DEVELOPMENT PROJECT PROFORMA/PROPOSAL (DPP)

PART - A
PROJECT SUMMARY

1. **Project title**: Integrated Protected Area Co-management (IPAC)–Department of Fisheries Part.

2. **a) Sponsoring Ministry/Division** : Ministry of Fisheries and Livestock
b) Executing Agency : Department of Fisheries, Bangladesh

3. Objectives of the project

The goal and purpose of IPAC is to provide technical advisory and assistance services to a range of stakeholders including the GoB and relevant ministries and technical agencies to promote and institutionalize an integrated Protected Area (PA) Co-Management system for sustainable natural resources management and biodiversity conservation that results in responsible, equitable economic growth and good environmental governance.

In order to achieve above-stated project goal, the following specific objectives will be implemented:

- Support the further development of the natural resources sector and the conservation of biodiversity;
- Develop a PA strategy that applies to all ecologically and economically significant PA areas, including wetlands and forests ecosystems;
- Build technical capacity of key stakeholders for PA co-management;
- Expand the geographic area under co-management and PAs to ensure the long-term success of the co-management model and to extend socio-economic benefits to neighboring communities;
- Design and implement a program of habitat management and eco-restoration for -selected PAs; and
- Build and/or reinforce the infrastructure within PAs, enabling improved and sustainable management; and
- Address relevant climate change mitigation and adaptation issues.

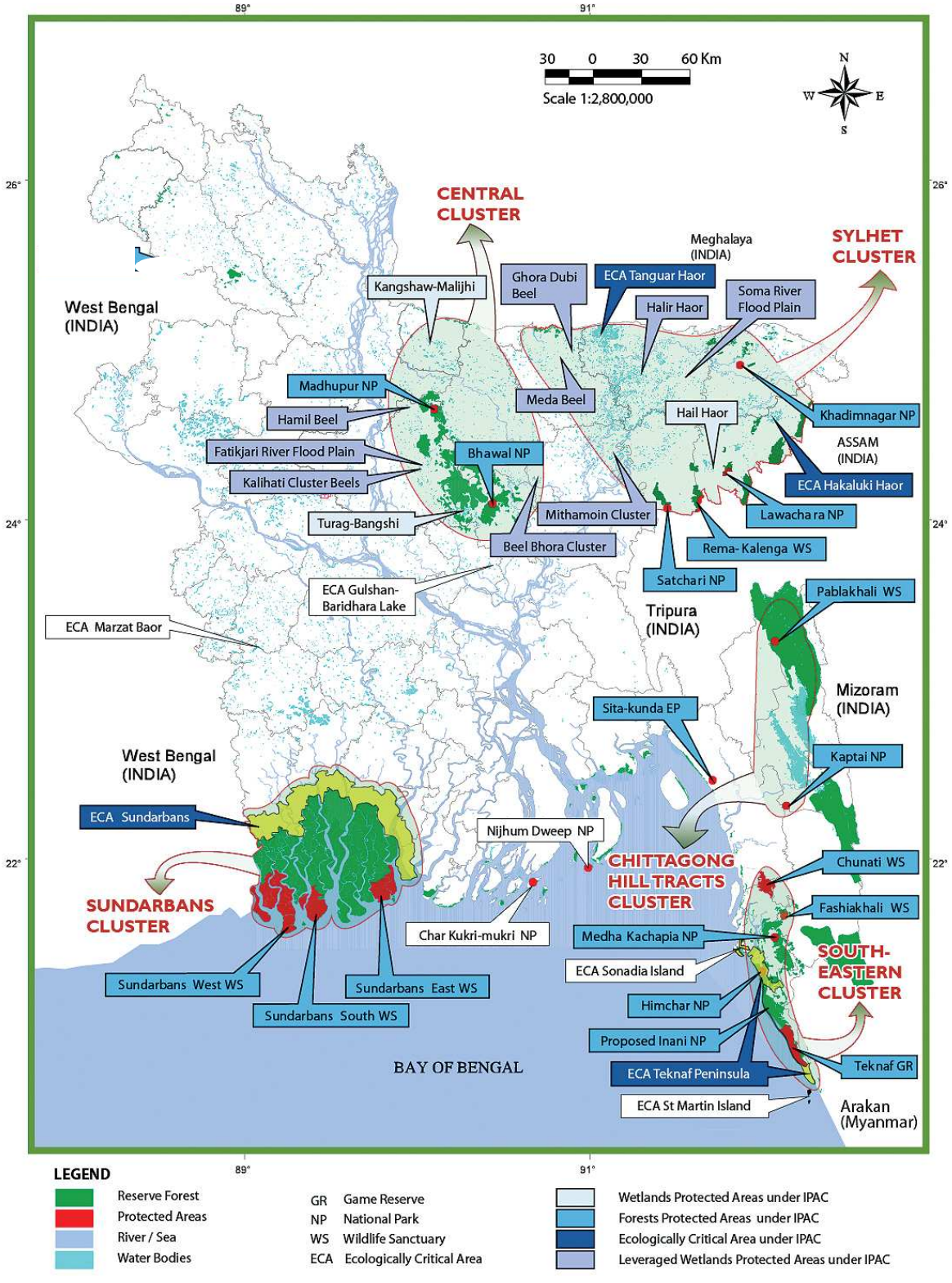
4. Location of the Project

Division	DISTRICT	Upazila
Sylhet	Moulvibazar	Srimongal; Moulvibazar Sadar; Kulaura; Barlekha;Juri.
	Sunamgonj	Dharampasha; Tahirpur
Dhaka	Gazipur	Kaliakor;
	Tangail	Mirzapur; Kalihati; Modhupur
	Sherpur	Jheniagati; Sherpur Sadar
	Kishoreganj	Pakundia; . Mithamoin
	Netrokona	Kolmakanda
Khulna	Khulna,	Dakop, Koira
	Bagerhat,	Mongla, Morelganj, Sharankhola
	Satkhira	Shyamnagar

These sites are grouped in four categories: existing direct sites, new direct sites, new indirect sites and leveraged sites as follows:

Cluster	Site Name	Upazila/District	Area (ha)	Type of PA	Category
North-East Cluster (Sylhet)	Hail Haor	Srimongal, Moulvibazar Sadar/ Moulvibazar	13,000	Wetland sanctuary	Existing Direct
	Hakaluki Haor	Kulaura, Barlekha, Juri/ Moulivibazar & Fenchuganj, Golapganj/Sylhet	18,383	ECA	New Direct
	Tanguor Haor	Dharampasha, Tahirpur/ Sunamgonj	9,727	ECA/Ramsar Site	New Direct
Central Cluster	Kangsha-Malijhee	Jheniagati Sherpur Sadar/ Sherpur	8,000	Wetland sanctuary	Existing Direct
	Turag-Bangshi	Kaliakoir, Gajipur & Mirjapur, Tangail	10,000	Wetland sanctuary	Existing Direct
	Fatkjar River Flood Plain (Salanaka Jalkar; Megakhali Fishery; Fatikjani Nadi; Sapai Nadi)	Kalihati/ Tangail	48	Wetland River Basin	Leveraged Site
	Kalihati Cluster Beels (Posna Beel; Joloi Beel; Katara Beel; Bheradaha Beel; Pichra Beel; Baisha Beel; Boro Beel; Choto Beel; Dhaleswari; Kurumbi Beel; Charan Beel)		1183		
	Beel Bhora Cluster (Betalduba Sorbomongal Jalmohal, Kutir Beel Jalmahal, Kalinadi Jalmahal)	Pakundia, Bhoirab/Kishoreganj	660		
	Mithamoin Cluster (Moisher Kandi -Boronpur Nadi; DhakiBagaira Dighar (Udayan Fishery); Ghor Bhanga Nodi (Jalmohal Part 1); Dopi Beel JR; Soma Nadi)	Mithamoin/Kishoreganj & Derai, Sunamganj	349		
	Someswari River Floodplain (Ghoraduba Beel; Meda Beel; Hamil Beel)	Kolmakanda, Netrokona & Modhupur, Tangail	976		

IPAC Clusters and Sites



5. a) Estimated cost of the project (in Lakh Taka) : i) Total : 3622.055
ii) GOB: 595.186
iii) PA: 2926.869

b) Exchange rate with date: : 1 $ = BDT 68.00 :

6. Location wise cost break-down to be attached as per Annexure - I: Attached.

7. Mode of financing with source :

(In Lakh Taka)

Mode of Financing	**GoB (FE)**	**PA (RPA)**	**PA Source**
1	**2**	**3**	**4**
Loan/Credit			
Grant		2926.86	USAID
Equity	695.186		
Others (Specify)			
Total	**695.186**	**2926.86**	

8. Project implementation period: i) Date of commencement : July 2010
ii) Date of completion : June 2013

9. Components and estimated cost summary:

(In lakh Taka**)**

			Estimated cost					
Budget Head	Economic Code	*Code Description*	GOB (FE)	Project Aid			Total	% of the total cost
				RPA		DPA		
				Through GOB	Special Account*			
1	2	3	4	5	6	7	8	9
A) Revenue Component								
	4500	Pay of Officer (DoF Part Details In Annexure II)	36.14				36.14	1.00
	4600	Pay of Establishment (DoF Part Details In Annexure II)	12.21				12.21	0.34
	4700	Allowances (DoF Part Details In Annexure II)	42.25				42.25	1.17
	4874	Pay & Allawances of TA Team	0			1403.74	1403.74	38.76
	a) Sub Total of Pay & Allowances		**90.79**			**1403.74**	**1524.54**	**41.27**
		b) Project Inputs (For DoF)						
	4800	Subtotal of Supply & Service (DoF)	76.23				76.24	2.10
	4900	Subtotal of Repair & Maintenance (DoF)	9.79				9.79	0.27
	b) Sub Total of Project Inputs for DoF		**86.02**				**86.03**	**2.37**
		c) Project Inputs for TA Team						
	4800	Subtotal of Supply & Service (TA Team)				595.42	595.41	16.44

			Estimated cost					
Budget Head	Economic Code	*Code Description*	GOB (FE)	Project Aid		DPA	Total	% of the total cost
				RPA				
				Through GOB	Special Account*			
1	2	3	4	5	6	7	8	9
	4900	Subtotal of Repair & Maintenance (TA Team)				14.52	14.52	0.40
	c) Sub Total of Project Inputs for TA team					**609.95**	**609.94**	**16.84**
	4800	d) Institutional Linkage & Training				847.75	847.74	23.40
Sub-Total (Revenue Component):			**176.83**			**2861.44**	**3038.28**	**83.88**
B) Capital Component								
		For DoF						
	6800	Acquisition of Assets for DoF Part	110.37				110.37	3.05
		For TA Team						
	6800	Acquisition of Assets for TA Team				65.41	65.41	1.81
		Habitat Restoration						
	7000	Construction of Works (Habitat Restoration)	408.00				408.00	11.26
Sub-Total (Capital Component):			**518.37**			**65.41**	**583.78**	**16.12**
C) Physical Contingency:								
D) Price Contingency:								
Grand Total (A+B+C+D)			**695.20**			**2926.86**	**3622.06**	**100**

10. Log frame

i) Planned date for project completion : 30 June 2013
ii) Date for this summary preparation : 25 February 2009

Narrative Summary	Objectively Verifiable Indicators (OVI)	Means of Verification (MOV)	Important Assumptions (IA)
Program Goal : Conserved biodiversity within the Wetland protected areas (PA) through co-management approach	Wetland biodiversity maintained up to 60% than pre project period; fish production increased by 2-3 times within the project period.	BBS data, FRSS data, Project report IPAC & local stake holders' consultations etc.	
1.Project Purpose : 1.1 Developed an integrated co-management PA strategy	Developed and approved comprehensive PA strategy within 2nd year of the project.	IPAC documentation, project document, IMED report etc.	

