both PA resource substitution and, where necessary and feasible, income substitution; and (3) availability of assistance for development of alternative economic options is clearly contingent on conservation compliance.

4. The establishment of partnerships between local and state stakeholders in conservation of PAs, and development of a process for planning and implementation of conservation should lead to sustainability of the systems described in the project. What is not clear, and should be specified more fully, is how the process will become financially sustainable.

ACTIONS TAKEN TO REFLECT THE REVIEWER'S COMMENTS

5. The description of the PA management component has been strengthened and the component specified in greater detail. It will include assistance to develop management plans for the PAs themselves, for ecosystems and for enclaves, and for incorporating PA concerns into regional planning and regulation. Research support will be provided to PA management. Applied research, including monitoring, will address the relationships between protection and development and the status of endangered species.

adequate counterpart financing. The specification of organizational responsibilities, structures, staffing, and contracting arrangements, and procedures to select appropriate training programs would help to ensure adequate management support.

25. **Financial Risks.** The risk that the project will not be financially sustainable has been minimized by a variety of actions. First, the participatory process of designing the project and the intensive management approach built into it will maximize the probability of success and support for its replication. Second, it will not provide external finance for Government staff. Third, the project includes the preparation of a follow-on ecodevelopment activity that will help to mobilize future funding. Finally, the project will evaluate alternative supplementary financing mechanisms for conservation, including an endowment fund or funds and higher ecoturism revenues, and will recommend steps to implement the most promising financial options.

Institutional Framework and Project Implementation

26. **Management.** Project management would use and build upon existing Forest Department, inter-agency, NGO, and community organizational structures, modifying them where necessary to ensure autonomy, flexibility, and accountability. State governments, through their PA authorities, would be responsible for project execution. For many project activities, the PA authorities would develop partnerships with or delegate to NGOs and village community groups. PA committees or societies would coordinate the work of PA authorities, NGOs, and village community groups. The project would also involve existing district coordination committees and regional and national training and research institutions, as necessary. At the national level, there will be strong coordination and facilitation in order to encourage mutual learning, address bottlenecks, and provide overall project integration. As at the state-level, NGOs and professional institutes would play major roles in national-level project management. At each level, detailed organizational responsibilities and structures will be specified.

27. **Staffing and Implementation Contracts.** Detailed staffing and contract implementing arrangements (including contracting of NGOs, village groups, researchers, and trainers) will address issues of career development, staff continuity, and technical specialization that affect staff quality and effectiveness. In the staffing plans, the state governments would document that planned internal transfers and the assignment of project responsibilities to existing staff would not adversely affect the adequacy of staffing of other ongoing, non-project conservation activities. In order to support sustainability, the project would not include external financing for government staff.

28. **Participatory Microplanning.** The project will involve a dynamic, ongoing, micro-level planning process which is concurrent to project implementation. Teams consisting of PA staff and local NGO staff (including women) would meet with communities in and around the PAs to assess and resolve negative impacts of community and PA interactions. These teams would use specially focused participatory rural appraisal techniques to facilitate detailed village-level planning of a village ecodevelopment program. These teams would take special care to ensure that women, tribal groups, and other disadvantaged people participate in the planning process and benefit from the agreed program. The teams would help villagers to consider:

(a) negative impacts of the protected area on villages and of the villages on the PAs, and measures to mitigate these impacts;

(b) village-level institutional structures and processes, existing and required;

(c) finance, training, research, local community contributions, and other inputs required, and reciprocal contractual obligations; and

(d) initial feasibility analyses covering technical, financial, social, and environmental considerations, including applicability of traditional resource management systems.

Specialist groups, comprising staff of NGOs, specialized government agency staff, ecologists and the private sector, would provide additional advice on feasibility and design considerations.

29. **Eligibility Criteria for Village Ecodevelopment Investments.** To be eligible for support, the village ecodevelopment investments would need to:

(a) *conserve biodiversity* by reducing negative and increasing positive interactions between people and PAs, either directly, or indirectly by creating sufficient incentives for a consensus that commits local people to specific, measurable actions that improve conservation;

(b) *improve the socioeconomic condition of populations currently dependent on the PA*, especially tribals, women, and other disadvantaged people;

(c) *be incremental,* i.e., alternative sources of funding and support are not available;

(d) *be technically feasible*, e.g., inputs and technical advice are adequate; physical conditions are suitable;

(e) *be financially feasible*, e.g., market linkages are adequate, cash flow requirements are viable, financial returns are sufficient to compensate for PA resources foregone, returns compare favorably with alternative investment options;

(f) *be socially and institutionally feasible*, e.g., associated activities are culturally acceptable, local institutional capacity is adequate to organize forest protection, distribute benefits from common resources, provide physical maintenance, keep accounts, etc.; and

(g) *be environmentally sustainable,* e.g., adverse environmental impact of exotic species, agrochemicals, construction activity can be ameliorated or avoided.

30. **Monitoring and Communication.** Project monitoring of biological, social, financial, and other factors would be integral to project management; the feedback and accountability would assist in problem-solving and adjustment. The adaptive management approach would quickly incorporate lessons learned from monitoring feedback. It would provide information on village and PA authority compliance with the local site-specific ecodevelopment agreements. Monitoring would include semi-annual progress reports that would provide the tangible evidence of project benefits needed to sustain budgetary and political support. In addition, the regular reporting channel to the GOI, external financing agencies, and project stakeholders would: (a) provide information on project implementation status and impacts, (b) demonstrate the effectiveness of project management and decision-making procedures, and (c) identify issues which require GOI or Bank intervention.

Proposal for Review

Project Title:	**Lebanon: Strengthening of National Capacity and Grassroots In-Situ Conservation for Sustainable Biodiversity Protection**
GEF Focal Area:	Biodiversity
Country Eligibility:	Convention Ratified December 15, 1994
Total Costs:	$3.259 million
GEF Funding:	$2.5 million
Lebanese Contribution:	LL 1,256,000,000 (=$762,600)
Implementing Agency:	UNDP
Executing Agency:	Government of Lebanon with local NGOs supported by IUCN
Tentative Approval Date:	June 1995
Project Duration:	Five years
GEF Preparation Costs:	$29,000

LEBANON: STRENGTHENING OF NATIONAL CAPACITY AND GRASSROOTS IN-SITU CONSERVATION FOR SUSTAINABLE BIODIVERSITY PROTECTION

COUNTRY AND SECTOR BACKGROUND

1. The twenty years separating the 1972 UN Conference on the Human Environment and the 1992 UN Conference on Environment and Development witnessed very significant advances in dealing with local and global environmental issues. Unfortunately for Lebanon, those same two decades witnessed the destructive and bitter conflict (1975-1990) that took its toll on every resource in the country, and in which the Lebanese economy and infrastructure barely survived.

2. While it would be an oversimplification to blame the war and the ensuing economic difficulties for all of Lebanon's environmental problems, however, in the course of the massive destruction and displacement caused by the conflict, the vast majority of people have been too preoccupied with overcoming the struggles of day to day living to pay much attention to the environment. A number of other environmental problems persist such as pollution, cutting of trees for firewood, overgrazing of fragile slopes, and hunting of birds despite official prohibitions. It is thus imperative that environmental considerations and urgent measures for biodiversity protection be integrated within the large-scale national reconstruction efforts presently being undertaken.

3. Lebanon is looking to the global community for help in dealing with the daunting environmental challenges facing it today. The government has demonstrated its commitment to sound environmental management by ratification of the Rio Conventions in December 1994. It has also entered into a number of other agreements relating to the environment, such as, the World Heritage Convention, the Barcelona Convention, and the Montreal Protocol. At the national level, a number of key initiatives have been taken such as the enactment of Law No 216 in April 1993, whereby the Ministry of Environment (MOE) was created and entrusted with the task of proposing legislation, coordination and oversight on matters relating to the environment. Shortly after its establishment the MOE identified conservation of biodiversity as one of its seven areas of priority. A national plan has been proposed to help develop and implement a national strategy and programmes for sustainable development. Several levels of action have been agreed on:

- At the institutional level the following priorities have been established: review and update of existing legislation; strengthening law enforcement mechanisms; strengthening coordinating mechanisms between line ministries; and preparation of an environmental code.
- Strategies and policies are to be prepared based on a participatory approach for the implementation of a national plan for Agenda 21.
- Concerning information, a study of the state of the environment, a public awareness programme, an environmental monitoring programme, the incorporation of environmental concerns in education (a protocol has been signed between the MOE and the Ministry of Education), and access to knowledge resources have been agreed to.

- Investment priorities are: solid waste management, sewage treatment and equipment for environmental monitoring.

4. The Government of Lebanon has, in accordance with national concerns, embarked on the implementation of a US$ 2.25 billion Programme of National Emergency and Reconstruction (NERP) in cooperation with the World Bank and many other multi and bilateral donors. The NERP concentrates primarily on rehabilitation of water, waste water and solid waste, electricity, housing and education sectors. It is broadly managed by the Council for Reconstruction and Development (CDR). While NERP has an implicit environmental component, it does not fully integrate environmental concerns into its proposed rehabilitation and reconstruction programme.

5. With UNDP and UNEP funding ($550,000 from Capacity 21, $42,600 from IPF and $40,000 from UNEP), a project entitled "Establishment of an enabling environment for integrating the principles of sustainable development in Lebanon", has been approved in July 1994 and is presently becoming operational. The UNDP Sustainable Development Network (SDN) project will support Capacity 21 activities in facilitating access to information and knowledge resources. In this context, the SDN will support human networking in country by bringing together key stakeholders in Lebanon.

6. These two projects should also be seen in the context of the $400,000 METAP funded initiative, which will produce an assessment of the State of the Environment in Lebanon and will formulate a National Environmental Strategy (NES).

7. The formulation of the above mentioned projects has helped set overall institutional priorities. Their active implementation will compliment and support the implementation of the present GEF proposal.

PROJECT OBJECTIVES

Global Environmental Objective

8. This project is developed in full support of the Convention on Biological Diversity; specifically, of Article 8, (In-situ Conservation) paragraphs (a) through (m); Article 7, strengthening conservation, management and sustainable use of ecosystems and habitats identified by the Government; Article 11, addressing opportunity costs incurred by local communities and incorporating measures for compensation; Article 12, training and research; and Article 13, public education and awareness.

Global Environmental Benefits

9. As part of the Fertile Crescent, one of the most important areas of the world in terms of species diversity, Lebanon is home to a large number of species of flora and fauna many of which are endemic. Ancient inscriptions and documents are full of references to the "cedar forests" and their diversity of flora and fauna. Today less than 5% of Lebanon retains a forest cover yet it

continues to have over 2,700 species of flowering plants many of which are endemic, over 250 species of birds that migrate over Lebanon, 68 nest reptiles and 77 species of mollusc.

10. The protected areas selected for this project represent documented centres of endemism for plants, small mammals, reptiles and amphibians. Horsh Ehden has 57 species of flowering plants that are endemic and 30 named after Lebanon. The Palm Islands are important bird resting and nesting areas for migrating and indigenous birds and are rich in wild flowers. Jabal Barouk has the largest self propagating stand of the Cedar of Lebanon, *Cedrus libani* and is located at the southern-most limit of this tree's growing range. It is also one of the last remaining areas in Lebanon where larger mammals such as the wolf and wild boar can still be found, and where the ibex and mountain gazelle can be reintroduced. The project will also seek to provide safe havens for migratory birds, initiate awareness campaigns and support efforts to impose a five year hunting moratorium throughout Lebanon. The global impact of protecting these sites would be immediate and considerable.

Overall Objective

11. The project's overall development objective is to conserve endemic and endangered terrestrial and marine wildlife and their habitats, incorporate wildlife conservation as an integral part of sustainable human development, strengthen the institutional capacity of governmental agencies and NGOs, restoring and upgrading eco-tourism, and promote national reconciliation. This will make Lebanon an important contributor to international efforts on environmental sustainability and biodiversity as contended by the Biodiversity Convention.

Specific Objectives

12. ***Management and Conservation of Three Protected Areas*** in mountainous and marine habitats, by local teams of park rangers according to management plans prepared with the assistance of international conservation organizations and in-country scientific institutions that will conduct field studies, gather and analyze ecological data, publish results, and monitor progress. Based on scientific data gathered and experience accumulated by the present project, efforts will be made towards defining an overall strategy of conservation and identification of priorities.

13. ***Capacity Building and Institutional Strengthening*** will support the overall environmental planning and enabling programme mentioned above. The project will create an enhanced capability of Government agencies, scientific institutions and local NGOs to oversee, study and manage mountainous and marine protected areas in an effective and sustainable manner by means of institutional support for MOE and training workshops to upgrade skills of all participants. This will include Protected Areas Management training for rangers, Biodiversity Monitoring and GIS/GPS training for researchers and park managers, Rural Awareness Campaign training for NGOs, and teacher training workshops in the vicinity of demonstration areas.

14. ***Multi-Dimensional Sensitization and Educational Campaign*** to target a number of population groups within the vicinity of the protected areas and at the national level, in order to assure large-scale sustainability of biodiversity conservation efforts. Through this component the lessons learnt

and information gathered within demonstration areas will be shared and popularized beyond the boundaries of the protected areas in order to reach the widest cross-section of the population. This will include outreach to communities, preparation of educational materials for local schools, recommendations for national-level environmental education components and an effective series of documentaries and TV spots to sensitize the public and alert officials and policy makers.

