

UNITED NATIONS DEVELOPMENT PROGRAMME
PROJECT OF THE GOVERNMENT OF THE PEOPLE'S REPUBLIC OF BANGLADESH
PROJECT DOCUMENT

Project Number: BGD/99/G31
 Project title: Coastal and Wetland Biodiversity Management at Cox's Bazar and Hakaluki Haor
 Project short title: CWBMP
 Estimated start date: 01/07/2000
 Estimated end date: 30/6/2007
 Management arrangement: National Execution
 Executing Ministry: Ministry of Environment and Forests
 Implementing Agency: Department of Environment
 United Nations implementing agency: UNDP AND UNOPS
 Project sites: Cox's Bazar, Hakaluki Haor

Classification information

ACC sector and sub-sector: Natural Resources
 DCAS sector and sub-sector: Biological Resources
 Government sector and sub-sector: Environment & Forest
 Primary areas of focus/sub-focus: Promoting Environment and Natural Resources Sustainability
 Secondary areas of focus/sub-focus: Legislation;
 Primary type of intervention: Target Place (Environmental Habitat)
 Secondary type of intervention: Natural Features
 Primary target beneficiaries: Inhabitants within and around the ecosystems.
 Secondary target beneficiaries: Biodiversity related sectors /policy makers/civil society.

LPAC review date: 23 March 2000
 BPAC review date: Programme officer: M. Aminul Islam

Beneficiary countries: Bangladesh


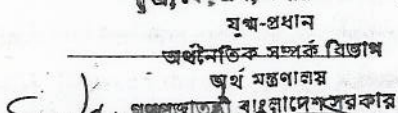
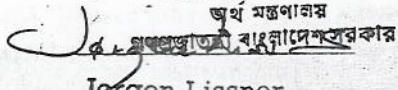
Brief description: The overall objective of the present project is to establish and demonstrate an innovative system for management of Ecologically Critical Areas (ECAs) in Bangladesh that will have a significant and positive impact on the long-term viability of the country's globally significant biodiversity resources. The project will support DOE efforts to operationalize the ECA concept at two main sites: one site (which includes three ECAs) within the country's long and biodiversity-rich coastal zone and the second at one of the largest and most important of the country's many inland freshwater wetlands. Through a combination of GEF incremental cost financing and baseline and co-financing, conservation and sustainable use of these sites will be demonstrated. This demonstration should create important opportunities for replication in coastal, freshwater wetland and other ecosystems throughout the country, including other sites recently nominated as ECAs.

Summary of UNDP and cost-sharing inputs

(as per attached budgets)	
UNDP:	
TRAC (1&2)	
TRAC (3)	
STS	
Other (GEF)	\$5,520,000
Cost-sharing:	
Government (CD VAT)	
Financial institution	
Third party	
Total	\$5,520,000
Parallel Financing:	
Government	\$3,340,000
Associated Financing:	
UNDP	\$6,552,000
Government	\$206,000
GRAND TOTAL	\$ 15,618,000
Administrative and operational services	
SOF 03	
Cost-sharing	
Total	
Country Office,	

Government inputs: (local currency)

(in kind) Tk. 11,508,000
 (in cash) Tk. 11,848,000

On behalf of:	Signature	Date	Name/Title
Government		11-12-2007	
Executing Agent		5. 3. 0 2	
UNDP		11. 12. 2007	

Jorgen Lissner
Resident Representative

Sablihuddin Ahmed
Secretary
 Ministry of Environment & Forest
 Government of the People's Republic of Bangladesh

TABLE OF CONTENTS

A.	CONTEXT	1
	A.1 Description of the sub-sector	
	A.1.1 Cox's Bazar	2
	A.1.2 Hakaluki Haor	3
	A.2 Host country strategy	4
	A.3 Institutional framework of the sub-sector	6
	A.4 Prior and local Communities/CBOs/NGOs/Civil Society's assistance to the sub-sector	7
	A.4.1 National-level	7
	A.4.1.1 Sustainable Environment Management Programme	7
	A.4.1.2 Bangladesh Environment Management Programme	8
	A.4.2 Site level:Cox's Bazar	8
	A.4.3 Site-level:Hakaluki Haor	8
B.	PROJECT JUSTIFICATION	10
	B.1 Problems to be addressed: the present situation	
	B.1.1 Cox's Bazar	10
	B.1.2 Hakaluki Haor	11
	B.2 Expected End of Project Situation	12
	B.3 Target Beneficiaries	13
	B.4 Project strategy and institutional arrangements	13
	B.4.1 National Component/Level	14
	B.4.2 Site components/districts Level	15
	B.4.3 Village Level Structure	16
	B.4.4 Project Execution and Management	16
	B.5 Reasons for assistance from UNDP	17
	B.6 Co-ordination arrangements	17
	B.7 Counterpart support capacity	19
C.	DEVELOPMENT OBJECTIVE	19
D.	IMMEDIATE OBJECTIVES, OUTPUTS AND ACTIVITIES	19
	Objective 1	19
	Objective 2	22
	Objective 3	25
E.	INPUTS	27
	E.1 National Inputs-Government of Bangladesh	27
	E.1.1 In-kind contribution to GEF funded Project Component	27
	E.1.1.1 Personnel	27
	E.1.1.2 Office space	27
	E.1.2 Government in-kind contribution to associated financed activities	28
	E.1.2.1 UNDP/FAO Community Fisheries Project	28
	E.1.2.2 UNDP Sustainable Environment Management Programme	28
	E.1.2.3 UNDP/FAO Integrated pest Management Programme	28
	E.1.3 Other Government –funded parallel financing	28
	E.1.3.1 Marine research and Infrastructural development at St.Martin and Sonadia Island	28
	E.1.3.2 Coastal afforestation	28
	E.1.3.3 Legal costs associated with enforcement of ECA regulation	28
	E.2 UNDP Financing	29
	E.2.1 UNDP Associated Financing	29
	E.2.1.1 UNDP/FAO Community Fisheries Project	29
	E.2.1.2 UNDP Sustainable Environment Management Programme	29
	E.2.1.3 UNDP/FAO Integrated Pest Management Project now is taken by DANIDA	29
	E.3.2 UNDP-GEF Funding	29
	E.4.1 Personnel	30
	E.4.2 Sub Contracts	31

E.4.3	Training	31
E.4.4	Equipment and supplies	32
E.4.5	Miscellaneous Reporting	32
F.	RISKS	34
G.	PRIOR OBLIGATIONS AND PREREQUISITES	35
H.	PROJECT REVIEWS, REPORTING, MONITORING AND EVALUATION	35
I.	LEGAL CONTEXT	38
J.	BUDGET COVERING UNDP CONTRIBUTION	38

ANNEXES OF THE DOCUMENTS

Annex 1:	Terms of reference
Annex 2:	Project workplan
Annex 3:	Biodiversity representation
Annex 4:	Stakeholder participation plan
Annex 5:	Criteria for Selection of Implementation Partners
Annex 6:	Financial Implementation Mechanism
Annex 7:	LOA Between the Executing Agency and the UNOPS
Annex 8:	LOA Between GOB and UNDP for NEX Executing Project

LIST OF ABBREVIATIONS

ADAB	Association of Development Agencies of Bangladesh
AOS	Administrative and Operational Services
APR	Annual Project Report
BECA	Bangladesh Environment Conservation Act (1995)
BELA	Bangladesh Environment Lawyer's Association
CBO	Community Based Organisation
CEN	Coalition of Environmental NGOs
CWBMP	Coastal and Wetland Biodiversity Management Project
DC	Deputy Commissioner
DG	Director General
DOE	Department of Environment
ECA	Ecologically Critical Area
ECAMU	Ecologically Critical Area Management Unit
GEF	Global Environment Facility
GOB	Government of Bangladesh
HH	Hakaluki Haor
HYV	High-yielding variety
IPM	Integrated pest management
MOEF	Ministry of Environment and Forest
M & E	Monitoring & Evaluation
NCS	National Conservation Strategy
NCSIP	National Conservation Strategy Implementation Project
NGO	Non-Governmental Organisation
NEMAP	National Environmental Management Action Plan
NEX	National Execution
PMU	Project Management Unit
PRA	Participatory Rapid Appraisal
PRIF	Project Investment Funding
RBAP	Regional Bureau of Asia and Pacific
SI	Sonadia Island
SM	St. Martin's Island
TF	Teknaf Peninsula
TPR	Tripartite review
TRAC	Total Resource Allocation from the Core (UNDP Resources)
UNOPS	United Nations Office for Project Services
UNCED	United Nations Conference on Environment and Development
VCC	Village Conservation Centres
VCG	Village Conservation Group

SECTION A CONTEXT

A.1 DESCRIPTION OF THE SUB-SECTOR

Perhaps more so than for any other nation, the fate of Bangladesh—its people and its prospects for sustainable development—is determined by its relationship with water and wetlands. During the monsoon season, at least seven to eight million ha, or about half of the country (and sometimes considerably more), may be considered wetland (Hughes *et. al.* 1994). The country's wide range of wetlands includes more than 700 rivers and streams, thousands of shallow freshwater lakes and marshes (known locally as *haors*, *baors* and *beels*), floodplains, inshore coastal areas and extensive estuarine systems. A majority of Bangladesh's 120 million people are critically dependent on the country's wetland systems as vital natural resources to sustain them, primarily through agriculture and fishing. Indeed, the movement of water to the sea and associated processes of sedimentation, accretion and mangrove growth have created much of the country's land. Ironically, this dependence all too often turns into disaster during Bangladesh's annual period of flooding.

While serving as the central pillar of Bangladesh's resource base and thus providing an essential support for its goal of achieving sustainable human development, the country's wetland ecosystems also offer critical habitats for internationally important biological diversity. Bio-geographically, Bangladesh lies at the junction of the Indian and Malayan sub-regions of the Indomalayan Realm. It also sits at the crossroads of two major international shorebird migration flyways, i.e., along the western edge of the East Asian - Australasian flyway and at the eastern edge of the Central Asian – Indian flyway. The country's biodiversity reflects this crossroads character.

Bangladesh's wetland habitats are particularly significant in supporting avifaunal, aquatic and plant biodiversity. *Avifaunal biodiversity* is high, with approximately 650 bird species recorded nationally thus far (compared with 800 in Europe and the Middle East together), at least 40 of which are globally threatened. Floodplains and other inland wetlands, along with coastal wetlands, support millions of migratory waterfowl annually, from over 150 species (Asian Wetlands Bureau 1985). Inshore areas of the Bay of Bengal, as well as inland wetlands, support considerable *aquatic biodiversity*, including some 120 species of marine fish, 260 species of freshwater and brackish water fish and several globally threatened turtle species (Hussain 1997). *Plant biodiversity* in Bangladesh is estimated at over 5,000 species of higher plants, some 158 of which are found in freshwater wetlands and 334 in coastal wetlands (Khan *et. al.* 1994). Key components of Bangladesh's plant biodiversity include its globally significant mangrove resources as well as the within-species genetic diversity found in several thousand varieties of rice grown within seasonally flooded areas.

The PRIF project has carefully selected two wetland sites of distinct importance for their globally significant biodiversity, particularly their avifaunal, aquatic and plant biodiversity. These were selected from a short-list of ten sites, based on the degree to which the following criteria were met:

- National priority areas for biodiversity conservation, as defined by, e.g., the UNCED national report, National Conservation Strategy, etc.;
- Globally significant biodiversity, including endemic, threatened and endangered species, representative habitats and/or significant within-species genetic diversity;
- Opportunities for development of sustainable use programmes;
- Threats and root causes realistically addressable through a GEF intervention;
- Full support of local communities;
- Representativeness of distinct wetland ecosystems, i.e., inshore marine and coastal ecosystems and shallow freshwater *haors* or lakes, and;
- Representativeness of the challenges facing management of the sites, implying important opportunities for replication.

The importance ascribed to both sites and to the present project is further reflected in the sites' recent nomination as Ecologically Critical Areas (ECAs) under the 1995 Environmental Conservation Act (BECA '95).

Each project site is introduced below. Additional information on site biodiversity is presented in **Annex 3**, while **Annex 4** provides details on socio-economic characteristics of project beneficiaries at each of the sites.

A.1.1 Cox's Bazar

The Cox's Bazar site lies at the extreme south-eastern corner of Bangladesh on the border with Myanmar as per the maps prepared by the PRIF study project. The site consists of three component areas: (i) the western, coastal zone of Teknaf Peninsula (10,465 ha in area), which is a long, narrow and forested peninsula separating the Bay of Bengal from the estuary of the Naaf River and neighbouring Myanmar; (ii) St. Martin's Island (590 ha), a sedimentary continental island located 10 km south of Teknaf Peninsula, and; (iii) Sonadia Island (4,924 ha), a barrier island a few km north of Teknaf Peninsula. The coastal and island habitats represent the site's 'focal areas' and total approximately 16,000 ha. Each focal area exactly coincides with the Ecologically Critical Area (ECA) declared for the site in question (see below, section A.3). An additional 30,000 ha, consisting of degraded but still biodiversity-rich upland forest watershed on Teknaf Peninsula, will be considered as the 'buffer zone.' While the project is designed to address and remove all threats to biodiversity within its focal areas, threats within the wider 'buffer zone' will be mitigated in order to provide additional protection for the 'focal areas.'

