

## PROPOSAL FOR REVIEW

<b>PROJECT TITLE:</b>	<b>PAKISTAN: PROTECTED AREAS MANAGEMENT PROJECT</b>
<b>GEF FOCAL AREA:</b>	Biodiversity
<b>COUNTRY ELIGIBILITY:</b>	Ratified Convention on Biological Diversity in 1992
<b>TOTAL PROGRAM COST:</b>	US\$26.8 million
<b>GEF GRANT TOTAL FINANCING:</b>	US\$11.13 million
<b>GEF FINANCING:</b>	US\$10.8 million
<b>COFINANCING:</b>	US\$ 15.7 million
<b>ASSOCIATED IBRD PROJECT:</b>	None
<b>GEF IMPLEMENTING AGENCY:</b>	World Bank
<b>GEF OPERATIONAL FOCAL POINT:</b>	Ministry of Environment Local Government and Rural Development
<b>EXECUTING AGENCY:</b>	Forest Departments, Departments of Wildlife, Provincial and Local Government
<b>ESTIMATED APPROVAL DATE:</b>	October 1997
<b>PROJECT DURATION:</b>	5 years
<b>GEF PREPARATION COSTS:</b>	US\$338,000 PDF Block B Grant

# Project Concept Document (Proposal for Review)

## PAKISTAN

### Protected Areas Management Project

Date: June 1st, 1997  Draft  Final  
Task Manager: Nadim Khouri/ Malcolm Jansen Country Manager: Chris Hall  
Project ID: PK-GE-35823 Sector: Environment POC:

GEF Operational Program :  
Biodiversity (coastal, marine and  
freshwater ecosystems, forest and  
mountain ecosystems)

Lending Instrument: PTI:  Yes  No

**Project Financing Data**  Loan  Credit  Guarantee  Other (GEF grant)

#### **For Loans/Credits/Others:**

Amount (US\$m/SDRm): US \$10.8 million

Proposed Terms:  To be defined  Multicurrency  Single currency  
Grace period (years):  Standard Variable  Fixed  LIBOR-based

Years to maturity:

Commitment fee: %

Service charge: %

Financing plan (US\$m):  To be defined  
Source

Government

Cofinanciers

IBRD/IDA

Other (specify)

Borrower:

Guarantor:

Responsible agency(ies):

#### **For Guarantees:**

Partial Credit  Partial risk

Proposed coverage:

Project sponsor:

Nature of underlying financing:

Terms of

financing:

Principal amount (US\$m)

Final maturity

Amortization profile

Financing available without guarantee:  Yes  No

If yes, estimated cost or maturity:

Estimated financing cost or maturity with guarantee:

## **Block 1: Project Description**

### **1. Project development objectives** (see Annex 1 for key performance indicators):

To conserve globally important habitats, genomes and species in three protected areas (PAs) of Pakistan (Chitral Gol in NWFP, Machiara in Azad Jammu Kashmir and Hingol in Baluchistan) encompassing mountain, arid rangeland, estuarine and marine ecosystems in Pakistan.

#### **The project within the context of other sectoral efforts:**

Several initiatives in the sector are supported by the Government of Pakistan (GoP) and donors. Pakistan has supported the conservation of biodiversity through the establishment of 219 Protected Areas (PAs) which roughly form 9% of its land. The chief contribution to the sector is made through the provincial Wildlife Departments which spend Rs 126 million (\$ 3.15 million) annually on the maintenance and development of Protected Areas.

Although this project is presented as a “stand-alone” operation, it is an integral part of the World Bank’s program of long term assistance to Pakistan’s natural resource conservation. In collaboration with the NGO and donor communities and within the framework of the Country Assistance Strategy for Pakistan, the Bank plays a key role in the strengthening of Pakistan’s overall policy and institutional capacity and in the implementation of site-specific conservation investments. In particular, the on-going Bank supported Environmental Protection and Resource Conservation project and other provincial initiatives (in Balochistan, NWFP, Sindh, Northern Areas and Punjab) are establishing the policy and institutional framework for environmental management. This support includes the strengthening of provincial wildlife departments and the conservation of critical habitats such as Indus delta mangroves (Sindh), alpine pastures, (AJK), and participatory natural forest rehabilitation in the Punjab, NWFP and AJK.

Donor initiatives in the sector also complement the proposed project and make a valuable contribution to the sector. A notable example is the GEF/UNDP supported pilot project on biodiversity conservation - “Maintaining Biodiversity in Pakistan with Rural Community Development” - being implemented at a cost of \$ 2.5 million over three years. The pilot project is under implementation in Chitral Valley- where one of the PA sites for this project, Chitral Gol, is situated - and Northern Areas and involves local communities in resource planning, conservation and ecological monitoring. Other notable projects in the sector are the World Bank supported Baluchistan Natural Resources Management Project (\$ 14.7 million) and the Environmental Protection and Resource Conservation Project (\$38.9 million). These projects aim to build capacity among the implementing agencies, conduct studies and undertake forestry and watershed rehabilitation programs. On-going initiatives in the sector include WWF’s Conservation of Migratory Birds in Chitral, Jhelum-Neelum Valley Development Project (UNDP) and the Palas Conservation and Development Project (Birdlife International and World Pheasant Association). The Palas Project (approximately \$ 5 million), aims at integrated conservation and development through community participation. Planned initiatives in the sector include a UNDP supported project on wetlands conservation and the extension of the UNDP/GEF project on “Maintaining Biodiversity in Pakistan” beyond the pilot phase. The latter would include the Chitral Valley where a pre investment feasibility fund (PRIF) grant from the GEF is testing the pilot phase of the project. A framework for UNDP/World Bank collaboration in the Chitral Gol area was defined and will be discussed with provincial government.

Other noteworthy activities include projects related to rural uplift and human resource development which improve choices of livelihood and take pressure off PAs. Of principal importance are the Rural Support Schemes supported by GoP and the IDA supported, Social Action Program Project (\$ 7.7 billion). Provincial Rural Support Schemes are a vehicle for providing uplift in rural areas through micro lending, income generation initiatives and participatory development. The SAP further complements these efforts by providing support to activities related to education, health, population and water and sanitation through local participation. Human resource development activities have vital linkages to the sector as they serve to improve standards of living especially in rural areas and provide education, population planning and training which improve people’s choices of livelihoods and decrease dependence and exploitation of natural resources.

#### **Project framework:**

The proposed project strengthens PA management in Pakistan and further enhances the efforts in conservation of biodiversity. Other conservation projects either do not include Protected Areas or only affect them marginally. As mentioned in the Convention on Biological Diversity, Protected Areas form a central element in any national strategy to conserve biodiversity. They contain a variety of ecosystems and species and have some sort of national or international recognition and status as areas containing valuable biodiversity. This view is endorsed by the Pakistan National Conservation Strategy of 1992, which reiterates the importance of PAs in conserving biodiversity and calls for strengthening of the PA management system, improvements in implementation capacity, legislation and community involvement.

Pakistan's 219 PAs span a range in elevation from 0 to 8,611 m and represent 12 habitat types. The three sites selected for project intervention, are National Parks which contain globally important ecosystems and species. Of the categories awarded to PAs in Pakistan, National Parks rank as second (after Wildlife Sanctuaries) in terms of protection provided to biodiversity within PAs. While WS are designated as areas where no human habitation, cultivation and harmful human use is allowed, NAs allow human use such as for recreation, education and research and place restrictions on killing animals, felling trees and clearing land for cultivation. They correspond to IUCN's category II (National Parks) according to the ranking of 1978 Commission on National Parks and PAs<sup>1</sup>. NPs also receive the most attention from GoP in terms of receiving the largest share of expenditure. By targeting these areas, the project will strengthen and improve the existing management system for National Parks and provide a model for replication for other PAs.

<u>Component</u>	<u>Category</u>	<u>Indicative Costs (US\$M)</u>	<u>% of Total</u>
1. Integration of communities (includes provision for US \$ 1 million for Park Trust)	social mobilization, organizing of CECs,	\$ 2.23	20.7 %
2. Strengthening of Park Management		\$1.28	11.9 %
(a) Formulation of detailed Park Management Plan and Strategy.	Resource baseline inventories, tourism planning, conservation planning;	\$ 0.63	5.9 %
(b) Ecosystem and habitat protection and enhancement.	Dune stabilization, erosion control, exotic biota control, in-situ breeding, species reintroduction,	\$ 2.96	27.4 %
(c) Improvement of Park infrastructure, surveillance and enforcement.	Improvement of roads, trails, construction of park headquarters, bridges, water supply, entrance gates, fencing, improving park communications, patrolling.	\$ 0.19	1.8 %
(d) Research and biodiversity monitoring.	Baseline research, studies, surveys, mappings, establishment of zoological and botanical collections, biodiversity monitoring.		
3. Public environmental awareness	campaign activities, dissemination of promotional materials.	\$ 1.29	12.0%
4. Human resource development	study tours, specialized training for management staff,	\$ 2.06	19.1%
5. Project management		\$ 0.13	1.2%

<sup>1</sup> Pakistan's PAs fall into three categories - Wildlife Sanctuaries, National Parks and Game Reserves. While National parks correspond to IUCN's category II under the 1978 classification, Wildlife Sanctuaries and Game Reserves correspond to IUCN's category IV, V, VI and VIII. A ranking of PAs according to the IUCN's revised categories for PAs (1992) has not, as yet, been undertaken.

Total \$ 10.80 100 %

**Project costs:** The project costs include expenditure on works (approximately \$ 0.56 million), equipment (approximately US \$ 1.06 million and Technical Assistance (approximately US \$4.11 million from which roughly US \$ 1.06 will be used for obtaining locally recruited TA, mainly from NGOs, while US \$3.05 will be used for internationally recruited technical input).