Narrative Summary	Objectively Verifiable Indicators (OVI)	Means of Verification (MOV)	Important Assumptions (IA)
1.2 Provided income generation activities for key stakeholders	Provided Tk 102.53 lakh to the beneficiaries for AIGAs program within the project period.	Physical verification, interviewing local beneficiaries, project report etc.	Congenial socio-political situation of the country, coordination among the GoB and the Development partners, Dedication and sincerity of the project personnel, Active participation of the community people etc.
1.3 Developed conducive guidelines & constituencies for improved PA management	Identified PA constituencies and developed conductive guidelines for improve management within the project period.	Project report, mid-term evaluation, physical verification etc.	
1.4 Strengthened institutional systems and capacity of DoF & key stakeholders	Developed capacity of DOF and other Key stakeholders through training within the project period.	Project report, training register, physical verification etc.	
1.5 Developed infrastructures within PAs	Necessary infrastructure developed within the project period.	Physical verification, bill payment register, project report etc.	
1.6 Restored and Managed habitats of the Wetland PAs	Wetland health (e.g. fish regeneration) and biodiversity (bird count, species, habitat quality) improved	DoF & IPAC monitoring reports, newspapers report, physical verification, etc.	
2.Outputs: 2.1 Wetland PAs brought under co-management	Co-management of wetland started within the project period.	Project report, evaluation report, physical verification etc.	
2.2 Habitat degradation checked & reversed in Wetland PAs	Restored about 42 acres of wetland through re-excavation within the project period.	Project report, bill payment register, physical verification etc.	
2.3 Introduced Alternate income generation activities of community members	About 1749 people brought under AIGAs program within the project period.	Project report, interviewing people, IMED report etc.	
2.4 Conducive policy framework	Updated policy guidelines	Physical verification, project report etc.	
2.8 Made aware people regarding PAs	Developed awareness of the stakeholders through 15 seminars/workshops within the project period.	IPAC documentation, project report etc.	

Narrative Summary	Objectively Verifiable Indicators (OVI)	Means of Verification (MOV)	Important Assumptions (IA)
2.9 Trained manpower	About 18899 people developed through quality training both home and abroad.	Project report, training register, interviewing people etc.	
2.11 Conducted research	Two medium and four short term quality research conducted within the project period.	Results & their dissemination for improved management, project report, interviewing researchers etc.	
3. Inputs: 3.1 Recruited quality project personnel.	Recruited 09 qualified project personnel, 13 international consultants, 53 local consultants and 53 support staffs within the 1st year of the project.	Advertisement, physical verification, joining letter etc.	
3.2 Developed training module and training materials.	Developed necessary training modules and procured necessary quality training materials within 1st year of the project.	Physical verification, training records, IPAC documentations etc.	
3.15 Procured office and field equipments.	Procured sufficient quality office and field equipments within the project period.	Tender document, physical verification, bill payment register etc.	

11. a)Attach proposed project management setup : Attached.
(As per Annexure-II)

The proposed project will be implemented by the Department of Fisheries (DoF) under the administrative control of the Ministry of Fisheries and Livestock. One Project Management Unit (PMU) will be established at DoF Head Quarter (Matshya Bhaban). One officer (Grade-4) will be deputed from DoF as project Director. The project Director will be assisted by one Assistant Project Director (Grade-6), One Assistant Engineer (Grade-9), One Sub-Assistant Engineer (Grade-10). All of them will be deputed from DoF. Further more one Accountant cum Cashier (Grade-14) will also be deputed from DoF. The project will also recruit one Computer Operator (Grade-13), and two MLSS (Grade-20) directly as per Government rule. The project has the provision to recruit some local consultants and expatriate consultants along with support staffs. They will be recruited as per USAID recruitment procedures.

Local DoF officials of the project command area will also be associated with the project implementation process. The field offices will get logistic support from the project. One Vehicle from DoF will be placed under the Project Director for smooth implementation of the project.

The project will be implemented by the DoF through the lead contractor along with partner organizations: GoB personnel from DoF, Expatriate Consultant, Local Consultant & Local Staff, will work at the selected project HQs and sites.

Project steering Committee :

A project Steering Committee for the DoF part of the project will be formed at national level under the chairmanship of the Secretary, Ministry of Fisheries and Livestock. The composition of the committee will be as follows :

1.	Secretary, Ministry of Fisheries and Livestock	Chairman
2.	Director General, Department of Fisheries	Member
3.	Joint Secretary (Fisheries), MoFL	Member
4.	Joint Chief, MoFL	Member
5.	Representative from Planning Commission	Member
6.	Representative from IMED	Member
7	Representative from ERD	Member
8	Representative from MoL	Member
9	Representative from MoEF	Member
10.	Representative from USAID	Member
11	Project Director	Member Secretary

The committee can co-opt members if necessary. The committee will sit as and when necessary but at least twice in a year.

The ToR of this Committee will be as follows:

i). Provide guidelines for project implementation.
ii). Approve the annual work-plan and budget.
ii). Monitor project activities and its progress.

b) Attach Procurement Plan : Attached
(As per Annexure –III (a), III (b), & III (c))

12. Give year wise financial and physical target plan : Attached.
(As per Annexure- IV)

13. After completion, whether the project needs to be transferred to the revenue budget : Need not to be transferred

a) If yes, briefly narrate the institutional arrangement : and technical & financial requirement for operation and maintenance.
(To continue the benefits of the projects required yearly costs and personnel should be mentioned)

b) If not, briefly narrate the institutional arrangement : and financial requirement for operation and maintenance.
(To continue the benefits of the projects required yearly costs and personnel should be mentioned)

After completion of the project the beels and other public water bodies within the developed wetland Protected Areas (PAs), will be handed over to the Community Based Organizations (CBOs). They will continue to implement applicable management interventions (Fish Sanctuaries; Controlled Fishing Effort; Habitat Restoration; Fingerling Stocking etc) with the technical assistance of local DoF. It is expected that due to management of natural resources through appropriate management interventions, the aquatic biodiversity and per hectare production of fish will increase. In turn, this enhanced production will increase the income of the beneficiaries (Fishers, ultra poor etc) and develop their livelihood. Once the wetland PAs are developed, planned construction works are completed including establishment of community sheds for the beneficiaries, permanent sanctuary area , it is expected that the wetland areas will turn in to place like Baikka Beel that will attract people to visit. This will results rising of awareness of mass people about conservation and protection of aquatic resources and same practices will be replicated in other areas of the country.

Signature of officer (s) responsible for the
Preparation of the DPP
with seal and date.

PART – B
PROJECT DETAILS

14. Background, objectives, priority, rationale, linkages, targets and outputs/outcomes of the project including findings of feasibility study/survey, if any:

Background :

In the country's agrarian economy, characterized by high population and rural poverty, the Protected Areas such as open water bodies have historically been an intimate interspersion of habitations and cultivation. Anthropogenic pressures including increased commercial extraction of aquatic resources, and encroachment of publicly owned wetland for agriculture, industry, habitations and industrial & urban pollution , led to widespread shrinkage and degradation of wetlands as well as fisheries resources in Bangladesh. Exploitative harvesting from the wetlands has jeopardized the very existence of biodiversity in the country's many PAs. This has adversely affected the welfare of local communities, especially the fisher folk and the ultra poor, as well as conservation status of aquatic biodiversity.

In view of the physical, biological, social and economic complexities of wetland fishery resources, it is extremely difficult for any one management system to be conclusive and so a flexible approach is required based on local circumstances. The lessons learnt from the experiences of MACH and similar other projects of the Department of Fisheries, Bangladesh can be concluded that:

- The current system of leasing is a disincentive to sustainable management of wetland resources benefits the wealthier who can raise capital for lease fee;
- The importance and value of other wetland resources like riparian forest/vegetation, water sharing for agriculture and fishery; migratory birds and other aquatic animals has got less or no attention in any of GO/NGO initiatives;
- Open access for rivers and other flowing waters does not benefit the poor and through lack of management controls allows over fishing and capture of the fishery by strong non-fishermen groups,
- The management of the resources by community and co-management Based Organization has been shown to be effective, however greater attentions required to be given to institutional and community organization issues rather than just the technical fisheries management options,
- In beels and rivers habitat restoration, sanctuaries, and local fishing restrictions found success and brought general benefits to the communities. However, it is learnt that comparing the cost relative to benefits- low cost management tools that are within the means of fisher to continue, seems preferable.
- Where strong fishing restrictions were imposed, alternative livelihoods are required to compensate for loss of income,
- Unless strong links between fisher/user organizations and local government, as well as DoF are established, local CBOs do not have strength to maintain management initiatives and resist pressure from outside elites;
- There is insufficient coordination among sectors that manage water resources;
- The quality of data on the resources generated from FRSS statistics is misleading and a new more robust catch assessment and resource monitoring system is needed.

