

PROPOSAL FOR REVIEW

Project Title: **Creating Protected Areas for Resource Conservation (PARC) in Vietnam Using a Landscape Ecology Approach**

GEF Focal Area: Biodiversity

Country Eligibility: Convention Ratified 31 October, 1994

Total Project Costs: US \$ 6.696 million

GEF Financing: US \$ 6.041 million

Country Contribution: US \$ 655,000 (and in kind)

Associated UNDP/IPF and GEF Projects: US \$ 4.55 million

Conservation Training and BAP - US \$ 3.0 million
Environmental Awareness - US \$ 553,000
Sub-Regional Biodiversity Conservation - US \$ 1.0 million

GEF Implementing Agency: UNDP

Executing Agency: United Nations Office of Project Services

Local Implementing Agency Counterpart: Ministry of Forestry

Estimated Approval Date: January 1996

Project Duration: 5 years

GEF Preparation Costs: None

Government Endorsement: March 4, 1995

COUNTRY AND SECTOR BACKGROUND

1. Vietnam remains one of the poorest countries in Asia with a per capita GDP of approximately \$200. In addition, years of isolation from many of its neighbors have left a dearth of appropriate managerial resources in many aspects of society, a major constraint to development. Fiscal constraints have left Vietnam unable to rebuild and maintain its infrastructure. However Vietnam's position in the Human Development Index is relatively high due to a well educated population, a comprehensive health service, and the strong position of women in society. Vietnam's population in 1992 was 70.8 million with an annual growth rate of approximately 2.3%, making it the 12th most populous country in the world. The economic future for Vietnam looks bright as it is currently experiencing a period of profound transition from a centrally planned to a market-oriented system. The economic situation is extremely dynamic with current GDP growth (1992) estimated at 8.3% in real per capita terms. This rapid rate of growth is occurring in an economy which is still largely agrarian (39% of GDP in agriculture) but is rapidly moving toward a more industrialized and services base. These structural changes and other developments create an immediate and *once-only opportunity* for the development of appropriate policies, mechanisms and resource exploitation practices.

2. Vietnam has a land area of 330,363 km². The forests, waters and wetlands of Vietnam contain a great wealth of flora and fauna. It is estimated that the nation's forests contain up to 12,000 species of higher vascular plants, of which 2,300 are known to be used by humans for food, medicines, animal fodder, timber, oil, and many other purposes. The fauna of Vietnam is also very diverse. Some 276 species of mammals, 826 species of birds, 180 species of reptiles, 80 species of amphibians, 471 species of freshwater fish, and about 2,000 species of ocean fish are known, in addition to many thousands of invertebrate species. The flora and fauna in Vietnam also show a very high level of endemism and a high degree of local distinctiveness, with many endemic species of great conservation interest. Twenty-eight species of mammal, 40 species of bird, 7 species of reptile, and one species of amphibian found in Vietnam are listed in the IUCN's (1990) Red List of Threatened Animals. Indicative of Vietnam's great biological wealth is the recent discovery of two large mammal species, the saola (Vu Quang ox) and the giant muntjac. Notably, this globally important biodiversity is being threatened as agricultural encroachment, population pressures, and unsustainable land use practices lead to a destruction and fragmentation of habitats.

3. The Government of Vietnam is seriously committed to biodiversity conservation. The first national park was established in 1962, despite the difficulties raised by the then ongoing conflict. In 1985, Vietnam adopted a *National Conservation Strategy*, and later the comprehensive *National Plan for Environment and Sustainable Development* (NPESD). The NPESD advocates the interdependence of environmental protection and economic development. In accordance with this new thinking, the Government and the UNDP Country Office in Vietnam prepared during 1992-93 a programmatic and strategic framework for Technical Assistance in Environment and Natural Resources Management for Vietnam (ENRM) (See Annex 1 for ENRM framework). The present project was identified and designed through this preparation process to be a core element of this Technical Assistance programme. It is important to note that the projects within this ENRM have been designed so that they are complementary to one another, and that the benefits of any one project is not limited to that project only, but will also facilitate/enhance the implementation of any other project.

4. Recently, the Government has reviewed and revised its national forestry policies. Regulations which affect wildlife, forest and coastal management both directly and indirectly, are being drafted in rapid succession. Most notable among these are Government Decree No. 39/CP (May, 1994); Law on Land (1993); and Forestry Protection and Development Act. A major result of these initiatives has been to shift responsibility of forest management and protection to local communities. Such policies may provide for greater equity, but they do not necessarily guarantee greater protection of biodiversity. They need to be complemented by programs that assist in incorporating local

communities into plans to manage and protect biodiversity, not only to ensure that new unsustainable management practices do not begin, but also to be sure that existing sustainable ones are not lost. The Law in Land in particular, whose emphasis is on the allocation and uses of non-forestry land, provides the legal framework for action within which the PARC project will operate. As this law is very new, it is proposed that the PARC project will create one possible means by which this Law will be implemented, providing for community inclusion in park management and associated multi-use zones in Vietnam.

5. The proposed Protected Areas for Resource Conservation (PARC) project has also been identified as a priority in the context of Vietnam's Biodiversity Action Plan which was prepared with the assistance of a GEF Pilot Phase UNDP/GEF project (Conservation Training and Biodiversity Action Plan - VIE/91/G31). An early conclusion of the BAP discussions was the need for integrated protected area management, consisting of a mix of large and smaller core areas and for adjacent sustainable resource use zones, as one of the most important methods for preserving critical ecosystems, landscapes and biodiversity in Vietnam. This Pilot Phase project also developed a national conservation training programme consisting of field training for forest guards working directly with villagers in the forests; field training for park directors and deputy directors focusing on participatory protected areas management approaches; field training for protected area science offices in the areas of wildlife management and sustainable forest management; and advanced training for officials of the Ministry of Forestry, the Ministry of Science, Technology and Environment, the Forestry College, the Institute for Ecology and Biological Resources (IEBR).

6. The PARC project would build on these human and institutional capacities developed in the GEF Pilot Phase project. Specifically, capacity would be built within staff of the PARC site, including the Protected Area Director and Deputy Director, Science Officers, Forest Guards, and Community Extensionists. Technical transfer provided by the CTA and UNVs working in the PARC sites would be a valuable tool for capacity building. Also benefitting from capacity building through the implementation of the PARC project, would be the Provincial Forest Protection and Agriculture Departments, Provincial People's Committees, District Forest Protection and Agriculture Offices and District and Commune People's Committees in the respective districts and provinces of the two selected sites. Extension programmes coordinated through the local offices of the Women's Union, Youth Union and Farmer's Union would also enhance the ability of these important mass organizations to outreach to their constituents.

PROJECT PREPARATION

7. The initial idea for a model integrated protected areas management project specific to the environmental situation in Vietnam was proposed in late 1992 by the Vietnam Forest Protection Department (FPD) and the Forest Inventory and Planning Institute (FIPI). These two departments within the Ministry of Forestry are responsible for protected area management in Vietnam. The idea for a GEF project focusing on the in-site protection of biodiversity was further discussed at the Ministry of Science, Technology and Environment (MOSTE) during the early planning meetings of the Biodiversity Action Plan (BAP) in February 1993. It was agreed by the BAP Consultative Team of about 25 Vietnamese scientists and conservationists, that protected area management in Vietnam was still in its infancy and needed suitable models and management systems more adapted to the fragmented ecosystems and heavily populated conditions of Vietnam. An early conclusion of the BAP discussions was that integrated protected area management, consisting of a mix of large and smaller core areas and adjacent sustainable resource use zones, was one of the most important methods for preserving critical ecosystems, landscapes and biodiversity in Vietnam. In March 1993, as a result of these discussions, the "Protected Areas for Resource Conservation" (Vietnam PARC) concept was formally prepared as one of three complementary GEF pipeline projects for Vietnam, the other two focusing on watershed management and coastal marine resources. The PARC Project Brief was further developed

by a multi-disciplinary team with inputs and ideas presented by a large number of people/institutions.¹ In addition to the current project, the BAP of the pilot phase GEF project has spawned nearly the entire ENRM programme for Vietnam.

8. Further reviews of the project were undertaken by the **Donor Working Group for Environment and Natural Resource Management**² in June 1993, and during July-August 1993 as part of the BAP consultative process, including discussions with provincial, district, and community leaders in eight provinces. The project was discussed with the State Planning Committee (SPC) in March 1993. This is the institution responsible for the coordination of all international assistance to Vietnam, including assistance originating from global and multi-lateral funds such as the GEF. The SPC approved the project idea in April 1993 and have provided guidance, comments and ultimately approval for each stage of the development of the project.