**Project details:** The following details provide information on the three PA sites, their ecological importance, threats to biodiversity and the activities planned for each site. While some problems such as lack of surveillance, need for public awareness and infrastructure improvement as common between the three sites and will be addressed by the project, ecological conditions and steps to conserve biodiversity will vary. These are described below.

a. **Hingol National Park:** Covering about 650,000 has, Hingol National Park, lies on the Makran coast approximately 190 km from Karachi. The PA contains a variety of topographical features and vegetation, varying from arid sub tropical forest in the north to arid montane in the west. Large tracts of the NP are covered with drift sand and can be classified as coastal semi desert. The PA includes the estuary of the Hingol river which supports a significant diversity of bird and fish species. Although no detailed inventories of wildlife have been undertaken, Hingol is known to support threatened invertebrates in addition to a variety of bird species. These include the Marsh Crocodile (*Crocodylus palustris*), Olive Ridley (*Lepidochelys olivacea*) and Green Marine Turtles (*Chelonia mydas*), the Houbara Bustard (*Chlamydotis undulata*), and Spot-billed Pelican (*Pelecanus philippensis*). Endemic and threatened species of fish, such as the Mahasheer occur and schools of Plumbeous Dolphins (*Sousa plumbea*) are known from close in-shore areas.

A major threat to the wildlife is posed by hunting whether by visitors or residents. In particular, the populations of Houbara Bustard, Sindh Ibex, the Urial and the chinkara (a gazelle) have declined due to hunting. Unrestrained netting of waterfowl has also been reported. The endangered species of turtles are particularly at risk from commercial fishing by trawlers which do not have turtle excluding devices and from feral dogs. The PA has a staff of only six wardens which is inadequate for patrolling and surveillance. Management is restricted only to policing and is made difficult by poor accessibility since there is a single access road which has fallen into disrepair. These drawbacks enable poachers to hunt with relative ease causing depletion of wildlife.

The project will develop specific interventions related to the components identified above to reduce, and where possible, eliminate the threats to wildlife. A Management Plan will be developed for the PA through a participatory planning process and would involve (i) collection of baseline information, (ii) establishment of buffer zones and core areas, (iii) delineating priority areas for controlled/restricted use and (iv) developing mechanisms for interface and for broadening participation between PA staff and local residents. Based on the information collected for the Management Plan, conservation activities will be implemented in key areas. These will include, among other activities, inventory and baseline information, habitat enrichment, afforestation and sand dune stabilization, in situ conservation and breeding, modification of domestic livestock grazing patterns, species re introduction, installation of turtle excluding devices on trailers and transfer of turtle eggs from a sanctuary near Karachi.

Specific initiatives for integrating custodian communities in PA management will include a strategy for support for alternative sources of livelihood and development of tourism related enterprises and skills. The strategy will also entail agreements on reciprocal obligations on the part of communities to help reduce harmful use of PAs. Matching contribution to the project from communities will be agreed in terms of placing and observing restrictions on resource use and hunting species such as netting of pheasants and over fishing and contribution to other conservation activities.

b. **Machiara National Park:** Situated in Himalaya Highlands of Azad Jammu and Kashmir, the Machiara National Park offers a wide spectrum of ecological niches from permanent snow fields and alpine pastures to variety of Himalayan forest types. Although detailed inventories have not been undertaken, several bird species have been identified. Notable species include the regionally endemic and vulnerable Western Tragopan (*Tragopan melanocephalus*), the vulnerable Cheer Pheasant (*Catreus wallichi*), the rare Bearded Vulture (*Gypaetus barbatus*), the Himalayan Griffon Vulture (*Gyps himalayensis*), the Musk Deer (*Moschus moschiferus*), the Snow Leopard (*Uncia uncia*) and Brown Bear (*Ursus arctos*) and Himalayan Ibex (*Capra ibex*). More than 30 plant species of economic and/or medicinal value have also been identified. The National park is administered by the Wildlife, Tourism, Archeology and Fisheries Department of the Government of Azad Jammu and Kashmir.

Principal threats to biodiversity occur from :

- local people's use of the PA for summer pasturage,
- winter livestock fodder, fuelwood and timber collection. Fuelwood collection has been so excessive that forest periphery has been

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reduced severely and is leading to erosion of the forest's overall biodiversity and habitat quality.

- grazing. Trails through the core areas to the summer pasture lead to habitat degradation, soil erosion, gullying and land slippage.
- Hunting, especially of pheasants, which has threatened their population severely.
- Limited commercial logging. Collection of The lack of government presence and management by the Azad Kashmir Department of Wildlife means that resource degradation occurs unchecked.

Management planning for the PA will concentrate on establishing buffer zones and satellite areas since the PA core areas are under continued threat. Planning will also identify areas urgently in need of regeneration and the strategies for sustainable human use inside the NP and its buffer areas. Since the local residents are highly dependent on forest products, the strategy for involving custodian communities in the management will include provision of alternative sources for forest products such as fuelwood plantations outside parks, wood saving smokeless stoves and development of non conventional energy sources. Activities related to the promotion of community based park tourism and other alternative forms of livelihood will be supported (such as vegetable production on lower slopes outside the park, indigenous food processing, cottage industry etc.). Reciprocal contributions from local residents will include establishing and respecting controls on grazing and fuelwood collection from restricted areas. Local residents will also be mobilized to implement activities related to habitat improvement such as soils conservation through damming and some gully plugging, designing and use of corridors for access to summer pasture, promotion of stall feeding and changing to alternative sources of fodder outside the PA.

c. Chitral Gol National Park: (National Park established in 1984, corresponds to IUCN's category II: Representative habitat: Himalayan dry coniferous vegetation with elements of sub-alpine scrub ). As with Machiara, the main threats to Chitral Gol PA stem from grazing of livestock, hunting and collection of fuelwood. Weak enforcement leads to continued hunting affecting a number of endemic and vulnerable species including markhor (*Capra falconeri cashmirensis*), snow leopards (*Uncia uncia*), Himalayan snowcock (*Tetraogallus himalayensis*), Himalayan monal pheasant (*Lophophorus impejanus*), snow partridge (*Lerwa lerwa*) and rock partridge (*Alectoris graeca*). Fuelwood extraction has heavily lopped oak trees within the PA boundary in turn degrading critical winter range for Pakistan's densest population of markhor. Since Chitral Gol serves as a critical watershed supplying irrigation water to buffer settlements and providing protection from flash flooding, the protection of its vegetation is of vital importance.

The size of Chitral Gol PA together with the amount of pressures on its biodiversity make it difficult for the PA to support the habitat of key species such as the snow leopard. For this purpose:

- the PA boundaries will be re mapped to establish corridors and buffer zones essential for the migration of critically endangered wildlife in the PA.
- Management planning process will agree with local communities a system of support for meeting key needs contingent on their reduction of hunting and damage to wildlife within the PA and its buffer areas (for example, the project will meet the need for constructing corals, stockades in exchange for restriction on poisoning and hunting of wolves and snow leopards). Alternative sources for meeting community needs which directly reduce the threats to the PA will be agreed and implemented, such as alternative sources of fuelwood (as outlined above) and forage for grazing. The present project will operate in close collaboration with existing and planned activities including in particular, the proposed UNDP supported project which would follow the GEF PRIF activity;
- Specific conservation activities in the PA will include the establishment of park enclaves for habitat regeneration and afforestation, especially of cedar.
- Support for alternative sources of livelihood will focus on small enterprise development and eco-tourism. The area in and around Chitral Gol is visited by a large number of domestic and international tourists and there is good potential for developing livelihoods related to tourist activities.

### **3. Benefits and target population:**

The project will have significant benefits for the global community. Conservation and enrichment of globally important biodiversity will secure the existence of endangered and threatened endemic and other rare species. The option and use value of biodiversity thus saved is invaluable, despite being difficult to quantify. Other benefits to the world will include enhanced knowledge on biodiversity through research, inventories and monitoring of species and ecosystems in PAs. Significant lessons for replication in other countries and regions can be drawn from monitoring and studying the effect of project activities on biodiversity conservation.

Several national and local benefits are also associated with the project. Local benefits will include improved employment

opportunities for communities living in and around PAs. These may be temporary such as employment in infrastructure improvement activities or long term such as employment as park staff, through reforestation and from ecotourism. Local communities will also benefit from sustainable use of resources especially in buffer zones and from mechanisms for resource sharing. Other benefits will include reduction in soil erosion and watershed protection. In addition, local communities will be empowered in the management of their resources and in making choices which promote their own economic uplift in conjunction with conservation of their resource base.

At the national level the project will establish cost effective and participatory management systems that will ensure the conservation of core PAs as part of a representative national network of PAs. Improved environmental management will secure watershed protection and sustainable agricultural practices. The project will also provide an opportunity for testing innovative community management that can be replicated in other PAs and create mechanisms for sharing the burden of resource management across public and private sectors.

#### **Target population:**

The target population will be the communities living in and around Protected Areas. Tourists, visiting the PAs, will be another important target group whose presence will contribute to the development of tourism related micro-enterprises.

#### **4. Institutional and implementation arrangements:**

Jurisdiction over protected area management is at the provincial and AJK territorial level. In addition, most of the project activities will occur at local levels, in and around each of three project protected areas. Therefore, there will be two principal levels of management for the implementation of the project: the provincial project implementation entity level, and at the grass-root, community level.

**Provincial/AJK Level:** In AJK, NWFP and Baluchistan, the project implementation entities (respectively the Wildlife, Fisheries and Tourism Department of AJK, the NWFP Wildlife Department and the Baluchistan Wildlife Division of the Forest Department) will form small project management units (PMU). The three PMUs will act autonomously from each other with exception of coordination for technical assistance and regular stock-taking exercises. Each PMU will have a Project Director (PD) and a core staff to process procurement, disbursement, monitoring and reporting responsibilities. A broad based provincial/AJK level steering committee will interact with this PMU on inter-sectoral issues and for regular evaluation of overall project impact. Contractual agreements between government agencies will be outlined to specify the extent of implementation responsibility of each agency involved in PA management.