Overall, people living within the Cox's Bazar site are heavily dependent on fisheries, marine products and, to a lesser extent, agriculture for their livelihoods. Over 90% of fisheries production in the area is artisanal in nature, and the sector acts as an important source of employment.

The section of the Bangladeshi coastal zone encompassed by the site contains biodiversity of global significance (see Annex 4). Over 800 species of wildlife have been identified from the site component areas, more than 20 of which are globally (near) threatened. Globally threatened species include:

- four species of endangered marine turtles, i.e., Loggerhead turtle *Caretta caretta*, Green turtle *Chelonia mydas*, Olive Ridley turtle *Lepidochelys olivacea* and Hawksbill turtle *Eretmochelys imbricata*;
- nine species of birds;
- six species of marine mammals.

The biodiversity importance of the site component areas may be summarised briefly as follows:

- *Teknaf Peninsula*: Teknaf Peninsula is one of the longest sandy beach ecosystems (80 km) in the world. It represents a transitional ground for the fauna of the Indo-Himalayan and Indo-Malayan ecological sub-regions (notably within its 'project area'). The peninsula provides breeding areas for four globally threatened species of marine turtles and, lying along international bird migration flyways, serves as a significant bird area, with over 81 species recorded. Finally, its inshore waters host globally threatened marine mammals.
- *St. Martin's Island*: St. Martin's Island is one of the few areas in the world where coral-algal communities dominate rocky reefs (Tomascik 1998). This unique set of environmental conditions, biotic and abiotic, has no parallel in Bangladesh and perhaps not worldwide. The island also supports significant breeding areas for globally threatened marine turtle species, as well as serving as a stepping stone for several globally threatened migratory waders.

- *Sonadia Island*: Sonadia Island supports the last remaining remnant of mangrove forest in south-east Bangladesh, which once stretched along much of the coastline of Chittagong and Cox’s Bazaar provinces. Sonadia’s mangroves are distinct from the well-known Sundarbans in south-west Bangladesh, due to their development in a coastal lagoonal setting rather than in a delta. This has led to the domination of different mangrove species, ones which are able to tolerate higher levels of salinity than their Sundarbans cousins. In addition to this important mangrove area, the island supports large numbers of waterbirds, rich communities of mollusks and echinoderms and marine turtles.

A.1.2 Hakaluki Haor

The second project site offers a very different type of ecosystem as well as a new set of management issues. The *haor* basin in northeastern Bangladesh is an extensive alluvial plain supporting a variety of wetland habitats. It contains about 47 major *haors* and more than 6,000 *beels*, or freshwater lakes, nearly half of which are seasonal.¹ At least nine of the region’s wetland sites meet one or more of the Ramsar criteria for wetlands of international significance.

Hakaluki Haor itself is a complex of more than 80 inter-connecting *beels* located in the Moulvi Bazar District as per the maps prepared by the PRIF study project. The lakes are mainly fed by the Juri, Kantinala and Kuiachari Rivers and drain through a single outlet, the Kushiara River. During the dry season, the *beels* cover an area of approximately 4,400 ha. However, during the rainy season, the entire area floods, and the *beels* are united as one large lake, or *haor*, with an area of approximately 18,000 ha. This makes it the largest *haor* in Bangladesh. This 18,000 ha area represents the project ‘focal area’, as well as the defined area of the ECA declared for Hakaluki Haor.

Some 190,000 people live in the area surrounding Hakaluki Haor. As the *haor* itself floods annually, habitations are clustered along its slightly raised fringes. Local people have two main sources of livelihood—fisheries and agriculture—which occasionally come into conflict. Depending on how water levels are controlled, there is a tension between the areas available for fish vs. agricultural production, and thus between the potential levels of production from each. One task facing managers is thus to find equitable ways to achieve balance between these sometimes competing forms of production.

Hakaluki Haor is a highly significant site for a wide variety of waterfowl, particularly *Anatidae*. It is important for wintering migratory shorebirds and as a mother fishery. Its overall significance is perhaps best expressed with reference to the various criteria for inclusion as a Ramsar site. In a comprehensive 1995 survey, Hakaluki was deemed to fulfil the following five Ramsar criteria:

- “It is a particularly good representative example of a wetland which plays a substantial hydrological, biological or ecological role in the natural functioning of a major river basin...” (Ramsar Criterion 1.c).
- “It supports an appreciable assemblage of rare, vulnerable or endangered species of plant or animal, or an appreciable number of individuals of any one or more of these species.” (Criterion 2.a).
- “It is of special value for maintaining the genetic and ecological diversity of a region because of the peculiarities of its flora and fauna.” (Criterion 2.b)
- “It regularly supports 20,000 waterfowl.” (Criterion 3.a).
- “It regularly supports substantial numbers of individuals from particular groups of waterfowl, indicative of wetland values, productivity or diversity (Great Cormorant, Tufted Duck)” (Criterion 3.b).

¹ A *haor* generally encompasses a number of *beels*, into which it divides each year as floodwaters subside.

More recent observers have pointed to a sixth criterion met by the site, i.e., that it regularly supports 1% of the individuals in a population of one species or sub-species (Baers Pochard).

A.2 HOST COUNTRY STRATEGY

Bangladesh's environmental policy, including its strategy towards wetland and coastal issues, has made broad strides during the 1990s. The major elements are outlined below, along with specific references to project sites:

- *Biodiversity Convention (1991)*: Bangladesh has signed and ratified the Biodiversity Convention.
- *UNCED Country Report (1991)*: The report emphasises the “enormous importance” of the country's wetland areas, “...both as havens of biodiversity and as major sources of the nation's livelihood” (MOEF 1991). It also notes the need for “immediate” action to conserve the country's approximately 10,000 varieties of rice, as well as the many local varieties of fruits, legumes and other vegetables. The report calls for the development and implementation of pilot wetland protection projects with effective community participation, and it names Hakaluki Haor as one of six priority sites for such projects (Ibid.).
- *National Conservation Strategy (NCS, 1991)*: The NCS provides specific strategies for sustainable development in 18 sectors of the economy. Among its recommendations is that St. Martin's Island (also known as Narikel Jinjira) be declared a protected area. The NCS Implementation Project 1 has included, *inter alia*, preparation of a detailed study of St. Martin's Island, together with a draft management plan (see NCSIP-1 1997).
- *Environment Policy, 1992*: The Environment Policy adopted in 1992 gives due importance to wetlands and related issues. The Policy includes, *inter alia*, the following aspects:
 - ❖ rivers, canals, ponds, lakes, *haors*, *beels*, *baors*, and all other water bodies and resources should be kept free from pollution;
 - ❖ wetlands should be conserved for the protection of migratory birds;
 - ❖ activities which diminish the wetlands/ natural habitats of fish should be prevented and rehabilitative measures encouraged;
 - ❖ existing projects on water resources development, flood control and irrigation should be examined to determine their adverse impact on fisheries, and;
 - ❖ environmental impact assessment (EIA) should be conducted before undertaking new projects for water resources development and management;
- *National Environment Management Action Plan (NEMAP, 1995)*: The Ministry of Environment and Forests (MOEF) prepared NEMAP based on a comprehensive participatory planning process ranging from grassroots up to national levels. Local communities, government agencies, non-governmental organizations, professional groups, academics, parliamentarians, lawyers and journalists all provided inputs. Together, these stakeholders identified key institutional, sectoral, location-specific, and long-term issues and actions. NEMAP thus constitutes a synthesis of perceptions of the government, local NGOs/CBOs/Civil Society and the people on environmental issues and the actions needed to address them. NEMAP identifies, *inter alia*, a set of environmental problems that cannot be addressed by a single sectoral agency but rather requires integrated, inter-sectoral interventions. Among such issues are wetland management and coastal and marine resources management.

- *Integrated Coastal Zone Management (ICZM)*: In December 1999, the Minister of Water Resources Management announced the Government's intention to develop an ICZM policy. Among other objectives, the ICZM policy will attempt to rationalise and more effectively co-ordinate a number of environment and development initiatives taking place within the coastal zone. A number of donors, including the World Bank and the Netherlands, will be supporting the development of this policy over the coming seven-year period.

In the area of legislation, the Bangladesh Environment Conservation Act (BECA) articulates and expands upon the environmental management and sustainable development goals of the 1992 Environmental Policy. In particular, it defines the environmental regulatory regime and DOE's mandate with respect thereto. Among the measures instituted by this law is a provision for the Declaration of Ecologically Critical Areas (ECAs).

Declaration of Ecologically Critical Areas

- (1) If the Government is satisfied that due to degradation of environment the ecosystem of any area has reached or is threatened to reach a critical state, the Government may by notification in the official Gazette declare such areas as Ecologically Critical Areas.
- (2) The Government shall specify, through the notification provided in Sub-clause (1) or by separate notification, which of the operations or processes cannot be initiated or continued in the Ecologically Critical Area (Bangladesh Environment Conservation Act, 1995) (Abdus 1998).

BECA serves to partially counteract the often-conflicting goals of various sectoral laws such as the Forest Act (1927), Protection and Conservation of Fish Act (1950), State Acquisition and Tenancy Act (1950), Wildlife (Preservation) Act (1977), the Haor Development Board Ordinance (1977) and the Wildlife Act (1992). Some of the threats to wetland biodiversity stem from a failure to act on provisions in this legislation. For example, the Wildlife Act prohibits hunting of wildlife, but has rarely been enforced. Other threats result from potential conflicts among the legislative provisions which, for example, promoted the conversion of wetlands to agriculture. While the goal of conservation is enshrined under the provisions of BECA, further harmonisation of legislation and policies is needed.

In April 1999, the authority granted under BECA was utilized for the first time, as the Director General of the Department of Environment (DOE) officially declared nearly 40,000 ha, within six separate wetland areas, as ECAs. These included each of the four component sites within the present project — Hakaluki Haor, Sonadia Island, St. Martin's Island, and Teknaf Peninsula — but not their buffer zones, all of which were deemed to meet the 'urgency criterion' required by BECA, i.e., they were "threatened to reach a critical state."² This Declaration was prepared in the context of the GEF PRIF project preparation.

Although a large number of ecosystems in Bangladesh could accurately be described as "threatened", it would be impossible for the Government to declare and manage all of them as ECAs. In order to identify priority sites, a series of biodiversity 'importance criteria' have been taken into account in addition to the above 'urgency criterion.' For the initial ECA designation the criteria used were the same as those applied in selecting GEF project sites (see section A.1 above). This led to the selection of two additional sites as ECAs: Tanguar Haor, an important wetland area located in northeastern Bangladesh, and Marjat Baor, a small but biologically significant oxbow lake. All ECAs thus far selected include a combination of public and private lands, with relevant restrictions equally applicable to both.

The Act provides for temporary ECA Declarations in certain cases—for example where a highly specific threat (e.g., from a single industrial plant) has been identified and removed. However, in the case

² It should be noted that none of the sites, however, was considered to have already reached a critical or otherwise irreversible state.

of the present sites the Government's intention is that the ECA Declarations and associated management structures will be permanent.

A.3 INSTITUTIONAL FRAMEWORK OF THE SUB-SECTOR

Increasing awareness of the importance of the environmental dimension of economic development resulted in the creation of the Ministry of Environment and Forests (MOEF) in 1989. The Ministry is now a permanent member of the Executive Committee of the National Economic Council, which is the major decision-making body for economic policy issues and also approves major public investment projects. It plays a key role in planning, reviewing and monitoring environmental initiatives and in ensuring that environmental concerns are properly integrated into the national development process. This includes responsibility for ensuring that environmental concerns are given due recognition in the development programmes of sectoral ministries. The Ministry has an active role to play in policy advice and environmental action planning, in coordinating and overseeing the implementation of action plans, and in reviewing and monitoring the impact of development initiatives on the environment across all sectors.

MOEF combines two departments, the Forestry Department and the more recently-created Department of Environment (DOE). DOE, as the technical arm of the Ministry, is responsible for environmental planning, management and enforcement. Its responsibilities include:

- assessment and monitoring tasks, such as on-site surveillance of environmental mitigation components of development projects;
- promoting environmental awareness through public information programmes;
- controlling and monitoring industrial pollution;
- co-ordinating implementation of the 1995 Environmental Conservation Act (see below), and;
- overall policy and planning, inter-ministerial coordination and international liaison for all matters related to the natural environment, including serving as the focal point for relevant international conventions, e.g., the Convention on Biological Diversity, Ramsar Convention, etc.

The Forest Department is responsible, *inter alia*, for the management of mangrove forests and afforestation programs in the coastal areas, as well as the establishment and management of protected areas.

Other Government Departments with important responsibilities related to natural resource management include the following:

- The Ministry of Fisheries and Livestock has responsibility for fishery resources management as well as, to some extent, management of wetlands.
- The Ministry of Local Government and Rural Development (LGRD) has important responsibilities regarding development plans and policies and their implementation at local level, which may have substantial implications for resources and their management.
- The Bangladesh Water Development Board is responsible for water management and water control infrastructure such as coastal embankments.
- Ministry of land is responsible for land administration and lands record and survey.