Objectives :
With these experiences and lessons learnt, the Integrated Protected Area Co-Management (IPAC) set it's objectives as follows:

- Support the further development of the natural resources sector and the conservation of biodiversity;
- Develop a PA strategy that applies to all ecologically and economically significant PA areas, including wetlands and forests ecosystems;
- Build technical capacity of key stakeholders for PA co-management;
- Expand the geographic area under co-management and PAs to ensure the long-term success of the co-management model and to extend socio-economic benefits to neighboring communities;
- Design and implement a program of habitat management and eco-restoration for -selected PAs; and
- Build and/or reinforce the infrastructure within PAs, enabling improved and sustainable management; and
- Address relevant climate change mitigation and adaptation issues.

Rationale :
The commercial exploitation of fish stock has in past been emphasized as a main objective while managing public wetlands. The value of other forest and wetlands functions and services such as regulation of stream flow, source for biological diversity, ecosystem services and livelihood for rural poor was neither adequately appreciated nor accounted for in management decisions. In addition to development pressure on wetland, the traditional livelihood dependency of local communities is an important aspect of any future PA Co-Management, The livelihood patterns of natural resources dependent people have been affected adversely. As a result, the PA conservation priorities cannot be set in isolation from sustainable natural resource use and co-management.

Community-based fisheries projects have in past been implemented in Bangladesh with the financial and technical assistance from both multilateral and bilateral agencies. Sector development projects have been implemented with a major shift in favor of participatory management of wetlands. For example, *in lieu* of management and usufruct rights, local communities participated in developing, protecting and co-managing forests and wetlands under MACH projects supported by the USAID/Bangladesh. Similar other projects like, Fourth Fisheries Project; CBFM-2 also implemented with almost same management approaches.

Concern for biodiversity assets in the country date back to the 1912 Wild Bird and Animals Protection Act. Bangladesh is a signatory to the 1992 Biodiversity Convention elaborated at the Earth Summit in Rio de Janeiro, Brazil. Key biodiversity issues have received some attention in a variety of sector policy and strategy documents since that time. Bangladesh has also been a participant in earlier global conservation initiatives before "biodiversity" became the watchword of the day. The country has ratified the 1971 RAMSAR Convention on wetlands of international importance and waterfowl habitat, the 1972 Convention concerning the protection of World Cultural and Natural Heritage, the 1973 Convention of International Trade in Endangered Species (CITES), the Convention of Biological Diversity (CBD), Kyoto Protocol and other conventions related to climate change adaptation and mitigation.

The theme of biodiversity conservation is discussed in the 1995 National Environmental Management Action Plan (NEMAP), the 1997 National Conservation Strategy, the 2000 ADB Environmental Operational Strategy, the1995 Forestry Master Plan, National Biodiversity Strategy

and Action, and Bangladesh Climate Change Strategy and Action Plan. The Ministry of Environment and Forests with the collaboration of IUCN/Bangladesh and funding support from UNDP, has drafted the Bangladesh Biodiversity Conservation Strategy and Action Plan. This 18-month initiative complies with the requirement for such a plan for each country signatory to the Convention on Biodiversity. Similarly the recently developed Bangladesh Climate Change Strategy and Action Plan have been adopted by the GoB. The Government of Bangladesh (GOB) has mandated the Department of Fisheries as chief implementing agency of the policies of Fisheries sector. Even so, GoB resources do not suffice to police and protect the country's environmental resources including wetlands. To do so will require stakeholder cooperation and a concerted government effort to enlist people living in and around the PAs as partners in protection.

However, in the goals of country's Poverty Reduction Strategy it is clearly stated that, the wetland resources would have to be protect and conserve for the well being of associated stake holders. The aims and objectives for the protection of wetland resources along with the fisheries and other aquatic species highly emphasized in the National Fisheries Strategy (NFS). Based on the National Fisheries Strategy (NFS), the Department of Fisheries has documented Inland Capture Fisheries (ICF) Sub-Strategy, where also these issues are clearly addressed. In the Road Map for Fisheries Sector the MoFL aimed to produce 35 lakh metric tons of fish by 2015, of which 80% target will be achieved from wetland resources.

The Bangladesh Environmental Conservation Act of 1995 represents an important point of reference for efforts to improved management of environmentally important ecosystems. The Act includes a provision whereby if the Government is concerned that the degradation of an ecosystem has reached "a critical state" or is so threatened, it may declare the area to be an Environmentally Critical Area (ECA) by notification in the official gazette. In April 1999, this authority was exercised for the first time by the Secretary, MOEF, on advice of the Director General of the Department of Environment; in officially notifying the establishment of six separate areas covering approximately 40,000 hectares as ECA's. Subsequently two more ECAs were declared. These 8 ECAs are: 1) Teknaf Peninsula, 2) Saint Martin Island, 3) Sonadia Island, 4) Hakaluki Haor,
5) Tanguar Haor, 6) Marzat Boar, 7) Sundarbans (10 km landward periphery) &
8) Gulshan-Baridhara Lake.

At present, the country's Protected Areas - rural and remote as they typically are-provide poverty-reduction opportunities for thousands of marginalized communities who depend on them for livelihoods. It has been noted in various studies that women and children in particular, benefit from PAs. As these Protected Areas gradually disappear, so too do the livelihood opportunities of these poor communities. In spite of the well-intentioned efforts of the Government, it is a fact that these Protected Areas are rapidly diminishing in quality. The Government agencies now recognize, in light of local and global experience, that efforts should be undertaken to more fully incorporate local stakeholders as partners in the Protected Area conservation process.

Responding to the urgent need to address biodiversity conservation and related economic opportunity creation, the United States through USAID provided financial and technical support for MACH (Management of Aquatic Ecosystems through Community Husbandry) project since 1998. The aim was to establish community-based co-management and restore and increase sustainable productivity at the ecosystem level in three large wetlands: Hail Haor in Srimongal, Moulavibazar, Turag-Bangshi river and wetlands in Kaliakor, Tangail and the Kangshi-Malijhee basin in Sherpur. In the wet season these wetlands cover about 32,000 ha, and in the dry season they include over 100 distinct water bodies with nearly 100 villages inhabited by 184,000 people.

The US Government and the Government of Bangladesh elaborated and signed - on January 15th, 2003 - a Strategic Objective Grant Agreement (SOAG) to improve management of open water and tropical forest resources. The SOAG included the broad Strategic Objective and Intermediate Results agreed to between the two Governments.

As a continuation to SOAG a Program Objective Agreement (PROAG) was signed between the US Government and the Government of Bangladesh on 29 September 2007 with the program objective as "Economic Growth : To generate rapid, sustained, and broad-based economic growth." Main program element (natural resources and biodiversity) under PROAG is to conserve biodiversity and manage natural resources in ways that maintain their long-term viability and preserve their potential to meet the needs of present and future generations. In the context of the PROAG the USAID worked with the Government of Bangladesh to develop Integrated Protected Area Co-Management (IPAC) design and project concepts and related documents.

Since Protected Areas management cannot be isolated from their socio-economic context, the IPAC Project will thus need to emphasize livelihoods and direct benefits that will increase and institutionalize community participation. Special efforts will need to be made to take advantage of the GOB's long experience in community participation, with adaptations to interface landscape zones around Protected Areas. This focus will include systematic attention to gender and identifying ways to foster equitable participation in natural resource management, thus linking activities more directly to goals of poverty reduction through biodiversity conservation, sustainable economic growth, good environmental governance and community empowerment.

The scope of the Project will encompass impacts on institutions including the DoF and local level organizations, and products and services accruing from PAs. The Project is likely to have positive impacts at the institutional levels: the DoF; national training institutions focusing on natural resources management; and, local government and civil society representatives concerned with co-management. At the DoF, the Project will serve to strengthen staff capacity at national and regional/local levels through training and capacity building programs to enhance natural resources co-management capabilities, as well as ancillary skill areas such as communication, financial management, alternative income generation, good governance, leadership, and socio-ecological monitoring. All of these skill enhancements should provide positive impacts on the relevant Government Agencies. At the regional/local levels, Protected Area managers will receive institutional training related to collaborative management processes for Protected Areas. These institutional impacts, too, will be positive.

In order for the natural resources management skills of the DoF to be deepened, it will be necessary to ensure that permanent national training institutions have adjusted their curricula and educational content and capacity so as to meet those needs. The Project will work closely with relevant national training institutions such as the Fisheries Training Academy, the Independent University of Bangladesh, the Jahangirnagar University, the University of Dhaka and other relevant national and regional institutions. These institutional impacts, too, will be positive.

The Project will work to strengthen process so that the DoF can work with local stakeholders to manage Protected Areas. At each of the Protected Areas, co-management organizations such as co-management committees, resource management organizations, user groups, etc. will be established by ensuring that local stakeholders have a voice in decision-making for the Protected Areas co-management. In order to enable local stakeholders to participate fully in these local level co-management organizations, the Project will conduct training sessions in relevant subjects

including local governance, resource management, dispute resolution, organizational management, leadership building, financial management, donor coordination, etc. These impacts too will be positive.

There are positive production impacts that will result from the Project in the PAs and their surrounding landscapes. The Project should slow the exploitative withdrawal of natural resources obtained through unsustainable harvesting practices employed for achieving commercial objectives particularly animals and fisheries products from the existing Protected Areas. The Protected Areas included in the Project are all sites at which environmental degradation has occurred in recent decades. The Project is designed to reverse the environmental degradation, and to restore biodiversity and the eco-systems and benefits that derive from properly functioning natural systems. Improved natural resource protection should contribute to positive environmental impacts for the landscapes that populate the regions in which all the Protected Areas are found.

Linkages :

Co-management of natural resources between the GoB and local resource users has been attempted in various areas of Bangladesh. The Management of Aquatic Ecosystems through Community Husbandry (MACH) Project has developed means of sharing responsibility with local communities for natural resource management.

The Project will build on these co-management experiences, and adapt and scale-up them for use in and around the PAs. While these existing co-management attempts will help provide a set of lessons that can be drawn from a PA, it should be noted that the PA program provides a uniquely complex challenge. For example, the consumptive extraction of some resources will be curtailed from a PA, although potential services can be made available and sustainably managed through a co-management approach. The co-management of PAs may be linked to improved management, development of sustainable uses and provision of increased benefits to local communities from sustainable management and use of natural resources in the surrounding landscape.

The project will address the goals and objectives of the Inland Capture Fisheries Sub-Strategy to attain sustainable wetland resource management and ensuring equitable benefit sharing among the concern community.