PROJECT DESCRIPTION

15. In view of the post-war situation and given the context of reconstruction, it is imperative that action for biodiversity protection is undertaken, particularly for the conservation of the priority sites identified in this project. During the war, due to the break-down of law and order, infringements on the sites increased at an alarming rate and it is now necessary to strengthen community and governmental efforts to protect these important eco-systems and habitats which are home to significant, unique and threatened biodiversity. This project describes programmes designed to assist the Government of Lebanon to conserve areas of significant biodiversity by establishing three demonstration protected areas. Emphasis has been placed on close consultation and cooperation with the Ministry of Environment, all relevant NGOs and the scientific community.

Location and Extent

16. Lebanon is a small country, 10,450 square kilometres, and represents a typical eastern Mediterranean climate with two mountain ranges running from north to south creating a number of varied and rich habitats. All the habitats and the species they harbour are at risk because of the lack of enforcement of existing laws that protect forests and their wildlife and the absence of properly managed protected areas. There are at least 12 areas in Lebanon that can, and should, be managed as protected areas, three of which have been selected for assistance under this proposal on the grounds of their legislative standing, ecosystems they represent, location and level of biodiversity (more information is provided in Annex 2).

17. *First area: "Jabal Barouk" - Barouk Mountain*, is one of the very few remaining wild areas in Lebanon suited to be classified as a *National Park* for its outstanding natural and scenic sites and its scientific, educational and recreational significance nationally as well as internationally. If properly protected and managed it could be nominated "A World Heritage Site". It is the southern-most limit of *Cedrus libani*, is well-suited for potential reintroduction of larger mammals such as ibex and mountain gazelle, and has grounds for migrating birds of prey.

18. The Arz-El Shouf Society (ASS) was formally established in 1994 in response to a growing interest in the Shouf region for the conservation of natural resources. The villagers will become active participants in the planning and management of the park through their local NGO.

19. *Second area: "Horsh Ehden" - Ehden Forest*, represents a mountainous ecosystem on the elevated slopes of the northern Mt. Lebanon chain (1300-1950 meters) in the Governorate of North Lebanon. It is located 3.5 km northeast of the summer resort of Ehden, 35 km from maritime city of Tripoli and 100 km from the capital Beirut. The area is 280 hectares, however more communal

contiguous land owned by the municipality could be added at a later stage to expand the forest to 700 hectares.

20. Horsh Ehden has one of the larger stands of the Cedar of Lebanon *Cedrus libani*, mixed with other conifers such as the High Juniper *Juniperus exelsa*, broadleafs such as the Maple *Acer tauricolum* and the endemic Wild Apple *Malus trilobota*. It is internationally renowned as the septentrional limit for the natural growth of hundreds of graceful specimens of the Cilician Fir, *Abies Cilicica*. It is also home to more than 500 species of flowering plants of which a large number are rare and endangered, 57 species are endemic and 30 are named after Lebanon. In addition, the Ehden Milkvetch, *Astragalus ehdenensis* is endemic only to the forest. Horsh Ehden is a sanctuary for resident and migratory birds, spring and summer breeders and winter visitors, several of which are endangered. It also has a number of surviving and threatened mammals and a variety of reptiles and amphibians.

21. Friends of Horsh Ehden (FOHE) was established in 1990 to lobby for the designation of Horsh Ehden as a protected area. The FOHE will be responsible for the Horsh Ehden component. Horsh Ehden could be classified a *Strict Nature Reserve/Scientific Reserve* as a representative of Lebanon's mountainous natural ecosystem maintaining genetic resources of plants and wild flowers in a dynamic and evolutionary state, available for scientific study, environmental monitoring and education. Horsh Ehden has been designated as a Biosphere Reserve by UNESCO's Man and Biosphere programme.

22. *Third area: Palm Islands - "Juzur al nakhl"*, represent an eastern Mediterranean marine island ecosystem and include the Palm, Sanani and Ramkine Islands. The Islands and surrounding water constitute an integrated natural marine basin with a surface area of 5 km2 off the coast of the city of El-Myna, the harbour section of Tripoli.

23. The islands are internationally reputed as important resting and/or nesting grounds for migratory birds, especially as such sites of the mainland have been virtually destroyed. The islands are a refuge for a number of rare resident birds, including the threatened Audouin's Gull. The islands receive about 10 species of spring-summer migrant birds, and 24 recorded species of winter-visiting fowl. Scientific observations report that sand beaches of the islands have been egg-laying sites for sea-turtles: the Loggerhead, Caretta caretta, and the Chelonia mydas mydas. The caves and shore rocks of the region are known to be vital shelters for the protected Mediterranean Monk Seal, Monachus monachus. The Reserve teems with wild flowers, many species of which, like Rosin Cress, Cressa cretica, had not been previously known to grow in Lebanon.

24. The Environmental Protection Committee (EPC) which was established in 1984, and has been active since then in efforts to protect the environment in and around Tripoli, will be the main implementor at the local level of Palm Islands component. Palm Islands could be classified a *Managed Reserve/Wildlife Sanctuary* to assure the natural conditions needed to protect nationally significant species especially birds, plants, sea turtles, seals and others. The islands were listed as a Wetland of International Importance by Carp (1980). They are also listed among the four important sites in Lebanon for migratory birds in the latest directory of Birdlife International (1994).

Activities

Management and in-situ conservation related activities:

- Review legislation, develop new or strengthen existing strategies and plans of action for conserving biodiversity taking account of information base both local and international.
- Prepare and implement management plans for the three demonstration protected areas.
- Determine programmes and actions assuring sustainable use of biological and genetic resources of mountainous and marine ecosystems and their use for food, agriculture and eco-tourism.
- Incorporate, where applicable, procedural steps to promote interaction and sustainable practices of indigenous groups/ local communities to embody their traditional lifestyles in biodiversity conservation, especially including women.
- Allocate funds for activities promoting well-being of local farmers and pastoralists, supporting their economic structure and compensating for lost resources, with a view to integrating these communities within national efforts for conservation and sustainable use of natural resources.
- Undertake scientific studies assessing conservation needs and recommending future areas for conservation activities. This will include identifying areas and species of immediate concern, setting conservation priorities, and assessing and proposing future activities for in-situ/ex-situ conservation, species recovery, habitat restoration, and species reintroduction (in view of capability built by present project and limitations encountered).
- Establish an assessment process for data collection, technical implementation and financial cost evaluations as well as criteria for the selection of park rangers by local NGOs.
- Strengthen environment policies and integrate them with development policies concerning the management of coastal areas.
- Advise the MOE on the most effective organization of a Protected Areas and Wildlife Department to promote, as appropriate, management and control system related to bio-resources.
- Assist the MOE in establishing a Project Coordinating Committee (PCC).
- Fund-raising activities for a self-standing project (entrance fees, book sales, T-shirts, plants, etc)

Data and information related activities:

- Mark the boundaries of the protected areas within limits defined on scientific and logistical basis.
- Determine field studies and research activities needed and expertise available to implement them.
- Establish and conduct monitoring programmes bases on the GIS/ GPS systems to determine and measure status of all species within the protected area and to produce reliable base maps.

- Regularly collate, evaluate and exchange information on the biodiversity conservation process in the 3 areas, and undertake systematic sampling and evaluation.
- Identify and evaluate the potential economic and social implications and benefits of the conservation and sustainable use of mountainous and marine ecosystems. These studies will elicit and integrate the inputs of local populations, in particular of natural resource users.
- Conduct training workshops in protected area planning and management, biodiversity monitoring and public awareness campaigns for park rangers, NGOS, SIs and MOE conservation staff. Sensitization and awareness campaigns will likewise be undertaken for the local populations surrounding the proposed protected areas in order to build support for conservation activities.
- Produce documentaries and TV spots to promote an awareness campaign utilizing a qualified local TV Director and arrange for maximum exposure on all local TV stations. Mass media information campaigns will be designed so as to be most widely accessible to different groups.
- Prepare an effective video presentation based on the TV awareness campaign and distribute individual copies to Members of Parliament, Government Ministers and senior officials.
- Make suggestions for and prepare educational materials for dissemination in schools in order to raise awareness about environmental concerns facing Lebanon. This will be an important step towards educating the young, particularly students, about the importance of biodiversity conservation. Teacher training seminars will also be held for teachers of local schools.

Resource requirements

- The three protected areas of Jabal Barouk, Horsh Ehden and Palm Islands.
- Teams of park rangers, six for Jabal Barouk, four for Horsh Ehden and four for Palm Islands fielded by three local NGOs under a sub-contract to the project. The NGOs are Arz-El Shouf Society (ASS), Friends of Horsh Ehden (FOHE) and Environmental Protection Committee (EPC) respectively. The rangers will be trained to plan and manage protected areas, and to introduce the park and its wildlife to visitors from Lebanon and around the world.
- NGOs to produce TV documentaries and spots, prepare informational material for use in schools, and disseminate information to government officials and municipal councils.
- NGOs in collaboration with scientific institutions to undertake assessment of potential economic and social implications and benefits of conservation and sustainable use of resources in different ecosystems, particularly as these would impact upon the local populations.
- National Scientific Institutions to conduct field studies, research and monitoring through sub-contracts from the project in an effort to establish baseline data and maps.
- Scientific institutions with technical guidance from international conservation organizations, to undertake scientific studies and assessments.

- Equipment and materials include 4WD vehicles, boat for the islands, GIS/ GPS hardware and software, computers/ printers, communication systems, portable videos/ monitors, video cassettes, informs, and misc. materials.
- The Government of Lebanon will provide office space and furniture, annual subsidies to established protected areas, support for awareness campaign and counterpart staff for on-the-job training for the duration of the project.

Outputs

- A coordinated protected areas system, beginning with three demonstration areas, each with a management plan and a team of trained rangers directly responsible for management, protection and interpretative programmes of each park.
- The conservation management plan of a large number of mainland species of the protected areas.
- Conservation of a marine ecosystem on Palm Islands coastline and protection of migratory birds.
- An accurate body of information and maps based on species surveys and monitoring programmes utilizing GIS/GPS systems to areas system. The absence of reliable data currently hinders the ability of individuals and organizations to provide meaningful solutions and assistance.
- An effective Public Awareness campaign to sensitize government and public to the urgent need for protecting wildlife, and NGOs trained to carry out this Public Awareness Campaign.
- A stimulus to implementation of laws regulating hunting of all wildlife, tree cutting and over-grazing by providing the information and data to argue their case to the nation.
- Educational materials designed to raise environmental awareness among school students.
- A Project Coordinating Committee (PCC) chaired by the MOE's Director of Protected Areas and membership from UNDP/GEF and participating NGOS and SIs.
- Three different protected areas categories that will serve as pilot projects.

Project Reviews, Monitoring and Evaluation

25. The project will monitored and evaluated in accordance with standard GEF and UNDP procedures. An annual review will be conducted (joint review by representatives of Government, implementing agencies and UNDP). Project performance evaluation reports will be prepared for submission to each annual review. In addition, a mid-term evaluation will be undertaken during the third year of the project, and a detailed project terminal report will be required for review of all participants prior to the final project review.

RATIONALE FOR GEF FINANCING

26. This project is directly working to fulfil a number of Programme Priorities set by the COP of the Convention on Biological Diversity as guidelines for GEF programming in 1995. These include in particular, points c, e, g, i, k, and l:

- Strengthening conservation, management and sustainable use of ecosystems and habitats identified by national Governments in accordance with Article 7;
- Capacity building, including human resources development and institutional strengthening;
- Promotion of sustainability of project benefits and replicability;
- Innovative measures including those which address opportunity costs incurred by local communities and identify ways and means for compensation;
- Promotion of conservation and sustainable use of coastal and marine resources under threat and vulnerable mountainous areas;
- Promotion of the conservation of endemic species.

27. The exact loss of species as a result of habitat destruction and over-exploitation may never be known, however, according to the 1990 IUCN Red List of Threatened Animals and the WCMC Animals Database a number of animals in Lebanon are currently internationally threatened:

Endangered : *Dalmatian Pelican, Anatolian Leopard, Mediterranean Monk Seal.*
Vulnerable : *Marbled Teal, Cinereous Vulture, Houbara Bustard, Mountain Gazelle, Gray Wolf, European Otter, Desert Monitor, Rare-sociable Lapwing, Audouin's Gull, Imperial Eagle, White-tailed Eagle, Lesser Kestrel, Great Bustard, Little Bustard, Corncrake.*
Threatened : *Red Kite, Pygmy Cormorant, Leopard, Mouse-eared Bat, Nose-Horned Viper.*

28,. The present project in Lebanon will be particularly important to the GEF portfolio as it is one of the very few projects of its kind undertaken in the Eastern Mediterranean region which forms part of the historical Fertile Crescent--one of the world's most important centres of plant genetic diversity. The project will be have considerable potential for replication in other countries of the sub-region.

Innovative Features

29. Promoting national reconciliation after 17 years of civil war is a top priority in Lebanon. An entire generation was raised during the war who are not familiar with many regions of their small country (10,452 sq.km.). The project will promote national reconciliation and institutional strengthening by:

- Bringing people together from different areas of Lebanon and introducing them to and involving them in the conservation of species and habitats. These activities will encourage young and old to transcend boundaries and overcome prejudices as they actively conserve wildlife.
- Bringing institutions together such as: a) the MOE b) local NGOs and c) in-country research institutions and universities, in order to establish a network of protected

areas that are surveyed, studied and monitored according to internationally recognized standards.