A.4 Prior and Local Communities/CBOs /NGOs/Civil Society's Assistance to the Sub-sector

A.4.1 National-level

The level of support to the environment sub-sector has risen rapidly in recent years as both Donors and Government have increasingly come to recognise its importance. The NEMAP process provided both parties with a framework for conceptualising programmes of assistance. The resulting major programmes of support for environmental management are outlined below:

A.4.1.1 Sustainable Environment Management Programme (SEMP)

UNDP's Sustainable Environment Management Programme (SEMP) will provide over \$26 million during a five-year period (1998-2002). SEMP consists of some 22 sub-projects organised into five major components, as follows:

- *Policy and institutions*
 - Institutionalisation of NEMAP
 - **Capacity building for environmental legislation and policy analysis**
 - Mainstreaming environment in national planning
 - **Studies on sharing of common regional resources, improved land administration and management, coastal land use zoning in the South West and policy analysis studies**
- *Participatory ecosystem management*
 - **Community based haor and floodplain resource management**
 - Sustainable resource management in brackish water areas
 - Sustainable Livelihood in riverine *charlands*
 - Ecosystem management in the *Barind* areas
 - Participatory upland resource management
 - Sustainable rural energy
 - Environment fund: supporting small, innovative grassroots initiatives
- *Community-based sanitation*
 - Community-based water supply and sanitation
 - Community-based urban solid waste management in Dhaka
 - Community-based urban wastewater treatment
 - Community based rural industrial waste management
- *Awareness and advocacy*
 - **Environmental awareness and monitoring at grassroots level**
 - **Mainstreaming environment in the media**
 - **Environmental documentation**
 - **Environmental advocacy**
 - **Sustainable development network**
- *Training and education.*
 - Environmental education at the non-formal level
 - Environmental curricula at the primary and secondary levels

Each of the above component areas includes projects of direct relevance to conservation of biological diversity. SEMP components indicated in **bold** have been targeted for direct co-operation with the present GEF project (see section E., Inputs).

A.4.1.2 Bangladesh Environment Management Programme (BEMP)

The Bangladesh Environmental Management Project (BEMP) is a five-year project from the Canadian International Development Agency (CIDA) designed to help DOE to fully and demonstrably implement its mandate. In particular, it aims to strengthen DOE's capacities to undertake strategic change, to think and operate in a policy context, to stretch its planning horizons beyond the current year and current set of projects, to continuously address its organisational mandate and to develop program frameworks.

Specific BEMP components include the following:

- Institutional planning and development
- Policy and legal reform
- Demonstration projects (see A.4.3 below)
- Local environmental initiatives
- Environmental awareness
- Resource information systems
- Human resources development
- Project management.

The various initiatives taking place under BEMP, many of which relate directly to biodiversity management, represent an important baseline of support for the present UNDP-GEF project. As such, their implementation will continue to be monitored closely to ensure continuing complementarity and wherever possible, synergies between the projects. Such is already clearly the case between the SEMP and BEMP projects.

A.4.2 Site-level: Cox's Bazar

There has been no prior donor support to the environment sub-sector in the Cox's Bazar area. However, some support has been provided in the area of fisheries management, in particular through a regional UNDP/FAO project, the Bay of Bengal programme. This regional project has included Chittagong and Cox's Bazar Districts as part of its pilot effort. So far, the project has aimed at improving management of fisheries through awareness building and strengthening of relevant institutions.

Also of potential importance to biodiversity management in the Cox's Bazar area is a multi-donor effort aimed at developing a system of Integrated Coastal Zone Management (ICZM), which is currently at a preparatory stage. The World Bank, Netherlands and the World Food Programme are supporting the project.

A.4.3 Site-level: Hakaluki Haor

The Canadian International Development Agency (CIDA) has had substantial experience with projects in the Northeast region of Bangladesh where Hakaluki Haor is located. This has included a pre-feasibility study known as the Northeast Regional Environment Management, Research and Education Project (NEMREP). NEMREP studied biodiversity in the area and proposed a number of initiatives related to management of internationally significant wetland sites in the region, including Hakaluki Haor. This work has provided an important background for the present GEF project.

As part of its BEMP programme (see above, section 4.1.2), CIDA has prepared a River/ Wetland Integrated Environmental Management Project. The project is part of pre-investment work that Canada has been supporting over the past several years. Its goal is to build DOE's capacities related to environmental oversight of a major infrastructural development project, including its ability to oversee and

evaluate environmental impact assessments. The development project in question will consist of dredging and stabilisation works along the Kalni-Kushiyara river, which feeds directly into Hakaluki Haor.

In the broader area of resource management, the World Bank has supported a series of fisheries management projects, the latest of which is the Fourth Fisheries Project, valued at \$41.67 million. This national-level project, which includes among its objectives increased fish production and establishment of fish sanctuaries, will have some impact and potential benefit for the Hakaluki Haor site includes restoration of Haor ecology congenial environment for migratory birds habitat and regeneration of aquatic flora and fauna. The project also has a World Bank GEF-funded component, “Aquatic Biodiversity Conservation,” which is supporting activities such as the introduction of community-based aquatic sanctuaries, although this project will not be working in the Northeast region.

Another World Bank project, the Social Investment Program Project (SIPP), which began in early 1999, is a poverty alleviation program targeting the “hard-core poor” throughout the country. This project may serve as a useful source of baseline finance at the project site, particularly for addressing the need for alternative sustainable livelihoods.

SECTION B PROJECT JUSTIFICATION

B.1 PROBLEMS TO BE ADDRESSED: THE PRESENT SITUATION

B.1.1 Cox's Bazar

Two categories of threats are seen to be facing the Cox's Bazar site (see **Annex 4, Table E.6**). Not all threats apply to each of the component areas – the table below indicates which threats apply to which areas. The first category of threats is related to *erosion of the biological resource base due to overharvesting*, and in some cases inefficient harvesting, of resources. It includes the following specific threats:

- Excessive cutting of mangrove and sand dune vegetation for fuelwood ;
- Illegal harvesting of threatened turtles and turtle eggs;
- Removal of corals for sale as curios;
- Large-scale marine invertebrate (shell) collection for sale as curios and as chicken feed;
- Destructive fishing methods, including (i) fishing for shrimp fry; (ii) high levels of 'trash fish' and turtle by-catch; (iii) use of gill nets;
- Hunting of shorebirds.

A second group of threats involves *degradation and loss of habitats*, some of which arise from the above-described resource over-harvesting. It includes the following specific threats:

- Beach compaction by vehicles;
- Degradation of mangrove and sand dune habitats due to unregulated livestock grazing;
- Conversion of critical habitats to alternative land uses, e.g., aquaculture, agriculture, salt pans, tourism infrastructure, small-scale industrial enterprises;
- Pollution and land degradation from agro-chemicals, boat operational discharges, tourism, small industries;
- Coastal erosion and coral damage due to shell and boulder removal, and;
- Destruction of sand dunes (turtle nesting habitat) by human activities (construction of temporary shelters by fishermen, vehicle traffic and boat docking).

Threat	Teknaf Peninsula	St. Martin's Island	Sonadia Island
<i>Overharvesting</i>			
Excessive cutting of mangrove			
Excessive cutting of sand dune vegetation			
Illegal harvesting of turtles and turtle eggs			
Removal of corals			
Large-scale marine invertebrate (shell) collection			
Destructive fishing methods			
Hunting of shorebirds			
<i>Degradation and loss of habitats</i>			
Beach compaction by vehicles			
Degradation of mangrove habitats due to grazing			
Degradation of sand dune habitats due to grazing			
Conversion of habitats to aquaculture			

Conversion of habitats to agriculture			
Conversion of habitats to salt pans tourism and small-scale industry			
Pollution and land degradation from agro-chemicals			
Pollution and land degradation boat discharges			
Pollution and land degradation from tourism and small industries			
Coastal erosion and coral damage due to shell and boulder removal			
Destruction of sand dunes			

The following have been identified as key **causes** of biodiversity loss at the Cox's Bazar sites:

1. No legally instituted protection measures for ecologically critical areas
2. No effective management authority at field-level
3. Limited participation by local communities in resource use decision-making
4. Inadequate information on status and functioning of critical ecosystems
5. No management planning for ecologically critical areas
6. Limited opportunities for alternative sustainable livelihoods
7. Lack of alternative sources of fuelwood and fodder
8. No integrated coastal zone management
9. Limited public awareness of environmental issues
10. Lack of technical knowledge, capacities

B.1.2 Hakaluki Haor

Similar categories of threats have been identified as facing at Hakaluki Haor as were found at Cox's Bazar (see **Annex 4, Table E-6**). The first is thus related to the *degradation and loss of habitat*. These include the following specific threats:

- Loss of reedland and swamp forest areas due to conversion for agriculture;
- Reduction in surface area and depth of mother fisheries and other aquatic habitats (beels). due to sedimentation, drainage and river diversion for irrigation;
- Degradation of reedland and grassland habitats due to overgrazing within the *haor*, and;
- Minor risk of degradation of aquatic habitat due to agro-chemical pollution from tea estates.

The following threats related to *over-harvesting of resources* have been identified:

- Loss of reproductive capacity of fishery due to inappropriate fishing practices;
- Loss of genetic diversity due to increasingly intensive tillage of high-yield varieties (HYV) of rice;
- Unsustainable levels of fuelwood collection;
- Over-harvesting of amphibians, including turtles and frogs; and
- Reduced bird populations due to hunting.

The following have been identified as key **causes** of biodiversity loss at the Hakaluki Haor site:

1. No legally instituted protection measures for ecologically critical areas
2. No effective management authority at field-level
3. Limited participation by local communities in resource use decision-making
4. Inadequate information on status and functioning of critical ecosystems
5. No integrated management planning for ecologically critical areas

6. Limited opportunities for alternative sustainable livelihoods
7. Lack of alternative sources of fuelwood and fodder
8. Limited public awareness of environmental issues
9. Lack of technical knowledge, capacities
10. Poor enforcement of fisheries and wildlife protection acts

B.2 EXPECTED END OF PROJECT SITUATION

It is expected that by the end of this project, an innovative system will have been demonstrated and institutionalised whose objective will be the effective long-term conservation and management of ecologically important areas of Bangladesh. The importance of people's participation to the success of such a system will also have been demonstrated. By the project's end, in addition to the six ECAs that have already been declared, a number of additional, carefully selected sites will have been named as ECAs.

At the national level, it is expected that sufficient management capacity will have been created within DOE to allow the effective co-ordination and management of a growing network of ECAs. Mechanisms will exist to allow inter-sectoral communication and dialogue concerning conservation and sustainable use of ecologically sensitive areas of the country. Where appropriate, DOE will have initiated legal actions aimed at enforcing ECA regulations. Finally, awareness will have been raised concerning the ECA concept and the importance of conservation in general.

At the District level, a system of ECA management units will have been demonstrated, with potential for expansion to other parts of the country where ECAs may have been declared, but not yet operationalised. Inter-sectoral co-ordination will also have been demonstrated at this level.

At the level of the individual project sites, visible and tangible progress will have made towards effective long-term biodiversity conservation. Village Conservation Groups and Centres will have demonstrated to local people the principles of effective conservation and sustainable use. They, in turn, will have helped to implement a series of urgent conservation measures as well as an additional set of measures to be specified in each site's management plan. As a result of these measures, it is expected that the many varieties of globally and nationally important biodiversity found at these sites will have been conserved.

B.3 TARGET BENEFICIARIES

In any GEF biodiversity project, the most direct 'beneficiaries' are the species constituting the country's biodiversity. In this sense, the birds, fish, plants and other species found at the project sites and throughout Bangladesh are the project's most direct 'beneficiaries'.

However, the existence of a funding source such as the GEF strongly suggests that humans too have much to gain from biodiversity conservation. The benefits take a variety of forms, ranging from the existence and use benefits accruing to conservation enthusiasts—armchair and otherwise—to the more tangible gains of human consumptive users, who will benefit from a more reliable and dependable flow of services from the ecosystems in question. The present project has each of the above target groups in mind.

More specifically, a number of categories of in-country beneficiary may be identified, as follows:

- Local communities, particularly those participating in the Village Conservation Groups. They include mainly fishing communities in the case of Cox's Bazar site and both fishing and agricultural communities at Hakaluki Haor;

- Staff of co-operating agencies, particularly DOE, who will benefit from exposure to advanced techniques of conservation and resource management;
- Local universities, local NGOs/CBOs/Civil society, scientific and technical professionals, who will benefit from consulting opportunities on the project and contact with leading international experts in various conservation fields

B.4 PROJECT STRATEGY AND INSTITUTIONAL ARRANGEMENTS

An effective operational strategy must take the existing institutional framework (see Section A.4) as a point of reference and design mechanisms that can fit effectively within this structure. At the same time, it should hope to affect that structure and its associated operating mechanisms in moderate, but constructive and sustainable, ways. The goal is a project that both operates efficiently and leaves a sustainable impact.

The project will support and enhance structures at three distinct levels: National, District/Site and Village levels.