PROJECT OBJECTIVES

9. The overall development objective of this five year project is to conserve Vietnam's globally significant biodiversity through implementation of a landscape ecology approach to protected areas management which will seek to find a fair balance between the provision of ecologically sound livelihoods and the conservation of biodiversity in Vietnam's unique socioeconomic conditions. The project will introduce, develop and implement the PARC concept which is based on a participatory approach, an open consultative process, and the appropriate integration of conservation and development. The resulting capacity to implement the PARC project in Vietnam will be applicable to all areas in the country where biodiversity is fragmented, population pressure high, and socio-economic development integrally linked to conservation.

10. The global benefits to be obtained from the input of additional GEF funds above the normal Government of Vietnam contribution would include strengthening of Vietnam's capacity for:

- Preservation of endemic animal species, such as the severely endangered kouprey, tiger, the Tonkin snub-nosed monkey and many others. Besides their intrinsic value, they can provide important genetic material for domesticated animals and for evolutionary research.
- creation of carbon dioxide sinks through tree planting programmes.
- conservation of biodiversity of global significance.
- demonstration of a model approach to natural resource conservation applicable to other areas around the world.
- demonstration of the sustainable use of the components of biodiversity to ensure sustainable livelihoods for local human populations.

¹Provincial, district, and community leaders in eight provinces; Pham Monh Glao/Nyuyen Nhu Phuonh of the MOF Forest Protection Department; Vu Van Dung, Nguyen Ngoc Chinh and Do Tuoc of Forest Inventory and Planning Institute (FIPI); Professor Hoang Hoe of the Vietnam Forestry Association; Profession Vo Quy and Hoang Van Thang of the Centre for Natural Resources Management and Environmental Studies (CRES); Dr. Nguyen Van Truong of the Institute of Economic Ecology; Ngo Si Hoai of the MOF International Cooperation Department; Nguyen Ba Thu of the Cuc Phuong National Park; Huynh Van Keo of the Bach Ma National Park; Hoang Ba Pho of the Lam Dong Provincial Forest Protection Department; Tran Van Tri of the Ha Tinh Provincial Forest Department; Yannick Glemarec and Justine Elmendorf of UNDP/Hanoi; Shanthini Sawson and David Hulse of the VIE/91/G31 project and WWF, Victoria Heymell of the IUCN.

2. The Donor Working Group on Environment and Natural Resource Management is open to all major multilateral, bilateral and non-government organizations working in Vietnam, and meets regularly on a thematic basis.

PROJECT DESCRIPTION*Objective 1. Creating a Participatory Institutional Framework for Biodiversity Conservation*

11. While the formulation of a National Environmental Action Plan and the creation of institutional structures such as the CICE to oversee its implementation are signs of substantial progress, much remains to be done. National and regional institutions must gain the capacity to implement their plans, while local organizations must be created and/or supported to manage related village-level initiatives. One of the first steps will be to assist the DGE to carry out its mandate in biodiversity conservation by supporting the designation of an official to oversee Protected Areas and Biodiversity. Then, to build on the structures in place and to encourage cooperation and coordination between the national, provincial and local levels, a National Biodiversity Committee (CNB) will be established, along with Regional Biodiversity Committees (CRBs) for each island. These will provide both advice and coordination for biodiversity activities in general in the Comoros. The CNB will be composed of representatives from indigenous NGOs and research institutions, the Biodiversity Officer from the DGE, and the executive committee of the CICE, with the participation (on invitation) of international agencies/ organizations, and bilateral missions. Similar Protected Area Committees (CAPs), will be created at the local level which will have direct responsibility for managing each protected area. The CAPs will consist of local community representatives, traditional leaders, representatives from the private sector and other concerned local associations, local government officials, and the DGE Protected Areas Coordinator. Regular meetings will be held between local, provincial, and national levels to ensure cooperation and coordination among all parties. Finally, a Project Steering Committee (CDP) will be established specifically for the GEF project and will be composed of members from the CNB, donor organizations (UNDP, UNEP, the World Bank, FAO, etc.) and international NGOs directly involved in project implementation.

Objective 2. Capacity Building for Biodiversity Conservation

12. This part of the project includes activities designed to build the sound institutional capacity and the conducive legislative framework necessary to ensure effective implementation of biodiversity and protected areas activities under the National Environmental Action Plan. First, community, non-governmental and government officials from local, regional and national levels of the DGE, SREs, CNB, CRBs and CAPs will be trained in the selection, delimitation, establishment, planning, management and monitoring of protected areas, as well as in species conservation techniques. In addition, special training will occur at the village level, focusing upon ecosystem restoration, biodiversity conservation, and the rational planning and management of each site's natural resources. Third, special enforcement and protection agents selected by the local communities will be trained in the implementation of protected area operational and management plans. National Gendarmerie, the Maritime Gendarmerie, and the Customs office will also participate in these training activities. Finally, the project will assist the MDRPE to formulate appropriate legislation and policies in biodiversity conservation. These will support the categorization of protected areas and their uses, forest management, etc.

Objective 3. Operationalize the Framework Law's Environmental Management Fund to Ensure Financial Sustainability for Biodiversity Conservation Activities

13. The project will support the operationalization of the Comoros' Environmental Management Fund (FGE), established under the Framework Law on the Environment. This fund will be used to cover some of the costs associated with implementing the law itself, as well as recently ratified international

environmental conventions. The operationalization of this self-sufficient nationally-overseen financial source for environmental activities is especially attractive since external funds for biodiversity projects are short-term. The GEF project will help to develop an appropriate administrative framework and mechanisms for disbursement. It will also offer training to designated management staff charged with disbursing the funds. It is anticipated that monies for the FGE will come from tourism revenue (taxes on air travel, hotel accommodation, etc.), as well as fines and voluntary contributions.

14. While the FGE will fill the financial gap at the national level, local level biodiversity management costs must also find a permanent funding source. The GEF project will establish a system of local revolving funds, supported in part from the national fund and in part from locally-generated tourism revenues (tours and excursions, access fees, etc.). Local income generated through tourism may be directed towards the cost of local level management of the protected areas. Local Protected Areas Committees (CAPs) will manage the revolving funds.

Objective 4. Establishing a National Protected Areas Network

15. Given the lack of government resources, actual establishment of the national protected areas network will rely to a large extent on village-level management. The GEF project will assist the government in a number of activities to establish this decentralized approach, including negotiations with local communities and NGOs for the delimitation and the zoning of activities, as well as participatory planning sessions to prepare, adopt and implement individualized management plans.

16. Review of existing biodiversity information and discussions held at the national seminar in 1993 led to the identification and prioritization of the major sites for biodiversity protection. These include two primarily marine and coral reef sites and three terrestrial sites as follows:

- The marine and littoral ecosystems of the southern coast of Mohéli, including Niamoucheli and Boundouni lake (site designated under the Ramsar Convention);
- The peninsula of Binbini and the islet of La Selle near Anjouan;
- The natural forest on the crater of Mohéli;
- The forested region of Karthala on Grande Comore;
- The relict forests on Anjouan.

17. While the above locations have been prioritized for protection and conservation activities, other areas deemed to be important for species protection may be added to the network as additional biodiversity information emerges. This network of locally run national protected areas will complement the village-level protected areas proposed by the World Bank Agriculture and Environment project. Consultative discussions have been carried out with local communities around proposed protected areas by the UNDP mission. The communities agreed to participate in the establishment of protected areas. Exactly what access to resources that the community will give up will be negotiated as part of the establishment of the protected areas. Failure to achieve agreement will lead to withdrawal of GEF financial support for that particular site.

Objective 5. Action Plans for Species Conservation

18. While the establishment of a national protected areas network is a crucial first step to protect many of the Comoros' endangered or threatened species, additional conservation activities will be necessary to restore populations of some species to viable levels and individual species actions plans

will be developed for species both within and outside the national protected areas system. Currently three species action plans are already under development:

19. Conservation of the Livingstone Fruit Bat--has been led by two NGOs, the Jersey Wildlife Preservation Trust and Action Comores. Jersey Wildlife has established a captive breeding program for the Livingstone fruit bat in the hopes of strengthening their numbers in the wild (now estimated at less than 400 individuals). Part of the success of this project has come with the public education work done by the indigenous NGO, Ulanga, as well as Action Comoros' data collection project, which provides local residents with additional income.