**Local, PA Level:** At the community level, Conservation and Enterprise Committees (CEC) will be promoted by the project through the intermediation of locally-active NGOs. Where Village Organizations exist already such as those organized by AKRSP and other Provincial Rural Support Programs, the CECs can be subgroups of these organizations. CECs will consist of representatives from local communities and will enter into formal agreement with the government. Each PMU will develop, with local communities NGOs and the technical assistance entity, a decision-making mechanism for the participatory planning and implementation of management and development interventions under the project. Wherever possible, management arrangements at the local level will be contained in legal agreements between the different stakeholders.

For local level coordination, at each PA, a Local Advisory Committee (LAC) was formed during project preparation and will be maintained through the project implementation period of 5 years and beyond. At implementation, each LAC will group representatives of the PMU, the local communities, local government, NGOs and related rural support agencies. The LAC's role will be to ensure the integration of project activities in the overall strategies and activities of development in the three project areas. It will liaise with other governmental agencies and other agencies active in the area to coordinate project implementation.

**Private/Public Interaction:** The project will promote public/private cooperation in the achievement of long-term biodiversity conservation by assisting, with technical assistance and limited cost-sharing arrangements, private sector activities, income generation activities (e.g. eco-tourism) and non-profit fund-raising activities. The latter will require the establishment, during project implementation, of a non-profit entity (a Trust) that would be able to mobilize internal and external funds that would support park management activities, especially after project completion.

**Monitoring and Evaluation:** Monitoring and evaluation of overall project impacts in the three sites will be undertaken by an independent institution. M&E will involve local communities as much as possible. Three specific areas of significance for monitoring the achievement of project objectives will be (i) the ecological aspects of field activities for biodiversity protection and

PA management , (ii) M&E of socio-economic conditions and community participation and (iii) legal and institutional frameworks impacting on project activities in the three sites. Key indicators for monitoring will be set for these categories will include:

(i) ecological aspects: The overall monitoring for ecological aspects will determine if the project has succeeded in slowing the rate of loss of vulnerable flora and fauna, and potential increase in population density and range of some threatened species. Specifically, M&E activities will investigate maintenance of populations of animals, reduction of hunting, reduction of livestock inside the PAs, extent of successful rehabilitation of habitats and land, success in species re-introduction and level of in situ breeding. Quantifiable indicators will be used to monitor the success of the project. Methods of monitoring will include inventories, surveys, transect sampling, site evidence, game warden records.

(ii) socio-economic considerations and community aspects: Appropriate indicators for community participation will include measuring the number of local residents employed in PA operations, number of households mobilized and the extent and nature of their contribution to project activities. The number of formal agreements between CECs and the government are another measure of the community participation in resource management. The extent of compliance on resource use (i.e. respect of limits on grazing, especially in designated areas, hunting and fuelwood extraction) will be a key indicator to monitor the effectiveness of agreements and community support to conservation activities. Extension of socio-economic benefits to the community will be monitored by increase in household income, the number of households covered by alternative income generation activities and increase in eco tourism revenues accrued by the communities. M&E exercises will make appropriate use of social surveys, social assessment exercises and PMU records to monitor the overall success of socio-economic interventions.

(iii) legal and institutional impacts: Monitoring of institutional impacts will evaluate the training of staff, increase in surveillance, enforcement of controls on harmful use of the PA and frequency of inter agency collaboration. Other measures to monitor institutional aspects will include the management of the park trust and the level of domestic and international contributions collected for it. M&E of legal impacts will include assessment of the type of legal agreements and amendments made under the project and the extent of their successful application to project activities.

## **Block 2: Project Rationale**

### **5. CAS and GEF objective(s) supported by the project:**

Document number and date of latest CAS discussion: Report No: 15115-PAK, dated Nov 22, 1995

### **CAS Objectives:**

The CAS identifies the deterioration of Pakistan's natural resources as a key aspect of concern. According to the CAS, rough estimates indicate that the partial costs of environmental damage and pollution to the economy amount to about 3% of GDP per year. The conservation of Pakistan's natural resources is, therefore, an urgent priority if resource degradation is to be contained. The proposed project will play a significant role in conserving Pakistan's natural resources through strengthening the management system of three PAs which contain globally important biodiversity. The involvement of local people in project activities will also contribute to another CAS objective of raising standards of living in rural areas. The project will identify and promote ecologically acceptable and socially responsible income generating activities which have strong linkages to biodiversity conservation such as ecotourism which will provide livelihood to custodian communities and take pressure off excessive human use off PAs.

**GEF Objectives:[Note: Where key indicators are established for monitoring progress toward the Bank country assistance objectives, as envisaged in the new style CASS, this section will specify the expected project contribution to these indicators.]**

The project complies with several issues identified in the **Convention on Biological Diversity** (CBD) as vital for the conservation of biodiversity. Specific aspects of the project which comply with CBD include conserving in-situ biodiversity (habitats, species and genomes), strengthening ecosystem conservation in semi arid and mountainous regions, involving local and indigenous peoples in sustainable resource conservation and promoting the protection of globally significant species and the sustainable use of endemic species. In particular, it corresponds to :

- Articles 6 on Measures for Conservation and Sustainable Use (contribution to the development of strategy or plan on biodiversity conservation);
- Article 8 on In Situ Conservation (enhancing Protected Areas management, management and rehabilitation of degraded areas, monitoring and conflict management in PAs);



- Article 11 on Incentive measures (involvement of local communities, capacity building, education and property rights);
- Article 13 on Public Education and Awareness.

Further, the project also responds to the guidance provided by COP3<sup>2</sup>. It specifically responds to the COP3's emphasis on supporting projects aimed at providing socio-economic incentives at the local, national and GEF levels. Through regulating land use and forest use, the project responds to COP3's call for developing and managing sustainable land use and forest use practices. Its institutional strengthening and awareness raising components respond to COP3's emphasis on capacity building. Within the COP3's guidance on terrestrial biodiversity, this project supports the guidance on mitigation of harmful human impacts on forest biodiversity, addressing the underlying causes of biodiversity loss, development and use of criteria and indicators for monitoring forest use and filling gaps in forest biodiversity knowledge. Another area of compliance with CoP3 is on capacity building for taxonomy, development of indicators for taxonomy and applying a bottom approach to developing indicators. COP3's guidance on involvement of local communities and benefit sharing is reflected in the project's emphasis on community involvement, its activities on alternative income generation and ensuring that economic benefits flow to local communities.

The project complies with the **GEF Operational Strategy** in the following respects: (i) priorities were country driven and the selection of sites followed a participatory evaluation process to determine biodiversity value of PAs according to biogeographic representation, socio-economic considerations, degree of threat and feasibility of intervention; (ii) meeting incremental costs; (iii) providing leveraged long term financing through the establishment of a special fund raising trust; (iv) incorporating an objective monitoring and evaluation process that would be continued beyond the life of the project; and (v) targeting nationally, regionally and globally important biodiversity contained with forest, semi-arid, mountain and marine ecosystems.

The project will conserve several globally important and endemic species. Examples of some of these include markhor, snow leopard, two species of marine turtles and several endemic or nearly endemic pheasants<sup>3</sup>. The project conserves species and habitats in high danger of excessive fragmentation and degradation. This project has the capability to strengthen political will in Pakistan to ensure that 219 Protected Areas in the country are made more sustainable and play a greater role in conserving the country's biodiversity.

Under the baseline scenario, the provincial governments would continue to provide the current or even a reduced level of funding for the traditionally weak PA management system, except possibly in the case of NWFP. Human encroachment and degradation of core areas would continue quite likely leading to the loss of key "charismatic" species such as the snow leopard and the Kashmir Markhor (a species with a narrow distribution) or the more widely distributed western Tragopan pheasant. The extent of degradation would vary but is likely to be pervasive in all PAs. With GEF funding, GoP would be able to supplement its on-going efforts and develop efficiently managed PAs in which local communities are a leading management force along with NGOs. In addition, the PAs could serve as a model for replicability for other PAs in Pakistan.

## 6. Main sector issues and Government strategy:

The following key issues have a significant impact on the sector.

**1. Human use and impact:** Anthropogenic causes are the primary reason for habitat degradation and species loss. Specific threats to biodiversity from human resource use include

- deforestation, (annual rate stands at around 1% for Pakistan)
- overgrazing, (Coniferous forest is particularly under threat due to logging, extraction of fuelwood, building and unrestricted livestock grazing. The Machiara National Park is a noteworthy example of forest degradation due to extraction and grazing.)
- soil erosion and
- hunting<sup>4</sup>.

Pressures on PAs come mainly from local communities who are heavily dependent on resource use due to lack of alternative

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<sup>2</sup> Third Conference of Parties on the Convention on Biological Diversity held in 1996.

<sup>3</sup> For a detailed description of species in each PA, please see Annex B

<sup>4</sup> Hunting was banned in 1981 and later allowed only on permit basis.

livelihoods. Added to this, a low level of human resource development and social services “locks” people into already established patterns of income generation primarily based on over-use of natural resources.

**2. Weak implementation capacity of environmental agencies:** Although the Government of Pakistan (GoP) has established environmental agencies at both national and provincial levels, these are relatively new, lack clarity over implementation responsibilities, face a severe shortage of properly trained personnel and have little enforcement capacity. The PA system in particular, is an apt example of these weaknesses. Of the 219 PAs in Pakistan, most exist only on paper. Management plans are few and where they exist, are almost invariably technically deficient. Recent GoP initiatives are attempting at addressing these public sector deficiencies with external assistance support.

**3. Lack of information and awareness:** The lack of adequate baseline information on biodiversity resources in PAs is another factor that hinders biodiversity conservation. No inventories of plant and animal species in PAs have been undertaken, so far. Lack of baseline information and on going monitoring and research restricts an accurate analysis of populations of key species, changes in their numbers over a period of time and the effect of conservation initiatives. Initiatives to increase public awareness and support for conservation issues also have scope for attracting the attention to a larger number of people than at present.