B.4.1 National Component / Level

Key individuals and operational structures at the national or overall project level are as follows:

- **National ECA Committee:** A National ECA Committee will be established in order to create an inter-sectoral channel of communication between MOEF and other Government ministries with potentially overlapping interests within ECAs. The Committee will provide MOEF with a vehicle for communicating ECA-related policies—including plans for establishing new ECAs, issuance of new or revised regulatory restrictions within existing ECAs, management plans, etc.—to line ministries. Committee members will include representatives from the Department of Forest, Department of Fisheries, Department of Agricultural Extension, Social Affairs Department, Ministry of Lands and Tourism Department (other concerned Departments). The Secretary, MOEF, will chair the Committee, assisted by the NPD, representative of local NGOs/CBOs/Civil society and local government representative. The project BME and a representative of UNDP/GEF will attend as observers. The Committee will meet annually and on an ad-hoc basis as required.
- **Project Steering Committee (PSC):** The Project Steering Committee will, together with the executing agency, be responsible for overall project oversight. It will meet for the first time within six months of project inception, and annually thereafter, to review a workplan for the upcoming year's activities. In subsequent years, it will also review and comment upon project implementation during the preceding year. The Secretary, MOEF will chair the PSC. Members of the PSC will include all members of the National ECA Committee, as well as the Deputy Commissioners of Cox's Bazar and Moulvi Bazar Districts, the Project BME, and representatives of UNDP/GEF, associated projects and sub-implementing agencies (SIAs). Representatives of Ministries of Fisheries and Livestock; Land (ADC Revenue); Water Resources; LGRD & Co-operatives; Disaster Management and Relief; Department of Agriculture Extension, and other relevant ministries/agencies, the private sector, industries, local NGOs/CBOs/Civil society. Representatives from other institutions may join the PSC upon nomination by the Chair.
- **Project Management Unit (PMU):** The PMU will be located in the Department of Environment's headquarter. It will be directly responsible for co-ordination, project management, monitoring, and implementation of activities of national component as well as its individual site components. The PMU will prepare an annual workplan and summary of the previous year's activities for review by the PSC. It will directly oversee implementation of the workplan, whether by consultants, sub-contractors or sub-implementing agencies, and in this context will be responsible for preparing relevant detailed terms of reference and/or letters of agreement. The

PMU will act as secretariat for the Project Steering Committee and, if requested, for the National ECA Committee. It will liaison with UNDP, and will report to and work closely with the NPD. Staff will include a Biodiversity Management Expert, National Project Co-ordinator, Monitoring & Evaluation Specialist, Biodiversity Database Management Specialist, and assigned support staffs.

- **National Project Director (NPD):** The National Project Director will be responsible for overall planning, management, implementation, monitoring, supervision and reporting of the project. S/He will be guided by the rules/provisions of ERD-UNDP NEX Manual. NPD will work closely with the BME and PMU members to ensure the project outcomes. S/He will hold the financial operational power in the implementation of project. The project team under the leadership of the NPD will ensure implementation of project activities without undue delays. The NPD will be a member of the ECA National Committee and Member-Secretary of the Project Steering Committee.
- **Implementing Agency for GEF:** United Nations Development Programme (UNDP).
- **Designated Institution for National Execution:** DOE under the Ministry of Environment and Forests will act as designated institution for NEX (Executing Agency). MOEF will provide overall guidance and policy support. Executing Agency, if felt necessary, may opt for getting assistance/services from United Nations Office for Project Services (UNOPS) through LOA arrangement.

B.4.2 Site Components / District Level

Each project site is located within a single district.³ Key individuals and operational structures at the site component / district levels are as follows:

- **Local ECA Committees:** In order to ensure coordination with and among the full range of District-level Government departments which may be relevant to a particular site component, a Local ECA Committee will be established for each site component. Its main objective will be facilitating, as and when necessary, a dialogue among various state agencies concerning issues of common interest related to management of the ECA. In particular, the results and planned activities of GEF- and co-financed activities will be presented at these meetings. The Deputy Commissioner of the relevant District will chair meetings of the Local ECA Committee.⁴
- **ECA Management Unit:** Each site component will maintain an ECA Management Unit (ECAMU) within the vicinity of the project site. The ECAMU will represent a local enforcement presence on the part of DOE, which will operate these units. It is expected that the units ultimately will become part of DOE's (planned) district-level offices. DOE will also provide one full-time professional and two support staff to each ECAMU as part of its co-financing contribution to the project. GEF-funded National Experts will provide technical support and for the most part will be based at the ECAMU as an out-posted member of the PMU.

³ Administrative levels in Bangladesh, from highest to lowest, are Divisions, Districts, Thanas, Unions and Villages.

⁴ The Deputy Commissioner is, in effect, the Governor of the District.

- **National Expert:** Implementation of each site component will be guided by national experts, with extensive experience in the various management techniques being demonstrated at the site. The project's two national experts will have dual roles. First, s/he will be responsible for technical aspects related to implementation of their respective site components; for this reason, they will normally be based within the ECA Management Unit. In addition, the experts will be staff members of the PMU. They will work under the supervision of the BME and NPC and will also support implementation of the national component. They will thus may be required to spend a portion of their time at the PMU. Selection of national project experts will be on a competitive and transparent basis, to ensure the recruitment of individuals of the highest possible professional quality. Terms of reference for national experts are provided in Annex 1.

B.4.3 Village-level structures

Key individuals and operational structures at the village level are as follows:

Village Conservation Groups (VCGs):

Village Conservation Groups (VCGs) will be organized to facilitate sustainable conservation and management of biodiversity in the project sites through participatory, stakeholder and community based approaches, organization of communities. These VCGs are same groups but not limited to those groups organized and trained under Coastal Fishing Communities Project supported by UNDP.

Establishment of Village Conservation Management Committees

In each target village, taking a bio-village approach, a local conservation/resource management committee would be set up, consisting of all stakeholders including women and representatives from the community. The role of these committees would be to develop and implement their own sustainable biodiversity management schemes with technical assistance from the project, linking up with local government institutions, village organizations and co-ordinating all resource extractive activities. Training would be provided to all members in order to increase their knowledge and skills in managing biodiversity on a sustainable basis. These biodiversity conservation committees would also play roles as communicators and advocates for sustainable resource management and act as centres for village based conservation activities. The underlying objective would be to turn resource exploiters into resource conservationists and role models. Conservation education and training would be arranged by the implementing partners of the project.

Biodiversity Representation

Annex 3 includes a timetable for establishing the above structures, all of which will need to be set up as quickly as possible in order to ensure the rapid launch of field activities.

B.4.4 Project Execution and Management

The Executing Agency will be the Department of Environment (DOE) under Ministry of Environment and Forest. The Project will be established at DOE's Headquarter in Dhaka. The DOE will take over the responsibility of carrying out the project activities based on the detail workplan. The Biodiversity Management Expert (BME) will assist the National Project Director in the technical operation of the project. The BME will also be assisted by other international and national experts and consultants. UNDP will act as the UN Implementing Agency and UNOPS will implement specific activities as explicit in the Letter of Agreement (LOA) signed between the Executing Agency and UNOPS (Annex 7).

The project will follow the ERD/UNDP NEX Manual which covers operation and management including financial and accounting arrangements (Annex 6). NGOs/CBOs/Consulting or research firms or relevant organizations as implementing partners of the project will be selected as per guideline given in Annex 5.

B.5 REASONS FOR ASSISTANCE FROM UNDP

This project responds to a Government of Bangladesh request for assistance in devising strategies to conserve and sustainable utilise its wetland resources. Such a goal is fully in line with priorities established under the National Environmental Management Action Plan.

For its part, the United Nations system, and UNDP in particular, is increasingly concerned with the effective management of wetland resources. This concern is reflected, *inter alia*, in the Agenda 21 document, which focuses attention on the importance of wetlands as a repository of substantial biodiversity and calls for international grant funding for their conservation. The Global Environment Facility, including UNDP, has taken up this challenge with the development of an operational programme (OP2) for freshwater ecosystems.

Finally, co-financing which UNDP-GEF have been successful in bringing under the umbrella of this project supports many of the organisation's sustainable human development concerns, including concern for environment, women, sustainable livelihoods, etc.

B.6 CO-ORDINATION ARRANGEMENTS

Co-ordination will be an essential factor in the successful implementation of this project. Each of the operational structures described in section 4.2 will have a unique role in ensuring effective co-ordination. The forms of co-ordination that will be required and the roles of the various individuals and structures are as follows:

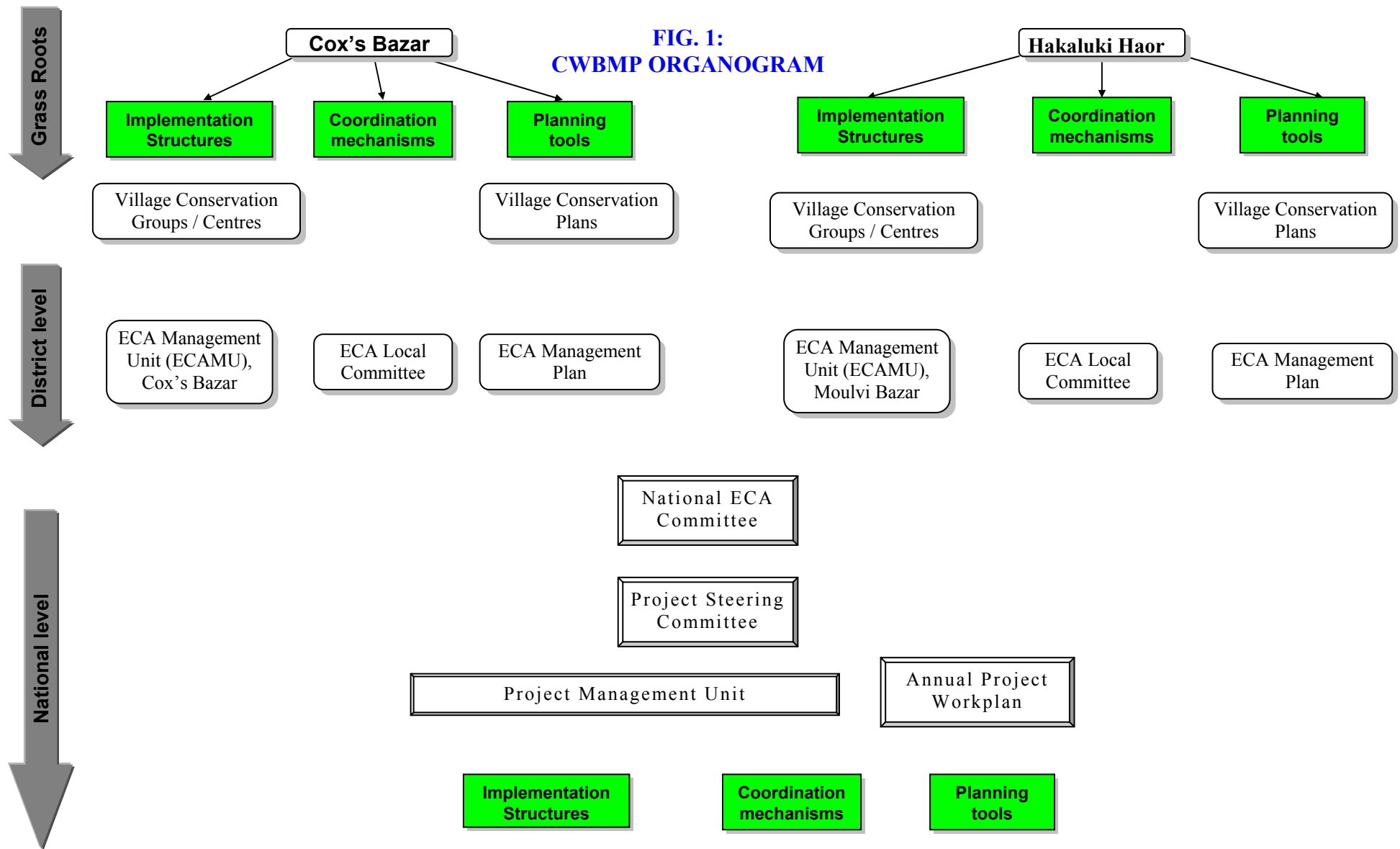
Co-ordination among the project components:

It has been noted above that one purpose of the national component and the PMU itself is to ensure cross-fertilisation among the project sites. For this purpose, effective communications will be required between the PMU and the sites, which will be ensured by the National Experts. The site components will also co-ordinate directly between themselves, particularly in operational matters, cross-site issues and problems and for information-sharing and mutual support. These day-to-day, informal linkages will be an essential co-ordination mechanism and will serve as the primary channel of information exchange between project staff. Telecommunications and information technology facilities to enable such exchanges will be provided for all sites.

Co-ordination with and among Government agencies:

At the local level, co-ordination with and among local agencies, district offices and local Government authorities will be ensured through meetings of the Local ECA Committee. Responsibility for chairing these meetings, and for ensuring inter-sessional co-ordination with such agencies, will be with the Deputy Commissioner. The GEF Biodiversity Management Expert and the site's National Expert will also maintain contacts with other agencies, while keeping the National Project Director informed as to the nature of such contacts.

The proposed organisational structure for the Project is shown in Figure 1 next page :



- **Coordination with other stakeholders and related activities:** In addition to the formal coordination mechanisms outlined herein, informal coordination with other stakeholders and related parties (e.g. NGOs/CBOs/Civil society, local stakeholders and communities, other related conservation projects and activities) will be the joint responsibility of the Project BME and NPC. Project staff will be at all times strive to maintain close and productive contact with all bodies and individuals who can contribute to the success of the Project, and will ensure that the activities of the Project are coordinated with any other related activities being undertaken, to minimise duplication of effort and wastage of resources.
- **Coordination with sources of co-financing:** Liaison with co-financed projects and programmes being financed, will be undertaken primarily by the Project BME and NPC.