20. Conservation of the Coelacanth--is being led by the Max Planck Institute with some support from the French government and technical support from the World Bank. Project components include further research on the species and efforts to raise the public's awareness of the species' ecological significance.

21. Conservation of the Scotts Owl-- will involve consolidation of protected sites for nesting, targeted public awareness activities, and, depending on the final outcome of action plan development, reintroduction of individuals.

22. This GEF project will support further work with the Livingstone Fruit Bat, the further development of the Scotts Owl Plan, as well as identification of other critically endangered species of flora and fauna and the preparation of conservation action plans.

Objective 6. Strengthening Public Commitment

23. While information on the predicament of endangered species is spreading through local education projects currently being implemented by organizations such as Ulanga and the Peace Corps, such efforts must be mainstreamed to reach a larger audience. The project will support these groups to plan and implement a broader coordinated public awareness campaign to increase the general public's knowledge of the importance of biodiversity and its conservation. The campaign will be aimed at all levels and facets of society, from fishermen and farmers, in particular women who in addition to often being farmers are also responsible for the gathering and utilization of wood fuel and the collection of sand, to school children. In addition the project will assist the Ministry of Education and the DGE and CNDRS to train educators in biodiversity conservation and develop a formal national environmental education curriculum for use in primary and secondary schools. The purpose of the campaign is to build a strong base of popular support for biodiversity conservation in the Comoros and is designed to follow the example of a successful IUCN environmental awareness project carried out on the small Caribbean island St. Lucia

Objective 7. Initiating Sustainable Economic Alternatives

24. Biodiversity conservation plans may be implemented, but without economic alternatives for farmers, fishermen and others that depend on terrestrial and marine resources for their livelihood, the prospects for successful conservation are slim. In order to discourage damaging exploitation-intentional or otherwise- of threatened species and fragile ecosystems, and to reinforce the newly established national protected areas network, the project will provide funds to organized community groups seeking to implement economically feasible and environmentally friendly alternative income generating projects. Money will be available to support eco-tourism initiatives, alternative fishing

techniques, stone crushing for construction, and other activities not covered within the World Bank's agricultural development activities. Emphasis will be placed on the development of eco-tourism at the local level, with support provided to the training of guides, production of materials, and the like. Eco-tourism has great potential for development, given the islands' plethora of natural attractions, relative accessibility, supportive national policies, and tourism's general growth in the Indian Ocean region and South Africa.

25. To encourage applications for funding, orientations will be held for community members and groups. Similar "micro-realization" projects are being conducted in the Comoros, in particular by the EU, the French cooperation agency, and the Canadian cooperation agency (CECI). Their potential for success lies in the planning of an orientation program for community members, as well as the design of a user-friendly funding mechanism.

RATIONALE FOR GEF FINANCING

26. The government of the Islamic Federal Republic of the Comoros ratified the Convention on Biological Diversity on 29 September 1994. The project builds on recent initiatives by the government to establish institutions and instruments for the protection and conservation of biodiversity. The project is in a unique position to assist the government in carrying forward these initiatives by providing support for capacity building, a biodiversity information system, the implementation of conservation action plans, environmentally friendly alternative economic activities, and a well-coordinated environmental education campaign. Concrete mechanisms for establishing and managing a network of national protected areas will be established through institution-building activities, creation of a conducive legislative and policy framework, and the participation of local stakeholders. This project will act as a financial and technical catalyst that will mobilize existing biodiversity plans by producing concrete activities and results.

27. The Comoros biogeographic region is of global significance in view of its high biological and ecologic diversity, its impressive degree of endemism, and the economic potential of many of its genetic resources. But reversing unsustainable environmental exploitation and restoring degraded ecosystems to their full potential is key not only to the preservation of the Comoros' globally significant plant and animal species, but also for the economic development of the archipelago. Without this project and associated parallel activities, population pressure and environmental degradation will leave the islands increasingly impoverished and dependent on food aid and other forms of external assistance to meet their survival needs.

28. Despite the current socioeconomic difficulties, the government attaches great importance to the concept of sustainable human development (Mitsamiouli Declaration, 1994). Unfortunately however, it is unable to provide all the financial resources required for the implementation of the National Environment Action Plan, the Framework Law for the Environment, and the biodiversity strategies contained therein.

SUSTAINABILITY AND PARTICIPATION

29. Government commitment to this project specifically and to biodiversity conservation generally is strong. The government has demonstrated this by adopting the PNE, preparing the PAE, and

strengthening the administrative structures required for their implementation. The adoption of the Framework Law for the Environment, the ratification of most of the major international environmental conventions, and proof of financial commitment by the setting up of a national Environmental Fund further attest to government commitment. As the project falls within the mandates of the MDRPE, the CICE, and the DGE, it will contribute to the strengthening of these structures, leading to greater sustainability.

30. In addition to the high level of government commitment, there is a growing environmental awareness among rural communities which have mobilized village associations and local NGOs to engage in conservation measures. Indigenous associations and non-governmental organizations, such as *Ulanga*, have successfully carried out numerous environmental initiatives at the grassroots level, and have great potential for further action and coordination. At the village level, the social structure facilitates such grassroot actions. Nationwide, leverage is assured through the *Coordination Nationale des Associations pour le Développement* (CNAD), which is represented on the CECI. The project's participatory approach will allow communities and local associations to be involved beyond the project's lifespan. Communities will be free to choose from among different biodiversity management alternatives, and will be further empowered through training and greater economic opportunities. Furthermore, they will be involved in the project's overall coordination through the CAPs, liaising regularly with the National and Regional Biodiversity Committees and the Project Steering Committee.

31. The economic feasibility of the project is ensured in the long run by the mobilization of the Environmental Management Fund (FGE) at the national level and by the establishment of revolving funds locally. The FGE, provided for in the Framework Law on the Environment, will be used for long-term internal financing to meet the management requirements of the protected areas.

32. The overall project approach is participatory as it depends on local community commitment to establish and manage protected areas. As a Small-Island Developing State with limited resources, the Comoros cannot pursue any form of top-down protected area management and expect it to succeed. Project preparation has involved extensive and detailed discussions with local communities, NGOs and government agencies over a two year period.

LESSONS LEARNED AND TECHNICAL REVIEW

33. Traditional approaches to biodiversity conservation in other areas of Africa which have emphasized central management capacities and exclusionary protection with an absence of local participation, cannot succeed in the Comoros. IUCN has played a major role in the development of this project and has drawn particularly from its extensive technical experience in protected area management and biodiversity conservation in Small Island States, particularly in the Caribbean and the Southern Pacific, as well as the Indian Ocean, Africa and elsewhere. The project's aim--to conserve biodiversity through the implementation of the PNE and PAE--will not be realized unless local representative bodies are given full partnership in the decision-making processes. While there is already an indication of concern and local commitment to the idea of biodiversity conservation, economic pressures may negatively impact the protected areas unless there are viable economic options that reduce pressure on critical biodiversity resources. As stated in Objective 7, the project will support alternative income generating projects proposed by community members, but will

incorporate the EU's experience by conducting orientations and necessary training on the funds and how to access them for community members.

34. Full technical reviews (see Annex 3) of the draft Project Brief were undertaken by Dr. Paula Williams and Dr. Jean-Francois Dupon of the STAP roster. Both reviewers were supportive of the project approach. The main criticisms - the need to increase efforts to ensure local participation and concerns about "enforcement" by central government, reflect a lack of clarity in the draft. This has been amended to emphasize the fact that it is the local communities themselves, through Protected Area Committees (CAPs), who will manage the protected areas. Local enforcement will be carried out through the existing village structures which will call in legal enforcement only when the problem exceeds their own jurisdiction, as for example in the case of inter-island violators.

PROJECT FINANCING AND BUDGET (\$ US - 5 YEARS)

35. See annex 1.

INCREMENTAL COSTS

36. The Comoros supports significant and important biological diversity and the government is committed to its protection. However, as a Small Island Developing State with limited resources, particularly given the reduced competitiveness of its commercial crops, a rapidly increasing population, and the recent currency devaluation, the country is not currently able to fully finance the biodiversity conservation activities it wishes to undertake. Its in-kind contribution of personnel, equipment and facilities is estimated to be \$242,000, together with the \$595,000 to be provided by UNDP is considered to represent the baseline - what the government would do on its own to protect biological diversity in the Comoros. The additional costs of ensuring the protection of the globally significant biodiversity of the Comoros are those being sought from the GEF, ie. \$2,442,000, and this represents the full incremental cost. The GEF contribution is equal to the full Incremental Cost and the Incremental Cost represents 75% of the total project cost.