### **Government Strategy:**

To date, GoP’s strategy on conservation of biodiversity has been defined by the establishment of an institutional framework, legal and policy guidelines and the establishment of a Protected Areas system.

The **institutional structure** essentially consists of two tiers - federal and provincial. At the federal level, a national Council for the Conservation of Wildlife, set up in 1974, is responsible for

- Nature conservation policy and advise to the Planning Department;
- coordination of provincial nature conservation policies and attitudes;
- coordination of provincial wildlife management agencies with respect to migratory mammals and birds;
- collaboration with NGOs in Pakistan;
- Liaison with international agencies for conservation activities;
- Management authority for CITES.

The Council is composed of federal and provincial government officers, with provision for up to five non-official members to be appointed on the recommendations of the Provincial Governments. A branch of the Zoological Survey Department exists in Karachi within the Ministry of Food, Agriculture and Cooperatives under the direction of the Inspector General of Forests. Its main functions are to record the distribution of wildlife, study the biology of flora and fauna and to advise the Government on wildlife conservation issues. Other relevant institutions at the national level, are the Ministry of Environment, Local Government and Rural Development. Although relatively new, MoE has supported the development of environmental legislation such as the Environmental Protection Ordinance of 1983. Its principal focus of attention are urban environmental issues. Other institutions such as Pakistan Environmental Protection Council and their provincial line agencies have also been established recently.

At the provincial level, institutions vary in structure, budgets and implementation capacity. In NWFP, Baluchistan and Northern Areas, wildlife is administered through the Wildlife Division - a branch of the Forestry Department. In Sindh, an active Conservation Board exists and has undertaken several special conservation projects with the collaboration of IUCN and WWF. The administrative model for wildlife conservation in Sindh brings an element of public participation since members to the Board are appointed by the Government of Sindh. The SWMB pursues vigorous and encouraging attitudes to wildlife conservation and ensures political awareness to conservation issues. Sindh also has the highest budget for wildlife management (Rs29 million), followed by NWFP (Rs 21 million).

The principal **policy** response to biodiversity conservation has been formulated through the National Conservation Strategy (NCS) of 1992. The Strategy called for a national policy on wildlife management, strengthening of the PA system and to update the legal and policy instruments to promote conservation of biodiversity. Within the policy arena, GoP has been active in the preparation of a Biodiversity Action Plan (BAP) which will be completed shortly. The BAP will provide guidance and a policy framework for

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<sup>5</sup> Provincial legislation includes: Sindh Wildlife Protection Ordinance (1972), Punjab Wildlife Act (1974), Baluchistan Wildlife Protection Act (1974), NWFP Wildlife Act (1975), Northern Areas Wildlife Protection Act (1975), Azad Jammu and Kashmir Wildlife Preservation Act (1975) and Islamabad Wildlife Ordinance (1979),

initiatives in biodiversity conservation. Other noteworthy initiatives in the policy arena consist of the Forestry and Wildlife Policy of 1980 briefly noted the importance of biodiversity conservation. Its updated version of 1991 emphasizes the need to decrease deforestation, conserve forests and biological diversity, promote social forestry and contain environmental degradation in watersheds and catchment areas. The broad policy framework is, therefore, a key indication of GoP's recognition of the importance of biodiversity conservation.

The policy framework is supported by **legislation** on biodiversity conservation which has been enacted mainly at the provincial level. Provincial laws on conservation have provide guidelines on biodiversity conservation. A Wildlife Enquiry Committee set up in 1968 drafted conservation legislation<sup>5</sup> that has been adopted at the provincial level. These statutes provide for creation and management of PAs.

Pakistan's major initiative in preserving biodiversity rests in a **system of Protected Areas** whose main objective is to conserve endangered and rare species of wildlife. Categorized as National Parks (10), Wildlife Sanctuaries (82), Game Reserves (83) and private unclassified reserves (14), the PAs established by GoP amount to 7.2 million ha or 9% of the country's total land area.

Although GoP's strategy has led to key steps in protection of biodiversity, there is scope for improving legal and policy instruments to make them consistent with the provisions under CITES, CBD, Ramsar and other international conventions to which Pakistan is a signatory. In summary, Pakistan's policy, institutions and legislation recognize the seriousness of environmental problems and, in theory, establish a baseline by which ecosystems can be conserved. However, enforcement of legal and policy provisions is not pursued with any vigor. Moreover, since biodiversity conservation in Pakistan is largely a provincial responsibility throughout Pakistan, there are no obvious policy goals or guidelines and provinces have, in the past, followed their own policies and priorities. As a result, conservation initiatives are fractionised, disparate and with little coordination between provinces. There is scope to improve the role of the National Council for Conservation of Wildlife to improve coordination between provincial agencies in this regard.

[Note: Summarize assessments of key policy, institutional and other issues, and the Government's strategy to address them, referencing the economic and sector work of the Bank and other development agencies.]

## **7. Sector issues to be addressed by the project and strategic choices:**

The project will address the following sector issues:

**1. Lack of effective management planning for biodiversity conservation:** The project will implement an improved management system for PAs through sound ecological planning, enhanced implementation capacity and improved public participation. Improved planning will take place through the formation of Management Plans. Planning will include inventorying and establishing a baseline of ecological information so that subsequent activities can be based on accurate information related to habitats and species. A key ecological aspect of management planning will be the redesigning of PA boundaries with buffer zones and "satellite areas" to protect the core areas from undue intrusion or disturbance. Further, planning will focus on reaching agreements with communities on the extent and nature of resource use. Improved implementation of management systems will result from training and skills upgrading, provision of necessary equipment for surveillance and community participation, which will provide the necessary manpower.

**2. Adverse impact of human usage of natural resources:** Since the principal cause of habitat degradation inside PAs and in their buffer areas has been the extent of human use, the project will aim to regulate, control and where possible, eliminate harmful human impact. In the Chitral Gol area, where a UNDP pilot project on biodiversity conservation is currently underway, the project will closely liaise with ongoing activities, draw lessons from the pilot project and implement community based activities for PA management where these are not covered by the UNDP project. The strategy for limiting harmful human use in PAs will be based on the following areas:

*a) selection of communities and confidence building:* Using techniques such as Protected Area Mutual Impact Assessment or PAMIA (used in the India: Ecodevelopment Project ) the project will select communities who will participate in project implementation. Criteria for selection of communities will include: (i) local residents who have an impact on the PA and its buffer areas, (ii) communities that are impacted upon by the PA (e.g. people whose crops/livestock are damaged by animals moving out of PAs), (iii) the strength of village institutions, (iv) people's willingness to cooperate and (v) the presence of marginalized groups. These criteria will enable the project to select the target communities which impact the PA intensely and elicit their support. Selected communities will be made aware of project objectives and the use of confidence building exercises such as participatory social surveys will foster support for the project.

*b) alternative income generation and reciprocal arrangements:* The promotion of alternative livelihoods is a key element of the economic based strategy for PAs based on the lesson that local people are unlikely to participate in conservation activities if PAs do not generate economic benefits for them. The project will foster alternative livelihoods for people (such as eco-tourism enterprises) and resource use (such as fuelwood plantations) or conservation (such as energy saving stoves) to remove pressure from core park areas or critically endangered habitats. Further, to foster development activities, the project will use leveraged funds for village based micro-enterprise which do not affect the PAs adversely. Support for these activities will be based on clear reciprocal contributions from local communities. Lessons from other projects have pointed to the need for matching contributions from communities benefiting from conservation projects. Without reciprocal contributions, the communities are not likely to value the implementation of development activities and the provision of economic incentives will be regarded by them as a “free good”. Contributions from local residents will come in the form of time and labor contributed to various conservation activities. It will also involve agreements to limit or curtail the use of intensively used areas or excessively hunted species. Where possible, communities will be required to contribute to enforcement of controls in collaboration with park staff.

*c) Agreements on resource use:* Through participation in management planning, the communities and park officials will work out the nature and extent of resource use by local people. Traditional land tenure rights will be given due consideration in mapping a strategy for resource use within the carrying capacity of PAs. Communities will be expected to honor these agreements and will be assisted in developing mechanisms for sharing resources within themselves. Such agreements will be mediated by NGOs and will form part of the overall provision of economic incentives to local residents.

**3. Weakness of implementing agencies:** A key impact of the project will be to improve the implementation capacity of agencies since this is a major cause of unchecked and excessive use of PAs. To address this issue, the project will (i) develop contractual obligations between implementing agencies to delineate clearly their implementation responsibilities, (ii) elicit the support of Local Advisory Committees (LACs which have been involved in project preparation and will serve to coordinate the efforts of NGOs, local government and line ministries, and (iii) training and skills upgrading. Enlisting the support of local communities will also reduce conflicts between PA staff and local people.

[Note: Of the issues identified in paragraph 6, specify those to be addressed by the project, indicating the strategic choices, e.g., private vs. public options, as assessed in the economic and sector work of the Bank and other development agencies.]

**8. Project alternatives considered and reasons for rejection:** [ ] To be defined

**1. Without project scenario:** Current conditions leading to continued loss of species and reduction in populations of threatened and endangered species is most likely to continue in a without project scenario. GOP lacks the resources to invest in biodiversity conservation and without support from GEF the global benefits from conserving rare and endemic species will not be realized. Staff skills would remain weak leading to poor enforcement and management capacity and mechanisms for participatory planning will not be established. Human use of the PAs will remain unregulated and it is possible that several globally important and endemic species may become extinct or severely reduced in number. The proposed project, as an alternative to this scenario, will improve the current PA management system and secure the conservation of threatened and globally important species.