B.7 COUNTERPART SUPPORT CAPACITY

The Ministry of Environment and Forest gained valuable experience on environment and forest resource management over the years through various donor assisted efforts including the projects under Asian Development Bank supported biodiversity project for the Sundarbans, preparation of Forestry Master Plan, strengthening of Department of Environment through training and infrastructure development, UNDP supported Integrated Resource Management Plan for Sunderban, formulation of National Environment Management Action Plan and Sustainable Environment Management Programme. The MOEF is now plays key role in planning, reviewing and monitoring environmental initiatives and in ensuring that environmental concerns are properly integrated into the national development process.

The Department of Environment (DOE) is the authority for Bangladesh Environmental Conservation Rule. DOE is one of the two technical agencies of the MOEF, and other one is the Forest Department. DOE is responsible for environmental planning, monitoring, management and enforcement and coordinating implementation of the 1995 Environmental Conservation Act.

SECTION C DEVELOPMENT OBJECTIVE

The **overall objective** of the project is to establish an innovative system for management of Ecologically Critical Areas (ECAs) in Bangladesh that will have a significant and positive impact on the long-term viability of the country's important biodiversity resources.

SECTION D IMMEDIATE OBJECTIVES, OUTPUTS AND ACTIVITIES

This section outlines the outputs and activities being achieved through the present project and its co-financed components.

Objective 1 To ensure the conservation and sustainable use of globally significant wetland biodiversity at the Cox's Bazar sites through their management as ECAs

Output 1.1 Utilizing existing legal mechanisms, legal protection is established for ecologically critical areas (ECAs)

The first step in achieving this output has already been achieved during the PRIF phase of the project, i.e., the declaration of all three component areas of the Cox's Bazar site as ECAs under BECA '95. This declaration included draft rules specifying restricted activities at the nominated sites. As management plans are developed for the component sites (see Output 1.5), new detailed rules will be developed and promulgated for each ECA. Finally, the project will support performance monitoring of implementation of both draft and detailed rules and associated technical cooperation.

Activities

- 1.1.1. Declaration of ECA for Cox's Bazar site under 1995 Environmental Conservation Act (BECA '95), including draft rules specifying restricted activities
- 1.1.2. Following review and development of management plan, new detailed rules are promulgated
- 1.1.3. Performance monitoring of implementation of detailed rules
- 1.1.4. Government enforces ECA regulations, where necessary through legal system.

Output 1.2 An effective field-level management system is operated and maintained

The above legal restrictions and guidelines will be of little use in the absence of a long-term management presence on the part of the DOE. The project will therefore support the establishment of an ECA Management Unit, or ECAMU, in the town of Cox's Bazar, as a satellite office of the Chittagong regional office of DOE. For the duration of the project, the Cox's Bazar ECAMU would be staffed by a combination of project and DOE staff (see Section 4 for long-term sustainability). The ECAMU would be responsible, *inter alia*, to coordinate implementation of urgent conservation activities, as well as those of the full management plan. GEF funds under this output would be utilised for: (i) recruitment of national experts to support and work with Government ECAMU staff; (ii) equipment, and; (iii) training for ECAMU staff. The ECAMU will be staffed by at least one well-trained officer, together with several support staff.

Activities

- 1.2.1 Establishment of an ECA Management Unit (ECAMU) in Cox's Bazar.
- 1.2.2 ECAMU begins implementation of indicative management plan as specified in GEF project document
- 1.2.2 ECAMU officials are provided with relevant technical support and training

Output 1.3 Village Conservation Groups and a Local ECA Committee are established to ensure local participation and inter-sectoral coordination for conservation

In cooperation with local NGOs/CBOs/Civil society, Village Conservation Groups (VCGs) and Village Conservation Centres (VCCs) will be established at each project component site, i.e., Teknaf Peninsula, Sonadia Island and St. Martin's Island. They will include community members involved with various aspects of resource use, i.e., fishermen and women, fish fry collectors. Awareness will be raised first among VCG members and, through them, among community members at large concerning, e.g., impacts of shrimp fry collection, oily waste discharges from boats, etc. The VCGs will also implement a series of 'urgent conservation activities,' in Year 3 as per management plans to be produced (see Output 1.5 below). These activities will include the protection of nesting habitats of globally endangered marine turtles through sand dune stabilization and protecting areas from poaching of turtle eggs. About 5,000 ha of sand dune habitat will be brought under habitat protection. In addition, the remaining mangrove patch at Sonadia Island will be protected from further cutting, and assisted regeneration will be undertaken to ensure quick recovery of degraded mangrove habitat. About 800 ha will be regenerated in this manner. Finally, representatives of the VCGs, together with local government officials (ECAMU, Fisheries, Agriculture, Forest, Livestock, Water Development), will form an ECA Coordinating Committee to ensure inter-sectoral coordination.⁵ The project will help to organise regular meetings of this body.

Activities

- 1.3.1 With assistance from local NGOs/CBOs/Civil society, establish VCGs at each project component site, i.e., Teknaf Peninsula, Sonadia Island and St. Martin's Island
- 1.3.2 Awareness is raised among VCG and other community members concerning, e.g., impacts of shrimp fry collection, oily waste discharges, etc.
- 1.3.3 VCGs initiate urgent conservation activities, i.e., sand dune stabilization, mangrove regeneration, turtle conservation
- 1.3.4 VCGs initiate activities to ensure availability of alternative fuelwood and fodder

Output 1.4 Ecological information concerning critical ecosystems at Cox's Bazar site is available to and used by managers)

While some ecological information has been gathered during the PRIF phase, nevertheless, additional information will be needed. Steps in the area of data acquisition and management will include: establishment of a database, using existing and new ecological information; development of an ecological monitoring programme, and; development of a system for collection, processing and dissemination of the above information, i.e., management information system. Government co-financing will be made available for the creation of a marine research laboratory on St. Martin's Island.

Activities

- 1.4.1 Establishment of a database, using existing and new ecological information
- 1.4.2 Development of an ecological monitoring programme
- 1.4.3 Develop system for collection, processing and dissemination of above information (management information system)
- 1.4.4 Develop tele-communication and electronic media for information dissemination and data base management for reporting and regular monitoring and evaluation of critical ecosystems.

⁵ Membership will include, *inter alia*, key Government Ministries involved with management of natural resources, including the Department of Fisheries, Forestry Department and Ministry of Land.

Output 1.5 A management plan covering conservation and sustainable use of Cox’s Bazar ECA is developed and implemented

An important step will be to determine zonation at each component site, including core protection zones, buffer zones and multiple use zones. Detailed site management plans will then be formulated, with emphasis on core protection and buffer areas within each ECA. Finally, additional conservation activities specified by the management plan will be implemented. These will pick up where urgent conservation activities (Output 1.3) left off, and will continue to involve Village Conservation Groups (VCGs) in their implementation. Government co-financing, and potentially private sector support,⁶ will be utilized for a variety of infrastructural improvements associated with the establishment of a marine park at St. Martin’s Island. These will include boat landings, elevated mangrove walkways, improved communications, etc. Similar developments, albeit on a smaller scale, are planned for Sonadia Island. Developments will be carefully formulated as part within the management plan preparation process.

Activities

- 1.5.1 Determine zonation for Cox’s Bazar site, including core protection zones, buffer zones and multiple use zones
- 1.5.2 Formulate detailed site management plan, with emphasis on core protection and buffer areas
- 1.5.3 Implement additional conservation activities as specified by management plan

Output 1.6 Alternative sustainable livelihood and sustainable use strategies are developed and implemented

This output, which is entirely co-financed through a UNDP/GOB project, “Empowerment of Coastal Fishing Communities for Livelihood Security”, will support the development of alternative sustainable livelihoods within fishing communities throughout the Cox’s Bazar site. These communities are the major source of direct anthropogenic pressure impacting resources and biodiversity at the site and as such will require adequate support for developing substitute livelihoods. Support will be provided in areas such as micro-enterprise development, marketing, savings and credit, etc. Strategies for sustainable use of fisheries resources, fuelwood, etc., will also be developed and implemented.

Output 1.7 An integrated pest management programme is implemented

UNDP will provide support for the extension of integrated pest management methods to coastal agricultural areas along Teknaf Peninsula. This programme will establish farmer field schools and train farmers in methods of integrated pest management (IPM). At the project sites, it will be linked with the Village Conservation Groups in order to maximise the impacts on awareness and practices.

Activities

- 1.7.1 Integrated pest management techniques introduced through establishment of Farmer Training Groups

⁶ The potential for private sector involvement will be assessed during the project document development phase.

Objective 2 **To ensure the conservation and sustainable use of globally significant wetland biodiversity at Hakaluki Haor through its management as an ECA**

Output 2.1 Utilizing existing legal mechanisms, legal protection is established for Ecologically Critical Areas (ECAs)

The first step in achieving this output has already been achieved during the PRIF phase of the project, i.e., the declaration of a large portion of Hakaluki Haor as an ECA under BECA '95. This declaration included draft rules specifying restricted activities at the site. Following the development of a management plan (see Output 2.6), new detailed rules will be developed and promulgated. Finally, the project will support performance monitoring of implementation of both draft and detailed rules and associated technical cooperation.

Activities

- 2.1.1 Declaration of ECA for Hakaluki Haor site under 1995 Environmental Conservation Act (BECA '95), incl. draft rules specifying restricted activities
- 2.1.2 Following review and development of management plan, new detailed rules are promulgated (CIDA)
- 2.1.3 Performance monitoring of implementation of detailed rules (CIDA)

Output 2.2 DOE operates and maintains an effective field-level ECA management system

The project will support the establishment of an ECA Management Unit, or ECAMU, in the town of Moulvi Bazar, with support of total one officer and two staff from DOE. DOE will provide office space on rental basis in order to accommodate national and international project team for the site. For the duration of the project, the Moulvi Bazar ECAMU would be staffed by a combination of project and DOE staff (see Section 4 for long-term sustainability). The unit would be responsible, *inter alia*, to coordinate implementation of an indicative management plan (to be specified in the GEF project document) as well as the full management plan. DOE officials assigned to the ECAMU will be provided with relevant technical support and training.

Activities

- 2.2.1 Establishment of an ECA Management Unit (ECAMU) at Moulvi Bazar,
- 2.2.2 ECAMU staff receive relevant training and awareness-raising (GEF)
- 2.2.3 ECAMU, with technical support from project staff, oversees implementation of indicative management plan (as specified in GEF, UNDP, CIDA pro-docs.)

Output 2.3 Village Conservation Groups (VCGs) and a Local ECA Committee are established to ensure local participation and inter-coordination for conservation

In cooperation with local NGOs/CBOs/Civil society, 5-7 VCGs will be established at strategic locations surrounding the Haor. Representatives of the VCGs, together with local government officials (ECAMU, Fisheries, Agriculture, Forest, Livestock, Water Development), will form an ECA Coordinating Committee. The project will support regular meetings of this body, will work to raise awareness among ECA Coordinating Committee members and other community members concerning conservation issues and will provide training to the same groups of stakeholders. The VCGs will also implement a series of 'urgent conservation activities' during Years 1-3, as per site management plans to be produced in Year 3 (see Output 2.5 below). These will include: freshwater swamp and reedland forest regeneration; community-based enforcement of

wildlife and fisheries protection acts; improvements to fish migration channels, and; a local awareness campaign.

Activities

- 2.3.1 With assistance from local NGOs/CBOs/Civil society, establish 5-7 VCGs at strategic locations surrounding the Haor
- 2.3.2 Establish an ECA Coordinating Committee composed of representatives of the VCGs as well as local government officials (ECAMU, Fisheries, Agriculture, Agriculture Extension, Forest, Livestock, Water Development, Ministry of Land/ADC (Revenue)
- 2.3.3 Awareness is raised among VCGs, Coordinating Committee members and other community members concerning conservation and sustainable use issues
- 2.3.4 Training is provided to the above stakeholders
- 2.3.5 Freshwater swamp and reedland forest regeneration
- 2.3.6 Community-based enforcement of wildlife and fisheries protection acts
- 2.3.7 Alternative fuelwood and fodder production
- 2.3.8 Improvements to fish migration channels

Output 2.4 Ecological information concerning critical ecosystems at the Hakaluki Haor site is available to and used by regional and national-level managers

Steps in the area of data acquisition and management will include: establishment of a database, using existing and new ecological information; development of an ecological monitoring programme, and; development of a system for collection, processing and dissemination of the above information, i.e., management information system. GEF funding will cover the biodiversity component of this output.

Activities

- 2.4.1 Establishment of a database, using existing and new ecological information
- 2.4.2 Development of an ecological monitoring programme
- 2.4.3 Develop system for collection, processing and dissemination of above information (management information system)
- 2.4.4 Awareness campaign
- 2.4.5 Develop Tele-communication and electronic media for information dissemination and data base management for reporting and regular monitoring and evaluation of critical ecosystems.

Output 2.5 A management plan covering conservation and sustainable use of Hakaluki Haor ECA is developed and implemented

A detailed site management plan will be prepared, including the identification of critical bird habitat and fish sanctuaries (biodiversity overlays). Additional conservation activities will be implemented, as specified by the management plan. These are likely to include, *inter alia*, on-farm conservation of traditional crop varieties, management of fish sanctuaries and bird areas, community-based integrated water management. VCGs will continue to play an active role in implementation of these activities.