Cost Effectiveness

37. Given the government's lack of financial resources, cost-effectiveness is essential. The project is cost-effective because it will facilitate coordination and cooperation among and between government departments and local communities at all levels through the development of a participatory institutional framework for biodiversity protection. By coordinating efforts, duplication and redundancy will be avoided. Further, by enlisting the cooperation of local communities and existing government agencies, and by avoiding the establishment of any new institutions or government posts, this project establishes a highly cost-effective approach to protected areas in that it avoids the high recurrent costs that have halted previous efforts to establish a protected areas network in the Comoros. Finally, by establishing local and national mechanisms for financing ongoing biodiversity conservation efforts, the project will strengthen the country's self-sufficiency and reduces donor dependency in the long term.

Annex I: Ongoing Projects in the ENRM Programme

	Impact of Industrial and Urban Pollution Reduced	Impact of Natural Disasters Reduced	Natural Resources Sustainably Exploited
Capacity Building	VIE/93/020 - Industrial Env. Protection VIE/93/025 - Marine & Coastal Resource Management (P) RAS/92/073 - Env. Sound Technology VIE/93/081 - National Capacities to manage investments VIE/93/030 - Environmental Awareness INT/92/207 - Trade and Environment RAS/93/040 - Economy & Environment Asia RAS/93/068 - Awareness Creation	VIE/93/025 - Reduction of Green House Gases (P) VIE/93/031 - Disaster Management Unit VIE/95/026 - Son La Seismological Risk Assessment(P) RAS/92/067 - Disaster Preparedness GLO/93/031 - Training Prog. for Climate Change	VIE/91/031 - Biodiversity Action Plan and Conservation Training VIE/88/005 - Hormone Production VIE/93/001 - Fish Culture II VIE/92/022 - Coastal Reforestation VIE/91/005 - Cuu Long Delta Rice Research VIE/93/025 - Marine and Coast Resource Mngt (P) VIE/93/026 - Reduction of Green House Gases (P) VIE/93/081 - National Capacities to manage investments VIE/93/030 - Env. Awareness VIE/92/063 - Sustainable Fisheries in Asia VIE/93/102 - Sub-regional Project on Biodiversity VIE/92/070 - Remote Sensing for Natural Resource & Environment
Pre-Investment Studies	VIE/93/030 - Programs Framework for Env. Awareness RAS/92/031 - Reduction Green House Gas Emission RAS/92/076 - Sustainable Business Training Facility INT/93/061 - Montreal Protocol	VIE/94/009 - Action Plan for Water Disaster Mngt VIE/89/034 - Red River Delta Master Plan	VIE/91/031 - Biodiversity Action Plan and Conservation Training. RAS component VIE/89/034 - Red River Delta Master Plan VIE/93/039 - Water Sector Review
Pilot Projects	VIE/93/030 - EA - Pilot Project component VIE/94/024 - Phasing out CCC's in aeroplanes in Vietnam (P) VIE/95/019 - Industrial Pollution Control in Viet Tri (P) VIE/92/025 - Industrial Pollution Control in Dong Mai (P) VIE/93/081 - Capacity 21 - pilot project component VIE/95/003 - Env. Issues in Open Mining (P)	VIE/93/002 - Seismological Network VIE/92/023 - Sea Dykes Engineering Services VIE/94/016 - Biological Termites Control (P)	VIE/95/020 - Mangrove Conservation (P) VIE/93/027 - Protected Areas for Resource Conservation (P) RAS/92/078 - Farmer - Center Agriculture Resource Management RAS/92/034 - Pollution Control in East Asia Seas

VIE/.....:National Project
 RAS/.....:Regional Project
 GLO/ and INT/.....:Global and International projects
 .../.../G.....:Projects funded by the Global Environment Facility or UNDP/Capacity 21 fund.
 (P).....:Pipeline Projects

Annex 2 - Information on the Two PARC Sites

Yok Don National Park, Dac Lac Province

General

Dac Lac Province, situated in the Central Highlands along the border with Cambodia, has Vietnam's largest remaining forest area. The province covers an area of 19,800 km² and has a permanent population of 1.126 million (1992) giving a density of 57 per km². The province is divided into 16 districts and one provincial town. Buon Ma Thuot, the provincial capital, can be reached by air from various destinations in southern Vietnam.

Yok Don National Park lies in Ea Sup district and its entrance is 40 km from Buon Ma Thuot. The Western edge of the park lies along the Cambodian Border. The park lies on a relatively flat area surrounding the Srepok river, with two main mountainous protrusions. It lies at 13°N latitude, has an average rainfall of 1500-1600 mm per annum, and a tropical monsoon climate with a well defined dry season. Yok Don was declared a nature reserve in 1986 and upgraded to a National Park in 1991. The park's 58,000 hectare core area was surveyed by national and international experts in 1989 and a draft management plan submitted to the Government.

Vegetation

The vegetation can be classified into 5 types. The dominant type is dry dipterocarp forest in which the trees are widely spaced with extensive grass cover between them. On the whole, Yok Don is the only reserve in Vietnam protecting dry dipterocarp forest. The form and composition of these forests is quite variable ranging from well formed forests with a canopy of about 20m and a basal area of about 22m² and a timber volume of about 200 cubic metres/ha to thin forests of very many smaller trees (recruitment phase forest) where few trees exceed 10m in height and basal area is as low as 6m² and timber volume of only 40 cubic metres/ha. Individual forest blocks may be dominated by any of several common trees. The most common trees being *Dipterocarpus obtusifolius*, *D. intricatus*, *D. turberculatus*, *Shorea obtusa*, and *Pentacme siamensis*. *D. alatus* and *Terminalia tomentosa* are also common. All the above trees are valuable hard timbers but rarely grow more than 22m. Other common trees include *Dillenia spp.*, *Syzygium spp.* and occasional *Bombax spp.* The slender bamboo *Arundinaria falcata* is common. Some common grasses include *Imperata cylindrica*, *Arundinella setosa*, *Heteropogon*, *Themeda triandea*, and *Alloteropsis semialata*. The ground cover also has many tree saplings and some shrubs such as *Bauhinia malabaricum*, and *Grewia asiatica*.

On higher ground and along the rivers the variety of tree species increases and forests remain evergreen. Forests on Yok Don and Yok Da are dominated by *Hopea odorata* and *Shorea siamensis* on the higher parts, and *Sindora cochinchinensis* and *Lagerstroemia spp.* on the lower slopes. Other common trees in these forests include *Terminalia belerica*, *T. tomentosa*, *Cassia siamea*, *Dillenia spp.* and *Artocarpus spp.* Cycads, tree ferns and palms also occur.

Along the rivers grow tall forests. Where the rivers have year-round water the forests are evergreen. In other places there are mixed deciduous forests. Many of the same species occur in both types of forest, staying green or losing their leaves depending on local conditions.

River banks are lined by tall clumps of bamboo *Babusa arundinacear* and *B. bechevna*. Typical riverine trees include the tall *Lagerstroemia calyculata* and *L. angustifolia*, *Tetrameles nudiflora*, *Pahudia cochinchinensis*, *Sindora cochinchinensis*, and *Pterocarpus pedatus*. There are also large fig trees of importance to wildlife.

Many of the tree species have value as timber. Others are also valuable for turpentine resin, especially the

dipterocarps *Dipterocarpus*, *Shorea*, and *Hopea* spp. A few species provide edible fruits e.g. *Ziziphus*, *Grewia*, some have medicinal value e.g. *Dillenia*, and others are useful for thatch e.g. *Imperata*, *Livistona*, or *Calamus*.

Fauna

The full area has not been comprehensively surveyed. However, so far, 225 bird species, 35 reptile species, and 62 mammal species have been identified (species lists available). Some of the more important larger mammals observed in Yok Don include kouprey, tiger, elephant, banteng. However estimates of scientists studying Yok Don over recent years indicate that the densities of many mammals are declining. Moreover it is certain that current stocking levels are well below carry capacity, and hunting is the likely cause of this.

Human land-use

The area surrounding Yok Don is economically poor, due to its relative isolation and weak infrastructure. At least 6 different ethnic groups inhabit the area including Ede, Mo nong, Gia rai, Ba na, Lao and Viet. Population density is approximately 8 inhabitants/km². The main economic activities of people are agriculture in burnt-over land, hunting and exploitation of forest products.