**2. Choice of sites:** In early stages of preparation, the project underwent a ranking exercise to select the number of sites and their suitability for the project. The sites were selected based on their rankings on the presence of globally important species, the urgency of threat to the ecosystems and species, likelihood of social participation and viability of sustainable park incomes through tourism. Where alternative sites for the project were identified, these were evaluated to determine if there were other conservation initiatives planned by donors. In general, the project has selected sites which satisfy its selection criteria but are not the focus of other similar efforts.

[Note: Alternative project scope and design options and trade-offs.]

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

<u>Sector issue</u>	<u>Project</u>	<u>Latest Form 590 Ratings</u> (Bank-financed projects only)	
		<u>IP</u>	<u>DO</u>
<u>Bank-financed</u> Natural resource conservation,	Environmental Protection and Resource Conservation Project. (ongoing)  (The project undertakes strengthening of key federal and protection environmental agencies through training, support to the development of legislation, environmental awareness, policy studies and pilot works on riverine		

afforestation along the Chenab and Ravi rivers, wildlife planning in the Punjab and Alpine pasture studies.)

Natural resources management

Baluchistan Natural Resources Management Project.(ongoing)

(strengthening Balochistan Environmental Protection Agency and Balochistan Forest Department through additional staff, training and skills upgrading, public awareness, policy development. Small rehabilitation sub projects on sand dune stabilization, Chiltan National Park, rangeland rehabilitation and juniper forest conservation).

Forestry

Punjab Forestry Sector Project. (ongoing)

(Institutional development of the Punjab Forestry Department, expansion of farm forestry, promotion of irrigated timber plantations and improvement of range and scrub forest in Pothwar through participatory planning and management)

Other development agencies  
(UNDP/IUCN/GEF)

Managing Biodiversity in Pakistan with Rural Community Development. (ongoing)

( Pilot project in Northern Areas to assess the effectiveness of rural village management of wild species and habitats to conserve biodiversity in Pakistan, build capacity in governmental agencies and review policy and legal requirements).

(Birdlife International and World Pheasant Association- Pakistan)

Palas Conservation and Development Project (ongoing)

(Conservation of Himalayan forest and management and sustainable use of natural resources through participatory management. Improvement of basic infrastructure, health, nutrition and sanitation)

(WWF-Pakistan)

Small scale community based conservation efforts in Bar Valley and Khunjerab National Park and Chitral Valley.(ongoing)

## 10. Lessons learned and reflected in proposed project design:

A review of other projects in the sector in Pakistan and neighboring countries provide the following insights and lessons:

**(i) establishing clear linkages between economic enterprises and resource conservation through village based agreements, preferential hiring or training of local residents, participatory management plans and monitoring systems (GEF/UNDP and Palas Conservation Project):** The GEF/UNDP supported pilot project on biodiversity conservation in Northern Areas has afforded some crucial insights into the mechanisms for linking economic benefits from conservation to local residents. Confidence building measures such as social surveys and preliminary dissemination of project objectives are an initial means of building local communities confidence in the beneficial nature of the project. However, unless project benefits proceed to local residents, participation from communities is likely to decline. Long term sustained economic benefits from conservation such as through eco tourism and employment in PA management are essential to ensure the continued success of interventions. The Ecodevelopment Project in India has also highlighted that support for alternative livelihoods and provision of alternative means to meet benefits

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derived from PAs must be contingent on cost sharing by local communities. This lesson is incorporated in the proposed project by establishing reciprocal agreements with communities in the form of limited resource use and contributions to conservation activities.

**ii) building understanding and consensus among stakeholders ( Palas Conservation Project and Punjab Forestry Sector Project):** A key lesson from the other projects in the sector is the need to build consensus among stakeholders to reach an agreement on project objectives, activities and roles for various stakeholders. In the proposed project, structures for consensus building created at the preparation stage (such as LACs) will be continued during the implementation phase. For consensus building on resource use at the sites, CECs will function as dispute-resolving and benefit-sharing entities. Consensus building measures related to the project have already experienced some success with progress towards the settlement of a land dispute in Chitral Gol. In particular, the project's emphasis on using third party NGOs to facilitate contractual agreements between government and local communities is expected to act as a viable strategy for co management that will minimize potential for power play, corruption and domination by special interest

**(iii) building upon existing organizational structures for project implementation (GEF/UNDP Project) :** The use of already operating structures has been used to generate consensus on project activities by the GEF/UNDP Project. The project has successfully used Village Organizations created by the Agha Khan Rural Support Scheme to facilitate the implementation of the pilot project. AKRSP's successful track record in micro planning and extensive network of already operational village organizations has been a salient feature in organizing community participation. This lesson will be applied to the proposed project through using Provincial Rural Support Schemes active in all three provinces where the sites are situated, for community mobilization, participatory implementation of activities, promotion of micro lending and alternative forms of livelihood.

#### **11. Indications of beneficiary commitment and ownership:**

GoP's commitment to the project and to biodiversity conservation is evident through its support for policy development and establishment of a legal framework for biodiversity conservation. GoP has supported the development of policy through the National Conservation Strategy (1992) and the under preparation, Biodiversity Action Plan. Both documents have called for strengthening the PA management system, involving local communities in conservation and improving awareness and capacity in the sector. The recently completed Sarhad Conservation Strategy for N.W.F.P. is another dimension of GoPs support to detailed and focused policy development and decentralized and management of biodiversity resources. In addition, GoP has developed a National Forestry Policy in 1980 and updated it in 1991 which, among other issues, highlights the need for biodiversity conservation, reducing deforestation, containing environmental degradation in catchment areas and promote social forestry.

GoB has further demonstrated its support through the development of various provincial legislation on wildlife and forest conservation. GoP has expressed its full support to extending the existing legal and policy instruments to enable the implementation of conservation activities. Government's endorsement and support is also assured for Amendments to existing legal and policy instruments to facilitate agreements with communities. Additionally, GoP has reiterated its support to extending PA boundaries and forming buffer zones. This has been demonstrated in the re mapping and extension of Hingol National Park and support for including Bichla Manur Valley within Machiara PA. It has reiterated its support to stakeholder participation and developing interagency coordination and collaboration. This is evident from GoP's formation of a Biodiversity involved closely in the preparation of the project through the Ministry of Environment's active participation in the Biodiversity Working Group (BWG).

However, the Ministry of Environment is a relatively new and underfunded ministry with weak capacity for enforcement. Project activities related to capacity building and training will improve MoE's implementation capacity. Successful implementation of the project will enable MoE to emphasize the need for increasing political support for biodiversity conservation.

[Note: Includes measures already taken by the borrower prior to Board presentation, as well as planned actions.]

#### **12. Value added of GEF support:**

GEF's support is vital for enabling the project to conserve globally important species in the three Protected Areas. Current and projected annual budgetary allocation for these PAs is inadequate to meet the needs for their effective maintenance and management. Further increases in spending on PAs is unlikely since several urgent social and development activities rank high on GoP's agenda.

Without GEF's support, several globally important species and their ecosystems in each PA will dwindle as a result of existing conditions and, in many cases, possibly become extinct. The net loss of biodiversity as a result of this cannot be calculated. Several of the species severely threatened in these PAs are either endemic or have a restricted distribution over the sub-continent and the loss of these species will be irreversible. In addition, GEF's support to these PAs adds value to biodiversity conservation at a regional level. Since the PAs offer a wintering ground for several endangered species of migratory birds, their improved management will

increase the chances for survival for these bird species. GEF's support will, therefore, play an important role in maintaining regional ecosystems through upgrading three PAs in Pakistan which are a vital chain in their overall survival.

With other conservation efforts planned in the sector, GEF's support will have a "leveraging impact" on other initiatives such as the UNDP supported wetlands conservation project and implementation of the pilot project on Maintaining Biodiversity in Pakistan. Other projects will take their signal from this project. The project provides an opportunity to test a replicable model of PA management that will empower people in the sustainable management of their own natural resources.

The project benefits from the **Bank's** experience of involvement in forest and agricultural policy development in Pakistan and fits into the existing program of activities in natural resource conservation currently being pursued by the Bank under the direction of the CAS. The Bank Group has already supported projects in several sectors with components to improve the environment or to rehabilitate and develop natural resources. In the agriculture sector, Bank Group projects have focused on correcting waterlogging and salinity<sup>6</sup> arising from inadequate irrigation drainage, reversing deforestation and depasturing<sup>7</sup> and securing watersheds and rangelands protection<sup>8</sup>. At the federal and provincial levels, the Bank is supporting the institutional development and capacity building through the Environmental Protection and Resource Conservation Project, Balochistan Natural Resource Management Project and Participatory Natural Resource Rehabilitation Project. Together with the proposed project, these projects address several important aspects of natural resource conservation in Pakistan.

The Bank Groups other projects in the energy, private sector development, health, education and social sectors comprise the range of activities in Pakistan. In particular, the Social Action Program Project allows the integration of human resource development and community development. This will be a key source of support for alternative income generation activities in the proposed project. The proposed project, therefore, consolidates and enhances existing Bank efforts in Pakistan and in the sector and draws upon their success and failures to guide its own objectives and activities.

### Block 3: Project Preparation

**13. Has a project preparation plan been agreed with the beneficiary** (see Annex 2 to this form)  Yes Date Submitted: 27 June 1996  No Date Expected:

**14. Has beneficiary drafted a project implementation plan** (See Attachment for suggested content)  Yes Date Submitted:  No Date Expected: July 15, 1997

**15. Advice/consultation outside country department**  Within the Bank: Peer reviewers include Susan Shen (EA1 AE), George Ledec (LATEN) and John Dixon (ENVPE).  Other development agencies:

GEF's Scientific and Technical Advisory Panel (STAP) review of the project's concept and design centered on the importance of Protected Areas and defining policy, institutional and financial mechanisms for ensuring adequate protection of endangered and threatened species. The project design responds to strategic issues and specific questions raised during the STAP consultative process, namely:

(i) the need to designate some areas of the National Parks as disallowed for human use, is difficult to practice and requires careful monitoring and enforcement. *Through participatory PA management, the project will ensure that agreements between communities and the government will include the identification of areas which are "off-limits" for human use;*

(ii) adjustments to compensate for the inherently small size and fragmented nature typical of Pakistan's PAs. *A direct application of*

<sup>6</sup> World Bank supported projects include SCARP VI, SCARP Mardan, Drainage IV, Leftbank Outfall Drain, Private Tubewells Development and Fordwah Eastern Sadiqia Irrigation and Drainage Projects.