Activities

- 2.5.1 Based on ecological information, identify critical bird habitat and fish sanctuaries and develop guidelines for management
- 2.5.2 Formulate detailed site management plan, with emphasis on key areas identified in 2.5.1

2.5.3 Implement additional conservation activities as specified by management plan. These are likely to include, *inter alia*, crop germplasm conservation, management of fish sanctuaries and bird areas, community-based integrated water management

Output 2.6 Alternative sustainable livelihoods and sustainable use strategies are developed and implemented

This output, which is entirely co-financed, will support the development of alternative sustainable livelihoods within communities surrounding Hakaluki Haor. These communities are the major source of direct anthropogenic pressure impacting resources and biodiversity at the site and as such will require adequate support for developing substitute livelihoods. Support will be provided in areas such as micro-enterprise development, marketing, savings and credit, etc. Strategies for sustainable use of fisheries resources, fuelwood, etc., will also be developed and implemented.

Output 2.7 An integrated pest management programme is implemented

UNDP will provide support for the extension of integrated pest management methods to the Hakaluki Haor area. This programme will establish farmer field schools and train farmers in IPM methods. At the project site, it will be linked with the Village Conservation Groups in order to maximise the impacts on awareness and practices.

Activities

2.7.1 Integrated pest management techniques introduced through establishment of Farmer Training Groups

Objective 3 **To support efforts by DOE to institutionalize the concept of ECA management using the experience gained through the above demonstration sites**

Output 3.1 Ensuring that legal mechanisms at national level are able to support operationalization of ECA concept

This output will provide national-level support for: (i) the formulation and assessment of detailed ECA rules and monitoring of their performance; (ii) legal dissemination to relevant parties; (iii) relevant training to DOE Headquarters personnel, and; (iv) assessing the role of a possible new environmental court in enforcing ECA rules.

Activities

- 3.1.1 Support for formulation and assessment of detailed ECA rules and monitoring
- 3.1.2 Legal dissemination of rules to relevant parties
- 3.1.3 Relevant training to DOE personnel
- 3.1.4 Assessment of the role of possible new environmental court

Output 3.2 Policy formulation and analysis concerning ECAs is based on an appropriate integration of economic and social factors

This output will focus on the development of policies towards ECAs, in particular the further development of criteria and plans for selection of ECAs, i.e., replication of the concept, and ways of ensuring their sustainable financing. It will also seek to identify and find means of addressing actual or potential conflicts with other, sectoral-based legislation, as discussed in paragraph 8. Specific policy analyses will be conducted and DOE capacities strengthened in this area. Although it will be managed as part of the national component, resources will be directed towards assessment of project sites and other actual or planned ECAs containing biodiversity of global significance. Issues to be addressed will include: (i) economic valuation and prioritization of globally significant biodiversity as factors in the selection and management of ECAs; (ii) mobilization of resources for biodiversity conservation within ECAs, including the use of economic instruments such as user fees, penalties, etc.; (iii) incentives for community protection of natural habitats; (iv) land use conflict resolution mechanisms, e.g., fisheries vs. agriculture, and; (v) impacts of various land and water uses on resource productivity.

Activities

- 3.2.1 Policy analyses prepared, including generation of management options
- 3.2.2 National-level inter-sectoral ECA Committee assesses and makes decisions based on findings of policy analyses

Output 3.3 Strengthening capacity for management of ECAs

As part of a broader environmental training needs assessment, training needs related to the management of ECAs will be assessed as a basis for the design and implementation of a training programme. Training activities are expected to include: (i) a series of workshops on ECA management, and; (ii) study tours to successful examples of multiple use protected areas within the South Asian region.

Activities

- 3.3.1 Workshops on ECA management
- 3.3.2 Study tours showing examples of multiple use protected areas

Output 3.4 Awareness

This output will focus on disseminating information about the ECA concept and its implementation to relevant parties within the Government and private sector. Local level awareness will be handled through the site-specific objectives. Awareness materials will be developed concerning the specific sites. Various media, including print, radio and possibly television, will be utilised.

Activities

- 3.4.1 Development of awareness materials
- 3.4.2 Awareness activities targeting government and private sector
- 3.4.3 Electronic media will be used for awareness activities through establishing Homepage and Website on project for wide dissemination .

SECTION E INPUTS

E.1 NATIONAL INPUTS – GOVERNMENT OF BANGLADESH

Government support in the form of in-kind contributions, parallel financing and associated financing has been developed and will be implemented in close coordination with the UNDP/GEF project. This financing has been tailored to meet various objectives which directly underlie those of the UNDP/GEF support.

Total Bangladesh Government financing available for the project is Tk 23,356,000 or US\$ 0.46 million. The financing comes in several distinct components, each of which is described briefly below, along with the inputs being provided.

E.1.1 In-kind contribution to GEF-funded project components

Government cost-sharing support total amount of US \$459,222 which includes personnel, housing and CDVAT as follows :

Item	Personnel	Housing	CDVAT	Total
In Taka	7,308,000	7,980,000	8,068,000	23,356,000
In US \$	143,689	156,901	158,632	459,222

E.1.1.1 Personnel

The Government will provide the following personnel support for implementation of the GEF project and for management of ECAMUs in kind :

Quantity	Item	Duration	Cost per month (Tk)	Total cost (Tk)
1	National Project Director	84 w/m	25,000	2,100,000
2	National professional staff assigned to ECAMUs	168 w/m	15,000	2,520,000
4	Support staff for ECAMUs	336 w/m	8,000	2,688,000
TOTAL		588 w/m		7,308,000

E.1.1.2 Office space

Office space will be provided for the Programme Management Unit in Dhaka. This will be adequate for the project BME, national experts and support staff on assignment and visiting consultants.

Additionally, office space will be provided for the newly established ECAMUs in Cox's Bazar and Moulavi Bazar. This space will be adequate for the professional and support staff of the PMU as well as for the national experts.

Description	Duration	Cost per month (Tk)	Total cost (Tk)
ECAMU field sub office at St. Martin/Teknaf in Cox's Bazar	84 months	10,000	840,000
ECAMU in Cox's Bazar	84 months	20,000	1,680,000
ECAMU in Moulvi Bazar	84 months	15,000	1,260,000
PMU in Dhaka	84 months	50,000	4,200,000
TOTAL			7,980,000

E.1.2 Government in-kind contributions to associated-financed activities

E.1.2.1 UNDP/FAO Community Fisheries Project

The Government of Bangladesh and UNDP have recently approved a \$5.8 million project for community fisheries management along the eastern coast of Bangladesh. This project has been designed in the knowledge that GEF financing was expected for a partially overlapping area of coastline, i.e., the Cox's Bazar site. Estimated contributions from GOB and UNDP have been made based on a pro-rated portion of the overall Community Fisheries project budget (see also section E.2 below).⁷ GOB's pro-rated contribution is estimated at \$160,000.

E.1.2.2 UNDP Sustainable Environment Management Programme

UNDP's major effort to support the Ministry of Environment and Forest in the implementation of Sustainable Environmental Management Programme (SEMP) in Bangladesh consists of a \$26.4 million project. In the course of designing the GEF project, it became clear that SEMP was defined broadly enough to allow a portion of its funds to be oriented towards issues and locations relevant to the GEF project. Section 3 below defines the portion of the UNDP funds that are to be geared to support the GEF project. Based on that breakdown, a pro-rated portion of the Government contribution has also been designated, and is estimated as \$36,000.

E.1.2.3 UNDP/FAO Integrated Pest Management Project

A pro-rated portion of the Government contribution to this project has also been designated, and is estimated as \$10,000.

E.1.3 Other Government-funded parallel financing

E.1.3.1 Marine research and infrastructural development at St. Martin's and Sonadia Islands

This project has been developed as a parallel Government contribution to support research, eco-tourism and sustainable development at St. Martin's and Sonadia Islands. Implementation will be closely linked to that of the GEF-funded activities. The total level of parallel financing is \$2,556,000.

E.1.3.2 Coastal afforestation

As part of a Government programme for afforestation, it has been agreed with MOEF that approximate portion of the total cost of the following projects resources may available for this project which will be spent for natural resources management at project areas;

Area of Support	Amount
Samudra Jhaow Bonaiyon, Cox's Bazar	\$ 12,600
Safari Park	\$139,200
Forest Resource Management Project (FRMP)	\$291,400
Green Belt Project	\$ 10,800
<i>TOTAL</i>	\$454,000

⁷ The pro-rating was based largely on population figures for GEF and non-GEF project areas.

E.1.3.3 Legal costs associated with enforcement of ECA regulations

It is to be expected that violations of ECA regulations will take place during the course of the project. Given the partly legal approach being taken by the project, it is likely that enforcement proceedings will involve legal expenditures as polluters and violators are prosecuted. While it is impossible to predict the exact level of such expenditures, a figure of \$330,000 of parallel financing is considered a reasonable estimate. This financing is not expected to be made concrete in the form of a project, etc. It is simply an estimate linked to the expectation that government will at some point establish an environmental court, which will incur relevant costs.

E.2 UNDP FINANCING

E.2.1 UNDP Associated Financing

E.2.1.1 UNDP/FAO Community Fisheries Project

Associated financing earmarked for 5 years total of UNDP TRAC resource US \$ 5,882,000 of which \$2,126,470 approved for 2000-2001 and \$3,755,530 earmarked for 2002-2005 as follows:

Area of support	2000-2001	2002-2005
Empowerment and livelihood security for coastal fishing communities in GEF sites in Cox's Bazar, Sonadia and St. Martins.	\$2,126,470	\$3,755,530
<i>TOTAL</i>	\$ 5,882,000	

E.2.1.2 UNDP Sustainable Environment Management Programme (SEMP)

Associated financing of \$670,000 as follows:

Area of support	Amount
Hakaluki Haor (IUCN component)	\$200,000
Legal component	\$120,000
World Bank policy component	\$200,000
Public awareness / information component	\$150,000
<i>TOTAL</i>	\$670,000

E.2.1.3 UNDP/FAO Integrated Pest Management Project now is taken over by DANIDA

Associated financing for farmers training on IPM in the project sites may involve cost equivalent to \$100,000.

E.3.2 UNDP-GEF Funding

GEF will provide US\$ 5.9 million for the project. The breakdown is shown in the following tables:

E.4.1 Personnel

DESCRIPTION OF INPUTS	UNIT COST AND NO. OF UNITS (US\$)	COST (US\$)
International Expert & Consultants		
(To be recruited by UNDP/UNOPS)		
Biodiversity Management Expert (BME)*	36 w/m @ 10,000 / month	360,000
Wetland ecologist	5 w/m @ 15,000 / month	75,000
Marine ecologist	5 w/m @ 15,000 / month	75,000
Institutional, policy & legislation expert	5 w/m @ 15,000 / month	75,000
Unspecified international consultants	5 w/m @ 15,000 / month	75,000
	<i>Sub-total International experts and Consultants</i>	<u>660,000</u>
United Nations Volunteers (UNV)		
Conservation management planner-CB	12 w/m @ 3,000 / month	36,000
Conservation management planner-HH	12 w/m @ 3,000 / month	36,000
	<u>Sub-total UNV</u>	<u>72,000</u>
Admin. Support Personnel		
Admin support personnel at PMU	672 w/m @ ----- / month	168,700
Admin support personnel at CB	420 w/m @ ----- / month	59,500
Support personnel at CB sub office	234 w/m @ ----- / month	20,800
Admin support personnel at HH	420 w/m @ ----- / month	59,500
	<u>Sub-total Admin. Support personnel</u>	<u>308,500</u>
Duty Travel		
Duty travel		107,600
	<u>Sub-total duty travel costs</u>	<u>107,600</u>
Mission Costs		
(UNDP-GEF arrangement)		107,500
Technical Backstopping & Evaluation		
	<u>Sub-total Mission costs</u>	<u>107,500</u>
National Professionals		
(NPPPs will be recruited by UNDP)		
National Project Co-ordinator *	84w/m @2080 /month	174,720
Plant biodiversity management expert	9 w/m @1730 /month	15,570
Wildlife biodiversity management expert	6 w/m @1730 /month	10,380
Freshwater fisheries biodiversity expert	6 w/m @1730/month	10,380
Marine fisheries biodiversity expert	6 w/m @1730/month	10,380
Legal expert	3w/m @1730/month	5,190
Policy & institutional expert	3 w/m @1730/month	5,190
Socio-economic/gender/PRA expert	9 w/m @1730/month	15,570
Resource economist	3 w/m @ 1730/month	5190
Monitoring & evaluation specialist *	84w/m @1040/month	87,360
Biodiversity database management specialist*	24w/m @1040/month	24,960
Unspecified NPP	6w/m @1730/month	10,380
	<u>Sub-total NPPP at PMU</u>	<u>375,270</u>
*Based at PMU in Dhaka		
NPPP at Cox's Bazar Field Office		

DESCRIPTION OF INPUTS	UNIT COST AND NO. OF UNITS (US\$)	COST (US\$)
Plant biodiversity management specialist	24 w/m @1040 /month	24,960
Wildlife biodiversity management specialist	24 w/m @1040 /month	24,960
Marine fisheries biodiversity specialist	24 w/m @1040/month	24,960
Marine Biologist	12 w/m @ 1040/month	12,480
Grassroots level officers	396 w/m @300/month	118,800
	<u>Sub-total NPPP at CB</u>	<u>206,160</u>
NPPP at Field sub-office at St. Martin		
Grassroots level officers	360 w/m @300 /month	108,000
	<u>Sub-total NPPP at St. Martin</u>	<u>108,000</u>
NPPP at Field office at Hakluki Haor		
Plant biodiversity management specialist	24 w/m @1040 /month	24,960
Wildlife biodiversity management specialist	24 w/m @1040 /month	24,960
Fisheries biodiversity specialist	24 w/m @1040/month	24,960
Grassroots level officers	395 w/m @300/month	118,800
	<u>Sub-total NPPP at HH</u>	<u>193,680</u>
PERSONNEL COMPONENT TOTAL		2,138,,710