The villages have irrigated fields in which they grow rice and other crops. After the harvest, there is an idle period on the fields before the next wet season, This is traditionally a period for hunting and collecting resin, honey and other materials from the forest. The villages also catch a lot of large fish in the Srepok river.

Hunting was traditionally done using cross bows from elephant back, but after the war there is now an abundance of automatic weapons in the area and hunting is far more lethal for the wildlife. It is estimated that 4 to 5 parties of hunters consisting of 5-6 elephants per party enter the reserve each month on average to hunt and collect forest products. The duration of each trip last as for up to 5 days until game is obtained.

In the dry season, the hunters set fire to the reserve to attract animals onto the new grass shoots and to make travel and visibility easier for hunting. In addition, some fires are started by resin collectors who use fire to start the resin flowing from dipterocarp trees.

Since the war, the border areas of the reserve have been patrolled by the Vietnamese Army, who maintain a good patrol road and several guard posts. As a result, there is almost no human incursion into the reserve from the Cambodian side, but the Forestry Department has little control of the activities of army personnel.

The road from Buon Ma Thuot passes much good quality plantation forest. The population around the park is at present low, and much primary and good secondary forest remains. Indications are that the area surrounding Yok Don could support a growing population without compromising the ecosystem of the park.

Original management plan and current situation

The 1989 draft management plan recommended that the following actions be taken to protect the area:

- * zoning of biodiversity areas;
- * recruitment and training of park staff. In particular it will be necessary to development professional management and community participation skills;
- * develop facilities for field research and monitoring. A park-based research facility could both generate revenue and provide a means to improve knowledge of the park;
- * develop a programme for tourist development. Although very isolated, the area offers excellent tourist potential in the form of good wildlife viewing facilities (on

- * foot and elephant back trekking), camping, rafting, and cultural diversity; wide-ranging extension, information, education and awareness programme.

In March 1995 a WWF/IUCN Tiger Action Plan mission visited the park. A principal finding was that, although six years have passed since the preparation of the plan, all the above remain crucial management issues for Yok Don. In addition, economic developments since 1989 mean that there is now a greater range of economic alternatives available to people, but also much less of a social security system. The results of this are a greater threat on the remaining forests through incursion, poverty and in-migration. Accordingly it will also be necessary to focus other development efforts on surrounding communities to ensure a broadened management scope of the area. However the small population of approximately 5670 (1048 households) living in the park is not considered a threat to the park resources, and could be developed as part of the solution to the protection of the forests.

The existing park management have adopted pragmatic approach to the task of forest protection, and have developed ambitious management plans. However existing resources are inadequate to the growing threats, and could not account sufficiently for the needs of nearby communities. The Yok Don forest protection team of 6 people is attempting to work with tourism. This generates financial resources available for biodiversity protection. However a valid concern for the park authorities is that they have had little experience with tourism and they require assistance to ensure sustainability.

Outlook for the future

Ea Sup and surrounding districts provide an ideal model for the modified landscape approach to biodiversity conservation. The protected area is surrounded by many primary forested areas, both in Dac Lac and across the Cambodian border. These house important biodiversity. Surveys reveal that there are many animal visitors to Yok Don from these areas. At the same time, the areas around the park and near these forested areas house a growing human population, including many seasonal visitors. *Using appropriate measures*, Yok Don, surrounding forests and corridors can be protected, animal movement patterns be retained, and communities in the region can benefit. An area of up to 100,000 ha can be managed by the local authorities with the primary objective of conserving biodiversity. These efforts to protect the forest can accompany parallel efforts to assist the communities, and intensify their activities and increase their wealth. Since it is located on the border with Cambodia, there is also an excellent opportunity for trans-frontier management arrangement. The Government of Cambodia issues a Decree in 1994 relating to national parks. This identified a large forested area, Phnom Nam Leer, adjacent to Yok Don as a priority for protection.

The case is almost unique in Vietnam. Good primary forest habitat has been preserved, and there is even good primary forested area to be used in buffer areas. It is possible to act now to prevent the otherwise inevitable and immediate fragmentation and destruction of the ecosystem and the biodiversity. However as elsewhere in Vietnam, the situation is changing quickly. Economic liberalization is allowing greater trade, and decreased controls mean sustainability of exploitation is no longer assured, movement of people is easier, and remaining forest are attractive to agriculturalist with land. It is essential to act now in order to avoid the costly degradation experienced in many places in Vietnam and in the region.

Ba Be National Park, Cao Bang Province and Nahang Nature Reserve, Tuyen Quang Province

Cao Bang and Tuyen Quang are adjacent provinces in Northeastern Vietnam covering a combined area of 14,246 km² and a population of 1.227 million people. Administratively, Cao Bang is divided into 12 districts plus the provincial town, and Tuyen Quang into 5 districts and the provincial town. The provinces share similar socio-economic conditions, with a weak physical and economic infrastructure, relatively high levels of poverty, and a

number of ethnic groups making up a large percentage of the population.

They also share similar geographical conditions. Annual rainfall is in the range of 1400 - 1800 mm, the climate is mild tropical, and the original vegetation is humid tropical monsoon forest. They lie in unit 6a of the biogeographical classification system for the Indo-Malayan Realm developed by MacKinnon and MacKinnon (1986). The provinces lie at a latitude 21-23°N. Although not particularly high in altitude, the large number of spectacular and steep limestone peaks in the 1000 - 1200 m range ensure that terrain across the provinces is rugged, with many small lakes, rivers and streams lying between the hills. The majority of the two provinces lie in the altitude range of 300 - 800 meters.

Ba Be National Park

Ba Be National Park is situated in Ba Be District, Cao Bang Province near to the borders with Tuyen Quang and Bac Thai Provinces. It was established as a national park in 1992. The unprotected core area covers 7,611 hectares and is centred on a freshwater lake covering approximately 500 hectares. A buffer zone of over 40,000 hectares has been designated. The core area has three peaks of over 1000m, and the area is renowned for its waterfalls and has a history of tourism and recreation.

Recent surveys, although not comprehensive, indicate the rich biodiversity in Ba Be, with over 370 species of plant, 64 mammals, 111 birds, 33 bats, and 10 species of rare, mountain freshwater fish reported. Important mammal species living in the park include leopard, Francois leaf monkey, and possibly tiger and Tonkin snub-nosed monkey.

Temporary headquarters have been constructed at the park entrance, and a staff of 35 persons recruited to manage the park and guard the forests. However the small area of Ba Be means it is of limited value for biodiversity conservation by itself. Given that the good quality forest surrounding the lakes stretch into the neighbouring provinces, the Government of Vietnam is considering various alternatives by which the protected mountain, an extension of over 20,000 hectares and remaining in Ba Be district. A second possibility is to extend the reserve into Chu Don District, Bac Thai province. Here, adjacent to Ba Be, large areas of primary and good secondary forest remain, and holding some remaining populations of the Tonkin snub-nosed monkey. However a restricted military sensitive zone may complicate management of protected areas. A third possibility is to extend the protected area into Nahang district, Tuyen Quang province where the Nahang Reserve already exists. (more below)

Nahang Nature Reserve

A nature reserve has already been established in Nahang district, centred on the small town of Hahang about 20km to the southwest of Ba Be. The reserve is divided into two core areas covering a total of over 20,000 hectares, and proposed surrounding regeneration and buffer areas. As a nature reserve, this area is presently under the control of the provincial authorities. This reserve was quickly established as recently as 1994 in order to protect its large populations of the Tonkin snub-nosed monkey (*Pygathrix avunculus*). This species has been identified by IUCN (Eudey, 1987) as one of the four most threatened primates in Asia, and is endemic to Nahang and surrounding forests. Until as recently as 1950 the range of this species was a circular area of over 100km radius centred on Nahang.

Little attention was given to this area until early 1992 and few surveys have been undertaken in recent times. A quick review revealed over 350 plant species and 56 mammal species including pygmy loris, tiger, clouded leopard and Francois leaf monkey. There is also good, primary forest lying outside the nature reserve, some of it in the designated buffer zones. This forest reaches far beyond Nahang district, into Bac Thai Province in the East, and towards Ba Be National Park in the North.

Nahang nature reserve was established quickly and due to constraints in resources it currently exists only on paper.