30. As a number of other countries emerge from prolonged periods of civil war, which always puts an enormous pressure on the environment and its biodiversity, this project can serve as an important model for environmental management, biodiversity conservation and national reconciliation.

SUSTAINABILITY AND PARTICIPATION

31. During the course of the project the Government of Lebanon will provide an annual support of LL 50 million to each of the three protected areas selected. This contribution will be used to begin construction of a Visitor Centre in each demonstration area which would be completed by the end of the project. Such a facility would enhance the income generating capacity of the parks and will put them in a better position to pay their share of operating expenses.

32. In order to sustain and expand the protected areas system in Lebanon after the completion of the project, the Government will allocate an annual budget for the Department of Protected Areas and Wildlife in the MOE, as well as an annual subsidy to each of the NGOs responsible for the management of the three demonstration parks. The annual subsidy will cover half (50%) of total anticipated expenditures of each park. Other sources of income will include entrance fees, sale of books, T-shirts and donations from local businesses and corporations. In the third year of the project a fund-raising consultant will recommend more avenues of income generation for the project.

33. The involvement of local communities in the planning, protection and management of protected areas will ensure that practices are compatible with local political, social and religious institutions. The project will also strengthen the institutional capacity of the MOE and provide research grants to the National Council for Scientific Research (NCSR), Marine Research Centre (MRC), American University of Beirut (AUB), Lebanese University (LU) and other universities to address the multi-disciplinary issues of protected area establishment and management.

LESSONS LEARNT AND TECHNICAL REVIEWS

34. This project is similar to the GEF Mauritius project (5th Tranche) in that both countries are small in land area, and where diversity is concentrated in small remaining areas of forests which contain native plants with a potential economic value to the global community. The project will benefit from the GEF Jordan (Azraq/Dana-3rd Tranche) project in employing local NGOs in a management capacity where local populations participate in the planning and conservation of the protected areas in their locality. It is also similar to the Mozambique project (4th Tranche) where a decade of civil unrest severely undermined Government agencies and destroyed much of the infrastructure of existing protected areas, and where revenues from tourism and user fees may contribute to sustainability of these areas. In addition, this project will complement and learn from

the GEF sponsored In-Situ Conservation project currently underway in Turkey (2nd Tranche). All these projects will be followed closely to ensure that lessons learnt are transferred.

35. The main difference between this project and other GEF projects around the world is Lebanon's history of continuous exploitation of forests and wildlife over a period of thousands of years. Reversing that ancient trend of destruction by establishing protected areas for the conservation of important species, habitats and cultural values will contribute significantly to the GEF portfolio. The present proposal has been designed in the course of extensive consultations with diverse in-country agencies. Details of this consultative process are available in separate reports. The project has been submitted to STAP experts for independent technical review, and has been modified and improved in accordance with their suggestions. The review is attached along with UNDP's response.

PROJECT FINANCING AND BUDGET

Budget category (USD)	Government Inputs (LL)	NGO/SI Inputs (LL)	External Inputs
Personnel	64,000,000	77,000,000	**515,000**
Sub-contracts (to be entered into w. local NGOs for implementation)			
Park Management			780,000
Field Studies			150,000
Monitoring			60,000
Documentaries			45,000
Sensitization/communities			40,000
Conservation spots (15)			45,000
Guidebooks			15,000
Educational materials			45,000
Scientific assessments			30,000
Subcontracts sub-total			**1,210,000**
Training			**164,000**
Equipment	32,000,000	286,000	
290,000			
Miscellaneous	205,000,000	128,000,000	
151,000			
Support Costs (IUCN 9%)			**170,000**
Total	1,051,000,000 (=US$ 638,130)	205,000,000 (=US$ 124,470)	**2,500,000**

INCREMENTAL COSTS

36. Protected area management has been essentially non-existent in Lebanon over the past two decades. While the Government and many NGOs are increasing their level of activity in this field, they lack important elements of capacity to meet the substantial needs. This project, therefore, will not result in avoided costs on Lebanon's part; there are no baseline costs to be subtracted. The Government and NGOs will rather provide considerable support to the project, to the tune of LL

1,256,000,000 (=US$ 762,600). This funding will mobilize national resources so that the country can benefit most fully from the GEF intervention. In addition, the joint Capacity 21/UNEP project ($632,600) as well as the METAP effort (approx. $400,000) should be seen as complementary to this GEF investment.

37. Domestic benefits achieved by the project are primarily environmental. Other domestic benefits are intangible, such as enhanced national reconciliation and increased experience of NGOs in protected area management. Economic benefits from ecotourism and marginally improved fish harvests are uncertain, contingent, not national priorities, and most likely to be financially justifiable on their own. Hence, no additional domestic benefits should be added to the baseline scenario.

38. The management of protected areas through this project is likely to impose costs on local farming and pastoralist communities deprived of access to economic resources. The project budget includes $45,000 as community funds to encourage sustainable use of the areas' resources, and to provide support for alternative livelihood. Such an approach will facilitate integration of communities within national efforts for conservation and sustainable use of resources. Adding this to the other project costs, the total project budget of $2,500,000 is reached which consists entirely of incremental costs.

ISSUES, ACTIONS AND RISKS

39. In the absence of effective government institutions during the war, action against deteriorating environmental conditions was left up to a number of Lebanese NGOs which were established during this period and distinguished themselves by operating under dangerous war-time conditions. These NGOs have undertaken surveys, research activities, environmental awareness campaigns, lobbying efforts for establishment of protected areas, and ex-situ conservation of several plant and tree species. The project, as designed, will build on existing NGO capacity, and will strengthen such initiatives.

40. Illegal encroachment on the sites resulting in destruction of these natural habitats may be a potential risk. Corrective measures will involve enforcement of existing laws prohibiting illegal access, banning hunting, cutting of trees and grazing of livestock within protected areas. Another potential risk would be limited success of income generation activities in the protected areas. This will be mitigated the Government's commitment to provide 50% of operating costs of each park after the project term, thus leaving NGOs in charge of a less burdensome task of raising the remainder.

INSTITUTIONAL ARRANGEMENTS FOR PROJECT IMPLEMENTATION

41. The project will be executed by the Government of Lebanon through the MOE, which will function as the UNDP/GEF project counterpart agency and serve as an umbrella for coordinating project activities. The IUCN-World Conservation Union will be responsible for overall project implementation under the guidance of national counterpart agencies and with participation of national NGOs and Scientific Institutions involved in project activities. The coordination of project activities

and participation of national and international institutions will be ensured through the establishment of a Project Coordinating Committee which will include representation as listed in Annex 1.

42. The implementation of this project will be a collaborative effort coordinated by a Project Coordinating Committee chaired by the MOE with the membership of UNDP/GEF, NGOs and the involved Scientific Institutions. Such a multi-disciplinary approach will promote development of indigenous and long-lasting solutions to biodiversity protection in Lebanon.

43. The project will draw on the extensive experience of IUCN in the establishment and management of the demonstration protected areas, on the UNEP's Mediterranean Action Plan (MAP), and on the experience of neighbouring countries such as Jordan, Oman and Saudi Arabia in the field of conservation of biodiversity.

UNDP RESPONSE TO COMMENTS OF EXTERNAL TECHNICAL REVIEWER

LEBANON: STRENGTHENING OF NATIONAL CAPACITY AND GRASSROOTS IN-SITU CONSERVATION FOR SUSTAINABLE BIODIVERSITY PROTECTION

Comment: The Project Brief was revised and modified in accordance with the suggestions of the External Technical Reviewer. The following comments are noted:

1. The significance of the regional context and the potential for replication in neighbouring countries have been further elaborated upon as suggested by the reviewer.

2. Serious attention has been given to the recommendation that the project's scientific findings be made as widely accessible as possible. Keeping in mind the importance of educating the Lebanese public to the need for biodiversity, the following project activities were included: local community outreach and awareness workshops, teacher training workshops, development of educational tools and recommendations for environmental education curricula to the Ministry of Education.

3. With respect to NGO involvement, it was confirmed that there is no history of animosity between any of the NGOs and the local communities. In fact the involved NGOs enjoy considerable support among many diverse sections of the local population in their areas.

4. With respect to institutional arrangements, it should be noted that the Ministry of Environment will be the main implementing agency which will be supported as needed by the Ministry of Agriculture, the Ministry of Interior and the Ministry of Education. A clear distribution of competence and responsibilities will be charted out during the first year as management plans for the three areas are drawn up.

5. In accordance with the suggestion of the reviewer that the economic structure of local communities be supported, the establishment of small-scale revolving funds has been proposed in the vicinity of the three protected areas. It is foreseen that the funds will provide support for local farmers and pastoralists in finding alternative and sustainable livelihoods.

TECHNICAL REVIEW

LEBANON: STRENGTHENING OF NATIONAL CAPACITY AND GRASSROOTS IN-SITU CONSERVATION FOR SUSTAINABLE BIODIVERSITY PROTECTION

OVERALL IMPRESSIONS

1. Knowing the most impressive mountain system in Lebanon, the Antilebanon and the Hermon from extended fieldwork in a still peaceful time before the civil war, we are now very fascinated to see new initiatives to preserve some selected landscapes with its biodiversity in these eastern Mediterranean mountain areas. Of course we have observed the tragedy of Lebanon during all these difficult years only from outside, through the media, and therefore it is not easy to assess today's political situation, which is certainly fundamental for the success of the project.

2. The UNDP/GEF project brief is realistic, well-documented and shows the necessity and urgency of the proposed measures in a country which needs a strong external support for the conservation of its unique mountain and marine ecosystems. The proposed protected areas could be an important nucleus for sustainable development in this Mediterranean environment, forming an important transition zone to the Near East countries with their special conditions. In this sense the project has certainly a high international significance and fulfils the selection criteria of GEF.

APPROPRIATENESS OF PROJECT APPROACH

3. The aim to combine on the one hand the "strengthening of the institutional capacity of governmental agencies and NGOs, and promote national reconciliation" (executed by the implementation of a system of protected areas) and on the other hand the "conservation of endemic and endangered terrestrial and marine wildlife and their habitats" seems to us an appropriate and fantastic approach.

OBJECTIVES OF THE PROJECT

4. The objectives are valid from a natural as well as from a cultural point of view. The broad support from Government, Non-Governmental and Scientific organisations and institutions seems to us very promising. A non-predictable risk is the development of the political situation on the one side and the development of the economic situation for a beneficial eco-tourism on the other side.

5. The absolute protection of endemic and rare species is very important, but in view of a possible climate change it should not be handled too narrow-mindedly. The protection of the whole natural and cultural biocoenosis in co-operation with the education of the whole population seems to us the most challenging objective for a sustainable development of this country. Further on, if the project can help to restore one part of the in-country scientific capacity, which was once very famous for the whole "Near East", then another important objective can be reached.

ACTIVITIES

6. From our point of view the proposed activities are appropriate. The political-technical-practical aspects are the most important in a first phase (negotiations, information-campaigns, recruiting of personnel, implementation etc.). The scientific aspects with data bank, publications, capacity building etc. should follow immediately in a second phase under the condition that the scientists are able to co-operate with the local authorities and to publish the findings also in a way that it can be used by the mass-media and the schools at different levels. In this case, science has to take over a special responsibility which goes beyond a narrow scientific circle. Education of the whole population, especially after such a long war time, is essential for sustainable development and preserving biodiversity as one of its most instructive and fundamental aspects. Therefore we should keep in mind, that every park project will fail, if the population does not understand the idea of the concept, the objective and the necessary measures and activities.

OMISSIONS IN BACKGROUND DISCUSSION

- The involvement of the local NGOs (Arz Al-Shouf, FOHE, EPC) is important, but it should be clarified if their points of view are representative of the majority of the local population.

- What should be done for the local population, the pastoralists and farmers, the landowners in the neighbourhood of the park. Only if they have a guaranteed economic situation will they accept the park boundaries.

- Should the protected areas in Lebanon not be seen in a chain of parks from the eastern Mediterranean Turkey southwards until the Egyptian Sinai? Some remarks about the state of knowledge, concerning especially the biodiversity, could support the Lebanese parks as keystones in this holistic regional view.

INSTITUTIONAL ARRANGEMENTS

7. . The broad support of governmental, non-governmental and scientific institutions is impressive. The only problem we can see is a clear distribution of the competence and responsibilities between MOE, MOA, and MOI.

FUNDING

8. We agree with the indicative project budget that the personnel for the implementation needs the highest amount and it is an excellent idea to recruit the park rangers from the local communities. All the same we question whether a limited sum should not be reserved to support the economic structure of the local pastoralists and farmers in the immediate neighbourhood of the parks.

INNOVATIVE FEATURES

9. As mentioned above, we would like to see some remarks about a potential replication in the neighbouring countries and especially in the mountains of the eastern Mediterranean area. Of special interest could be the Mt. Hermon with its biodiversity and water resources in the conflicting boundary zone between Lebanon, Israel and Syria. Even if it is not possible yet to realize a similar protected area in this mountain region, we should at least think of it as a critical point of international reconciliation.