<sup>7</sup> Punjab Forestry Sector Project

<sup>8</sup> Hill Farming and Technical Development Project, Integrated Hill Farming Development Project, Environmental Protection and Resource Conservation Project, Balochistan Natural Resource Management project and Participatory Natural resource Rehabilitation Project.

*this advice has been the extension of Hingol PA by about 300% to some 690,000 hectares to include critical marine, estuarine and upland habitat. Similarly, the management of Chitral Gol National Park will be undertaken more at an ecosystem than PA level, with the collaboration of other initiatives;*

(iii) tourism, on its own, may not provide adequate income generation to provide the incentive for people to honor agreements on resource use limitations. It may take several years of tourism development before a steady stream of income from tourism is developed. A regular source of funding is essential for PA activities to continue sustainably. A “package” of possible sources of the long term funding of recurrent costs are currently under consideration, including public funds, eco-tourism and a not-for-profit Trust Fund.

(iv) simplification of the project management structure is essential to establish areas of responsibility and to ease management coordination problem. *The final organizational set-up is under discussion with government and NGOs and will be kept at a manageable level of complexity to act as a direct support for field activities.*

(v) the most effective means of enforcing legal controls on hunting and resource use involve the cooperation and participation of local communities. *Agreements with local residents to limit resource use are vital for implementing controls and are being finalized;*

(vi) diversity of communities may cause conflicts in resource sharing arrangements. *The rate of establishment and expansion of these arrangements will be slow enough and participatory to allow special care for dealing with sub-group concerns (women, disadvantaged group and indigenous people.*

(vii) comprehensive ecological monitoring of all three PAs may be difficult to achieve within the time span of the project and distinctness of the PA sites. *The monitoring system, therefore, will concentrate on a few, carefully chosen indicators that are easily monitorable. Also special technical assistance will be provided to the independent monitoring and evaluation entity.*

## 16. Issues Requiring Special Attention

### a. Economic

(list issues below, e.g., fiscal impact, pricing distortions, etc.)  To be defined  None

Economic evaluation methodology:  Cost benefit  Cost effectiveness  Other : Incremental Cost Analysis

### Incremental Costs:

Incremental costs are estimated to cover project expenditure on components which have global benefits. Project activities which will yield global benefits are eligible for GEF financing. To calculate the incremental costs of the project, an estimate of baseline expenditure was made to establish the current and planned amount of funding on the three PAs during the life of the project. The total expenditure of Wildlife and Forest Departments on the three selected project sites amounts to \$15.7 million during the project period. Incremental costs of the project are estimated to be \$ 10.78 million.

Under the biodiversity management component, the baseline expenditure will cover about \$9.5 million. These expenses cover domestic benefits which are eligible for financing from GoP. Local benefits from the project such as watershed improvement, reduction in landslides and soil erosion, development of local tourism amenities and awareness building at the local level will be eligible for governmental funding which forms part of the baseline. Incremental costs covering activities which yield global benefits from this component amount to \$ 6.15 million. These will comprise of expenditure on conservation activities that enrich globally important biodiversity and increase the capacity of implementing agencies to plan and manage conservation activities that protect critical habitats. Further, incremental costs will cover conservation activities aimed at improving international tourism as this will promote global interest in Pakistan’s biodiversity. Since awareness campaigns will also achieve the global objective of sharing conservation values, a portion of them will be eligible for financing as incremental costs.

The costs for integrating custodian communities in project activities will be covered partially under baseline expenditure (\$ 0.40) since this component will result in increased opportunities for income generation at the local level and may indirectly increase incomes not necessarily explicitly related to species and habitat preservation. Incremental costs associated with this component amount to \$ 2.23 and consist of expenditure necessary for ensuring community mobilization necessary to conserve globally important species. Incremental costs will also cover the establishment of a trust fund necessary for long term sustainable financing of project activities.



Incremental costs for human resource development amount to \$ 2.06 million which cover training and skills development essential for preserving critically endangered habitats. Since some benefits under the research and monitoring component will enrich local information, a baseline expenditure of \$ 0.23 million are estimated while \$ 0.19 million represent incremental costs related to research and analysis essential for preserving areas of global importance. A modest amount of project management costs are classified under incremental costs (\$ 0.13 million) since they build local capacity for implementing activities directly benefiting critical habitats. Baseline costs of \$ 1.40 are estimated to cover the majority of funding for this component.

#### **b. Financial**

(list issues below, e.g., cost recovery, tariff policies, financial controls and accountability, etc.)       To be defined       None

To establish mechanisms for cost recovery and to provide sustainable financing for project activities, a range of financing sources and methods have been identified by the project. These encompass the following:

**(i) Governmental sources:** Project design has ensured that activities are financed without creating a burden on public expenditure during and beyond the life of the project. The expenditure incurred by GoP will cover activities which produce domestic benefits. In particular, GoP will cover the salaries and expenses of staff working on the project.

**(ii) Development funds:** The project will use funds from already existing social and development budgets such as the Social Action Program Project supported by IDA and Provincial Rural Support Programs. These funds are earmarked annually for development related activities and will be accessed for alternative income generation activities and micro lending to facilitate local people's conversion to livelihoods which are not harmful for the PAs.

**(iii) Tourism:** Another form of supporting conservation activities and maintaining PAs will be user fees and charges collected through visitors to PAs. These are not expected to be large, especially during initial years of project operation, and are likely to vary from one PA to another. With efficient management of PAs and increase in tourism, these are expected to grow and likely to form a steady, if small, source of income. Furthermore, tourism will increase local incomes thereby providing incentives to local people to protect and conserve the biodiversity in PAs.

**(iv) Park trust:** To facilitate the long term financing of project activities, a not-for-profit trust will be established. The trust will start with contributions from domestic sources in the form of grants, fund raising and donations. Once sufficient mobilizing of funds from in-country resources has been demonstrated, the trust will be eligible for matching contributions from the project. It is estimated that after two years of fund raising activities, the trust will have enough contributions to justify contribution from the project. The trust will provide a vehicle for long term funding of projects supporting the PAs. The reliable funding provided by the trust will also strengthen institutions concerned with the co-management of the PAs enabling them to undertake long term planning and attract, retain, develop and train quality personnel.

#### **c. Technical**

(list issues below, e.g., appropriate technology, costing, etc.)       To be defined       None

The project recognizes that endangered and threatened species must be managed at the meta-population level (sub-population groups) in a manner which offers a maximum likelihood of preserving genetically intact numbers of animals over the long term (i.e 50 to 100 years or more). Virtually all PAs are far too small to protect a sufficiently large population. For this reason, the project advocates an ecosystem approach which will combine two linked approaches: (i) networking of populations in adjacent reserves by linking management of separate PAs at the regional level; and (ii) securing of habitat within the intervening corridor and the buffer zones adjacent to individual reserves in an effort to augment the PA's relatively small population. The limitations of each provincial wildlife department in terms of its habitat and species protection programs is widely recognized and this deficiency will be primarily addressed through the deputization of honorary wardens from the local community and the linking of viable populations of viewable wildlife to project-supported enterprises such as ecotourism. In addition, local people will be vested with full responsibility for utilizing resources on a sustainable basis through a series of sound economical enterprises including ecotourism, indigenous fishing and rotational rangeland grazing. Wherever possible, alternatives will be provided for resources currently taken from within each PA. Specific sub projects will be required to meet with stringent target species and general biodiversity conservation criteria to be developed during project preparation and designed by specialists to ensure ecological appropriateness.

The need to define the boundary of the project area for the Chitral Gol PA will be addressed during the initiation of the project. The Form \_\_\_\_\_

adequacy of baseline information available to project implementors at each PA will be addressed during this phase as well. The need for reliable baseline information on the target animal populations is clear and the capacity of each wildlife agency to conduct defensible surveys and censuses in concert with locally deputized wildlife wardens will be strengthened by the project. While improving patrolling from internal and external poachers is the principal need of each PA, long term management requires a sound understanding of species-specific natural histories, the local ecological processes and inherent or modified constraints to habitat carrying capacity. Over the long term, research will be sustained by a special trust whose skilled staff will forge ties with national and international research institutions, especially universities interested in exchange programs as potential collaborators.

**d. Institutional**

(list issues below, e.g., project management, M&E capacity, administrative regulations, etc.)  To be defined  None

**Institutional Assessment:** Project preparation work has identified the following deficiencies in the present institutional set-up for PA management in the three project areas: (i) politically weak; (ii) underfunded; (iii) deficient in trained staff, equipment and infrastructure; (iv) limited M&E capacity. This situation is not unique to Pakistan, and the project design has taken these limitations into consideration by: (i) defining up-front actions that indicate government ownership of project conservation objectives and emphasis on mass awareness efforts at implementation; (ii) limiting to the degree possible any needs for additional public sector staff and recurrent costs and establishing participatory and public/private processes for financial sustainability; (iii) emphasizing training and human development activities for local government and non-government stakeholders; (iv) third party supervision will be provided under the project.

At the PA level, the project will support Conservation and Enterprise Committees (CECs). These will be formed in conjunction with the local Rural Support Programs or a Project Community Support Structure and local representatives. The CECs, in collaboration with local communities will undertake diagnostic socio-economic surveys of communities living in and around PAs, prevent unlawful exploitation of PA resources, implement rehabilitation activities for degraded ecosystems, develop sustainable usufruct rights, promote alternative income generation and micro-credit programs to reduce people’s dependence on harmful use of PAs, develop mechanisms for equitable sharing benefits from PAs among communities and resolve disputes on resource use. Local communities will be contracted to work on small scale infrastructure projects. The local communities will contribute to the projects through labor. Through taking a participatory approach to project implementation, the project will ensure a high degree of ownership from custodian communities which have hitherto been regarded as an adversary in PA management in traditional “top down” PA management followed in Pakistan.