A staff of five has been appointed by the provincial authorities, and they are currently working without salaries. Plans are to be drawn up to construct a headquarters, build research facilities, patrol rivers and forests, and establish tourism. Discussions are also ongoing with ethnic minorities inhabiting the core area to ensure a sustainable use of resources. However the implementation of these plans is constrained by the lack of financial and human resources.

For the two designated protected areas of Ba be and Nahang, and for unprotected forests, the main threats to the remaining biodiversity have been identified as:

- * hunting and poaching;
- * fragmentation and agricultural encroachment;
- * growing urban areas and infrastructure.

Local management has identified the first of these, originating from people living inside the park, as the principal threat to the core zones. Even the core and buffer of the two protected areas house sizeable populations, with over 2,500 in Ba Be and up to 11,000 in Nahang. The Tai, Dao and Hmong ethnic minority groups form the majority of these populations. Socio-economic conditions in the forested areas are particularly difficult, with the main economic activities being rain-fed agriculture in the narrow valley bottoms, and hunting and gathering activities in the forests. In areas surrounding the core zones the clearing of forest for cultivation is still common.

The modified landscape approach is appropriate to the area. The three established core zones and much of the buffer zones contain pristine forests. Good patches of scattered forests lie in the limestone mountains which separate these core areas. There is significant potential to regenerate much and link core areas thereby establishing a large forested zone. The combined protected area could be well over 50,000 hectares. Outside of this area there is a lot of regrowth forest and bamboo forest. However the population density in the area is high, and much of the forest in the three adjoining provinces has been significantly degraded, in between the protected areas lie many settlements and many barren areas. Agricultural practices in these areas are extensive.

With the full involvement of the three provincial authorities, the local district authorities and local communities, it should be possible to manage a vast landscape from a biodiversity perspective. By adopting good and more intensive land-use techniques, the pressure on the remaining forest could be relieved. Given time, it would be possible to focus economic activities in areas away from forest. The local authorities have plans to both promote the development of poor people in the area, and develop the size of the protected area in a step by step manner. The modified landscape approach complement these plans.

Accordingly, key management issues to be addressed in the near future are:

- * consultation with authorities and forest departments in the three concerned provinces and all districts;
- * consultation with the various ethnic groups and other residents in and around the forested areas;
- * land-use planning and zoning for biodiversity conservation integrated across the three provinces, overcoming the fragmentation effect;
- * delineation and enforcement of protected areas.
- * development of community development programmes;
- * development of education programmes for local communities;
- * development of a research and monitoring programme;

The Nahang-Ba Be area exemplifies the situation in Viet Nam in 1995. As little as ten years ago, forest protection

would have been unnecessary, as there was little pressure on the forest. Now, the remaining forest is facing many new and growing threats, but efforts to conserve the forest can also benefit from new opportunities.

New threats include the effects of the liberalization of the economy. Now, individual goldminers and agriculturalists are free to engage in activities which may be environmentally damaging. Another threat stems from rural economic structural transformation which has led to the upgrading of the Nahang main access track to a metal-surfaced, all year road. Local park management have expressed their belief that this will facilitate control of in-park activities but there is also a danger that it will encourage exploitation and degradation. Third, the improving economic situation in Vietnam has greed more finances for investment into the area, both private and public. These may indirectly damage the forest. An example of this is a large-scale gold mine located just outside the park's northern boundary.

However, as mentioned above, the new socio-economic situation in Vietnam will facilitate environmental protection in the area. First, individual responsibility in decision-making is being encouraged and this should foster more sustainable exploitation techniques. Second, a greater emphasis is being placed upon people and community participation in decision-making should lead to better resource allocation decisions. Third, the quickly growing economy is helping to provide economic alternatives to those previously engaged in poverty-driven, unsustainable agricultural practices. Finally, a general increased awareness of environmental issues and appreciation of biodiversity is leading to a raising of biodiversity conservation on the national and provincial agendas.

If assistance is given to the local forest protection authorities now, it is still possible to exploit the above alternatives and so meet the above-listed threats. In the long term it is likely that the population and range of the Tonkin snub-nosed monkey could return to their levels of the mid-1950s, or greater. On the other hand, waiting just a short time could mean that the rapidly changing situation will cause the depletion, even loss, of this important biodiversity.

ANNEX 3: DRAFT OPERATIONAL WORKPLAN FOR YEAR 1 ACTIVITIES

This operational plan for the first year of central project and the PARC field activities is based upon the existing draft management plans for Yok Don and Nahang/Ba Be, discussions with the park and local authorities, and experience gained from implementation of similar projects in other countries. However this plan should be considered as indicative; more detailed workplans will be updated and prepared annually by the Project staff. Further detail on this first year workplan will also be provided through the project formulation mission once the project has been approved by the GEF Executive Council.

In order to meet the project objectives of building national capacity to formulate and implement ICDPs, it will be necessary to implement several activities at the national level. This will also ensure feed-back from project results into the national planning system and the dissemination of project experience. These activities are listed below under the heading "National Project Administration". These activities will provide national protected area officials with essential professional experience and skills in developing a protected area network which incorporates a more participatory planning and implementation process. The first three activities listed for Immediate Objective 1 in section 6.0 of the project brief are covered by these national activities.

In year 1, the majority of activities will be undertaken at the local level, although national teams and experts will also participate. These activities are divided into two categories: those undertaken at Nahang/Ba Be and those undertaken at Yok Don. These activities correspond to the latter three listed under Immediate Objective 1 in the section 6.0 of the project brief.

Following the brief description of the operational activities, an activity timeframe and budget is provided in table form.

1. National Project Administration

1.1 Project Start-up

The first activities will be to establish the project and to set up the project management structure.

1.2 Operational Activities

First year activities in Hanoi will aim at the establishment of working groups, the design of training programs, and key training activities.

National level activities which will take place over the two sites during the first year include the documenting of the ways that people in Vietnam, Southeast Asia and other tropical countries have managed biodiversity sustainably in the past; the conducting of socio-economic appraisals of the selected sites and design and encourage sustainable community resource projects and livelihood systems, and; the finalisation of measurable success indicators.

2. Nahang/Ba Be Biodiversity Complex Project Administration

2.1 Project Start-up

Several start-up activities will be undertaken before it is possible to commence activities targeting the project objectives. It will be necessary to recruit local staff, establish management teams, hold consultative workshops, etc. These should include involvement from both of the two provinces and districts concerned, with observers invited from neighbouring Cho Don District of Bac Thai Province. In addition, it will be necessary to design

and upgrade communications between the headquarters of the two contiguous protect areas.

2.2 Project Operational Activities

During the first year, some initial activities will take place targeting the project objectives. These include designing a joint management plan covering the two adjoining protected areas and analyzing sustainable financing beyond the project period of GEF support; drafting development plans for the area using the modified landscape approach and biodiversity perspective, classifying land use, delineating the revised /expanded protected area border (PARC), establishing corridors, buffer zones, regrowth areas, multiple use areas, and economic activity areas; and planning re-afforestation and regeneration of the corridors, buffer zones and surrounding areas which contain fragmented forests.

3. Yok Don National Park Project Administration

3.1 Project Start-up

Start-up activities must be undertaken before it is possible to commence activities targeting the project's field activities. However, since Yok Don National Park is already a more operational protected area unit with a management board and infrastructure, these activities will be different than at Nahang/Ba Be. It will be necessary to recruit local staff, establish management teams, and to hold consultative workshops. These activities should include involvement from Dac Lac Province and observers from the proposed Phnom Nam Lear Wildlife Sanctuary and other conservation professionals from neighbouring Cambodia if possible.