CONCLUSIONS AND RATIONALE FOR GEF SUPPORT

10. The development dimensions are evident and the objectives of the proposed project fulfil the aim of the Biodiversity Convention (Art. 8). The cost effectiveness is high, when the NGOs and the scientific institutions are able to contribute as described in this project brief.

11. As a whole, we support the proposed project "Lebanon - Strengthening of National Capacity and Grassroots In-Situ Conservation for Sustainable Biodiversity Protection" very strongly and hope that it can be realized and that it will be successful as an example of a national achievement with a high international significance.

ANNEX A: PARTICIPATING INSTITUTIONS

GOVERNMENT INSTITUTIONS

1. **The Ministry of Environment** (MOE) will function as the UNDP/GEF project counterpart agency and serve as an umbrella for coordinating the activities involved in establishing and managing the present project in Lebanon. The MOE is committed to conserving biodiversity in Lebanon but lacks the staff, expertise and institutional capacity. The present project will thus contribute tremendously towards the institutional strengthening of the MOE and the enhancement of national counterpart capacity.

2. **The Ministry of Agriculture** (MOA) was a major player in the management of forests and reforestation through its Forests and Natural Resources Department and the Green Plan. However, the gradual transfer of responsibility for parks and reserves from the MOA to the MOE has commenced with the passage of Law 121 of 9 March 1992, which is to the advantage of both ministries. The Forests and Natural Resources Department will support the project by assisting NGOs and scientific institutions in the development of the necessary management plans and the implementation of actions for sustainable fishing and grazing habits, reforestation activities as well as in the establishment of primary and secondary road networks around the protected areas.

3. **The Ministry of Education** (MOEd) will play a major role in the development and dissemination of the environmental awareness campaigns. The MOEd has signed an Environmental Education Protocol with the MOE which has given the MOEd the main role for producing necessary material and organizing required activities for introducing and strengthening environmental education in schools.

4. **The Ministry of Interior** (MOI) is entrusted with implementation of a number of laws governing wildlife hunting, tree cutting and livestock grazing which, as a result of the disruption caused by the war, have not been implemented for almost twenty years. The MOI is the only agency with the resources to stop violators. This project will establish a network linking the MOI with the other participants in the field such as the MOE and the NGOs.

5. **The Council for Development and Reconstruction** (CDR) replaced the Ministry of Planning after the war. The CDR plans to recommend the allocation of government funds for conservation of the environment, however it does not yet view conservation as a productive sector in a nation actively seeking to rebuild its infrastructure.

6. **The National Hunting Council** (NHC) was founded in 1974 to regulate hunting activities and increase the gamebird population in the Lebanon. Conserving habitats and controlling hunting are among its main challenges. It has already started partridge farms in several areas in Lebanon for the purpose of providing organized hunting grounds in Lebanon.

7. Although no formal mechanism has been established for the distribution of responsibilities among ministries, coordination between the different ministries is already present and could be considered as a platform for further coordination during the project implementation. In this context,

the Environment Education Protocol signed by MOE and MOEd, the Prevention of Hunting Decree as of 1/1/95 signed by MOE and MOA can be considered as starting points. Regular meetings of the Environment Ministerial Committee are also held. Finally, several ministries are already involved in biodiversity protection activities, including MOA reforestation activities, NHC partridge farms and MOE grants offered to the protected areas as agreed in the project.

SCIENTIFIC INSTITUTIONS

8. **National Council for Scientific Research** (NCSR) established in 1968 as a public institution, is actively involved with research on birds, mammals and plants in forests, deserts, wetlands. It is also concerned with the impact of various pollutants on human populations, wildlife, agriculture and fisheries. A primary candidate for field studies and research.

9. **Marine Research Centre** (MRC) established in 1975 is affiliated to the NCSR. Its main research is on marine life--the impact of various pollutants on fisheries, primary and secondary productivity, fish parasitology, hydrography and environmental monitoring. As such, the MRC is a primary candidate for field studies and research. Research on Palm Islands marine life, hydrography and mainland flora and fauna have already been launched by the MRC.

10. **American University of Beirut** (AUB) was founded in 1866 and is the foremost academic institution in the region. AUB is beginning to introduce conservation of the environment and related subjects in its various colleges from medicine and biology to agriculture and engineering. It is planned that AUB will be responsible for implementing the monitoring activities which are included in this project (GIS/GPS).

11. **The Lebanese University** (LU), the only public university in Lebanon, has been heavily affected by the civil strife in Lebanon. However several faculties are involved in environmental related research activities. These faculties mainly include the Sciences, Public Health, Social Sciences, Agriculture and Engineering Schools. The LU can be involved in implementation of several of the planned activities.

LEBANESE NGOS

12. **Arz Al-Shouf Society**, (ASS) established in 1994 in response to the growing interest in the Shouf region for the conservation of natural resources. Arz Al-Shouf will be the main implementor at the local level of the Jabal Barouk component of the project.

13. **Palm Island Committee** (PIC) was established in 1993 with the approval of the MOE according to Decree 121/92 representing local environment groups and municipalities. PIC will hold coordination and overall management responsibilities at the local level for the Palm Islands component of the project.

14. **Horsh Ehden Committee** (HEC) was established in 1993 with the approval of the MOE according to Decree 121/92 representing local environment groups and the municipality. HEC will hold coordination and overall management responsibilities at the local level of the Horsh Ehden component of the project.

15. **Friends of Horsh Ehden** (FOHE) was established in 1990 to lobby for the designation of Horsh Ehden as a protected area. The FOHE will be the main implementor at the local level of the Horsh Ehden component of the project.

16. **Environmental Protection Committee,** (EPC) was established in 1984 in an effort to counteract the degradation of the physical environment in and around Tripoli. The EPC will be the main implementor at the local level of the Palm Islands component of the project.

17. **Society for Protection of Nature in Lebanon** (SPNL) established in 1985 with membership from a broad base of academic and scientific disciplines. One of the first NGOs to call for the establishment of protected areas. Most qualified to conduct the production of documentaries/ TV spots, and organize awareness/education campaigns.

18. **Friends of Nature** (FON)- was established in 1984 with an active membership of concerned citizens. Among the first NGOs to call for a system of protected areas and produce informative booklets on Horsh Ehden and Palm Islands. FON is considered most qualified to conduct species surveys and produce information booklets.

19. **Green Line** (GL) established in 1991 embraces the principle of environmentally sound development in Lebanon. GL seeks to provide a scientific forum to popularize environmental issues. In cooperation with AUB, the Green Line is the primary candidate for cooperation on the GIS/GPS monitoring systems.

20. Although some of the main implementing groups are recently established, it should be noted that these NGOs are community based and that their main asset resides in the potential they have in mobilizing human and capital resources. Most of them have already involved local youth organizations, scouts, students as well as other village groups in their activities. They also all mainly rely on local sponsors to fund their activities. A wide variety of activities have been undertaken by these NGOs which range from public awareness campaigns through lectures and seminars, to actual conservation activities such as reforestation, regulating access to the protected areas and even hiring park rangers.

INTERNATIONAL NGOS

21. **The World Conservation Union** (IUCN) has been an active participant in conservation activities throughout the region particularly in Jordan, Oman and Saudi Arabia where it played a major role in the establishment and management of protected areas. Both the Government of Lebanon and SPNL were recently admitted as members of IUCN. The two commissions of IUCN

that will be of particular assistance to the project are the Commission on National Parks and Protected Areas (CNPPA) and the Species Survival Commission (SSC).

22. **Bird Life International** (ICBP) has a history of concern for and study of the birds of Lebanon. ICBP recently completed a survey of the Important Bird Areas in Lebanon.

ANNEX B

DESCRIPTION OF DEMONSTRATION PROTECTED AREAS

FIRST AREA: "JABAL BAROUK" - BAROUK MOUNTAIN

1. Jabal Barouk is one of the very few remaining wild areas in Lebanon suited to be classified as a *National Park* for its outstanding natural and scenic sites and its scientific, educational and recreational significance nationally as well as internationally. If properly protected and managed it could be nominated "A World Heritage Site". It is the southern-most limit of *Cedrus libani*, is well-suited for potential reintroduction of larger mammals such as ibex and mountain gazelle, and has grounds for migrating birds of prey.

2. Jabal Barouk represents a mountainous ecosystem on the slopes of the central portion of the Mt. Lebanon chain. The eastern slope faces the southern Bekaa valley and overlooks the Ammik swamp. The western slope faces the Shouf region of the Governorate of Mount Lebanon. It is made up of a series of peaks parallel to the sea and their altitude varies from 1200 to 1948 meters. The Shouf region is divided into three zones (a) the cedar zone between 1200-1948 meters (b) the populated residential and agricultural zone between 1000-1500 meters and (c) the lower or carob tree zone between 200-800 meters altitude. During the war all Government activities ceased in the region and these areas were closed off to civilians by orders from the local militia in an effort to prevent destruction of the forests.

3. The villages in the residential zone are popular summer resorts. The majority of the population of this region, specially the professional men and women, live in Beirut and its suburbs during the winter. The people who live in the villages all year round are primarily farmers growing fruits such as apples, pears, peaches and cherries with some cattle and goats. The number of goat herders and wood cutters affected are few, since their numbers diminished in the 1960's when the Forestry Dept. of the Ministry of Agriculture began to reforest the area and prohibited its commercial use. Their activities are now restricted to privately owned land around the park.

4. The Arz-El Shouf Society (ASS) was formally established in 1994 in response to a growing interest in the Shouf region for the conservation of natural resources. The villagers will become active participants in the planning and management of the park through their local NGO, and some of them will be hired as rangers or contracted to provide services or materials.

5. With FAO financing and technical assistance, the Forest Dept. undertook a series of reforestation projects in the Jabal Barouk between 1960 and 1975 with the aim of restoring the cedar forests that once covered those mountains. No other attempt to survey the area has been undertaken so far and there is a great need for scientific data and biodiversity related information.

SECOND AREA: "HORSH EHDEN" - EHDEN FOREST

6. Horsh Ehden represents a mountainous ecosystem on the elevated slopes of the northern Mt. Lebanon chain (1300-1950 meters) in the Governorate of North Lebanon. It is located 3.5 km northeast of the summer resort of Ehden from which it takes its name, 35 km from maritime city of Tripoli and 100 km from the capital Beirut. The area is 280 hectares, however more communal contiguous land that is owned by the municipality could be added at a later stage to expand the forest to 700 hectares.

7. During the last hundred years the terrain was inaccessible which spared the forest from heavy logging. More recently herders with goats and cattle have done major damage because of their uncontrolled access to the forest. The inhabitants of the town of Ehden are summer residents who traditionally maintain winter homes in the town of Zghorta near the coast. It is predominantly a residential community with shops and services to residents and vacationing tourists. The residents of Ehden realize the benefits of conserving the forest and its eco-touristic value to their community.

8. Horsh Ehden in the north has one of the larger stands of the Cedar of Lebanon *Cedrus libani*, mixed with other conifers such as the High Juniper *Juniperus exelsa*, broadleafs such as the Maple *Acer tauricolum* and the endemic Wild Apple *Malus trilobota*. It is internationally renowned as the septentrional limit for the natural growth of hundreds of graceful specimens of the Cilician Fir, *Abies Cilicica*. It is also home to more than 500 species of flowering plants of which a large number are rare and endangered, 57 species are endemic and 30 are named after Lebanon. In addition, the Ehden Milkvetch, *Astragalus ehdenensis* is endemic only to the forest.

9. Horsh Ehden is a sanctuary for resident and migratory birds, spring and summer breeders and winter visitors, several of which are endangered. It also has a number of surviving and threatened mammals such as the Hedgehog, Squirrel, Porcupine, Jackal, Weasel, Badger, Wild Cat, Hyrax, Cape Hare, Grey Hamster, Levant Vole etc. A variety of reptiles and amphibians particularly snakes, lizards, turtles, salamanders, frogs, toads and newts are also found.

10. Friends of Horsh Ehden (FOHE) was established in 1990 to lobby for the designation of Horsh Ehden as a protected area. The FOHE will provide the park rangers for Horsh Ehden.

11. Horsh Ehden could be classified a *Strict Nature Reserve/Scientific Reserve* as a representative of Lebanon's mountainous natural ecosystem and for the maintenance of genetic resources especially plants and wild flowers in a dynamic and evolutionary state, and to be available for scientific study, environmental monitoring and education. Horsh Ehden has also been designated as a Biosphere Reserve by UNESCO's Man and Biosphere programme.

THIRD AREA: PALM ISLANDS - "JUZUR AL NAKHL"

12. The Palm Islands represent an eastern Mediterranean marine island ecosystem and include the Palm, Sanani and Ramkine Islands. The Islands and surrounding water constitute an integrated

natural marine basin with a surface area of 5 km2 off the coast of the city of El-Myna, the harbour section of Tripoli.

13. Shipping traffic is light and most of the people are involved in business, trade, building and fishing. In the past, due to the uncontrolled use of these islands as recreation sites, the wildlife, both flora and fauna, have suffered tremendously. However, since 1992, the community groups have been involved in activities aimed at protecting the islands. In this context, local groups, NGOs, the army and coast guards have undertaken large efforts to prevent trespassing, swimming and fishing in and around the islands. Scientific surveys and cleaning campaigns have also been undertaken in these islands by different local groups and scientific institutions. These surveys have proved that pollution levels around these islands are not significant. Around 50 fishermen that used the islands' waters are now fishing further away from the islands. These efforts also put an end to the use of dynamite and other illegal fishing methods. Organised school parties now visit the islands which are starting to attract larger numbers of birds and are showing signs of natural rehabilitation of vegetation, wildlife and marine life.