The Project will work with local stakeholders to identify conservation-linked income generating economic activities and conservation enterprises which themselves can serve as offsetting increases in production and income that would allow local people to reduce pressure on the Protected Areas. While identifying suitable livelihood opportunities and enterprises, biodiversity and land-based income generation activities will be given preference, in consultation with local people. The GoB's approach to the Project is grounded in the pre-eminent importance of ensuring that Protected Areas attract private investment, and at the same time ensure that income generated directly or indirectly by the Protected Areas is shared with local people in such a way that it encourages them to work actively to support conservation and protection. Sharing of entry fees and other local revenues will be shared with participating communities and organizations as included in the PROAG.

More generally, a better-conserved natural environment will help to generate income for the region in which the PA is located. While nature products are not bought and sold in the market, it has been shown throughout the world (and reported on in the proceedings of the World Parks Congress – among other places) that well-conserved and managed Protected Areas have a direct and measurable contribution to the regional economies in which such Protected Areas are found.

The Project will work to enhance Protected Area status and quality, and will in this sense contribute to economic growth through income generation and biodiversity conservation. The Project will work to leverage public and private sector financing of future Protected Area management improvements including conservation financing through global climate change funding mechanisms. It can be logically anticipated that a successful demonstration of the Project co-management initiative will attract additional national and international interest. There is a mutual interest between private businesses and the Government in collaborating on PAs. Nature conservation partnerships may be conceptualized by the GoB to offer interested private business leaders a means of contributing to long-term PA conservation in way that is transparent, ensures that contributions reach their target, has low transaction costs, will make a long term difference in natural resource conservation and will generate beneficial public image for the contributor.

Initial reconnaissance of some of the sites makes it clear that women and youth are important beneficiaries in the use of Protected Areas. The principal use currently is the collection of fishes. Improved fisheries and wetlands management practices are needed, particularly for open water bodies (khas lands). At the same time, the co-management model under the Project will require that the women are given alternative opportunities in the surrounding landscape to offset the impact of lost resources inside the Protected Areas.

Under the Project, the DoF and local stakeholders will carefully assess the existing benefits of local women from the Protected Areas, and identify ways in which these benefits are either continue to be received by the women or are offset by similar products collected from outside the PA or produced *ex situ.* The product harvested from a PA sustainably, based on sound natural resource management principles, will be shared by identified local communities equitably. .

The Project is expected to contribute significantly to sustainable economic growth in remote rural areas with a high proportion of relatively poor groups. The economic interventions to be proposed will include sustainable benefits for co-management participants deriving from participatory conservation and benefits sharing arrangements to be negotiated and signed with locally organized groups of participants and stakeholders.

It needs to be ensured that income generated directly or indirectly by the PA accrues to local communities in such a way that it encourages and compensates them for supporting conservation and protection in and around the PA. Specifically, the Project and the Government Agencies will work together to increase the range of economically viable options for increasing the productivity of PAs and natural resources, their sustainable use, and level of local benefits and income for local stakeholders associated with their sustainable use and management.

The Project, the DoF and key stakeholders will facilitate arrangements designed to offset the loss of income and benefits from the reduction in extractive and non-sustainable use of natural resources in and around the targeted PAs by increasing their access to income, revenue sharing and other benefits and to the development and management of other goods and services provided by the PAs. Possible employment and income generation opportunities that will be targeted include eco-guides, tourism service providers, infrastructure development, natural resource-based activities, as well as enterprises related to the sustainable use of fishery products.
At each of the PAs, co-management organizations including resource management organizations will be established that ensure that local stakeholders have a voice and enhanced authority in decision-making, increased access to benefits and opportunities for sustainable use of natural

resources and associated economic incentives for the improved management of the PAs. An appropriate institutional structure (resource management organization) for sustainable PA co-management will be adopted. The co-management organization will have a broad-based structure, drawing people from different strata of the community from an identified landscape. Specific functions of resource management organization and Federations of Resource User Groups will be specified. An MOU may be developed for each PA and a part of fund may be earmarked for use by co-management organizations.

IPAC will embark upon the *strategic goal* of scaling-up natural resource co-management at the policy and operational level by achieving recognition, acceptance and integration of this approach by the GoB into its management tactics. The overall IPAC ***objective*** is to promote and institutionalize an integrated protected area co-management system for sustainable natural resources management and biodiversity conservation that results in responsible, equitable economic growth and good environmental governance.

Under IPAC, carefully crafted, integrated, activities will be implemented over significantly larger areas to: develop a protected area strategy that applies to all ecologically and economically significant areas, build technical capacity within national and local level institutions for protected area co-management, and expand the geographic area of Bangladesh under co-management to ensure the long-term success of the model. Institutionalization and successful implementation of IPAC will also address a series of short-, medium- and long-term climate change adaptation and mitigation issues.

IPAC will implement the following five main components in order to achieve the project objectives:

1. Development of a coherent strategy for integrated protected areas co-management and biodiversity conservation, through support for constituency building; visioning, policy analysis and strategy development; partnership building for sustainable financing; and development of an outreach and communication strategy with a focus on awareness-raising
2. Building stakeholder and institutional capacity, through support for training to GoB national and local level staff, NGOs and rural communities; strengthening of existing training centers and development of new and innovative applied training courses; and development of local support services for integrated, participatory co-management
3. Site specific implementation of co-management in Protected Areas to continue field testing and institutionalization of proven approaches for integrated PA co-management in existing and new aquatic and terrestrial protected areas; this will include the selection of additional sites to scale up the network of co-managed PA, and expanded support for alternative income generation activities, value chain strengthening, public-private partnerships, leveraged conservation financing and local level outreach to increase community interest in conservation and environmental stewardship, while contributing to improved welfare of rural communities through reduced vulnerability and increased adaptation to climate change, increased access to improved drinking water supplies and more secure and diversified livelihoods. Reduction of vulnerability and increase adaptation to climate change would be done through training and developing capacity of the resource users. On the other hand, USAID will take initiative through its other support program to install tube well and related mechanism so that the community people will have the access to improved drinking water.

4. Build and/or reinforce the infrastructure within PAs that will enable better management and provision of services at selected co-managed sites.
5. Design and implement a program of habitat management and restoration for PAs by adopting appropriate resource management tools (Fingerling stocking, Fish Sanctuary, Fishing effort control, Fish friendly structures etc) where considerable degradation of suitable habitat has taken place in recent times.

The project will also support cross-cutting approaches to take account of gender perspectives in natural resource management and to enhance gender mainstreaming processes, along with a focus on youth, to improve the livelihoods of young people and to provide a solid future constituency for conservation.

The Ministry of Environment and Forest (MoEF) will also implement a same nature project (IPAC). Both the Ministries (Ministry of Fisheries and Livestock (MoFL) and MoEF) will develop and conserve natural resources through co-management. So there should have a linkage within the two ministries. The wetland resources and forest resources are within the same ecosystem and they are complimentary to each other. On the other hand, the targeted beneficiaries are almost same who depend on both the resources for their livelihoods. As a result it would require developing a linkage between the two projects. Further more, through the IPAC projects a coherent Protected Area (PA) strategy will be developed. In that case, to make it more comprehensive coordination must be needed between the two ministries and the two projects.

As IPAC builds on the lessons learned and strong foundation established by MACH and similar other projects and carries forward with the integration of co-management in wetlands and forest areas, the following are expected results that IPAC aims to achieve by 2013.

IPAC Component	***Targeted Results***
1.Development of PAC Strategy	• Formal policy recognition of PA as a system and management unit, and approval of a national Integrated Protected Areas Co-management Strategy and Action Plan that devolves co-management authority to communities • Pragmatic conservation financing mechanisms developed and approved by the GoB to mainstream conservation financing in favor of co-management implementation at the national and local levels • At the local level, financial support through conservation financing mechanisms will facilitate adaptation of the communities as well as the GoB to climate change related vulnerabilities • Successful implementation of the conservation financing mechanism and demonstration of its sustainability • Climate change mitigation through improved land use initiatives and adaptation of the communities as well as the GoB to climate change related vulnerabilities

2.Building Institutional Capacity	• Institutionalization of co-management by the GoB as the accepted approach for PA management and biodiversity conservation • Ensure the sustainability of gains achieved under MACH , CBFM-2 and FFP of DoF • A cadre of professionals trained in PA management and co-management within the GOB institutions, as well as community organizations and NGOs. • Community-based natural resource management organizations involved in IPAC are sustainable, transparent, pro-poor and equitable.
3.Site Specific Implementation	• Implementation of the approved IPAC strategy establishing sustainable, more productive and resilient PAs • Increase the number of hectares under co-management and the visibility of the approach, by expanding co-management into additional PAs, including freshwater wetlands. • Development and demonstration of ecological restoration plans to rehabilitate degraded critical ecosystems through co-management while building stakeholder capacity for restoration. • Public-private sector alliances for PA co-management established and successfully operating.
4.Build and/or reinforce the infrastructure within PAs	• The selected Protected Areas will have the capability of receiving -- on a sustainable basis -- considerably increased numbers of visitors. • Protected Area managers will have the material resources including better housing and office facilities necessary to do their jobs effectively. • Updated maps will exist for each of the Protected Areas. • PA road and trail network in and around the targeted PAs will be better maintained, less damaging environmentally and used and maintained in a manner that contributes to the realization of the PA management objectives. • Visits to Protected Areas will conform to management plan prescriptions for land use and carrying capacity, and eco-tourism guidelines. • The quality of nature visits to Protected Areas will increase. • Eco-tourism facilities will be strengthened.
5.Design and implement a program of habitat management and ecological restoration	• Habitat restoration plans will be developed and implemented for selected PAs. • Enrichment and buffer plantations of indigenous aquatic species, water body development works, etc. will be taken up in the degraded landscapes of selected PAs. • Joint community surveillance and monitoring mechanisms for ecological restoration will be established.

Targeted Outcomes

The proposed project will have some direct benefit; however, most of the benefit of the project interventions is indirect. Through this project about 5500 fishers' family and 1700 resource user family will get direct benefit, on the other hand about 250000 people will get indirect befit. At present fish production in the beel and river are about 680.00 kg/ha and 271 kg/ha respectively. Due to project intervention this production will be raised up to three times.

A more detailed review of the Objectives, the tasks designed to support them, and their expected outcomes, are included in the following sections.