TABLE 1. PARC OPERATIONAL PLAN ACTIVITY TIMEFRAME AND BUDGET FOR YEAR 1

1. National Park Administration					
NATIONAL PROJECT ADMINISTRATION ACTIVITIES	BUDGET (US\$)	QUARTER			
		1	2	3	4
RECRUIT PROJECT PERSONNEL		.	.		
ESTABLISH PROJECT IMPLEMENTATION UNIT IN HANOI	10,000	.	.		
DESIGN REPORTING AND PROJECT MONITORING PROCEDURES			.	.	
PREPARE WORKPLAN AND INCEPTION REPORT				.	
NATIONAL PROJECT OPERATIONAL ACTIVITIES					
1.2.1 HANOI					
NATIONAL STEERING COMMITTEE MEETING		.	.		.
PROJECT MANAGEMENT TRAINING	10,000		.	.	
DESIGN WORKSHOP AND STUDY TOUR PROGRAMME (IN COUNTRY AND OVERSEAS)				.	.
ESTABLISH NETWORK OF EXPERTS ON FINANCIAL SUSTAINABILITY AND INITIATE STUDIES				.	
1.2.2. NATIONAL- DOCUMENTING OF WAYS PEOPLE HAVE SUSTAINABLY MANAGED BIODIVERSITY					
RECRUIT INTERNATIONAL CONSULTANT			.		
COLLECT DOCUMENTATION	10,000			.	
PRODUCE REPORT ON SUSTAINABLE BIODIVERSITY MANAGEMENT	20,000			.	.
1.2.3 NATIONAL - CONDUCTING SOCIO-ECONOMIC SURVEY(S)					
2. NAHANG/BA BE BIODIVERSITY COMPLEX PROJECT ADMINISTRATION					
NAHANG/BA BE FIELD ACTIVITIES	BUDGET (US\$)	QUARTER			
		1	2	3	4
FIELD MISSIONS TO BOTH PROVINCES AND PROTECTED AREAS	15,000		.	.	
WORKSHOP WITH LOCAL AND PROVINCIAL OFFICIALS	10,000			.	
DEVELOP FINANCIALLY SUSTAINABLE PLAN					.
DRAFT AND APPROVE MANAGEMENT PLAN	15,000			.	.
2.2.2 DRAFT DEVELOPMENT PLANS FOR THE TWO LANDSCAPES					
ANALYZE PROVINCIAL DEVELOPMENT PLANS	10,000		.	.	
PREPARE MAPS, DETERMINE EXACT LAND COVER AND SETTLEMENT PATTERNS FOR CONCERNED DISTRICTS	10,000			.	
HOLD WORKSHOPS WITH PROVINCIAL AND DISTRICT OFFICIALS	10,000			.	.
PROVIDE RECOMMENDATIONS FOR REVISED LAND ZONING, AGRICULTURAL AND FORESTRY INTENSIFICATION, AND PROVINCIAL DEVELOPMENT	10,000				.
2.2.3 PLAN REFORESTATION AND REGENERATION OF CORRIDORS, BUFFER AND SURROUNDING ZONES					
RECRUIT FOREST REGENERATION PLANNING TEAM	10,000			.	
DEVELOP PLANS TO INTENSIFY AGRICULTURE PRACTICES WITHIN ALLOCATED/SUSTAINABLE USE ZONES	10,000				.
PLAN REFORESTATION AND REGENERATION AT DA VI AND IN OTHER KEY AREAS OUTSIDE PROTECTED ZONES	10,000				.

3. YOK DON PROJECT ADMINISTRATION					
YOK DON PROJECT FIELD ACTIVITIES	BUDGET (US\$)	QUARTER			
		1	2	3	4
3.1 PROJECT START-UP					
RECRUIT LOCAL PROJECT STAFF		.	.		
ESTABLISH YOK DON PROJECT IMPLEMENTATION UNIT	15,000			.	
PLAN AND HOLD CONSULTATIVE WORKSHOP WITH LOCAL COMMUNITY REPRESENTATIVE (AND OBSERVERS FROM CAMBODIA)			.		.
3.2.1 ANALYSIS AND UPDATE OF YOK DON MANAGEMENT PLAN					
RECRUIT CONSULTANTS	5,000	.	.		
FIELD MISSIONS TO REVIEW EXISTING MANAGEMENT PLAN	15,000		.	.	
REVIEW AND REDESIGN TOURISM PLAN FOR YOK DON AND ADJOINING AREAS IN DAC LAC				.	
WORKSHOP WITH LOCAL AND PROVINCIAL OFFICIALS	10,000		.		.
PREPARE UPDATED/INTEGRATED MANAGEMENT PLAN	15,000				.
3.2.2 DRAFTING DEVELOPMENT PLANS FOR DAC LAC FROM A BIODIVERSITY PERSPECTIVE					
ANALYZE PROVINCIAL DEVELOPMENT PLAN FOR YOK DON	10,000		.	.	
PREPARE MAPS, DETERMINE EXACT LAND COVER AND SETTLEMENT PATTERNS FOR CONCERNED DISTRICTS	10,000			.	
HOLD WORKSHOPS WITH PROVINCIAL AND DISTRICT OFFICIALS	10,000				.
PROVIDE RECOMMENDATIONS FOR REVISED LAND ZONING, AGRICULTURAL AND FORESTRY INTENSIFICATION, AND PROVINCIAL DEVELOPMENT	10,000				.
3.2.3 PLAN REFORESTATION AND REGENERATION OF CORRIDORS, BUFFER AND SURROUNDING ZONES					
RECRUIT FOREST REGENERATION PLANNING TEAM	10,000			.	
DEVELOP PLANS TO INTENSIFY AGRICULTURE PRACTICES WITHIN ALLOCATED COMMUNITY ZONES	10,000				.
PLAN REFORESTATION AND REGENERATION ALONG PROTECTED AREA BOUNDARY AND IN KEY CORRIDORS OUTSIDE THE PROTECTION ZONES	10,000				.

Note on costing: A blank space in the 'cost' column indicates either that the activity has no cost, or that the Government of Vietnam or the contracted implementing agency will cover the funding

Annex 4 - STAP review

Review of the PARC project by a STAP expert from the Dept. of Biology, University of Mass. Highlights of the review have been numbered, and UNDP's response to these comments can be found at the end for the review.

Comments on the proposal: **Creating protected Areas for Resource Conservation (PARC) in Vietnam Using a Landscape Ecology Approach**

This proposal seeks to develop a participatory management plan for conservation and sustainable utilization of natural resources in and around two protected areas in Vietnam. The participatory management plan will involve local communities. Moreover, the project will entail community development projects and the strengthening of infrastructure and human resources. Extension of the plan to other areas, based on experiences at the proposed sites, is an integral part of the overall objectives. Conservation of biodiversity provides the context for the whole project.

Vietnam, the focus of the project, has experienced considerable degradation of its environment during the last few decades. The country's unique biota is severely threatened from a number of directions. Although the project proponents do not provide any figures about the rate of loss of biodiversity, I believe the rate is high. Thus this project has a sense of urgency. The successful implementation of the project should result in effective conservation of biological resources that are important from a national as well as an international perspective.

The proposal is unusually strong in its overall approach. The goals are ambitious and even partial success in realizing the many objectives of the proposal will constitute a substantial achievement. The project objectives are clear and concise and the outputs are related to the objectives. It is however not clear how the approaches to be used will yield desired results. For example, the project refers to landscape ecology and modified landscape ecology approach several times, but these approaches are not defined and various inputs and outputs are not specified¹. Fortunately, enough has been written about landscape ecology that one could almost guess the approach the proponents will be taking, and hope that they will succeed.

While the project appropriately emphasizes management, it should be obvious that one cannot effectively manage the resource until one knows what the resource is and I hope that in the project a serious effort will be made to assess the resources. For a project that is central to conservation of biodiversity, sufficient details concerning the project's contribution to the inventory of biodiversity should have been provided and I hope such details exist in other documents. The project proponents must not overlook the tremendous opportunity to assess and monitor biodiversity at all levels of biological organization in various landscapes, managed and unmanaged, at the two sites².

The sustainability of this project is difficult to evaluate. Although the participatory elements are well outlined there is insufficient information about financial and human mechanisms that would allow the proposed activities to be continued³. The project also describes a number of the initiatives that are relevant to the main theme of the proposal. Perhaps then, collectively, an adequate infrastructure will be created to sustain project activities beyond the period of current funding from GEF.

The innovative features of the project include the goal of integrating biological, socio-economic, and management approaches to preserve and utilize natural resources.

It is difficult to determine if the funding level is appropriate or not. Very few details are provided about the manner in which the funds will be spent. There seems to be undue emphasis on workshops and curiously each workshop is supposed to cost \$10,000. I recognize that the budget allocations are preliminary but I hope that before

implementation the UNDP staff and project proponents will carefully review the budgetary details ⁴

Overall, this is a very good proposal. The success of the project will have a strong bearing on management of natural resources in other parts of the world. The project deserves a very high priority for funding/

UNDP action on comments

- ¹ Since addressed in Project Description Section 9 (paragraphs 11-15).
- ² Since addressed in Project Description Section (paragraphs 11-15) and Outputs 1.3 and 3.1
- ³ Since addressed in Sustainability and Participation Section (paragraphs 21 and 22).
- ⁴ The budgetary figures were arrived upon based on previous experience of the cost of such activities in Vietnam (e.g. through experience gained in the Pilot Phase GEF project and other UNDP activities in the country). These indicative figures are, of course, subject to revision during the project formulation mission.