14. The relatively great biotic diversity of the region, as established by preliminary studies, is accompanied by ecological conditions favourable to the proliferation of life. The islands lie in the path of water currents that provide continuous nutrient replenishment. The continuous plateau beneath the islands, with an average depth of 10 meters, is characterized by much relief. This enhances the abundance of life forms and facilitates diving for research and for sight-seeing purposes. The islands are internationally reputed as important resting and/or nesting grounds for migratory birds, especially as such sites of the mainland have been virtually destroyed. The islands are a refuge for a number of rare resident birds, including the threatened Audouin's Gull. The islands receive about 10 species of spring-summer migrant birds, and 24 recorded species of winter-visiting fowl.

15. Scientific observations report that the sand beaches of the islands have been egg-laying sites for sea-turtles: the Loggerhead, Caretta caretta, and the Green Turtle, Chelonia mydas mydas. They also speak of the caves and shore rocks of the region as vital shelters for the protected Mediterranean Monk Seal, Monachus monachus. The Reserve teems with wild flowers, many species of which, like Rosin Cress, Cressa cretica, had not been previously known to grow in Lebanon.

16. The Environmental Protection Committee (EPC) which was established in 1984, and has been active since then in efforts to protect the environment in and around Tripoli, will be the main implementor at the local level of Palm Islands component in cooperation with the local community and scientific institutions.

17. Palm Islands could be classified a *Managed Reserve/Wildlife Sanctuary* to assure the natural conditions needed to protect nationally significant species especially birds, plants, sea turtles, seals and others. This will require interactions with local communities and effective management. The islands were listed as a Wetland of International Importance by Carp (1980). They are also listed among the four important sites in Lebanon for migratory birds in the latest directory of Birdlife International (1994).

Proposal for Review

Project Title:	**Mauritius Biodiversity Restoration**
Focal Area:	Biodiversity
Country Eligibility:	Convention Ratified September 4, 1992
Total Project Cost:	US$1.6 million
Proposed GET Financing:	US$1.2 million
Government Counterpart:	US$0.2 million (Ministry of Agriculture, Fisheries and Natural Resources)
Co-Financing:	US$150,000 (Non-Governmental Environmental Organizations) US$50,000 (Local Private Sector)
Implementing Agency:	World Bank
Executing Agency:	Mauritian Wildlife Fund
Coordinating Govt. Ministries:	Ministry of Agriculture, Fisheries and Natural Resources Ministry of Environment & Quality of Life
Estimated Starting Date:	August, 1995
Project Duration:	5 years
GEF Preparation Costs:	No PPA/PDF resources were used to prepare this project.

MAURITIUS: BIODIVERSITY RESTORATION

COUNTRY ECONOMIC BACKGROUND AND ENVIRONMENTAL CONTEXT

1. Mauritius is one of the third world's economic success stories. Led by a burgeoning export-based industrial sector, the country transformed itself within two decades from a sugar-dependent economy with a per-capita income of US$400 to a middle-income country with a per capita income of about US$2700, an annual average increase of 9.6% in current dollar terms. However, this period of rapid economic growth, and the centuries leading up to it, have taken a significant toll on the nation's biodiversity.

2. In part this is because small oceanic islands such as the Mascarenes (of which Mauritius is a part) present special challenges for the conservation of biodiversity because they are often characterized by extensive habitat degradation and high rates of species extinction. The Mascarenes encompass a number of islands in the Western Indian Ocean, including the largest islands of Mauritius and Rodrigues, and numerous remote and smaller islands. Their diverse climatic, geological and topographical regimes have resulted in the evolution of diverse biota with a high degree of endemism, further promoted by the islands' age and isolation.

3. With the exception of some of the more remote oceanic islands, Mauritian ecosystems were profoundly modified and degraded after the uninhabited Mascarenes were discovered and colonized. A period of lumber extraction (ebony) in the 17th Century was followed by agricultural development for sugar cane. As a result, only relictual areas of original habitat survive. With this habitat loss has come a series of extinctions, most notably of the endemic flightless avifauna, among others of the Dodo and the Solitaire, and of reptile species like giant tortoises. The loss of species and populations has been caused by out-competition and predation by invasive exotic species (plants as well as animals), uncontrolled exploitation and the inherent genetic/demographic vulnerability of small populations. Even if all remnant habitat areas were protected, species and habitat loss would continue because of the continuing influence of exotic species and the poor demographic security of small populations.

4. Now that the major period of historical habitat loss has passed, the surviving remnants of the biota offer an opportunity for the restoration of largely destroyed, pre-colonial ecosystems, and in particular for their associated endangered species. The islands of Rodrigues, Ile aux Aigrettes and Round Island offer differing but complimentary opportunities for habitat restoration and species recovery.

5. The Biodiversity of Mauritius. Despite these historical pressures, Mauritius and its dependency of Rodrigues are still globally recognized as centers of endemism for vascular plants, birds, reptiles and mollusks. Between 800 and 900 plant species occur on Mauritius, including 8 endemic genera. About 300 species are endemic to Mauritius, of these approximately 80% are

threatened. The flora of Rodrigues counts 145 indigenous species, of which 41 are endemic. A large proportion of the threatened plant species survive as tiny relictual populations that possess a very high probability of imminent extinction. The floristic inventory has yet to be completed.

6. Rodrigues Island. Recognized since the nineteenth century as one of the world's most degraded tropical islands, Rodrigues has 45 endemic species. The majority of these are critically threatened, 7 of which now survive with fewer than 10 wild individuals. The island Forestry Service, with support from World Wide Fund for Nature volunteers, has been running a successful propagation and re-introduction programme. However, the long term success of this work is seriously compromised by poor facilities and a lack of professional training in horticulture, applied conservation biology, project planning and monitoring. Without additional resources, a number of critically endangered species are likely to become extinct or have their chances for long term conservation reduced through poor genetic/demographic management.

7. Round Island. Round Island is the site for one of the best documented island restoration efforts. It represents the largest area in the Mascarenes free of introduced animals and contains the last remnants of the palm savannah once characteristic of northern Mauritius. Drawing on expertise in restoration ecology of both Mauritius and New Zealand, the Jersey Wildlife Preservation Trust and the Ministry of Agriculture, Fisheries and Natural Resources (MOA) prepared a management plan for the restoration of Round Island. Following the successful removal of feral animals (goats and rabbits) and on-going efforts to eradicate exotic plants, the island can now be restored and the original palm savannah and hard wood forest re-established. Locally extinct animals can be re-introduced. Because of the widely prevalent threats to endemic species on the main island of Mauritius, Round Island represents one of the best chances to restore and maintain endangered Mauritian plant and animal communities.

8. Ile aux Aigrettes. Leased by the Mauritian Wildlife Fund (MWF), this 25 hectare island contains the last viable area of coastal ebony forest, a type of forest now lost on the island of Mauritius. Under the direction of MWF, an ambitious habitat restoration program was initiated which can be developed in parallel to the restoration of Round Island to restore the coastal forest and palm savannah communities and re-introduce missing elements of the fauna.

9. Mauritian Wildlife Fund. The Mauritian Wildlife Fund is a non-governmental group promoting the integrated management of threatened species the nation of Mauritius. It is known internationally for innovative approaches to threatened species management, and most notably for its captive breeding, genetic and demographic studies, reintroduction and habitat management of the Mauritian kestrel and pink pigeon. For 10 years it has collaborated closely with the Conservation Unit in the Forestry Department within MOA. Recently, MOA signed a Memorandum of Understanding, concerning cooperation with a group of international NGOs and the MWF in matters of biodiversity conservation. The group has a demonstrated ability to work on the islands and enjoys an excellent working relationship with GOM and local private sugar cane estates.

10. Environmental Strategy and Policy Contexts. The Government of Mauritius (GOM) has been aware for many years of the considerable environmental issues confronting the islands, and has reacted by developing a sound body of plans, strategies and investment programs. Mauritius prepared a National Environmental Action Plan (NEAP) in 1990, and then approved its Environmental Investment Plan (EIP) to support the NEAP. The EIP outlines a $109 million program focusing on (i) institutional strengthening to develop the necessary framework of environmental policy and legislation; (ii) land management and tourism control to ensure the protection of natural resources and historic architecture; (iii) industrial, sewerage and solid waste pollution to address the effects of such land-based pollution; (iv) marine conservation to preserve and monitor marine resources; (v) agricultural residues to control the effects of pesticides and fertilizers; and (vi) terrestrial conservation to protect and/or restore natural habitats. A largely IBRD/GOM-financed project, Environmental Monitoring and Development Project, has been under implementation since 1990. It provides $20.5 million to pursue priority actions identified in the EIP, including monitoring marine pollution, water quality and ecosystem health, improvement of laboratory analysis facilities, land-use and infrastructural planning, development of a national solid waste management plan, research on integrated pest management, and the creation of terrestrial and marine parks, including the Black River Gorges National Park, Mauritius' first national park. This project provided key input into the government's recently completed Sewerage Master Plan, for which GOM is seeking financing estimated at $50 million. The Sewerage Master Plan would support civil works for land-based pollution control, and institutional strengthening for a newly established Waste Water Authority. Certain measures to combat marine pollution are already under preparation.

11. Biodiversity Strategy and Actions. Mauritius was the first country in the world to ratify the Biodiversity Convention, and GOM is committed to prepare a biodiversity conservation strategy, as required by the Convention, to complement the highest priority actions already identified in its NEAP. Mauritius also ratified the Convention on International Trade in Endangered Species (CITES). Through effective policies, collaboration with NGOs, bilateral and multilateral agencies, public education and control of certain forms of pollution, GOM has now largely halted terrestrial habitat destruction. Its official biodiversity priority is now to extend protection to key habitats and to restore some of its most unique ecosystems. Consequently, GOM is financing the establishment of Black River Gorges National Park, and has reserved two entire uninhabited offshore islands, Ile aux Aigrettes and Round Island, for species and habitat restoration efforts, as recommended in the NEAP. It is also beginning a program to monitor marine pollution and ecosystem health. It is funding the Management of Nature Reserves initiative. ODA supported surveys of flora and fauna through the Offshore Islets Initiative and provided recommendations for conserving biodiversity on the various islands. In the late 1980s and early 1990s, the World Wide Fund for Nature (WWF) ran an upland forest restoration and species reintroduction program, and a UNDP-implemented Pilot Phase GEF project is preparing to undertake forest restoration work in Black River Gorges National Park. An European Community/ Indian Ocean Commission funded program for coastal management and plant conservation may begin activities soon, too.

PROJECT OBJECTIVES

12. This project intends to help GOM to meet some of its outstanding global obligations, identified in domestic environmental strategies and plans and specified under the Biodiversity Convention, for which full domestic funding is not forthcoming. Specifically, it would (i) protect critically endangered biodiversity of international importance by restoring degraded small island habitats and propagating & reintroducing endemic species to these habitats, and (ii) strengthen capacity for the management and monitoring of biodiversity restoration.

PROJECT DESCRIPTION

13. The project would support innovative efforts in habitat and species restoration. Local capacity and facilities would be strengthened to undertake the required horticultural, monitoring and managerial activities necessary to execute the project and to identify and execute similar future activities. The project would focus on Rodrigues and Round Islands and Ile aux Aigrettes, which offer differing but complementary opportunities for habitat restoration and species recovery that are more promising than on the island of Mauritius. On Rodrigues, it is proposed to develop the existing government nursery at Solitude, and to expand or consolidate the restoration work underway in 3 reserve areas (Grande Montagne, Cascade Mourouk and Anse Quitor) where, amongst other species, 41 endemic plants and trees (7 of which now survive with less then 10 individuals) would be propagated and transplanted. The restored forest plots would also play a pivotal role in re-establishing viable populations of two endemic birds, the Rodrigues fody and the Rodrigues warbler, and the endemic Rodrigues fruit bat. On Round Island, the first phase of restoration has been completed with the eradication of feral goats and rabbits. Restoration of the palm savannah and hardwood forest can now proceed by weeding undesirable exotic species and reintroducing lost species from Mauritius, some of which have little chance of survival on the mainland because of competition and predation by introduced species. On Ile Aux Aigrettes, the lowland ebony forest would be restored while reintroduction of two endemic and endangered bird species, the Mauritius kestrel and pink pigeon, is in progress. In the long run, this could lead to the reintroduction of other lost ecosystem components (flightless rails, giant tortoise). A small nursery would be developed on Ile aux Aigrettes to serve its needs and those of Round Island, with improved accommodation for field workers and researchers.

14. The project would consist of four specific components:

(a) a survey for (a) the identification of original habitat/community types for determining species recovery and habitat restoration targets at the three sites, Rodrigues Island, Ile aux Aigrettes and Round Island, and (b) the eradication or control of undesired exotic species ($115,000);

(b)

(c) investment in required infrastructure for the ex-situ propagation and cultivation of threatened plants ($195,000);

(d) propagation, replanting and reseeding of endemic plants, and reintroduction of endemic animals from captive-bred populations ($950,000); and

(e)

(f) technical assistance to strengthen the governmental and non-governmental institutions involved, based on a skills audit and training need analysis ($350,000). This would develop (a) skills in project planning and administration, (b) horticultural expertise and facilities to ensure the viability of support propagation services and the long term holding of plant populations, (c) expertise in applied conservation biology including the genetic/demographic management of endangered plant populations, and (d) skills in habitat monitoring.