IPAC will provide technical advisory and assistance services to a range of stakeholders, including the Government of Bangladesh (GoB) and relevant ministries and technical agencies to promote and institutionalize an integrated PA co-management system for sustainable natural resources management and biodiversity conservation that results in responsible, equitable economic growth and good environmental governance. The definition and core of co-management is the participation of local stakeholders, such as communities and government to sustainably manage natural resources. IPAC will be a continuation of the ongoing USAID co-management activities namely the MACH project.

The IPAC Project will embark upon a *strategic goal* of scaling-up natural resource co-management at the policy and operational levels by achieving recognition, acceptance and integration of this approach by the GoB into its management tactics. IPAC will achieve its goals through the above-stated five major components with the following purpose, to:

- Provide high quality technical advisory services to GoB fisheries agencies to support the further development of the natural resources sector and the conservation of biological diversity;
- Develop a protected area strategy that applies to all ecologically and economically significant wetland PAs;
- Build technical capacity within national and local level institutions for protected areas co-management;
- Expand the geographic area of Bangladesh under co-management to ensure the long-term success of the co-management model;
- Address within IPAC a series of short-, medium-, and long-term climate change mitigation and adaptation issues;
- Develop or reinforce facilities in and around PAs; and
- Restore degraded PA habitats.

IPAC's strategy empowers poor people by giving them a central role in resource management and by addressing the fundamental issues of inequality and risk. In addition, IPAC strongly promotes a transparent process of environmental governance by ensuring a participatory, multi-stakeholder approach to resource management. MACH has developed "co-management" models, which devolve management authorities to local communities, whose lives are directly or indirectly dependent on natural capital. Through these appropriate models the sustainable management of the nation's natural resource base is becoming the joint responsibility of local communities, local government bodies and the concerned government agencies.

The fundamental question of why a country so rich in natural resources finds itself in such a dire ecological situation is, ultimately, a question of both policy and governance. While MACH's pilot efforts and co-management models have shown some spectacular successes, there still remain

unmet challenges in the sphere of national policies as well as in local management approaches. IPAC will not be able to address all natural resource and livelihood issues facing Bangladesh, but it will strategically focus on a few key challenges, including the lack of a coherent strategy for PAs, weak institutional capacity and the need for sustainable conservation financing.

The following are main expected outcomes that IPAC will achieve over the four-year period:

- Formal policy recognition of wetland PA as a system and management unit, and approval of a national Integrated Protected Areas Co-management Strategy and Action Plan that devolves co-management authority to local communities.
- Institutionalization of co-management by the GoB as the accepted approach for PA management and biodiversity conservation.
- Implementation of the approved IPAC strategy establishing sustainable, more productive and resilient PAs. IPAC will provide targeted assistance to institutionalize and ensure the sustainability of gains achieved to date in the 3 freshwater ecosystem areas under the MACH project. Furthermore, USAID under IPAC will increase the number of hectares under co-management and the visibility of the approach, by expanding co-management into additional PAs, which will include freshwater wetlands. These sites will demonstrate the success of co-management in PAs under varying GoB ministry jurisdictions and will incorporate larger PAs with international ecological significance.
- Pragmatic conservation financing mechanisms developed and approved by the GoB to mainstream conservation financing in favor of co-management implementation at the national and local levels. At the local level, financial support through conservation financing mechanisms will facilitate adaptation of the communities as well as the GoB to climate change related vulnerabilities.
- Successful implementation of the conservation financing mechanism and demonstration of its sustainability.
- Climate change mitigation through improved land use and adaptation of the communities as well as the GoB to climate change related vulnerabilities.
- A cadre of professionals trained in PA management and co-management within the GoB institutions, as well as community organizations.
- Community-based natural resource management organizations involved in IPAC are sustainable, transparent, pro-poor and equitable.
- Development of infrastructure/facility for improved management of PAs and use by visitors.
- Development and demonstration of ecological restoration plans for selected sites to rehabilitate degraded critical ecosystems through co-management while building stakeholder capacity for restoration.
- Public-private sector alliances for PA co-management established and successfully operating.

These expected outcomes will lead to more sustainable natural resource management and enhanced biodiversity conservation that will assist in the further conservation of the country's natural capital while promoting equitable economic growth and instilling stronger environmental governance systems.

It is understood that some of the expected results may appear to be outside the IPAC's manageable interests within this time frame. However, the IPAC will carry out its tasks in such a manner as to help facilitate achievement of these results rather than purely focus on task outputs.

Under Component 1, Development of a Coherent Integrated Protected Areas Co-Management Strategy, expected outcomes/results include:

- Active support from the relevant GoB stakeholders demonstrated by the development of a coherent, integrated PA management strategy and action plan.
- The approval of a coherent, integrated protected areas system strategy and action plan that institutionalizes and scales up co-management as the approach for PA management at the national level.
- Development with the GoB agency and approval by the GoB of a formal conservation financing mechanism for sustainable natural resources management with part of the benefit reaching the poor communities along with implementation of the mechanism with the GoB.
- Development of an effective conservation partnership involving the GoB, private sector and other civil society organizations.
- Communities able to adapt to climate change related vulnerabilities.
- A Communication Strategy and Action Plan designed and implemented.
- A series of targeted outreach activities carried out throughout the implementation period.

Expected outcomes/results under Component 2, Building Stakeholder and Institutional Capacity, include:

- Needs for institutional capacity assessed and training plan developed.
- A series of in-country, Asia regional and US-based training and site visit programs on various aspects of PA management for GoB officials at various levels executed;
- Development of a foundation course on integrated PA management;
- Strengthened capacity of the existing training centers;
- A series of training programs at the community level conducted;
- Capacity increased of the agencies and stakeholders involved in PA management during IPAC implementation and beyond.
- Capacity of the GoB to participate in international climate change negotiations, effectively implement National Adaptation Program of Action (NAPA) and Bangladesh Climate Change Strategy and Action Plan increased.
- Development at the community level of a pool of trained extension agents.

Expected outcomes/results under Component 3, Site-Specific Implementation of Co-Management in Protected Areas, include:

- Sustained co-management of existing MACH project sites through targeted assistance.
- Increased number of hectares under co-management and heightened visibility of co-management model.
- A number of conservation micro-enterprises and alternative income generation (AIG) activities involving targeted beneficiary groups of men and women in demonstration sites implemented.
- Business plans for community-based eco-tourism developed and viability of these enterprises assured.
- Outreach activities that contribute to the successful implementation of co-management in selected sites carried out with communities.

Expected outcomes/results under Component 4, Build and/or reinforce infrastructure/facility within Protected Areas, include:

- Renovate/enhance existing infrastructural facilities of GoB partner agency's training centers, site offices.
- Selected PAs will have office and accommodation facilities for their improved co-management.
- Selected PAs will have enhanced capability of receiving increased number of visitors (Visitor Interpretation Center).
- PA managers will have necessary material resources including equipments and mobility for performing their managerial jobs efficiently.
- Updated and new maps for all the PAs.
- Improved nature trails and signanges for selected PAs.

Expected outcomes/results under Component 5, Design and implement a program of habitat management and ecological restoration in Protected Areas, include:

- Improved management practices like habitat restoration by excavation/re-excavation; fish sanctuary, plantation for the eco-restoration of selected Wetlands (PAs).
- Degraded PA landscapes restored for selected PAs through community protection and participatory management practices.

A number of tasks/activities will be completed in order to achieve the above-stated outcome/results. The results of these tasks will lead to more sustainable and participatory natural resource management and enhanced biodiversity conservation that will assist in the conservation of the country's natural capital while promoting equitable economic growth and instilling stronger environmental governance systems. Component efforts will work in parallel to: develop and gain agreement on an IPAC strategy; identify, and subsequently select appropriate training organizations, protected areas, and co-management curricula in the country and region; and select appropriate field implementation sites. The eventual establishment of demonstration sites will enhance the visibility of PA management and reinforce the institutionalization of the approach.

Main activities will include, but are not limited to, technical advisory and consulting services, policy dialogue and support, training and capacity building services, workshops and conferences, logistical support, small-scale infrastructure, habitat restoration initiatives and a limited purchase of commodities. The major thrust of the project will be to support the relevant fisheries agency to develop and implement a coherent strategy for integrated protected areas co-management based on existing policies, rather than seeking to legislate new policies or bring about broad changes to the policy framework. This task will require taking into account the different policies, strategies, action plans, rules and approaches that each government institution has for areas of high conservation value, high economic value and/or critical ecosystems and consider how to organize an overall national, strategic framework that would institutionalize co-management as the approach for conservation.

It will be critical that a close dialogue is maintained with USAID and appropriate GoB entities throughout this project to ensure that there is full buy-in and high level commitment throughout its implementation. The project has incorporated specific measures to be implemented to: 1) help ensure that all relevant stakeholders (including community members, the private sector, local governments, NGOs and other civil society organizations) are able to see measurable short-term benefits from the IPAC strategy; 2) build credibility and operational experience of the concerned

agencies; 3) demonstrate to the GoB the benefits of expanded implementation of the strategy for the sound governance of natural resources and biodiversity that promotes sustained economic benefits; and 4) assist the country in adaptations to climate change.

For the implementation of the five major components noted above, the IPAC will review, recommend and conduct interventions as feasible. It is also recognized that the project may also have to consider additional interventions as appropriate for the overall success of the IPAC strategy. Examples of such additional interventions might include addressing the specific threats to biodiversity at project sites to ensure biodiversity conservation and improving overall livelihood well-being and security in the face of vulnerabilities that may be exacerbated by climate change, particularly as conflicts over resources may arise. IPAC must also be cognizant of gender and youth issues in the design of tasks in pertinent intervention areas and take appropriate measures in support of gender equity/equality.

IPAC will proactively seek to leverage the funding and resources of other development partners including the GoB. The project will also be responsible for ensuring that all component tasks are sufficiently coordinated with USAID and other donor and multi-lateral environment activities. The interventions under the project are expected to be closely coordinated with two other USAID activities: the "*Policy Analysis Monitoring and Assessment*" (PAMA) and "*Poverty Reduction by Increasing the Competitiveness of Enterprises*" (PRICE) to establish a natural product value chain, as well as build market partnerships.