E.4.2 Sub Contracts

Establishment of village conservation groups & implementation of urgent conservation activities (CB & HH)		1,081,40
Implementation of management plan (CB & HH)		800,0
ECA rules, enforcement, performance, monitoring and evaluation		70,00
Resource economics / policy analysis (CB & HH)		80,00
Awareness materials, campaign & biodiversity guidelines		125,0
GIS, mapping and cartography services		2000
Information technologies, networking and maintenance		125,0
Unspecified activities		78,79
SUB-CONTRACTS COMPONENT TOTAL		2,380,190

E.4.3 Training

Fellowships (to be arranged by UNOPS)	4 Fellowships @ -----	50,000
Group Training/Study Tour (from PMU, DOE, PC, ERD, IMED, Forest Department, Fisheries Department, and UNDP)	12 Participants @ -----	60,000
In Country Training (from PMU, ECAMU, DOE, MOEF, PC, ERD, 30 participants @ ----- IMED, Ministry of Land, DAE, Forest Department, Fisheries Department, Livestock Department, LGED, NCS, Tourism, Local Government, NGOs/CBOs/Civil Societies)		45,000
In-Country Workshops	12 workshops @ -----	50,000

DESCRIPTION OF INPUTS	UNIT COST AND NO. OF UNITS (US\$)	COST (US\$)
TRAINING COMPONENT TOTAL		205,000

E.4.4 Equipment and supplies

Expendable Equipment		21,500
Office supplies		
	<i>Sub-total expendable equip-</i>	<u>21,500</u>
	<i>ment</i>	

Non-expendable Equipment

(GOB will provide adequate CDVAT applicable for the following non-expendable items to be procured by UNDP for the project under DCS.)

Vehicles		
- Four-wheel drive vehicles	3 vehicles @ ----- (2 of which with boat trailers)	78,000
- Car	1 car @ -----	20,000
- Motorcycles	6 motorcycles @ -----	12,000
- Boats with outboard engines	4 boats @ -----	50,000
- Computer hardware		
- Desktop computers	10 computers @ -----	17,500
- Printers	6 printers @ -----	5,000
- Laptop computers	2 computers @ -----	7,500
- Photocopiers	4 Photocopiers @ -----	8000
Photographic & video equipment		15,000
Misc. computer hardware & software		
Marine lab & diving equipment		
Telecommunications equipment (Phone, fax, ISD, wireless, intercom etc.)		
Generators & elect. appliances (3 Nos)		
Office furniture, fixtures, etc.		
Training equipment (including books and journals)		
Unspecified equipment		<u>10,000</u>
	<i>Sub-total non-expendable</i>	<u>397,000</u>
	<i>equipment</i>	

Operations & Maintenance

Operations and maintenance		160,000
(including rental Cost of aircooler, two vehicles and two computer set up to procurement of those)		
	<i>Sub-total operations & main-</i>	<u>160,000</u>
	<i>tenance</i>	

E.4.5 MISCELLANEOUS REPORTING

Reporting		<u>26,000</u>
	<i>Sub-total Reporting</i>	26,000
SUNDRIES		30,000
Sundries		
	<i>Sub-total Sundries</i>	<u>30,000</u>

MISCELLANEOUS TOTAL		56000
----------------------------	--	--------------

MICRO CAPITAL GRANTS

DESCRIPTION OF INPUTS	UNIT COST AND NO. OF UNITS (US\$)	COST (US\$)
Biodiversity Conservation Fund for Local Communi- ties/CBOs		100,000
	<i><u>Sub-total Conservation Grants</u></i>	<u>100,000</u>
BUDGET TOTAL		<u><u>5,520,000</u></u>

SECTION F RISKS

The CWBMP represents a somewhat bold venture in that it is charting unknown waters as far as DOE is concerned. At its core, the project is about asserting the rights and responsibilities of DOE as defined under the Environmental Conservation Act (1995)—to play an active and managerial role in areas of environmental management where it has heretofore had minimal experience. It is argued that this is an altogether appropriate role for a Government body whose responsibilities, in addition to safeguarding biodiversity, are to ensure the co-ordination of other Ministries in the area of environmental protection. Implementation of this rather innovative concept is, however, not altogether lacking in risks.

One potential risk involves potential inter-ministerial conflicts resulting from DOE's assertion of its responsibilities within the ECA areas. This risk has been addressed in two ways. First, relevant ministries have been informed and involved throughout the stakeholder consultation process (see Section 5 and Annex E). Second, the establishment of Local and National ECA Committees will provide an essential forum for inter-ministerial co-ordination. It is believed that as a result, the risks of inter-ministerial conflict can be minimised.

A second identified risk relates to the financial sustainability of the project, particularly the establishment of field-level ECA Management Units (ECAMUs). As with many development projects, there is a risk that, once external support dries up, efforts may dwindle. This risk has been addressed in several ways.

First, the degree of commitment on the part of DOE has been carefully assessed and appears very strong. This is evidenced by the quick action taken, in a matter of days and within the context of the PRIF project, in declaring six ECAs.

Second, it has been agreed in the context of the incremental cost analysis that the Government will contribute manpower from the beginning of the project to staff the ECAMUs and that this will be institutionalised, i.e., permanent posts created within the staffing table. This will not only greatly facilitate the project's capacity building efforts, but will also ensure that permanent staffing of the units will outlive the project.

The Village Conservation Groups established by the project will carry no long-term annual recurrent costs requirements. Rather, through awareness raising, empowerment and capacity building, these ad hoc institutional arrangements will be self-sustaining. Finally, the question of long-term financing to support management of the ECAs is being addressed by output 3.2 of the project through studies which will look at various potential economic instruments, including user fees and penalties. This effort will further reduce the risks associated with project sustainability.

SECTION G PRIOR OBLIGATIONS AND PREREQUISITES

The prior obligations for work to commence this project is to approve the Project Document by the Government of Bangladesh and a written commitment to provide the resources (financial and in-kind) stated herein as Government co-financing.

Prerequisites for successful implementation of the project's activities are as follows:

1. Provision of adequate and appropriate office space at the DOE, Dhaka and Cox's Bazar, St. Martin and Moulavi Bazar (or Hakaluki Haor) for use by project staff and necessary basic facilities such as electricity, water, installation of telephones, general security etc.
2. Issuance of government orders to concerned ministries, departments, district and thana staff, for provision of administrative framework for support to and collaboration with the project.
3. Identification and deputation of counterpart personnel for project activities by concerned government agencies as required, for the duration of the project period, with transfers, if any, of such staff restricted to the project area.
4. Cost of travel of DOE officials posted in the project offices will be born by project as per Government rules and regulations and similarly cost of travels of counterpart personnel required if any will be born by concerned authorities.
5. Allocation made in Government budget to cover CDVAT on imported equipment to enable the Government to take over all the imported equipment at the end of the project. According to current NBR Rules these have to be paid at the time of importing the equipment.

The project document will be signed by UNDP, and UNDP assistance to the project will be provided, subject to UNDP being satisfied that the pre-requisites listed above have been fulfilled or are likely to be fulfilled. When anticipated fulfilment of one or more pre-requisites fails to materialise, the UNDP may at its own discretion, either suspends or terminate its assistance.

SECTION H PROJECT REVIEWS, REPORTING, MONITORING AND EVALUATION

Overall policy guidance of the Project will be the responsibility of the PSC, which will meet at least once every twelve months. Secretary, Ministry of Environment and Forests will chair the Project Steering Committee. The Project Management Unit (PMU) headed by the Biodiversity Management Expert supported by NPC, will act as Secretariat for the PSC. NPD as the Member-Secretary of the Project Steering Committee will call meeting in consultation with the Chairman of the PSC. Details of the composition and responsibilities of PSC are given in para B.4.1.

A detailed schedule of project reviews will be developed by the project management, in consultation with project implementation partners and representatives of the participating communities, during the early stages of project initiation, and incorporated in the Project Inception Report. Such a schedule will include methodologies and tentative time frames for Tripartite Reviews, Steering Committee Meetings, Participatory Monitoring and Evaluation of the Project by the participating communities, Annual Project Report (APR). The project will be subject to UNDP/GEF Monitoring and Evaluation rules and practices.

H 1. Monitoring:

Monitoring & Evaluation Specialist will develop criteria for participatory Monitoring of the project activities in consultation with project team. Field data will be linked to Village Information Management System that will in-turn feed the National Electronic Database developed by the project. Appropriate participatory mechanism and methodology for performance monitoring and evaluation will be established at the very outset of the project. The benefits reaching to the participating communities in ecological critical area management (ECA) at every stage of the project cycle would be monitored with appropriate parameters will be endorsed at the inception meeting. The foundation of monitoring and evaluation activity will be based on Logical Framework Approach (LFA) which will form the basis for the Village level Conservation Planning Matrix. Overall Monitoring and Evaluation format for the project will follow or subject to the instructions and guideline of the UNDP-GEF M&E Unit.

H 2. Evaluation

The project will be subject to **Tripartite Review** (TPR) at least once every twelve months by representatives of the Bangladesh Government, the executing agency and UNDP, the first such meeting to be held within the first twelve months of the start of full implementation. The Project Support Unit shall prepare and submit to each TPR meeting an Annual Project Report (APR). **Quarterly progress reports** will also be provided during the first two years of the project to ensure that design and inception activities are closely monitored. Separate reviews of each site component to be conducted. Monitoring and Evaluation Indicators will be built into the project in consultation with UNDP/GEF.

An independent **Mid-Term Evaluation** (MTE) will be undertaken at the end of the third year of the project to review progress and effectiveness of implementation. Findings of this review will be incorporated as recommendations and will be instrumental for bringing improvement in the overall project design for the remaining period of the project's term. UNDP/GEF will arrange the MTE in consultation with project management.

A **Project Terminal Report** will be prepared for consideration at the terminal tripartite meeting. Draft report will be distributed sufficiently in advance to allow in-house review and technical clearance by the GEF prior to the terminal tripartite review.

H 3. Reporting

The NPD with support from PMU will be responsible for the preparation and submission of the following reports:

(a) Progress Reports

National Progress Reports as per requirement of GEF will be prepared as and when required and will be submitted to the Regional Project Coordinator (UNDP-GEF, RBAP), UNDP Dhaka and to the Executing Ministry.

(b) Project Inception Report

The inception report prepared by the NPD, assisted by the project team/PMU and in consultation with UNDP/GEF, no later than three months after project start-up. The report will include a detailed workplan for the duration of the project, fine tuning of TORs for project professionals, TORs for sub-contractual services, progress to date on project establishment and start-up activities, amendments to project activities/approaches, if any. The report will be submitted to the Chair of the PSC for circulation to all PSC members one month ahead of the inception meeting.

(c) Annual Project Report (APR)

APR in a prescribed format will be prepared and submitted annually by the project management as per guidelines set for the same.

(d) Technical Reports

Brief summary reports will be prepared by the National and International Consultants, and by those supported on Study Tours and Fellowships at the completion of their assignments for evaluation by the Executing Agency. Technical Reports are detailed documents covering specific areas of analysis or scientific specialisations within the overall project, e.g. hydrology, flora, fauna, stakeholders and socio-economics, soils, pollution, etc. As part of the Inception Report the Project BME will prepare a draft Reports List, detailing the technical reports that are expected to be prepared on key areas of activity during the course of the Project, and tentative due dates. Technical Reports may also be prepared by external consultants as Final Reports for their technical inputs, and should be comprehensive, specialised analyses of clearly-defined areas of work performed within the framework of the project and its sites.

(d) Project Terminal Report

The Project Terminal Report would be prepared well ahead of the Terminal TPR by the project. This comprehensive report will summarise all activities, achievements, outputs and outcomes of the Project, lessons learned, objectives met, structures and systems implemented, including any deviations etc. and will be the definitive statement of the Project's activities over the five-year duration. It will also lay out recommendations for any follow-up, further steps that may need to be taken to ensure sustainability and replicability of the Project's activities.

(e) Other Publications and Advocacy Activities

In order to ensure international dissemination of project results, a **high-quality publication of results** will be prepared, based upon the Project Terminal Report and previous project publications. Finally, it will be useful to hold at least one **international workshop** at which policy makers in neighbouring countries can be made aware of Bangladesh's progress in achieving sustainable coastal and wetland biodiversity management. A Web-site of the project will be hosted for wider dissemination of project achievements.

SECTION I LEGAL CONTEXT

This project document shall be the instrument referred to as such in Article 1 of the Standard Basic Assistance Agreement (SBAA) between the government of the People's Republic of Bangladesh and the United Nations Development Programme, signed by the parties on 26 November 1986. The host country-implementing agency shall, for the purpose of the Standard Basic Assistance Agreement, refer to the government cooperating agency described in that Agreement.

All activities stipulated in the Project Document shall be implemented accordingly. However, should there be a need to make changes/modifications to any of the agreed activities, all signatories of the Project Document must concur, before such changes are made.