**e. Social**

(list issues below, e.g., gender, protection of indigenous and other vulnerable groups, etc.)  To be defined  None

The project is designed to involve local communities as much as possible in the design and implementation of activities. The custodian communities living in and around each PA are a diverse group. Preliminary social assessment has revealed several social issues. These issues will be further detailed during project implementation and will influence micro-planning activities at the PA level.

**Diversity of custodian communities:** The local communities display diverse characteristics in race, religion and use of resources. For instance, in Chitral Gol, the communities are composed of Chitralis, Pathans and Kalash. The last named are indigenous people with their own religion and separate cultural patterns. Patterns of resource use differ according to the employment structure in each community. The Pathan dominated villages have higher income levels and are active in most form of employment from agricultural based to off-farm while Chitralis are predominantly employed in livestock grazing and agriculture. A variety of tribal, ethnic, social and economic characteristics is also displayed in the custodian communities from other PAs. Varying patterns of employment and resource use are likely to translate into different usufruct rights and possibly the domination of one group for resource use at the expense of others. The project also runs the risk of excluding tribal or other groups from economic benefits from PAs, if one community has greater access to opportunities for alternative income generation than others. To anticipate ethnic and socio-economic diversity and to maximize the benefits from PAs to each community, the project will (i) conduct detailed social surveys in collaboration with local communities to ascertain patterns of resource use and usufruct rights; (ii) encourage community representation from all ethnic, tribal and employment/income groups; (iii) establish mechanisms for resolving disputes related to resource use through CECs.

**Gender and other issues:** Custodian communities also differ widely in the social and economic part played by women. The Form \_\_\_\_\_

communities living around Machiara National Park in AJK have a high-rate of female literacy than most of rural Pakistan. There is also a large number of female-headed households and increased female management of natural resources in the area. By contrast, the female population in and around Hingol National Park is characterized by an extremely low level of education and social participation. The project will ensure that as far as possible, the gender dimensions of resource use are investigated and that women are not excluded from economic benefits from resource use. In addition, the project will ascertain the level of resource use by migratory tribes. Some of these tribes are responsible for over-grazing in and around Machiara and the extent and nature of their land use will be agreed in a collaborative framework.

**f. Resettlement**

(list issues below, e.g., resettlement planning, compensation payments.)  To be defined  None  
There is no resettlement as result of the project.

**g. Environmental**

i. Environmental Major:  To be defined  None  
issues:

Other:  
ii. Environmental  A (x) B  C  
category:

iii. Justification/Rationale for category rating:

iv. Status of Category A EA start-up date:  
assessment:

Date of first EA draft:  
Current status:

v. Proposed actions:

vi. Status of any other environmental studies:

vii. Local groups and NGOs consulted: (List names):

viii. Borrower permission to release EA:  Yes  No

**ix. Other remarks:**

Although the project directly supports only three of Pakistan's 219 PAs, it involves substantial leverage in terms of (i) highlighting new mechanisms for better ensuring environmental protection that can be applied within or near other PAs: (ii) strengthening of provincial wildlife department's technical skills through a series of in-country workshops and special regional study tours to PAs in India and Nepal that have experienced similar constraints with respect to the lack of suitably skilled government staffing and a general mistrust among park or buffer zone residents for the PA authorities. Important biodiversity actions accomplished during project identification and preparation activities to date include the expansion of Hingol National Park and de facto establishment of Pakistan's first marine sanctuary, the termination of commercial logging within the Machiara National Park and the apparent resolution of a long term land ownership conflict in the Chitral Gol National park. Given these and other project activities, the direct and indirect environmental benefits of the project are expected to be highly beneficial.

Adverse impact of the project are expected to be minimal or negligible for several reasons. First, only small scale, ecologically sound components and sub-components will be undertaken : second, regular monitoring will be undertaken by all key stakeholders to measure both ecological and economic parameters using objectively definable indicators for success, and finally information gaps in terms of existing baseline conditions will be addressed through a focused, cost effective applied research program that also seeks to demonstrate new approaches to resource protection and sustainable harvesting (e.g. marine fishing and ecotourism).

**h. Participatory Approach:**

Top down approach has characterized the management of PAs in Pakistan which has been implemented through policing of reserves and curbs on resource use by local communities. This has led to local people's hostility for and non-cooperation with PA management. Learning from the experience of other PAs in Pakistan, the proposed project incorporates a participatory approach towards PA management, as described above. Communities will be made stakeholders in PA management through providing them a

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secure tenure as beneficiaries from PA management. Communities will be empowered through decision making structures to resolve disputes, establish sustainable usufruct rights and develop controls on harmful patterns of resource use. The economic benefits envisaged from participation and sharing across communities will develop a sense of ownership over PAs and will reinforce the notion that participatory resource management is likely to benefit local communities far more than over-exploitation of natural resources for short term gains.

	Preparation	Implementation	Operation
Beneficiaries/community groups	CON	COL	COL
Intermediary NGOs	COL	COL	COL
Academic institutions			
Local government	CON/COL	COL	COL
Other donors	CON		
Other			

[Note: Identify each of the stakeholders above, and describe their form of planned involvement as : information sharing (IS); consultation (CON); and collaboration (COL).]

**i. Sustainability:**

The economic based management strategy of the national parks should strongly favor the long-term viability of this key component by developing incentives for surrounding villages to maintain their environmental integrity. This is also a approach that minimizes government’s recurrent expenditure. The main recurrent costs are for O&M of additional Park infrastructure such as trails, roads, park amenity structures and information centers and for some incremental departmental staff particularly for Hingol National Park which is currently unstaffed. Wherever possible the project will reduce personnel costs attributed to surveillance and patrolling through the recruitment of honorary wildlife wardens from local communities. Communities would also be involved in biodiversity monitoring. Specific site investments in such improvements will be selected so as total associated recurrent costs are commensurate with prudently expected incremental revenues from activities linked to the parks. At present, recurrent cost obligations are estimated to range between 3-5% of the total investment costs in habitat improvements and wildlife enrichment and protection. In the case of Chitral Gol, incremental revenues will partly arise directly from access fees from people on foot or by vehicles. In general the project will promote ecological and wilderness tourism in the parks as a means of generating strong local incentives to preserve the environmental integrity of the parks. The economic activity derived from tourism, especially to the extent that foreign visitors can be attracted, will provide a potential tax base for the Government that is sufficient to justify some incremental budgetary allocation to the concerned departments.

The recurrent costs of the Park Trust and the operation of field schools will not become part of the government’s non-development budget but will be financed through the Trust’s own private fund raising efforts.

In some instances communities will be required to assume the maintenance costs of minor structures such as livestock stockades that reduce threats of predation. These costs will be small and within the ability of local communities to support through economic activities that will develop about the parks. Capacity building under the project will develop in-country technical expertise to facilitate the replication of activities in other areas. Only temporary support is required for project management structures since from the start, the project endeavors to implement activities through multi-disciplinary planning and the strong coordination of existing organizations.

**j. Critical Risks** (see fourth column of Annex 1):

<b>Project outputs to development objectives</b>	<u>Assumption/Risk</u>	<u>Risk Rating</u>	<u>Risk Minimization Measure</u>
	Biodiversity conservation is valued within and outside the parks.	3-4	Public environmental awareness, facilitation of ecotourism
	Political will be lend support to it.	2	Demonstrations of economic significance of parks through ongoing research and development of tourism
	Possible instances of low genetic	3-4	sample genetic testing of individuals from

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heterogeneity of some founder populations of animals in Hingol Project will not take away resources from other Protected Areas	3-4	critical species, mixing of isolated pockets of populations in the park. Options of contractual agreements to fill staff positions in implementing agency; staff transferred to project will be trained and contribute to overall increase in capacity.
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**Project components to outputs**

Local capacity to regulate trawler activities off Makran coast	3-4	Classification of area off the coast of the park as a marine park subject to existing regulatory conditions
Proposal to construct a dam across the Hingol estuary remains defunct	2	Government commitment provided in the form of an authoritative P&D finding of the concept
AKLASC logging n Machiara ends and diminishes as potential future threat	2	High profile of park amenities provided by public environmental awareness campaigns
A realistic and long term land management agreement between the Government and ex-Mehtar of Chitral.	2	Continued consultations between the Government and the ex-Mehtar due to the high profile the park provides to the Chitral park.
Local communities are sufficiently motivated to implement effective management planning over the entire project site.	3	Peer pressure, linkage of project support to verifiable indicators of compliance/cheating
Government will motivate staff adequately to work in remote areas, transfer of key staff from park to departmental budgets by end of project period: continuity of trained staff in postings	3-4	Training and selection of personnel
Sufficient domestic and foreign interest in ecotourism	3	Concerted promotional campaigns conducted by Park Trusts; public environmental awareness

**Overall Risk Rating**

Adequate in-country technical capability	3	Strong TA inputs, links to external technical institutions and training
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**k. Possible Controversial Aspects :**

The process of public participation, may increase local conflicts in communities affected by the project. Conflicts on sharing of resources, limits on resource use and on access to alternative income generation activities are possible. The diversity of communities may pose as the backdrop of for these conflicts and consensus building on share of resources may prove to be difficult. To manage this risk, the project will involve NGOs and CBOs active in the area to organize CECs and to enable communities to decide on resource sharing arrangements.