IPAC shall primarily coordinate with the Department of Fisheries (DoF) under the Ministry of Fisheries and Livestock (MoFL). In addition, the Ministry of Land and the Ministry of Finance will be among the other important government stakeholders, including the Ministry of Local Government, Rural Development and Cooperatives and the Ministry of Water Resources, which will receive IPAC's focus. IPAC will be a continuation of USAID's ongoing effort in community co-management of natural resources. The co-management organizations and participatory management processes at the local level will, therefore, be the prime targets that IPAC will work with. All the above mentioned entities will receive capacity building support from IPAC and, at the same time, will be simultaneously engaged in implementing IPAC so that they form a strong constituency for conservation and institutionalize the co-management approach across the country in different natural resource settings.

IPAC will collaborate with NGOs and other organizations with experience in co-management. The local NGOs have developed notable expertise in implementing various crucial components of co-management, even though linking conservation with other mechanical parts of co-management still poses a challenge. For example, linking social mobilization and community mobilization with conservation and sustainable natural resources management remains difficult. Nonetheless, there is a critical mass of local expertise available now. There is also available a critical pool of academics, civil society groups and private sector entities that IPAC will tap into. While leadership of international experts may be called upon and beneficial for the development of the PA strategy, including a sustainable financing mechanism, there are a number of local experts available to form an efficient team.

The components 4 and 5 will be implemented by the concerned Government agency DoF, but IPAC will provide technical oversight of the habitat restoration and infrastructure development activities for which a local architectural and engineering (A&E) firm has been hired. This firm will monitor the planning and design, expenditures, construction and other activities to be carried out by using RPA money.

15. Whether any pre-appraisal/pre-investment study was done before formulation of this project? If so, attach summary of findings & recommendations

Based on a pre-appraisal study done in pursuance to the relevant strategic objective of the Environment Team of the USAID-Bangladesh, a program designed entitled, "Integrated Protected Area Co-Management" was completed in order to achieve the PROAG objectives. In this process the USAID/Washington was involved and a number of the technical consultations were held. The following findings are presented for ready reference: Program Element- Natural Resources and Biodiversity: Conserve biodiversity and manage natural resources in ways that maintain their long-term viability and preserve their potential to meet the needs of present and future generations. The following sub-elements were focused as per the recommendations /findings: Biodiversity Policy and Governance: participatory, equitable and transparent governance structures, policies, laws, regulations and administrative practices impacting the conservation and sustainable management of biodiversity services.
Biodiversity Conservation: Improve biodiversity conservation, enhance management effectiveness, and expand/maintain natural ecosystems and habitats managed primarily to protect and conserve biodiversity and associated ecosystem services.
The approach of the USAID program is to support community-based ecosystems and natural resources management. While conservation of natural resources is central to implementation approaches, USAID's Environment Program for Bangladesh will continue to work to expand broad-based economic opportunities at a landscape level, giving the poor a central role in the planning and implementation process. This also ensures participation of other members of the community who have a stake in the management and utilization of natural resources.

16.	**Mention the following:**	:	
	a. Net Present Value (NPV)		
	(i) Financial	:	Not Applicable. Clarifications given below:
	(ii) Economic	:	
	b. Benefit / Cost Ratio (BCR) (IRR)		
	(i) Financial	:	
	(ii) Economic	:	
	c. Internal Rate of Return		
	(i) Financial	:	
	(ii) Economic	:	

Conservation of bio-diversity, alleviation of local poverty, protection of environment, creating environmental awareness for people, etc. are the basic objectives of the project. Such projects do not provide any direct financial benefits and hence financial and economic analyses (e.g. IRR and BCR analyses) are not applicable for this project. However, intangible benefits like increased fisheries production, increased biodiversity, protection of water pollution, adequacy of oxygen, absorption of carbon dioxide, protection of rise in temperature, air purification, land erosion prevention, reduction of sound pollution, creation of recreational facilities, increase of soil fertility, creation of safe habitat for wild animals and increase in the supply of food items for wild lives, preservation of bio-diversity, support to adequate rainfall, climate change adaptation and mitigation, etc. could be achieved. These intangible benefits may be quantified only indirectly through compensation principle, candidate beneficiaries being ready to pay towards the investment

cost of the project for the psychological satisfaction one would have to forgo had the project been shelved. Such benefits may occur either to an individual or to a community or to society at large. Many environmental, biodiversity conservation and capacity development projects fall in this category.

17. Lessons learnt from similar nature of projects :

The United States through USAID provided financial and technical support for MACH (Management of Aquatic Ecosystems through Community Husbandry) project since 1998. The aim was to establish community-based co-management and restore and increase sustainable productivity at the ecosystem level in three large wetlands: Hail Haor in Srimongal, Turag-Bangshi river and wetlands in Kaliakor, and the Kangshi-Malijhee basin in Sherpur. In the wet season these wetlands cover about 32,000 ha, and in the dry season they include over 100 distinct water bodies with nearly 100 villages inhabited by 184,000 people.

The Department of Fisheries also implemented another similar project named Fourth Fisheries Project during 1999 to 2006. Out of four main components of this project, the largest component was Inland Open Water Fisheries Management through Community based approach. 45 Community Based Organization (CBOs) were formed in 39 intervened water bodies in different districts. These CBOs named as Fisheries Management Committee (FMC) were formed with the representation of Fisheries Subcommittee (FSC) formed at village level. FMC with the participation of community members formulates Yearly Fisheries Management Plan for the intervened water body. Local DoF provide technical assistances. A number of management tools implemented for resource conservation and expansion, namely ; Fish Habitat Restoration by re-excavation and de-weeding; Fish Sanctuary establishment in identified hot spots of the water body; Fish Fingerling Stocking in closed, semi-closed water body; Fishing Effort Control etc. Study reveals that due to successful implementation of such management interventions fish production increased by 2-3 times in the project water areas and 7-24 disappeared fish species reappeared.

Another project of DoF named CBFM-2 implemented during 1996 to 2001. This project was also similar nature. 116 water bodies in different districts were the project intervened area. Here also resource conserved and managed through community based approach. The result was remarkable. Fish production and aquatic biodiversity notably increased. Seeing the success of such Community Based Resource Management projects, DoF is now implementing a number of GoB projects of similar nature. The experiences and lesson learned from such projects shows that:

- In the management and development of Natural resources, community concern must be involved in the process;
- Community should be organized in a democratic way and would have to be institutionalized with strong legal base;
- Once the CBOs are well organized and their skill developed in natural resource management, they then by themselves are capable to undertake any management decisions;
- Intervened water body must be laid to them for long term tenure (at least 10 years),
- Project support would have to be withdrawn gradually;

18. Indicate the basis of total and item-wise cost estimate and : date of preparation of rate of schedule

The item-wise cost estimation was done according to existing market price and BWDB latest work rate.

19. **Give comparative cost of major items of similar other projects**: Not applicable.

Sl No	Name of the Project	Date of Completion	Name of Major Items	Unit/Cost (In Lakh Taka)
1	MACH Project	June, 2007	Micro credit for AIGA	291.00
2	CBFM-2	March, 2007	Challenge fund for minor infrastructure works to improve fisheries	143.33

20. Attach detailed annual phasing of costs (As per Annex-V) :Attached.

21. **Specification/design of major components** (attach) :

Component 1 - Development of a Coherent Integrated Protected Areas Co-Management Strategy

Objectives

The aim of a coherent Integrated PA Co-management Strategy will be to take the co-management successes of the MACH and similar other projects to the national level by including valuable areas of biodiversity. The goal of this intervention will be to develop a strategy that encompasses the existing policies (without creating new ones), and enables them to be implemented such that they establish a PA system explicitly managed with the participation of local stakeholders.

Tasks/Activities

The MACH project has had notable success in institutionalizing the co-management process in management of inland capture fisheries under the jurisdiction of DoF. There is still the need to go beyond these areas to other important areas of biodiversity throughout the country. However, in Bangladesh a variety of Ministries have jurisdiction for managing areas of ecological importance and there is no common protected area strategy.

The PA strategy developed through this intervention will enable all agencies involved in natural resource management to work from the same framework through co-management.[1] It will not replace their existing policies, but assist them to utilize the co-management approach for effective resource conservation, economic growth and civil-society strengthening. Eventually this approach will allow all ecologically important areas, regardless of administrative or management jurisdictions, to be labeled as PAs. This strategy will introduce an integrated, co-management concept for all PAs nationally. It also will work to strengthen the GoB's capacity to better understand the crosscutting linkages between natural resource management, economic growth and good governance, to establish the formal basis for co-management, and to establish a basis for sustainable financing of PA co-management.

1. The proposed interventions will also work towards carrying out the vision outlined in the *National Biodiversity Strategy and Action Plan (NBSAP)* for Bangladesh and the *Inland Capture Fisheries Strategy (ICFS).*

The people around the PAs are victims of extreme poverty; therefore, the IPAC will be responsible for community empowerment to improve their livelihoods and the sustainable management of natural resources. Furthermore, given the country's demographics, PAs will increasingly become involved in intractable social conflicts especially under a global climate change scenario. Conflict between powerful vested interests and poor communities over natural resources, as well as between local communities and the government agencies, will undoubtedly increase; therefore, the IPAC will address methods of conflict prevention that take into account the needs of the traditionally marginalized poor communities. The IPAC will ensure that the ultra-poor do not suffer from any socioeconomic exclusion; but instead, have the opportunity to be at the center of implementation. Some of the PAs and their surrounding landscapes also have ethnic and religious minorities as inhabitants. As the PAs are remotely located, women often face additional social, cultural and religious barriers. There is also the challenge of the role of youth, many of whom have dropped out of school and a few opportunities for their futures. The IPAC will be sensitive to ethnic, gender and youth issues and will make a focused effort in addressing them.

To achieve the goal of developing a coherent, integrated PA co-management strategy, the following tasks/activities will be required:

A. Constituency Building
B. Development of new PA Strategy
C. Partnership Building for Sustainable Financing
D. Outreach

Task/Activity A. Constituency Building

The IPAC will conduct interventions with stakeholders to begin discussion of the need for an integrated PA system and to build a constituency for such a strategy and system. The interventions (which likely will include a range of stakeholder meetings), will emphasize the value of biodiversity with particular reference to equitable economic growth and responsive governance. The key stakeholders will be actors responsible for bio-diverse areas as well as relevant in implementing a new PA financing system, such as government ministries, local government, leaders, NGOs, the private sector, and communities.