Annex 5 - Project budget on output by output basis

1.1	Review of model integrated forest management and report preparation	10,000
1.2	Detailed descriptions of the two PARC sites	40,000
1.3	Baseline statistics and success indicators for monitoring	40,000
1.4	Management plans for two PARC sites and recommendations for sustainable financing instruments	200,000
1.5	Plans for reforestation, agro-forestry, and tree plantations	80,000
TOTAL: Immediate Objective 1		370,000
2.1	Two self-sustaining model PARC sites, including key training activities	1,570,000
2.2	On the job training *	0
2.3	Community resource development projects	1,385,000
2.4	Pilot sustainable financial programmes for two PARC sites	900,000
2.5	Re-afforestation and agro-forestry programmes	690,000
TOTAL: Immediate Objective 2		4,545,000
3.1	Field surveys, measurements	100,000
3.2	Revised management plans and PARC model	400,000
3.3	Demonstration of the PARC modified landscape ecology experience and dissemination of results	130,000
TOTAL: Immediate Objective 3		630,000
Project Management costs**		496,000
PROJECT TOTAL		US\$ 6,041,000

* There has not been a separate provision made for training in this budget as the costs of this activity are already built into all the activities and outputs.

** Project management costs represent only approximately 8% of total project costs.

ANNEX 6
Standard Reporting Format
 for the Proposed Approach to Estimating and Agreeing on
 Incremental Costs in the Vietnam PARC Project

1. Broad Development Goals

The overall development objective of this five year project is to conserve Vietnam's valuable biodiversity and natural resource base. The project will introduce, develop and implement the PARC concept which is based on a participatory approach, an open consultative process, and the appropriate integration of conservation and development. Capacity to implement the PARC concept in Vietnam will be applicable to all areas where biodiversity is fragmented, population pressure high, and socio-economic development integrally linked to conservation.

2. Baseline

Recent government budget figures indicate that Vietnam is currently spending about US\$ 31 million annually for forest sector programmes, of which approximately US\$ 5 million is targeted for protected area management. This funding situation, although far from optimal, is adequate to *maintain* at a minimum level, a portion of the 87 protected areas of Vietnam. The average expenditure is therefore US\$ 60,000 per protected area, per year. This money would normally go to basic maintenance of a park at a minimum level.

For the selected sites, based on 1994 figures, the budget allocated to protected areas management (per year) are estimated as follows:

Yok Don National Park:	\$80,000
Nahang Nature Reserve:	\$0
Ba Be National Park:	<u>\$51,000</u>
Total	\$131,000
Total over the five year project implementation,	$\$131,000 \times 5 = \$655,000$

Despite the above investments, recent trends in Vietnam show that economic development and inappropriate management techniques are combining to lead to a reduction of biodiversity and depletion of ecosystems. However there are significant opportunity costs to be incurred by further domestic investments in biodiversity. The Government of Vietnam is facing severe fiscal constraints at a time of heavy demands on public sector spending. For the Government to invest in biodiversity conservation, it would have to *forego* investments in other crucial sectors, such as rural roads, power supply, schools, or telecommunications. All recent economic analyses in Vietnam indicate that such investments would have very high economic yields. Hence, investing in biodiversity means not investing in these crucial high yield sectors, and could mean a loss in terms of domestic benefits.

Routine government investment in integrated spatial planning (on the basis of laws such as the Law on Land) has been very limited to date, and has not yet been proposed for those two sites for which the PARC concept will be implemented. Consequently, it is not possible to include such planning in the project's baseline scenario. It is the hope, in fact, of this project, that the PARC project will be able to demonstrate to the Government of Vietnam, one method by which the Law on Land can be implemented.

3. Global Environment Objective

At the existing level of protection, and given the current economic and policy environments that decentralizes forest management authority while at the same time encouraging rapid exploitation of the resources, additional funds are needed in order to ensure that national development priorities can be reconciled with the need to protect and sustainably use the country's rich biological resources.

If appropriate resource management techniques are not developed and adopted, the global losses to be incurred would include:

- Loss of endemic animal species, such as the severely endangered kouprey, tiger, the Tonkin snub-nosed monkey and many others. Besides their intrinsic value, they can provide important genetic material for domesticated animals and for evolutionary research.
- loss of sequestration of carbon dioxide through loss of vegetative cover
- loss of biodiversity of global significance.

4. GEF Alternative

In order to appropriately protect the ecosystem and the globally important biodiversity, it will be necessary to invest substantially in the PARC area. It will be further necessary to develop financially sustainable management mechanisms for the PARC areas. The proposed GEF alternative tackles these two issues. Hence it will (i) protect biodiversity and ecosystems at the project site, and (ii) provide a demonstration model approach to natural resource conservation applicable across the country and to other areas in the world.

It is estimated that in order to fully achieve the above, the following interventions will be necessary:

- boundary demarcation
- development of management plans and strategies
- infrastructure development for in-site conservation (minimal access roads, staff and office accommodations, research and tourist facilities)
- forest rehabilitation programmes, forest corridors, community forestry
- community development programmes
- training and recruitment of staff
- monitoring and evaluation

A detailed budget covering the total costs of intervention for establishing and developing two pilot protected areas in Vietnam over five years is provided in section 7 of the project brief.

5. System Boundary

Implementing the proposed GEF alternative will place a demand on the human resources in Vietnam. Vietnam has a limited human resource base, and in order to suitably undertake all project activities, many resources will have to be diverted from other development initiatives. This may cause some indirect losses to the development process in Vietnam.

Protecting biodiversity will lead to some short-term economic losses to those people currently exploiting the natural resource base. However these short-term losses will eventually be outweighed by the many long-term benefits of protecting ecosystems and biodiversity and sustainable livelihoods.

6. Additional Domestic Benefits

Over one-third of Vietnam's population derives at least a portion of their sustenance income from collecting fuelwood, fodder, natural foods and other non-timber forest products. Nationally, the estimated economic value of this income is conservatively estimated at US\$ 600 million annually. The proposed GEF alternative should help to do this on a more sustainable basis, and therefore in the long run implementing the GEF alternative could potentially increase this figure.

In the timber sector, the permissible sustainable cut in Vietnam is 800,000 cubic meters annually, of which approximately 600,000 cubic meters is collected from natural forests. If these natural forest timber sources were depleted through non-sustainable utilization, the replacement cost of importing cut timber at a cost of US\$ 300-350 per cubic meter would be between US\$ 180 and 210 million annually.

Additional domestic benefits such as reduced rates of siltation, watershed protection, and realization of ecotourism and other non-timber forest products value may also accrue as a result of the PARC project.

While there could potentially be additional domestic benefits accrued from implementing the proposed GEF alternative as outlined above, none of them meet *all* the generally agreed-upon criteria for subtraction from the cost: they are not easily-quantified and readily-monetized; they are not certain to be captured by the host country if it implements the project; they will not all necessarily accrue within a time horizon of interest to current policy-makers. Moreover, some benefits will accrue to a small narrow group, but others, such as watershed protection will be beneficial to a larger undefined constituency. These additional benefits should not therefore be subtracted from the incremental cost of the project.

7. Costs

As indicated above (section 2), the baseline scenario is Government investment of approximately \$655,000 in cash and in kind over the five years.

The total project costs, over five years, for two project sites, is \$6,696,000. This does not include project formulation costs, which are estimated at \$103,900.

8. Incremental Costs Matrix

	Costs	Domestic Benefits	Global Environment Benefits
Alternative	\$6,696,000	long term domestic benefits	-Protection of ecosystems and species of global sig. -sequestration of CO ₂
Baseline	\$655,000	short term benefits but unsustainable over long term	none
Increment	\$6,041,000		

9. Agreement

The project has already undergone a long and thorough preparation process. This has involved local community representatives, Government officials at all levels, national and international technical experts, STAP, UNDP and international NGOs. All concerned parties and stakeholders have been thoroughly consulted and have agreed to the project in principle.

Once a complete project document has been prepared (this will be finalized under the Block B PDF granted to the project at the January 1995 GEFOP), this will again be circulated to all concerned parties to secure their further input. However, given the already long process, no obstacles to reaching rapid agreement are likely.