The following amendments may be made to the original Project Document, even if they are signed by the UNDP Resident Representative only, provided the later assumes that all other signatories of the Project Document have no objections to the proposed amendments:

- Revisions in, or additions to, any of the Annexes of the Project.
- Revisions which do not involve significant changes in the project's immediate objectives, outputs, and which are attributable to a reordering of the activities or inputs in order to improve the realisation of the objectives or the outputs.
- Mandatory yearly revisions which are made to reorganise the provision of already scheduled inputs, to reflect an increase in the cost of expert services or other services due to inflation.

The government executing agent designated on the cover page to this project document has been duly delegated by the government coordinating authority to carry out this project and accordingly will follow the NEX accounting, financial reporting and auditing procedures set forth in the documents as may be amended by UNDP from time to time.

SECTION J BUDGET COVERING UNDP CONTRIBUTION **(see in the following pages)**



United Nations Development Programme
BGD/99/G31 - CWBMP
Budget "A"

Main Source of Funds: 1G - Global Environment Trust Fund
Executing Agency: NEX - National Execution

SbIn	Description	Implementing	Total	2001	2002	2003	2004	2005	2006	2007	2008
010	PERSONNEL										
011	International Consultants										
011.01	Biodiversity Management Expert	UNOPS	Net Amount	360,000	180,000	180,000					
			W/M	24	0	12	12	0	0	0	0
			AOS	28,800	14,400	14,400					
			Total	388,800	194,400	194,400					
011.02	Wetland Ecologist	UNOPS	Net Amount	75,000	30,000	30,000	15,000				
			W/M	5	0	2	2	1	0	0	0
			AOS	6,000	2,400	2,400	1,200				
			Total	81,000	32,400	32,400	16,200				
011.03	Marine Ecologist	UNOPS	Net Amount	75,000	45,000	30,000					
			W/M	5	0	3	2	0	0	0	0
			AOS	6,000	3,600	2,400					
			Total	81,000	48,600	32,400					
011.04	Institutional, Policy & Legis Expe	UNOPS	Net Amount	75,000		45,000	30,000				
			W/M	5	0	3	2	0	0	0	0
			AOS	6,000		3,600	2,400				
			Total	81,000		48,600	32,400				
011.05	Unspecified Int. Consultants	UNOPS	Net Amount	75,000				45,000	30,000		
			W/M	5	0	0	0	3	2	0	0
			AOS	6,000				3,600	2,400		
			Total	81,000				48,600	32,400		
017.99	Line Total		Net Amount	660,000	255,000	285,000	45,000	45,000	30,000		
			W/M	44	0	17	19	3	3	2	0
			AOS	52,800	20,400	22,800	3,600	3,600	2,400		
			Total	712,800	275,400	307,800	48,600	48,600	32,400		
013	Administrative Support										
013.01	Accountant	NEX	Net Amount	49,000	3,500	7,000	7,000	7,000	7,000	7,000	3,500
			W/M	84	6	12	12	12	12	12	6
			Total	49,000	3,500	7,000	7,000	7,000	7,000	7,000	3,500
013.02	Admin Assistant	NEX	Net Amount	31,500	2,250	4,500	4,500	4,500	4,500	4,500	2,250
			W/M	84	6	12	12	12	12	12	6
			Total	31,500	2,250	4,500	4,500	4,500	4,500	4,500	2,250
013.03	Secretary (2)	NEX	Net Amount	49,000	3,500	7,000	7,000	7,000	7,000	7,000	3,500
			W/M	168	12	24	24	24	24	24	12
			Total	49,000	3,500	7,000	7,000	7,000	7,000	7,000	3,500
013.04	Jeep Driver	NEX	Net Amount	12,600	900	1,800	1,800	1,800	1,800	1,800	900
			W/M	84	6	12	12	12	12	12	6



United Nations Development Programme
BGD/99/G31 - CWBMP
Budget "A"

Main Source of Funds: 1G - Global Environment Trust Fund
Executing Agency: NEX - National Execution

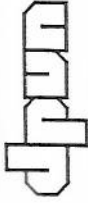
Sbln	Description	Implementing	Total	2001	2002	2003	2004	2005	2006	2007	2008
017.02	Biodiversity Mangt Expert	NEX	15,570		15,570						
		W/M	9	0	9	0	0	0	0	0	0
		Total	15,570		15,570						
017.03	Wildlife Biodiversity Mangt Expe	NEX	10,380		10,380						
		W/M	6	0	6	0	0	0	0	0	0
		Total	10,380		10,380						
017.04	Fresh Water Fishereis Biodivers	NEX	10,380		10,380						
		W/M	6	0	6	0	0	0	0	0	0
		Total	10,380		10,380						
017.05	Marine Fisheries Biodiversity	NEX	10,380		10,380						
		W/M	6	0	6	0	0	0	0	0	0
		Total	10,380		10,380						
017.06	Legal Expert	NEX	5,190		5,190						
		W/M	3	0	3	0	0	0	0	0	0
		Total	5,190		5,190						
017.07	Policy & Institutional Expert	NEX	5,190		5,190						
		W/M	3	0	3	0	0	0	0	0	0
		Total	5,190		5,190						
017.08	Socio-Economic/Gender/PRA E	NEX	15,570		10,380	5,190					
		W/M	9	0	6	3	0	0	0	0	0
		Total	15,570		10,380	5,190					
017.09	Resource Economist	NEX	5,190		5,190						
		W/M	3	0	3	0	0	0	0	0	0
		Total	5,190		5,190						
017.10	M & E Specialist	NEX	87,360	6,240	12,480	12,480	12,480	12,480	12,480	12,480	6,240
		W/M	84	6	12	12	12	12	12	12	6
		Total	87,360	6,240	12,480	12,480	12,480	12,480	12,480	12,480	6,240
017.11	Biodiversity Database Mangt	NEX	24,960	3,120	12,480	9,360					
		W/M	24	3	12	9	0	0	0	0	0
		Total	24,960	3,120	12,480	9,360					
017.12	Unspecified Consultants	NEX	10,380							10,380	
		W/M	6	0	0	0	0	0	0	6	0
		Total	10,380							10,380	
017.13	Biodiversity Mangt Specialist	NEX	24,960		12,480	12,480					
		W/M	24	0	12	12	0	0	0	0	0
		Total	24,960		12,480	12,480					
017.14	Wildlife Biodiversity Mangt Spe	NEX	24,960		12,480	12,480					
		W/M	24	0	12	12	0	0	0	0	0
		Total	24,960		12,480	12,480					



United Nations Development Programme
BGD/99/G31 - CWBMP
Budget "A"

Main Source of Funds: 1G - Global Environment Trust Fund
Executing Agency: NEX - National Execution

Sbln	Description	Implementing	Total	2001	2002	2003	2004	2005	2006	2007	2008
		W/M	36	0	12	12	12	0	0	0	0
		Total	10,800		3,600	3,600	3,600				
017.28	Community Devt Officer (SM) NEX	Net Amount	18,000		3,600	3,600	3,600	3,600	3,600		
		W/M	60	0	12	12	12	12	12	0	0
		Total	18,000		3,600	3,600	3,600	3,600	3,600		
017.29	Planned Biodiv. Mangt Specialist NEX	Net Amount	24,960		12,480	12,480					
		W/M	24	0	12	12	0	0	0	0	0
		Total	24,960		12,480	12,480					
017.30	Wildlife Biodiversity Specialist NEX	Net Amount	24,960		12,480	12,480					
		W/M	24	0	12	12	0	0	0	0	0
		Total	24,960		12,480	12,480					
017.31	Fisheries Biodiversity Specialist NEX	Net Amount	24,960		12,480	12,480					
		W/M	24	0	12	12	0	0	0	0	0
		Total	24,960		12,480	12,480					
017.32	Agri Extension Officer NEX	Net Amount	18,000		3,600	3,600	3,600	3,600	3,600		
		W/M	60	0	12	12	12	12	12	0	0
		Total	18,000		3,600	3,600	3,600	3,600	3,600		
017.33	Horticulture Extension Officer NEX	Net Amount	18,000		3,600	3,600	3,600	3,600	3,600		
		W/M	60	0	12	12	12	12	12	0	0
		Total	18,000		3,600	3,600	3,600	3,600	3,600		
017.34	Fisheries Biodiversity Officer NEX	Net Amount	21,600		3,600	3,600	3,600	3,600	3,600	3,600	
		W/M	72	0	12	12	12	12	12	12	0
		Total	21,600		3,600	3,600	3,600	3,600	3,600	3,600	
017.35	Wildlife Conservation Officer NEX	Net Amount	21,600		3,600	3,600	3,600	3,600	3,600	3,600	
		W/M	72	0	12	12	12	12	12	12	0
		Total	21,600		3,600	3,600	3,600	3,600	3,600	3,600	
017.36	Eco-tourism Devt Officer NEX	Net Amount	21,600		3,600	3,600	3,600	3,600	3,600	3,600	
		W/M	72	0	12	12	12	12	12	12	0
		Total	21,600		3,600	3,600	3,600	3,600	3,600	3,600	
017.37	Community Devt Officer NEX	Net Amount	18,000		3,600	3,600	3,600	3,600	3,600	3,600	
		W/M	60	0	12	12	12	12	12	12	0
		Total	18,000		3,600	3,600	3,600	3,600	3,600	3,600	
017.99	Line Total	Net Amount	883,110	21,840	274,740	191,670	102,240	98,640	98,640	76,620	18,720
		W/M	1551	15	378	324	240	228	228	126	12
		Total	883,110	21,840	274,740	191,670	102,240	98,640	98,640	76,620	18,720
019	PROJECT PERSONNEL TOTA	Net Amount	2,138,710	51,590	613,540	616,470	213,040	229,440	194,440	143,120	77,070
		W/M	3365	123	653	613	495	483	482	378	138
		AOS	52,800		20,400	22,800	3,600	3,600	2,400		



United Nations Development Programme
BGD/99/G31 - CWBMP
Budget " A "

Main Source of Funds: 1G - Global Environment Trust Fund
Executing Agency: NEX - National Execution

Sbln	Description	Implementing	Total	2001	2002	2003	2004	2005	2006	2007	2008	
			Total	2,191,510	51,590	633,940	639,270	216,640	233,040	196,840	143,120	77,070
020 CONTRACTS												
021 Contract A												
021.01	Implement Conservation Activiti	NEX	Net Amount	1,081,400	81,400	200,000	200,000	200,000	200,000	200,000	200,000	
	Total			1,081,400	81,400	200,000	200,000	200,000	200,000	200,000	200,000	
021.02	Implement Management Plan	NEX	Net Amount	800,000	100,000	200,000	300,000	100,000	100,000	100,000		
	Total			800,000	100,000	200,000	300,000	100,000	100,000	100,000		
021.03	ECA Enforcement & M&E	NEX	Net Amount	70,000	20,000	10,000	10,000	10,000	10,000	10,000	10,000	
	Total			70,000	20,000	10,000	10,000	10,000	10,000	10,000	10,000	
021.04	Resource Economic & Policy An	NEX	Net Amount	80,000	20,000	20,000	20,000	20,000	20,000	20,000		
	Total			80,000	20,000	20,000	20,000	20,000	20,000	20,000		
021.05	Awareness/bIODIVERSITY GUI	NEX	Net Amount	125,000	25,000	50,000	25,000	25,000	25,000	25,000		
	Total			125,000	25,000	50,000	25,000	25,000	25,000	25,000		
021.06	GIS mAPPING & Cartographic	NEX	Net Amount	20,000		20,000						
	Total			20,000		20,000						
021.07	IT Networking & Maintenance	NEX	Net Amount	125,000	50,000	20,000	20,000	20,000	20,000	15,000		
	Total			125,000	50,000	20,000	20,000	20,000	20,000	15,000		
021.08	Unspecified Subcontracts	NEX	Net Amount	78,790		20,000	20,000	20,000	20,000	18,790		
	Total			78,790		20,000	20,000	20,000	20,000	18,790		
021.99	Line Total		Net Amount	2,380,190	296,400	540,000	595,000	395,000	343,790	210,000		
	Total			2,380,190	296,400	540,000	595,000	395,000	343,790	210,000		
029	SUBCONTRACTS TOTAL		Net Amount	2,380,190	296,400	540,000	595,000	395,000	343,790	210,000		
	Total			2,380,190	296,400	540,000	595,000	395,000	343,790	210,000		
030 TRAINING												
031 Fellowships												
031.01	Fellowships (ECA Mgt. Training	UNOPS	Net Amount	50,000		20,000	30,000					
	AOS			4,000		1,600	2,400					
	Total			54,000		21,600	32,400					
031.99	Line Total		Net Amount	50,000		20,000	30,000					
	AOS			4,000		1,600	2,400					
	Total			54,000		21,600	32,400					
032 Other Training												
032.01	Group Training/Study Tour	UNOPS	Net Amount	60,000		20,000	20,000	20,000				
	AOS			4,800		1,600	1,600	1,600				
	Total			64,800		21,600	21,600	21,600				
032.99	Line Total		Net Amount	60,000		20,000	20,000	20,000				
	AOS			4,800		1,600	1,600	1,600				
	Total			64,800		21,600	21,600	21,600				
032.99	Line Total		Net Amount	60,000		20,000	20,000	20,000				
	AOS			4,800		1,600	1,600	1,600				
	Total			64,800		21,600	21,600	21,600				