Task/Activity B. Development of an Integrated PA Strategy

In conjunction with the building of a conservation constituency, the IPAC will develop a vision among these stakeholders for an integrated PA system that includes co-management as its cornerstone. The IPAC will analyze with government agencies the existing legal framework and the types of changes that might be needed to institutionalize an integrated protected area co-management system. This analysis will compare existing policies and the opportunities for harmonizing them while developing a coherent integrated protected areas co-management strategy.

In the design and adoption of a national IPAC strategy, the project will utilize as building blocks, the successes of MACH in leveraging GoB approval of the Inland Capture Fisheries Sub-Strategy (ICFS). The design and adoption will require from the project intense interaction and collaboration among government officials of at least three key ministries: 1) Land, 2) Fisheries and Livestock (MoFL), and 3) Finance. The MoFL will play an important role as it is charged with the responsibility for implementing the ICFS, and other wetlands and fisheries related policies and legislations.

Task/Activity C. Partnership Building for Sustainable Financing

Partnership building for sustainable financing will occur at the national and local levels. At the national level, the IPAC will seek broad support from other development partners, including the GoB, for PA management and conservation and will deploy a range of approaches to ensure sustainable financing for PA co-management. At the local level for co-management to be fully successful, the GoB will need to officially recognize that communities that invest in the protection of natural capital deserve to receive benefits from the revenues generated as a result. The IPAC will therefore work to establish pragmatic financial approaches such as revenue generation from PA and benefit-sharing with participating communities.

The IPAC will work to review a recently signed a multi-year Program Agreement (PROAG) between USAID and the GoB as a building block because it includes an explicit provision for retention of entry fees for use by the co-management organizations. The experience under MACH, NSP and the PROAG provide a foundation for IPAC's intervention to establish a permanent financial mechanism for PA co-management. Sustained benefit-sharing by co-management organizations will result in more direct and immediate economic benefits to the participating communities as payments for their conservation efforts as well as an increase in economic activities to be undertaken by local stakeholders. These activities, in turn, will provide additional benefits to communities through improved land use and adaptations that increase their resiliency to climate change-related extreme events such as floods, cyclones and drought.

Task Activity D. Outreach

Building upon existing successes and materials developed and practiced by MACH, the IPAC shall develop an outreach and communication strategy at the outset with a clearly focused action plan. The project's plan will detail how it will reach out to stakeholders and build a constituency for conservation at national and local levels. This constituency includes government officials, other donors and the rural poor, particularly women, youth, and urban residents. An overall objective will be to raise awareness among the public of the biological richness of Bangladesh and the laws that pertain to biodiversity conservation and PAs.

Component 2 – Building Stakeholder and Institutional Capacity

Objective

The objective of the capacity building intervention under IPAC is to assist the GoB organizations and relevant NGOs and communities in implementing co-management within PAs and to develop the ability to continue such programs on their own.

Tasks/Activities

Capacity is pivotal to a successful co-management approach. Capacity is more than financial and human resources; it also includes motivation and commitment, which, in turn, require appropriate incentives at all levels. Ultimately, for co-management to be sustained, it will be anchored within existing contextual systems (government), frameworks (e.g., Poverty Reduction Strategy Paper, PRSP) and the Annual Development Plan, ADP), and processes (devolution), even where these are imperfect or insufficient. Capacity building will require specific training programs, along with the establishment of an in-country PA management training program within an existing institute. The

newly formed Fisheries conservation and Management section at the DoF will be targeted for capacity building in particular.

To achieve this goal the following tasks/activities will be required:

A. Training
B. Local Support Services

Task/Activity A. Training

IPAC will develop and provide training to various DoF staff at the national and local level, NGO staff, and community members to develop the skills needed to implement the IPAC strategy with the full participation of communities. The IPAC will carry out a need assessment that will be used as a basis for assessing the capacity of the DoF. IPAC will also help GoB develop capacity for climate change negotiations as well as developing competitive grant proposals to access intergovernmental climate funds or private carbon markets that will help the GoB implement the NAPA and Bangladesh Climate Change Strategy and Action Plan.

The project will focus on the following training priorities : (1) strengthening the capacity of the existing training centers; (2) developing an integrated foundation course on applied conservation biology (e.g. nature conservation, biodiversity, sociology, PA co-management, alternative livelihoods, and community-based eco-tourism) that will include all PA management issues and community-based adaptation to climate change; and (3) designing and implementing in-country and overseas short-term training programs. Local and regional academic/professional training institutions will play a vital role in PA capacity building efforts and the project may use a combination of international and national expertise. The IPAC, in order to avoid any duplication, will fully utilize the existing co-management working models, databases and methodologies that have already been developed.

IPAC will determine specific training interventions as the project is implemented and with the participation of stakeholders to identify and prioritize needs. One likely intervention may include the establishment of an in-country PA management training program through, for example, the development of a foundation course at a local institution to train a broad range of staff from all GoB departments. The curriculum elements would focus on training in the co-management approach for biodiversity conservation and natural resources management. The option of developing a training center that focuses on training the trainers will also be explored so that trainers could then spread out across the country implementing co-management on a larger scale. Training courses and approaches will build upon and strengthen existing training facilities and resources in order to avoid duplication and ensure cost-effectiveness. The training center would also link to MACH training sites.

One requirement for the long-term sustainability of IPAC is the ability of the GoB to move away from the traditional “mandate” regime of managing natural resources and embrace modern environmental and sustainable development concepts through adoption of PA co-management. Implementation of the PA co-management approach will enable it to successfully attract and seek outside funding from other donors, such as the Global Environment Facility (GEF) and commercial markets. Therefore, in addition to building GoB capacity in PA co-management, the project will also provide training assistance to the GoB in applying for funding as well as the ability to be accountable for funds received. Similarly, assistance to NGOs and communities in

proposal writing and funds accountability will be given. Furthermore, for local communities and resource committees, training in alternative forms of income generation will be given.

Task/Activity B. Local Support Services

MACH has invested in building the capacity of resource user groups and their related organizations. This investment has resulted in a large pool of local human resources for co-management. The villagers themselves are now proficient in the concept of co-management. They have been the major actors for on-the-ground change and improvements in the natural resource base as well as being an integral part of the social mobilization for co-management. As the IPAC strategy becomes institutionalized and nationalized; having a cadre of experienced personnel in co-management will be important in scaling up across the country. The pool for this cadre could be existing members of resource user groups.

The project will work to take advantage of this local human resource pool and design and implement methods by which experienced villagers/members of resource user groups are trained to become extension agents for peer-to-peer trainings with other villagers who are to be beneficiaries under the IPAC strategy. There are several advantages to this approach. First, other villagers may more readily and rapidly understand and accept co-management if explained by a fellow farmer or fisher. Second, it is envisioned that they would be paid for providing such local support services (or professional services), which would result in a lower cost than hiring consultant extension agents. Third, the establishment of co-management in MACH, and this project recognizes the need for alternative income generation as a replacement to any lost income due to conservation and/or an incentive for conservation; therefore, it is highly appropriate that past resource users with experience be given an opportunity to earn income and provide professional services from their co-management experience as another means of alternative income generation. Therefore, the project will provide a feasibility analysis of the utilization of this local human resource pool and design an implementation plan for its long-term success and sustainability.

Component 3 – Site-Specific Implementation of Co-Management in Protected Areas

Objective

The goal of the IPAC Site-specific Implementation intervention is to implement and continue field testing of integrated PA management in a targeted number of new and existing aquatic and terrestrial PAs, including those where MACH worked, aiming to institutionalize gains.

Tasks/Activities

Much of the formation of the IPAC Strategy will occur at the national level. While progress is being made on the strategy's adoption, demonstration sites at the local level will be chosen. For the site-specific implementation component the following tasks will be required:

A. Selection of demonstration sites and deployment of appropriate field interventions
B. Alternative income generation and conservation financing
C. Outreach

Task/Activity A. Selection of demonstration sites and deployment of appropriate field interventions

The project will support the adoption of the IPAC strategy through demonstration sites across the country in two ways. Firstly, the project will support the continued sustainability of existing co-

management sites of MACH and secondly, will establish additional new project sites to scale-up the areas under co-management and prove co-management's wider viability and applicability.

MACH demonstrated co-management success in three representative freshwater ecosystems, but the total core area coverage was only 20,000 hectares, impacting 500,000 people. The IPAC will provide limited, targeted assistance to institutionalize and ensure the sustainability of gains achieved to date in the 3 freshwater ecosystems under the MACH project.

This Task of IPAC will not only build upon MACH, but will also provide targeted assistance to the institutions and habitat improvement processes established by the pioneering initiative to make sure that the objectives of the previous interventions are fulfilled. IPAC, however, does not anticipate that the project will have to deploy a full-scope technical assistance to the existing institutions and sites. MACH has taken some practical steps to maximize the sustainability of its local partner institutions. First, the local partner NGOs will receive some funds to periodically monitor for two additional years beyond June 2008, the operation of local institutions such as the Resource Management Organizations, Federation of Resource User Groups and Upazila Fisheries Committees. Secondly, endowment funds have been placed with all of these institutions to maintain their administrative costs. It is believed that at least 90% of the MACH institutions will be self-sustaining. One of the priority tasks of the IPAC will be to conduct a "need analysis" of the MACH stakeholders in order to develop an astute intervention package.

Given that the basic governance structure for co-management has been developed and tested, and that the needed economic and ecological interventions have been broadly identified through MACH, the IPAC will use these lessons learned and the methodology developed to increase the number of hectares under co-management. Increasing the number of hectares under co-management will serve various purposes. Firstly, it will target areas of ecologically significant ecosystems of international standing such as the Hail Haor. Hakaluki Haor and the Tanguar Haor. The IPAC will also attempt to work on PAs located within remote areas that still possess invaluable biodiversity conservation potential. By focusing on such areas, the project will also expand the visibility of this approach. Furthermore, during the expansion of the physical area under co-management, the project will demonstrate as to how an increase in physical area can be carried out in a cost-effective manner. In this regard, the project will develop implementation manuals based on site-based lessons learned that provide guidelines on how to cost-effectively scale-up the co-management approach under the IPAC strategy developed under component one.

In addition to considering the further support that may be needed to the MACH sites, the IPAC will work in additional protected areas. These new sites will demonstrate the applicability and viability of the co-management approach beyond MACH and Nishorgo and within the context of the overall IPAC strategy. New sites have been chosen based on three criteria:

a. sites under different departmental jurisdictions;
b. sites identified through a biodiversity priority setting exercise and
c. sites vulnerable to climate change.