All strategic and policy documents as well as investment plans mentioned in this document are available from the Government of Mauritius.

RATIONALE FOR GEF FINANCING

15. The project addresses high priority issues identified in Mauritius' NEAP and EIP, and complements the Black River Gorges National Park initiative financed by GOM. It seeks to preserve highly threatened endemic species and ecosystems by going beyond traditional protection measures and establishing a replicable model for species reintroduction and habitat and ecosystem restoration and monitoring, which would be especially valuable for other island ecosystem and species projects. It involves Government-NGO partnerships, and brings together international, domestic and private sector expertise and/or resources; raising awareness domestically and internationally and increasing opportunities for future resource mobilization. It builds upon the restoration work initiated by MWF, WWF and UNDP/GEF by expanding and amplifying activities on critical island habitats. Finally, it strengthens local technical and administrative capacity to identify and respond to similar biodiversity threats in the future. The project is consistent with priorities identified by the first Conference of the Parties of the Convention on Biological Diversity since it is a demonstration project to promote conservation of endemic species in small island ecosystems.

SUSTAINABILITY AND PARTICIPATION

16. The crucial element for sustainability would be continued monitoring and maintenance of habitats under restoration. Sugar estates already provide workers free of charge to weed exotic species and plant desired species during the industry's off-season, and this is expected to continue. Using sugar laborers can have the secondary benefit of raising public awareness of biodiversity conservation issues. Through its local Forestry Department staff, GOM would maintain the project on Rodrigues. MWF has long-term leases to manage Ile aux Aigrettes, and is expected to continue to raise funds internationally and domestically for its activities, including monitoring and maintenance of

project sites. As the project is executed, diminishing maintenance is expected since the restored ecosystems would grow towards a stable climax state. In the unlikely event MWF does not renew its lease, GOM may consider visitor fees for Ile aux Aigrettes (the only accessible site of the three in this project) to raise funds to support conservation activities. The project emphasizes strengthening of local technical and administrative capacity to identify and respond to similar biodiversity threats in the future, and takes full advantage of the cooperative spirit between government, NGOs and the private sector to establish long-term relationships.

17. Social Impacts and Participation. This project is not expected to have any negative social impacts. It targets areas that are not only uninhabited but are not currently used for economic purposes. It was prepared with and would be executed by MWF, a respected local NGO. Through the use of off-season labor from sugar estates, it would increase local awareness and ownership of biodiversity restoration efforts.

LESSONS FROM PREVIOUS BANK AND GEF INVOLVEMENT, AND GEF TECHNICAL REVIEW

18. In 1988, the Bank participated in the formulation of the recommendations that were incorporated in the NEAP. Subsequently, the Bank cofinanced the Environmental Monitoring and Development Project, currently under execution, and is executing projects in other sectors. In general, project implementation has been relatively successful, due largely to (i) good institutional capacity, (ii) strong ownership when institutions are involved at the onset, and (iii) strong follow-up once decisions are made. This project devotes significant resources to capacity-building. It was prepared in close cooperation with and enjoys strong commitment from relevant stakeholders in GOM and the environmental NGO community. The associated NGOs are experienced in Mauritius and were active in the formulation of the NEAP and EIP. Two (JWPT, WWF) participated meaningfully in the appraisal of the Black River Gorges National Park component of the Environmental Monitoring and Development Project. The Pilot Phase GEF project in Mauritius, Ecological Restoration of Highly Degraded and Threatened Native Forest, managed by UNDP, has not yet begun implementation, but the preparation experience of this project highlighted the needs to continuously monitor and guard against invasive species. The proposed project therefore chose to work on off-shore islands to isolate restored species and habitats from invasive species, and to work with organizations with long-term commitments to these sites.

19. A technical review was held for the project on December 22, 1994. The meeting requested full presentation of the global benefits of the project, innovative aspects and replicability in other countries, lessons from past experience, and sustainability. The documentation was duly modified. The written comments of the technical reviewer praised the proposal, calling it "the best GEF proposal I've yet seen" and citing how it (a) establishes a model for species/ecosystem protection and rehabilitation, (b) builds on successful local initiatives already underway, (c) involves collaboration with high quality international NGOs, and (d) is limited but feasible in scope. The reviewer recommended building in long-term monitoring and control of exotic species in the future, and requiring local counterpart financing. Both recommendations were incorporated into project

documentation by clarifying the mechanisms of monitoring and control of exotic species, and local counterpart contributions (see Annex 1).

PROJECT COSTS AND FINANCING

20. A grant of US $ 1.2 million is sought from the GET, while $0.4 million in related local costs would be funded locally. The financing plan is summarized as follows:

GET	GOM	NGO	Private	Total
1.2	0.2	0.15	0.05	1.6

21. GOM would finance about $200,000 for salaries, local transport and other recurrent costs of the Ministry of Agriculture, Fisheries and Natural Resources while the GET would finance civil works, equipment, operating costs and consultants/technical assistance, both local ($700,000) and foreign ($500,000). Sugar estates and NGOs, through MWF, would contribute services valued at $200,000.

INCREMENTAL COSTS

22. The Government of Mauritius is in the process of executing priority elements of a $109 million Environmental Investment Plan, using its operating budget and borrowing from IBRD and other financiers. While GOM has demonstrated clear commitment to biodiversity protection in its NEAP and EIP, and through financing the establishment of the Black River Gorges National Park, it cannot afford to pay for all needed biodiversity protection initiatives, whose benefits accrue largely to the international community. Thus the project's baseline costs, valued at $200,000, are the MOA salaries, transportation and other recurrent costs to coordinate the activities. In addition to financial and staff resources, GOM is donating land for nurseries and has leased for a nominal fee ($1 per year for 20 years) the entire island of Ile aux Aigrettes to the MWF. The private sector would provide free labor (estimated value of at least $50,000 over five years) and international and national NGOs are expected to contribute an estimated $150,000 to their support for captive breeding facilities. On completion of the project, recurrent costs would be covered by MWF and its supporting international NGOs. The estimated total cost is $1.6 million, and a GET grant of $1.2 million is sought to cover the incremental costs. In tabular form:

	Total Project Costs	1,600,000
minus	Baseline Costs (MOA costs)	200,000
	Co-financing (NGO/Private)	200,000
	Land	FREE
	Incremental Costs	1,200,000

ISSUES, RISKS AND ACTIONS

23. The project requires effective coordination between GOM (Forestry Department) and MWF, which was formalized through signing of a memorandum of agreement. The project is also at risk of destruction from hurricanes, drought and the inadvertent introduction of alien species. This last risk, although significant, would be minimized by the presence of a warden and other project staff. Another danger is that continued support from participating NGOs and labor from sugar estates are discontinued, although these actors have not indicated any intention to withdraw support.

24. As conditions of effectiveness, (i) the Mauritian Wildlife Fund would hire a program plant conservation manager, a plant conservation officer for Rodrigues, and a resident warden for Ile aux Aigrettes; and (ii) MOA would prepare a formal authorization acceptable to the GEF and the Bank to delegate to MWF the procurement of works, goods and services. Within the first six months after grant effectiveness, MWF would prepare a comprehensive training program as described under Project Description. In the same time period, MWF would also develop a year-by-year work program for the project, and expand its indicators of success from earlier restoration activities to cover the proposed project's activities.

25. The project would be implemented by the MWF in collaboration with MOA (project administration, local transport, some labor), the Jersey Wildlife Preservation Trust (island restoration and vertebrate reintroductions), the Royal Botanical Gardens, Kew (training in horticultural and conservation management of threatened plants) and the Faunal and Floral Preservation Society (training and organizational strengthening). Close cooperation would be established with the National Parks and Conservation Service and the Department of Forestry of the MOA, whose personnel would work part time in the project. A Memorandum of Agreement was recently signed between MOA and MWF for cooperation in matters of biodiversity conservation. Procurement would comply with standard World Bank Procurement Guidelines. The project would last 5 years. Project plans would be drafted, and training, institutional strengthening and construction of facilities would commence in year 1.

26. Monitoring and Evaluation. Monitoring of the biodiversity component is inherent in project design since resident technicians would be constantly on location, monitoring project progress and exotic species invasions, in which case off-season sugar estate labor would be used to respond. Progress reports would be submitted every six months, and every two years MWF would prepare, as it already does now, evaluation reports for its activities. MOA/MWF would jointly prepare a final project evaluation within 6 months of the project closing date.

ANNEX A: SUMMARY OF TECHNICAL REVIEW AND OUTCOMES

MAURITIUS: BIODIVERSITY RESTORATION

1. The technical reviewer praised the proposal, calling it "the best GEF proposal I've yet seen" and citing how it (a) establishes a model for species/ecosystem protection and rehabilitation, (b) builds on successful local initiatives already underway, (c) involves collaboration with high quality international NGOs, and (d) is limited but feasible in scope. The reviewer recommended building in long-term monitoring and control of exotic species in the future, and requiring local counterpart financing.

2. In response, it was noted that long-term monitoring and control of exotic species are inherent in project design. The principal executing agencies (Department of Forestry and MWF) have staff assigned and long-term commitments to the project sites to monitor the success of eradication programs of exotic species. Furthermore, because of their isolation and/or protection, all three sites have a relatively low risk of introduction of exotic species. The arrangement with sugar estates to provide labor to weed exotic species has proven popular among laborers and estate owners, and is not expected to change. Finally, local counterpart support to the project was made explicit in project documentation.

Proposal for Review

Project Title:	**Regional - Sustainability of Amazonian Development: Criteria, Policies, Capacity Building**
GEF Focal Area:	Biodiversity
Country Eligibility:	Ratification of Biodiversity Convention: Bolivia 09/03/04, Brazil 02/28/94 Colombia 11/28/94, Ecuador 02/23/93 Guyana 08/24/94, Peru 06/07/93 Suriname (pending), Venezuela 09/13/94
Total Project Costs:	$ 3.94 million
GEF Funding:	$ 3.74 million
Cofinancing:	US $ 100,000 for [participation by Suriname in project (WRI; Netherlands government) US $ 100,000 (BMZ) US $ 600,000 (European Commision - under discussion) Discussions underway with Government of Canada, US Forest Service, USAID
GEF Implementing Agency:	UNDP
Executing Agency:	Pro Tempore Secretariat of the Amazon Cooperation Treaty
Estimated Approval Date:	June 1995
Project Duration:	24 months
GEF Preparation Costs:	None (preparation funded by WRI)

REGIONAL: SUSTAINABILITY OF AMAZONIAN DEVELOPMENT: CRITERIA, POLICIES, CAPACITY BUILDING

BACKGROUND

1. The Amazon Basin is one of the world's most important regions in terms of its biodiversity and role in carbon and water cycles. Regionally, it is an area requiring multi-national and multi-stakeholder cooperative arrangements to establish settlement patterns and resource use, as well as social and economic policies that are in the common interest. Locally, the region features complex policy issues, including land tenure, indigenous rights, and regulation of access to and benefits from genetic resources. At the same time, the countries of the Amazon Basin are confronted by serious challenges of poverty, meeting agricultural production goals, creating employment, satisfying domestic needs for basic raw materials (including forest products), and satisfying the energy demands of their growing economies.

2. Amazonia is home to approximately 22 million people, over 70% of which live in or on the edge of poverty. Demands for energy, food and industrial wood are large and growing, and take a heavy toll in the region's natural resources, in particular forests. Considering the Amazon countries as a whole, approximately 72% (by volume) of all wood production is for fuelwood and charcoal, 25% is for local industrial consumption and 3% is exported with different levels of processing. Conservative estimates in per capita consumption and population growth project that national demand in the Amazon countries for industrial wood products will almost double between 1990 and 2015. This projection does not factor in policy-makers' stated goals of increasing exports. In terms of agricultural production, which currently accounts for one third of export earnings for the Amazon countries's economies, policies to maintain current export levels while reducing basic food imports, will also entail a significant increase in overall agricultural sector productivity.

3. Pressures outside the region and the creation of opportunities in Amazonia, albeit short-lived, have encouraged human migration to the Amazonian territories. The expansion of oil exploration in Ecuador, penetration of roads in Peru, Bolivia and Colombia, and mining activities in Guyana have facilitated unplanned colonization. Incentive programmes and occupation policies have also driven colonization. Much of the "problem" faced "in" Amazonia can therefore be traced back to forces outside the region. This is particularly clear in the Andean countries which have witnessed a flood of migration to the Amazon frontier due to the scarcity and declining fertility in the Sierra.

4. Poverty, inadequate education levels, and lack of technologies stand distinctly among the adverse structural conditions which prevent efficient use of natural resources. Economic, social, and political pressures have resulted in deforestation of large areas of native forests, converted to relatively unproductive agricultural land and pasture (often abandoned after a few years) as well as continuing pressure from the poor for alternative policies and strategies to meet their needs.

5. Of the 7.25 million square kilometres of Amazonia, about 80% was historically covered by forest and the rest by other vegetation types such as natural savannas. While the actual amount deforested is debated and varies with definitions of deforestation, measurement techniques, and definition of the geographic limits of Amazonia, it is generally admitted that nearly 10% has been

deforested. Approximately 64% of the deforestation registered during 1980 was due to conversion to agriculture and pasture, 20% to forest activities, and 16% to other uses such as mining and hydroelectric generation.