Another possible controversial aspect of the project is that alternative means for meeting people’s dependence on natural resources (set aside cultivation plots, forest plantations for fuelwood) may take a long period of time to be fully operational and effective. Benefits from these activities and from ensuing reduction in PA use may not appear until the later stages of the project. These activities will need to be closely programmed, monitored and enforced. Additionally, people may not respect restrictions on resource use and honor the agreements which place curbs on their access to the PA. This may result in raising people’s income through income generating activities but with no corresponding reduction in harmful resource use. The project will approach this risk by monitoring compliance with agreements through social and ecological surveys and through awareness campaigns targeted at local communities as well as visitors. However, these risks are real and have the potential to affect the project’s success.

**Block 4: Conditionality Framework**

**17. Identify the critical policy and institutional reforms sought, and where appropriate, the** [ ] To be defined Form \_\_\_\_\_

**likely areas of conditionality.]**

**Conditions for appraisal:**

During the pre-appraisal mission, several issues were identified and agreed with GoP for confirmation and action. These include the following:

- (i) GoP to confirm in writing its support for the project, for submission to GEF Council;
- (ii) Government of AJK to clarify its position on cessation of logging operations by AKLASC in and around the Machiara National Park;
- (iii) Government of NWFP to inform the Bank whether Bichla Manur should still be considered as a project area with specific reference to (i) advanced state of degradation; and (ii) the non-PA classification of the area;
- (iv) Government of NWFP to hold meeting with the ex-Mehtar (and any other stakeholders with land claims in the Chitral Gol area) to agree on a mechanism that would allow project activities to proceed unhampered during and after the project implementation period;
- (v) Government of Balochistan, in consultation with Planning Department and WAPDA<sup>9</sup>, to inform the Bank on its position vis-à-vis construction of a dam on Hingol River, with specific reference to the assessment that such a dam would most likely jeopardize most of the conservation investments foreseen in this project for the Hingol national Park;
- (vi) The implementing agencies in all three provinces to complete preparation of the Concept Paper;
- (vii) The implementing agencies in all three provinces to maintain close collaboration with the project preparation team to complete all details of project design;
- (viii) The provincial implementing agencies to indicate to the Bank, their preference of Technical Assistance procurement and to initiate coordination on the selection of technical Assistance;
- (ix) The implementing agencies to confirm to the Bank that participatory arrangements for project management are supported by their respective legal and institutional frameworks;
- (x) The implementing agencies to agree with the Bank Resident Mission on a schedule for rapid assessment of the agencies' respective financial management and procurement mechanisms;

**Block 5: Checklist of Bank Policies**

18. This project involves (check applicable items):

- |   |                          |   |
|---|--------------------------|---|
| <input checked="" type="checkbox"/> Indigenous peoples        | <input type="checkbox"/> | Riparian water rights                         |
| <input type="checkbox"/> Cultural property                    | <input type="checkbox"/> | Financial management                          |
| <input type="checkbox"/> Significant environmental impacts    | <input type="checkbox"/> | Financing of recurrent costs                  |
| <input checked="" type="checkbox"/> Natural habitats          | <input type="checkbox"/> | Local cost sharing                            |
| <input type="checkbox"/> Gender issues                        | <input type="checkbox"/> | Cost-sharing above country three-year average |
| <input type="checkbox"/> Involuntary resettlement             | <input type="checkbox"/> | Retroactive financing above normal limit      |
| <input type="checkbox"/> Significant consultation             | <input type="checkbox"/> | Disputed territory                            |
| <input checked="" type="checkbox"/> Significant participation | <input type="checkbox"/> | Other   |

**19. Describe issue(s) involved:**

**Block 6: Task Team/Review Arrangements/Management Decisions**

**20. Composition of Task Team (see Annex 2)**

Nadim Khouri, Malcolm Jansen (co-Task Managers), Barry J. Deren (Consultant/Economist), Rodney Jackson (Consultant/Protected Areas Specialist), Najib Murtaza (Resident Mission), Salma Omar-Chowdhury.

<sup>9</sup> Water and Power Development Authority.

**21. Review Arrangements and Schedule (see Annex 3)**

**22. Management Decisions**

<u>Issue</u>	<u>Action/Decision</u>	<u>Responsibility</u>
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**Total Preparation Budget:** PDF Block B Grant of US \$ 338,000

**Cost to Date:**

GO       NO GO       Further Review

[signature]  
Task Manager:

[signature]  
Country Manager:

**ANNEX A**

**PROJECT DESIGN SUMMARY**

**PAKISTAN: PROTECTED AREAS MANAGEMENT PROJECT**

Narrative Summary	Key Performance Indicators	Means of Monitoring and Supervision	Critical Assumptions and Risks
Project Goal: to develop Pakistan's overall strategy for resource conservation.	Mainstreaming of environmental issues and criteria in departmental planning and operations.	Reports of Ministry of Environment; donor sector reviews.	Biodiversity conservation continues to be valued by GoP
Project GEF Objective: to secure the active, sustainable conservation of globally and nationally significant habitats, species and genomes within priority protected areas (PAs) of Pakistan.	Reduction in rate of loss of threatened species and vulnerable vegetation types	Report of independant monitors	(GEF Objectives to Project Goal) Lasting institutional impacts of multi-disciplinary project implementation; long-term commitment of Govt. to community participation resources are not diverted from other PAs.
<p>Project Outputs:</p> <ol style="list-style-type: none"> <li>1. Protection and rehabilitation of habitats encompassing mountain, arid rangeland, estuarine and marine ecosystems;</li> <li>2. Maintenance of animal populations;</li> <li>3. Security of wildlife;</li> <li>4. Developed income opportunities reliant upon sustained preservation of the PAs.</li> </ol>	<ol style="list-style-type: none"> <li>1. Maintenance of stable and adequately sized populations of key fauna and flora species;</li> <li>2. Maintenance or increase of animal numbers; frequency of observations of key species;</li> <li>3. Reduction/control of hunting and other wildlife disturbances; reduction of livestock kept within the PAs;</li> <li>4. Number of local residents employed in PA operations; resident incremental income; tour operator revenues; sustainability of Park Trust.</li> </ol>	<ol style="list-style-type: none"> <li>1. Surveys, transect/plot sampling; fixed point photography.</li> <li>2. Census/transect walking; game warden inventories;</li> <li>3. Site evidence; game warden records; random surveillance;</li> <li>4. Household surveys; employment records of tour operators; visitor records; inspection of audited accounts of tour operators and the Park Trust.</li> </ol>	<p>(Outputs to Objectives) Biodiversity value of the PAs has a perceivably real and positive trend;</p> <p>Continued political will to support the integrity of the PAs as wildlife refuges;</p> <p>High genetic heterogeneity of founder populations;</p> <p>Enforced prohibition of mineral and other resource extraction.</p>



<p>Project Components:</p> <ol style="list-style-type: none"> <li>1. Custodian Community Integration through:             <ol style="list-style-type: none"> <li>1a. Social mobilization and development of PA income opportunities;</li> <li>1b. Fundraising for long-term PA initiatives;</li> </ol> </li> <li>2. Strengthening of PA Management through:             <ol style="list-style-type: none"> <li>2a. Iterative formulation of detailed management plans and strategies;</li> <li>2b. Habitat improvement and wildlife enrichment and protection;</li> <li>2c. Improvement of PA infrastructure;</li> <li>2d. Surveillance and Enforcement;</li> <li>2e. Research and biodiversity monitoring;</li> </ol> </li> <li>3. Public Environmental Awareness;</li> <li>4. Human Resource Development;</li> <li>5. Project Management, Monitoring and Evaluation.</li> </ol>	<p>Timely use of project inputs in the form of:</p> <ol style="list-style-type: none"> <li>1a. Deployment of sociological teams; mobilization of optimum number of households involved in joint PA management; production of formal agreements between Government and communities for reciprocal responsibilities and benefits in joint PA management;</li> <li>1b. TA and limited financial support in the form of “matching funds” to support local income generation activities, eco-tourism, and establishment of Park Trust.</li> <li>2a. Resource baseline inventories; participatory PA management plan formulation for the core and buffer zones of PAs and integrating opportunities for income generation and eco-tourism;</li> <li>2b. Rehabilitation of land and vegetative resources; modification of land-use patterns; temporary enclosures; in-situ breeding; species re-introduction; targeted interventions for key species protection;</li> <li>2c. Improvement of internal PA roads; construction of PA gates and small visitors’ centers and ranger field stations and provision of tourism amenities;</li> <li>2d. Development of</li> </ol>	<p>Common to all components:</p> <p>PMU project procurement and disbursement documentation;</p> <p>PMU semi-annual project implementation reports; documentation on output of project activities;</p> <p>Documentation of WBank/GEF supervision missions inspecting field work;</p> <p>Project mid-term and completion studies according to agreed WB/GEF technical terms of references;</p> <p>Departmental/PMU training records.</p>	<p>(Components to Outputs)</p> <p>Transparent, mutually endorsed checks and balances in place between communities and Govt. decision making;</p> <p>Communities continue to perceive linkage between PA preservation and income sources;</p> <p>Foreign and local interest in initiating educational tours of the PAs is maintained;</p> <p>Availability of domestic and foreign resources;</p> <p>Govt. implements commitments on site-specific land use decisions and political and institutional support to the project.</p>
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	<p>internal communications between PA staff; recruitment of local, honorary game wardens; provision of equipment for observation; limited recruitment of professional staff;</p> <p>2e. Baseline research program; periodic update of vegetative mapping/wildlife inventories; fixed point photography; establishment of zoological and botanical collections; physiognomic vegetation mapping; geological surveys;</p> <p>3. Campaigns targeted at decision makers, politicians, foreign hunters, military, coast guard, schools, mass media; establishment of field schools sustained by the Park Trust;</p> <p>4. Training of departmental staff, honorary game wardens, staff involved in screening conservation research proposals; local residents involved in monitoring of biodiversity.</p> <p>5. Support to temporary Park Management Units (PMUs) to be integrated in existing institutions.</p>		

(PGELF.doc; 6/1/97)