6. Through promotion of various activities which have resulted in deforestation, policy makers have aimed to meet agricultural, forestry, and energy needs in the Amazon countries, as well as expanded exports. The results have not been was what hoped for, particularly in the forestry sector. Appropriate forest management systems have not been implemented virtually anywhere in the region. Wood extraction and processing are extremely wasteful; a recent ITTO study for Ecuador measured wasted rates of up to 70% of the usable timber. Typically less than 10% of the usable timber is harvested due to market constraints, and in the process 40% of the standing trees are damaged due to use of inappropriate felling techniques and equipment and inferior equipment. In addition, due to the high profits captured in this poorly regulated industry, logging companies have a strong incentive to exploit relatively isolated and previously inaccessible sites, especially where the most valuable export species are abundant. Access roads have facilitated the movement of colonists into these areas to establish shifting cultivation. Furthermore, many of these areas have been purchased by larger land owners for extensive cattle-ranching.

7. Indigenous inhabitants of the region have been adversely impacted, attracting much international attention. It is estimated that about one million indigenous people currently live in Amazonia, many of which are almost totally dependent upon forest resources for their livelihood. While many countries in the region have recognized the rights of indigenous peoples to land and public services, in some countries there are serious conflicts over such issues such as timber and mineral resource extraction from indigenous lands and provision of public services. At the same time, there has been little effort to work with indigenous populations to improve "external" understanding of how Amazonian lands and forest resources might better serve national needs through improved agriculture and forest use systems.

8. Over the past five to ten years there has been a shift in all of the Amazon countries with respect to legislation and institutional structures designed to promote "sustainable development" in the region. In practice, this shift has meant greater concern with environmental and social factors in development planning, as well as the recognition that emphasis on short-term needs can greatly reduce the options needed for achieving long-term goals.

9. In **Bolivia**, the new administration has created a Ministry of Sustainable Development and Environment with the goal of a more unified approach to development planning. A "pausa ecologica" has also come into force with the cessation of granting new forestry concessions while a new forestry law is drafted. In **Brazil**, an environment secretariat, recently absorbed by the newly formed Ministry of the Environment and Amazonia, was established during the last decade. Legislation has been passed limiting deforestation rates for individual land owners and reducing fiscal incentives for cattle ranching, as well as slowing the government-sponsored colonization process and strengthening the requirement for environmental impact assessments for development schemes. Institutional strengthening to combat illegal deforestation, and reduction in fiscal subsidies (as well as the economic recession) have dramatically reduced the annual deforestation rate in the Brazilian

Amazon (largely due to slow expansion of cattle pasture). In addition, Brazil's 1998 constitution recognized the importance of the country's long-term needs with a strong environmental article.

10. The Government of **Colombia** has also restructured its administration with the creation of an environment ministry and a simplification of the relationship between national and local government in environmental policy making. The government established a moratorium on new forestry concessions until legislation and policy can be strengthened following concerns about the ability to monitor the management of older concessions. Colombia's 1989 constitution took the significant step of requiring the transformation of about half of the country's Amazon territory into semi-autonomous indigenous areas.

11. A national environmental planning exercise is beginning in **Ecuador** with the goal of developing a plan to reduce the environmental impact of development activities in the country. The effort will be led by a newly created Environmental Agency which is committed to identify the constraints to development in Amazonia and to promote promising alternative land uses. In **Guyana**, the new administration is committed to a major restructuring of the government with the creation of a National Environmental Protection Agency and review of some forestry legislation.

12. **Peru**'s President recently affirmed his country's commitment to sustainable development in the Peruvian Amazon, and supported the inclusion of an article to that effect in the new Constitution, approved by national referendum in 1993. A new forestry law, prepared in a collaborative effort between the government, private sector and NGOs, is also likely to come into force in the near future, and the government has announced the creation of a national environment protection agency. The government of **Suriname** has recently adopted new forestry legislation designed to promote more sustainable forestry activities.

13. The Government of **Venezuela** has instituted legal and institutional changes since 1989 to establish a unique policy with respect to the state of Amazonas. This includes the establishment of the Servicio Autonomo para el Desarrollo Ambiental del Territorio Amazonas which has created an innovative working relationship with the State's majority indigenous population, as well as the founding of the Centro Amazonico de Investigaciones Ambientales "Alexander von Humboldt" and the declaration of the world's largest biosphere reserve covering 49% of the State (8.9 million hectares), jointly managed with its indigenous inhabitants.

14. Some other international initiatives are also contributing to change in the region. Colombia, Ecuador, Peru, Bolivia and Guyana are at various stages in the development of national tropical forestry programmes within the framework of the International Tropical Forestry Action Plan. There is also discussion of a Forestry Program for the Amazon region as a whole. Further, the Group of Seven is financing a pilot programme in the Brazilian Amazon to reduce deforestation rates with projects to strengthen extractive reserves, indigenous areas, national forests, research centres and the Ministry of Environment and Amazonia. The World Bank is providing loans in the states of Rondonia and Mato Grosso involving agricultural development, conservation of forest resources, and local institutional strengthening.

15. In addition to these many governmental initiatives, there has been a multiplication of grassroots initiatives to promote more sustainable resource use in the region. The Pro-tempore Secretariat of the Amazon Cooperation Treaty is in the process of publishing a ground-breaking series of technical reports with inventories and analyses of projects and investments in each of the eight national Amazon territories. These reports document the tremendous array of initiatives underway. These efforts are being established by local associations, indigenous peoples, rural unions, small and large private business, and many other non-governmental groups, as well as by local government agencies, often at the municipal level. The success of many of these initiatives has been questioned, but undoubtedly one factor impeding their progress has been the continuing lack of support from the prevailing policy, legal and institutional environment.

16. The various indicators of the growing receptivity among senior policy makers, civil society, and development agencies world-wide to explore possibilities of seeking alternative directions for meeting the needs of the Amazon countries justify renewed effort to promote revision of perspectives and strategies for the region. Senior policy makers in many of the Amazon countries recognize, however, that they lack the institutions, policies, and laws to begin to implement their good intentions. The countries are, however, in the process of developing long-term development and conservation strategies for their national Amazon territories. Without long-term planning, accompanied by investment in appropriate activities, institutional strengthening, and training, it is unlikely that the region's current pattern of environmental degradation, widespread poverty and, most importantly, diminishing potential to meet greater future development needs, can be reversed.

17. Recent studies have shown that there is significant potential for implementing economic development based upon the use of forest resources in Amazonia compatible with the conservation of the resource base. There are, however, many obstacles to the wider implementation of promising resource management systems most of which can be classified into two broad categories: 1) lack of investment through appropriate mechanisms in alternative production systems and in the institutions needed to support them; and 2) current inappropriate international, national, and local policies and legislation which promote short-term decision making and long-term degradation of the resource base.

PROJECT OBJECTIVES

18. Engage all parties with a stake in Amazonia's forests in dialogue and research about sustainability and how to achieve it.

19. Enhance the capacity of local, national and regional institutions to lead the Amazon countries toward sustainability.

20. Prepare for implementation of specific actions identified as priorities to promote sustainability in Amazonia.

21. Provide the Amazon countries with financial and technical support for immediate follow-up on the "Tarapoto Proposal."

PROJECT DESCRIPTION

22. Three sets of activities now form the core of this project: i) national consultations and policy reviews as called for by the "Tarapoto Proposal; ii) regional task forces, and iii) capacity building for sustainable development. The activities are described below.

1. National Consultations and Policy Reviews and Action Programme.

Two sets of activities are proposed in each country to identify needed policy, legal, and institutional reforms: 1) national-level sectorial reviews for each of the major land use categories in Amazonia, and 2) local case studies of promising initiatives in each major land use category. As a result of this activity, national action programmes will be formulated to secure the implementation of the proposed reforms.

The case studies, drawn form site-specific information collected with local participation, provide the much needed "ground truthing" to illustrate particular priority issues. The national policy reviews will be implemented by the national-level coordinating agency. The National Coordinator will also:

1) facilitate and encourage the participation of other governmental and non-governmental institutions to collaborate in the overall execution of the project materials;

2) develop and implement a national outreach strategy to disseminate the activities and products of the project; and,

3) convene a National Advisory Group composed of individuals from various interest groups, including: the ministries of agriculture, energy, and environment; forest services; national indigenous peoples federations; major NGO networks; a timber trade federation or exporters association; and, a leading research institute.

The National Coordinator will also establish a National Working Group (technical specialists from government, universities, NGOs, grassroots groups, and the private sector) to help carry out the policy reviews and case studies in each country.

2. Regional Task Forces

The national policy reviews will be augmented and complemented by the work of three regional task forces (each with 8-12 expert members), which will examine strategically chosen, technically complex topics of common interest to all eight Basin countries. The task forces will be led by technical experts form the Amazon countries, and members will include leading specialists from elsewhere. The three task forces will focus on:

(a) Development of a sustainability assessment method (SAM) to assist in implementation of the "Tarapoto Proposal"

The primary objective of this task force is to develop an easy-to-use tool or set of tools for assessing the contribution of local initiatives to sustainable development. The tool will be developed bearing upon Criteria 8-11 of the "Tarapoto Proposal" which include a proposed suite of indicators for assessment of sustainability at the level of the forest management unit (such as a community forestry concession, agroforestry program, or extractive reserve). Participants in the Task Force will include the technical experts present at the Tarapoto workshop. The tool will be presented in the form of an easy-to-use manual, and published in English, Spanish, and Portuguese.

Work of the task force will included reviewing existing tools, and developing a new decision making tool that will integrate ecological, economic and social criteria and can be used to establish principles and guidelines to orient future investments. The method will cover the whole project cycle, uniting ex-ante and ex-post analysis and NGOs on how to determine whether or not a proposal for a conservation, forestry, agricultural, livestock, infrastructure, or other project holds promise for ecological, social/cultural, and economic sustainability, and how to plan projects accordingly.

(b) Trade policy and sustainability

As the hemisphere moves ever close to complete removal of trade barriers an area that has received relatively little local attention is the relation between shifts in trade policy and efforts to implement Agenda 21 and related sustainability objectives. The task force will explore the implications of new agricultural regulations under the General Agreement of Tariffs and Trade/World Trade Organization (GATT/WTO) in relation to the use of forest resources, and the impact of GATT/WTO and other trade rules through export / import restrictions. The ability of national governments and interested parties to ensure that GATT and other international agreements do not undermine sustainable development will be assessed. In addition, the potential impact of NAFTA on environmental protection and sustainability will be examined to determine the possible benefits and risks to the Amazon countries of joining NAFTA, as well as the effects of strengthened free trade agreements in the region under the Andean Pact, Mercosur expansion, and other integration mechanisms.

c. Infrastructure development

This task force will develop a series of policy recommendations aimed at maximizing the benefits and minimizing the negative impacts of infrastructure development, particularly highway construction. Policy analysis will draw upon experiences in Amazonia and other parts of the world to identify a set of measures and formulate the policy recommendations and minimal institutional needs for their implementation.

3. Capacity Building for Sustainable Development

An especially important objective of this project is to strengthen the capacity of regional institutions to develop and implement policies for sustainable management of forest ecosystems in the Amazon. It is clear that one of the principal impediments to sustainable use and management of natural resources is the weakness of the institutions charged with the task.

Pro Tempore Secretariat of the Amazon Cooperation Treaty

23. The institutional capacity of key regional institutions led by the Pro Tempore Secretariat of the Amazon Cooperation Treaty, will be strengthened through, among other things: 1) active participation in all stages of project development; 2) oversight of execution of case studies including case study design, use of field tools, analysis, compilation, and presentation of the results; 3) review of the prevailing policy and institutional environments, domestic and international; 4) participation in a developing network of groups in different Amazon countries working together to implement the project; and 5) greater harmonization, or at least compatibility of approach and understanding, between different groups. As the lead project implementing agency, the Pro Tempore Secretariat will be further strengthened in such key areas as policy analysis, data collection and storage, outreach, dissemination of results and information, and project design. Under the coordination of the Pro Tempore Secretariat, specific activities have been designed to further strengthen the capacities of their regional institutions. These are described below.

24. Association of Amazonian Universities (UNAMAZ): UNAMAZ has traditionally not been a strong player in policy debates on key Amazon issues. Through its participation in project management, the institution will become more aware of the importance of the policy dialogue and debate. A process of debate among UNAMAZ members, including a regional workshop, will be promoted to redesign regional research and teaching policies such that they better address key policy issues.

25. Creation of the Amazonian Business Council for Sustainable Development (UNAMAZ): For Latin America overall (Latin America Business Council for Sustainable Development) and some of the region's countries (Colombia, Bolivia, Brazil), there are well-formed business associations whose members promote investment in more sustainable enterprises. At the regional level of Amazonia, however, there has not yet been a coordinated effort among business leaders to promote investment in more sustainable enterprises. At the regional level of Amazonia, however there has not yet been a coordinated effort among business leaders to promote a more responsible set of business policies for sustainable development.

26. A regional workshop for business leaders in Iquitos, Peru, (co-hosted by Peru's national Chamber of Commerce) will be convened with the following objectives:

- To illustrate, through a set of prepared case studies, that investments in sustainable activities can be highly attractive commercial ventures.

- To identify areas of consensus among private sector representatives as to key policy shifts needed in their countries to promote greater private investment in sustainability.

27. Prior to the workshop, case studies of promising private sector initiatives will be prepared, together with overviews for each country of national policies which create incentives and disincentives to such investment. The Latin America Business Council for Sustainable Development has offered staff to assist in implementing this activity.

28. Amazon Electronic Communication Network: Efficient implementation of a project of this type can be achieved only through use of modern communications systems, particularly electronic mail and related tools. A key component of the project's capacity building focus is therefore the strengthening of the electronic communications network of the key implementing institutions. Greater use of e-mail and associated tools will also help to reduce costs of project implementation, for this initiative as well as others.

29. Communications networking will be improved with assistance from the international non-profit group INFORUM, which has pioneered dramatic improvements in international electronic conferencing, and the Brazilian group Ecoforca (an INFORUM member), which already uses electronic communications technology for several innovative projects in the Brazilian Amazon. Ecoforca has the capacity and experience to provide training and technical assistance throughout the region.

30. Amazon Parliament: A series of workshops with parliamentarians in each of the Amazon countries, followed by a regional workshop, to identify the opportunities for developing and promoting new legislation for sustainable development in each country and regionally. The workshops will be followed by preparation and promotion of new legislation, with technical support from the project. This activity will be coordinated by the secretariat of the of the Amazon Parliament.

31. The outputs of the project are all designed to strengthen the implementation of the "Tarapoto Proposal" and related policy goals of the eight Amazon countries. The regional and national policy analyses and proposals, case studies, and task force reports will be synthesized into a major report to be entitled, Action Agenda for Amazonia. The report will highlight the priority actions needed for promoting sustainable forest ecosystem management in Amazonia, and will be widely circulated throughout the region in English, Portuguese, and Spanish language versions. A brief "Policy-makers Guide" will also accompany the main report, In addition, a "Sourcebook," providing greater detail from the case studies and policy reviews, will also be published form more limited circulation to a technical audience. The major report is also timed to coincide with the 1997 review by the United Nations Commission on Sustainable Development of progress in implementation of the UNCED agreements relating to biodiversity and forests.

32. Prior to publication of the Action Agenda for Amazonia, a regional workshop will be convened to facilitate broad participation in review of the draft. Participants will include the national teams, other experts from the region, and representatives of the project target audience, such as local and national government advisors and policy makers, elected officials, indigenous peoples'

organizations, NGOs, business leaders, and international donor agency representatives. The findings of the task force on sustainability assessment methods will be published in the form of a user-friendly manual for use by local planners and others, and will be periodically updated and refined.

33. Throughout the project, a series of workshops, meetings, and fora will be convened which will serve to provide outreach for the project and specific project outputs. The most important product of the project will be actions and a foundation upon which to build further actions and activities designed to promote the implementation of the findings and conclusions. Expected actions would together contribute to meeting the socio-economic needs of the inhabitants of the Amazon countries and reduction in loss of forest cover and biodiversity. They include:

- Technical refinement and adoption by the Amazon countries of the Tarapoto Proposal for Criteria and Indicators of Sustainability of Amazonian forests. This will facilitate further regional analysis of opportunities for harmonizing policy among the Amazon countries.

- Definition and adoption by leaders in the private sectors of the Amazon countries of corporate investment guidelines to promote sustainability.

- Identification, debate and implementation of new legislation or improvement of old legislation by members of the Amazon Parliament through their national congresses.

- Clarification of policies and objectives by indigenous and traditional groups to promote sustainable development of indigenous lands in Amazonia, where appropriate.

- Greater communication among and between the various interest groups, facilitating consensus building on key policy issues.

- Strengthened capacity of regional and national, public and private institutions to analyze policy, engage in debate, disseminate information and promote options for sustainability in Amazonia.

RATIONALE FOR GEF FINANCING

34. GEF support is essential for funding of the project, which is distinct due both to its various ground-breaking characteristics and the cost of implementing activities simultaneously in all eight countries. Some of these characteristics include:

(a) The project addresses critical environmental issues directly related to biodiversity loss and global warming;

(b) It utilizes an innovative multi-stakeholder approach, including extensive national participation in project design, consensus building methods, and community participation;

(c) It devotes special attention to private sector involvement;

(d) Regional dimensions of cooperation and shared interests are addressed;

(e) The project aims to develop a long-term strategy to address the root causes of environmental degradation in the region; and,

(f) It aims to have a long-term impact by promoting institution building and sustainable processes.

PROJECT SUSTAINABILITY AND PARTICIPATION

35. On February 25, 1995, at a meeting in Tarapoto in the Peruvian Amazon hosted by the *Pro Tempore* Secretariat of the Amazon Cooperation Treaty, the representatives of the Foreign Ministries of the Amazon countries recommended that their governments adopt an agenda-setting proposal for a new framework for guiding the implementation of sustainable development in Amazonia. The Tarapoto Proposal (see Annex I) recognizes the commitments made by the Amazon countries to implement the agreements adopted at UNCED and establishes a framework for decision makers in the region to promote such policy objectives as conservation of forest cover and biological diversity, sustainable forest production, and development of institutional capacity to promote sustainable development in Amazonia.

36. This project is designed to reinforce and help meet the priorities of each of the Amazon countries as already identified under the framework of the Amazon Cooperation Treaty and its six Special Commissions. The activities have been developed and planned through a partnership of national authorities, senior policy makers, grassroots groups, indigenous peoples' organizations, research and teaching institutions, business community leaders, conservation and social development NGOs and others from each of the eight nations of the Amazon Cooperation Treaty. The planning phase of the project centred around a process of consultation with more than 100 public and private institutions from the Basin countries to ensure their input into the design of the project, and included two planning workshops (in Bolivia and Venezuela) with participants from each country and key regional institutions.

LESSONS LEARNED AND TECHNICAL REVIEWS

37. The Pro Tempore Secretariat's inventory of existing initiatives to promote sustainable development in Amazonia has identified over 2,000 efforts in implementation or completed. A clear priority is to build upon this history and identify priorities for future investment and policy. This project, drawing upon the data base of the Pro Tempore Secretariat and other sources of information, in conjunction with up-to-date policy reviews, will guide ongoing efforts, building a consensus for sustainability for the region.

38. Implementation of this project will build upon and complement the existing Pilot Phase GEF project (*Regional Support for Conservation and Sustainable Use of Natural Resources in Amazonia*). While the Pilot Phase project focuses on GIS and economic/ecological zoning, pilot programmes for

indigenous management of biological resources, the development of broad national biodiversity strategies, and targeted institutional strengthening, this proposal build upon the Pilot Phase experience by:

- Promoting broader participation and consensus-building among the various stakeholders regarding priority actions for conservation of biodiversity and sustainable resource use.

- Focusing on policy, identifying the obstacles, opportunities, and needed reforms within the overall policy framework affecting attainment of sustainability.

- Conducting in-depth analysis of some key issues affecting biological resource use including sustainability assessment, trade policy, and infrastructure, which are the backdrop to implementation of recommendations emanating from the regional GEF project (e.g. ecological/economic zoning).

- Providing assistance in policy implementation, for example, the sustainability assessment component can contribute to the implementation of zoning legislation by measuring the sustainability of specific activities for a given zone and presenting a method for monitoring.

- Strengthening institutional capacities, particularly in the areas of local policy research and provision of information to policy makers.

PROJECT FINANCING AND BUDGET

Two-Year Project Budget*

	US $
National Coordinators	150,000
National Policy Reviews (major land-use)	230,000
Case Studies (land-use alternatives, investment)	310,000
Meetings of National Advisory Groups	160,000
National Working Groups	
Task Force 1: Sustainability Assessment Method	210,000
Task Force 2: Trade Policy and Sustainability	160,000
Task Force 3: Infrastructure development	160,000
Capacity Building	
SPT/TCA: electronic communications network with collaborating institutions	485,000
Other Collaborating Institutions	
Program Coordinating Groups Meetings	105,000
Regional Workshops (Business leaders; Amazonian Parliament, etc.)	220,000
Publication (*Action Agenda for Amazonia*)	75,000
Technical Support (3-4 high level consultants full time; ad hoc consultancies)	611,000
Regional administration of project activities (TCA and eight countries)	406,000
TOTAL	3,937,000

**** includes approximately US$ 100,000 in cofinancing by the Netherlands government and WRI for project activities to be carried out in and by Suriname, and US$ 100,000 in cofinancing by BMZ.***

INCREMENTAL COSTS

39. This project takes a regional ecosystemic approach to biodiversity conservation and sustainable development. This regional approach and its corresponding programme of activities are aimed at achieving an impact beyond the sum of individual national actions. The baseline for, or default, scenario would be no coordinated regional actions of the type proposed here. The incremental costs are therefore the full project costs.

INSTITUTIONAL FRAMEWORK AND PROJECT IMPLEMENTATION

40. At the regional level, the project is to be coordinated by the Program Coordinating Group, led by the *Pro Tempore* Secretariat of the Amazon Cooperation Treaty, with the coordinating institutions from each of the eight Amazon countries. Other regional organizations and international supporting institutions, such as WRI, will also participate. In each country, the National Coordinator Institutions will convene representative from the cross-section of interests to participate as members of the National Advisory Groups and National Working Groups. Strengthening the Amazon electronic communication network and utilizing it for project management will further help to establish an open, transparent form of project administration open to general scrutiny and participation.

TECHNICAL REVIEW

REGIONAL - SUSTAINABILITY OF AMAZONIAN DEVELOPMENT: CRITERIA, POLICIES, CAPACITY BUILDING

1. Thank you for sending me a copy of the very interesting regional project proposal for action for a sustainable Amazonia. I have read this proposal through with great interest and think that it is an important one for GEF involvement to help the Amazon region. It is based closely on the follow up of the Tarapoto meeting with certainly proposed an excellent action plan for Amazonia. I am glad to see such a quick follow up with a programme which will help the Amazon region. In the first place the emphasis in this document is on long term. One of the things which is needed most in the Amazon region is long term thinking and I hope that the process will continue to emphasise this long term aspect which is mentioned in several places in the proposal.

2. Secondly, it is a document that is based on co-operation between the differ ories . produce a harmonious development, something else that is particularly import ea and certainly is in line with the Tarapoto proposal. I also like the participatory approach that is outlin in this document. It outlines well some of the problems that are causing developmer sustainable, such as the way in which timber is being harvested, the use of fuelwood from the forest, rather than growing plantations, etc. This is a document that obviously has as its primary objective the promotion of sustainable use of the rainforest; that is the most single important item to be addressed in Amazonia today and it can only be done through some of the other actions that are mentioned in this report, such as developing the capacity of local and regional institutions and the influencing of the politicians concerned.

3. The Tarapoto proposal was quite strong in its coverage of the need for the conservation of forest cover and of biological diversity and also the role of the forest to support populations of local peoples. I do not see these aspects emphasized strongly enough in the proposal. Alongside sustainable use of the forest one of the most important issues is the conservation of all the species that make up that forest. Certainly conservation and sustainable use are compatible and I hope that the proposed plan will review the conservation aspects as well to preserve the great and important biodiversity of the Amazon region.

4. The appendix shows that the plan is including the relevant institutions of the Amazon region. The list of organizations in appendix 3 seems to concentrate on the association of Amazon universities, rather than representatives from the individual universities. I would hope that the individual universities will be allowed to give input into this process, rather than just be represented by a global body, because the strengths and weaknesses of the different universities are very different and some of them have some very positive input into the process.

5. I hope that these comments are of some help to you. I am delighted to see such a proposal being made and certainly would think that if funding were granted it would do a lot for the Amazon region.

THE PROPOSAL

6. The proposal "Action for a Sustainable Amazonia" has developed considerably since I last reviewed it. In addition the probability of successful implementation has been significantly heightened by the Tarapoto proposal of February 1995.

7. The real value of the Amazon Cooperation Treaty has always been its potential to foster sound natural resource management/sustainable development in the Amazon basin. For too long whatever resource management there has been in an Amazon nation has been isolated from that in all the others -- a situation which is guaranteed to prevent sustainable development. The time truly seems at hand to surmount these barriers through the Amazon Cooperation Treaty, just at the moment when augmented population and incipient development projects make action imperative.

8. The overall workplan seems practical and sensible. National policy reviews will require extensive non-governmental organization (NGO) participation to achieve success but this will require real effort because NGO participation is still not an inherent part of policy and decision making in Latin America. The National Advisory Groups as outlined should include other industry as well as timber. Raw logs in the end may be the lowest of possible economic uses of a forest. The regional task forces are critical if a piece-meal process and product are to be avoided: integrated ecosystem wide policy is essential to sustainable development. I am particularly pleased to see the task forces on trade and on infrastructure.

9. With respect to capacity building, it is of course essential the UNAMAZ be involved. No other institutions than universities can play that particular role. But it is important to be realistic; universities have not traditionally been strong in dealing with issues of this sort.

10. The creation of the Amazonian Business Council for Sustainable Development and the regional workshop is important but will need tremendous care and attention to detail. The Amazon Electronic Communication Network is a wonderful element. Amazon parliamentarians should not only experience workshops but also field trips.

11. It would be important to have the curriculum vitae of the person who will lead this project for the Amazon Cooperation Treaty.

12. This project has matured and at the same time it represents an effort the time for which has come. I recommend it with confidence and enthusiasm.