The reason for choosing new sites under different departmental jurisdictions that are also a high priority for biodiversity conservation is to develop capacity in these departments in PA co-management in addition to demonstrating the applicability and viability of the co-management approach. Site selection criteria have taken into consideration of the proximity of new sites near existing MACH sites in order to improve overall landscape management of natural resources.

IPAC may also consider the restoration of degraded critical ecosystems and seek the active collaboration with other donors' initiatives for the scaling up of the co-management approach.

Task/Activity B. Alternative income generation and financing

Conservation often holds an opportunity cost for local communities; therefore the IPAC will establish alternative income generation opportunities and conservation micro-enterprises for local communities at the direct sites selected along with the overall sustainable conservation financing of these sites. Interventions will be tailored to the specific needs of women and men and will ensure the full participation of women.

The IPAC will include the development of public-private sector partnerships as a means of conservation financing. MACH operated a revolving microfinance operation among target beneficiaries and provided them with skill development training. MACH linked the beneficiaries with other donors' initiatives. The IPAC will build upon these past efforts while looking for more innovative AIG approaches, including tourism-based conservation enterprises and high-value nature products value chain development, aiming to reach a larger target group as well as a diverse range of enterprises. Furthermore the IPAC will consider how sustainable finance will help the ultra-poor communities to combat climate change related vulnerabilities.

Task/Activity C. Outreach

While the IPAC will be building conservation constituencies at the national level for the IPAC strategy, the project will also be responsible for outreach at the local level. The goal of the project's efforts at the local level will be to increase community interest in conservation and in becoming environmental stewards. While outreach under this sub-component will follow the overall IPAC communication strategy, specific methods will be identified and developed that are suited to specific locations and situations throughout the course of field mobilization.

Component 4 - Build and/or reinforce the infrastructure within Protected Areas

Objective

Main objective of this component is to build and/or reinforce appropriate resource management interventions, CBO establishments, facilities within PAs, which will enable sustainable resource management and better provision of visitor services at co-managed sites.

Tasks/Activities

Protected Areas must have the infrastructure within them for their improved management by the government agency and co-management organizations and should also enable visits to nature by general people. In order to provide scientific and management support at the Protected Areas, the concerned Government agency has a critical need for basic upgrade or installation of infrastructure and services. The IPAC is designed to provide this infrastructure and service facilities for the Protected Areas.

For build and/or reinforce the infrastructure within protected areas component following task would be required:

A. Build/renovate infrastructures for appropriate management interventions

B. PA office and Staff Facilities
C. Visitor Facilities

Task/Activity A. Build/renovate infrastructures for appropriate management interventions

MACH project established a number of infrastructural facilities both for resource management as well as for CBO development. These require further renovation including some newly build management interventions such as Fish Sanctuaries. Renovation of CBO offices, new construction of guard shed/ community center, visitor interpretation center will be included under this activity. These tasks would be implemented by using RPA money.

Task/Activity B. PA Office and Staff Facilities

Main activities to be undertaken under this component, to be implemented by the respective Government agency by making use of RPA money, include,

i) Construct office and residence building for selected PAs,
ii) develop and update land use maps for each of Protected Areas,
iii) rehabilitate/refurbish offices in selected Protected Areas,
iv) review the existing networks of trails and access routes, and adopt improved management practices to reduce erosion, control use, and minimize the negative environmental and ecological impacts of such roads and access routes,
v) improve the mobility of staff members at each of the Protected Areas,
vi) obtain office and field equipments for Protected Area managers, and
vii) obtain signs and markers for boundary identification, and visitor information, for selected Protected Areas.

Task/Activity C. Visitor Facilities

Main activities to be undertaken under this component, to be implemented by respective Government agency by making use of RPA money, include,

i) boating facilities in the protested wetland areas, establish appropriate signage, hiking trails, education/Interpretation centers for visitor in selected Protected Areas, and
ii) develop and implement eco-tourism micro-plans for selected PAs.

<u>Component 5</u> - Habitat management and ecological restoration.

<u>Objective</u>

Main objective of this component is to design and implement a program of habitat management and ecological restoration in selected wetlands (PAs) for resource protection, conservation and enhance fisheries resource.

<u>Tasks/Activities</u>

In order to achieve this objective, a number of tasks/activities will be undertaken by the respective Government agency (DoF) by using RPA allocations. Most of the Protected Areas, have seen considerable loss of habitat quality in the past two decades. In some Protected Areas this loss of original habitat has been extreme. The IPAC will work to develop and implement sound

ecological strategies for ensuring that degraded wetland PA landscapes are restored using best practices.

Main activities under this component will include:

i) Review of the wetland habitats including flora and fauna that existed in the Protected Areas in previous periods,
ii) On the basis of past management and present use and ecological conditions, a strategy will be elaborated for ensuring ecological restoration and/or rehabilitation of the wetland Protected Areas,
iii) Aquatic species that are indigenous will be propagated in a manner consistent with a restoration/rehabilitation plan and the broader, comprehensive co-management model and landscape approach to PA management,
iv) Specific PA management activities will be identified and implemented to reduce pressures and actions contributing to wetland encroachment, siltation , pollution, habitat loss, , illegal exploitation and other forms of degradation,
v) Natural regeneration of indigenous species will be encouraged,
vi) Appropriate linkages will be established with other relevant government implemented projects,
vii) Cost effective interventions will be identified and implemented that contribute to the habitat restoration and of the PA and surrounding landscape while simultaneously providing economic incentives and reinforcing the empowerment of local stakeholders to gain and benefit from these restoration and rehabilitation interventions, and vii) Existing small water bodies will be maintained and rehabilitated wherever necessary for assisting natural regeneration and use of fisheries and local communities.

The identified activities as described in component 4 & 5 that has to be implemented by using RPA money for wetland and fisheries resource development has shown in Annexure-V.

Cross-Cutting Tasks/Activities

Gender Perspective

Women and men have different gender-based knowledge of, access to, and control over natural resources, and different opportunities to participate in decisions regarding natural resource use. Understanding women's and men's relationship to natural resources, therefore, plays an important role in developing solutions that are more effective, equitable and efficient in advancing the sustainable use of natural resources. A gendered approach of natural resource management, therefore, takes the activities of both men and women into account, incorporating them into project planning in order to reap the benefits from both. Ignoring gender distorts the full understanding of human impacts on the environment.

In Bangladesh, like in most regions of the world, men play a greater and more direct role than women in the exploitation of natural resources for commercial purposes – fishing, grazing livestock, logging, mining, and extracting various natural resources. While both women and men are involved in economic activities such as farming, women have additional domestic responsibilities such as food preparation, water and fuel wood collection, child care, and maintaining family health. Participation of women in decision making mostly ignored in

Bangladesh. Men enjoy full decision-making authority. IPAC's environment program works in remote rural areas where women face tremendous social, cultural and religious barriers.

Gender mainstreaming has been a goal since the inception of the MACH environment program. Through the MACH project has tried a variety of approaches to ensure that women are not only present in activities, but are empowered to participate meaningfully. For example, recognizing that women in rural Bangladesh had no public voice and few rights, the MACH project started forming women-only Resource User Groups (RUG) as a beginning. Currently, one-third of the RUGs (over 250) are women-only. These offered poor women a chance to participate and prosper, which many have grabbed with both hands. Overcoming social norms has been a delicate task, but small group meetings and "women's wetland days" are changing attitudes. By now, about 25% of the Resource Management Organizations (RMO) members are women, with several active office bearers.

A similar situation exists in the Federation of Resource Users Groups (FRUG). The most recent development is remarkable; each Upazila Fisheries Committee must have two women representatives from the RMOs, truly ensuring women's participation in decision-making. IPAC will demonstrate a commitment towards enhancing gender mainstreaming process that MACH and NSP have initiated by specifically integrating gender into each of its three key components. In order to do so, at the outset of the project the IPAC will develop a gender strategy and action plan, specific to IPAC, as one of the initial deliverables. Furthermore, the key IPAC staff must have training and experience in and demonstrate an understanding of gender considerations in natural resources management. The Performance Monitoring Plan (PMP) will have gender-specific indicators.

Tasks under IPAC will be designed in such a way that the differing needs of both men and women are addressed in such areas as, but not limited to, access to credit, skills training, access to information, marketing of products and services, business management training, and legal procedures, etc. Appropriate interventions will focus on increased women's participation in meetings and events organized by IPAC and by those entities with which it is capacity building such as resource management committees. Whenever possible, the IPAC project shall promote the concept of expanded roles and responsibilities for women in seminars, workshops and conferences envisioned under this initiative.

Youth Perspective

In 2005 Bangladesh ranked seventh in the world for the largest youth population. There are approximately 45.7 million youth between the ages of 10 to 24 years representing around 32% of the total population. These youths provide an opportunity for economic growth, biodiversity conservation and poverty alleviation; however, the reality of their situation presents numerous obstacles. Half of Bangladesh' youths are illiterate and there is a high rate of drop out from schools. For the age group between 16-20 years, 40% of boys remain in school while only 27% of girls do. The contractor will look towards involving youth to improve their livelihoods while providing a solid future constituency for conservation. The contractor will work to include youth within co-management activities and others as appropriate to conserve the natural resource base. IPAC interventions may include opportunities for learning about conservation and related issues, specific skill development training, awareness raising and direct involvement in co-management. The project will also consider youth within capacity building activities as today's youth are the drivers of change and hold the key to future sustainability.

22. Attach Amortization of schedule for projects having involvement : Attached.
of loan from Government (As per Annex – VI)

23. Briefly describe the effect/impact and specific mitigation Measures thereof if any on

i)Other projects/existing installations

No adverse effects/impacts on other projects or existing installations are foreseen. Rather the proposed project will be complimentary to other projects and installations.

ii)Environment like land, water, air, biodiversity, etc.

An integrated protected area co-management strategy and action plan to conserve natural resources and biodiversity will be developed and implemented. The same strategy could then be applied in the country. The project will have positive impact in conserving the natural resources due to development of new natural resources management concepts and practices. Natural resources including fisheries, wildlife and wetlands in the selected PAs will have positive impacts due to eco-restoration activities to be taken up in partnerships with key stakeholders.

iii) **Women and children**

A gendered approach of natural resource management will be implemented by taking the activities of both men and women into account. IPAC's environment program works in remote rural areas where women face tremendous social, cultural and religious barriers. Gender and youth mainstreaming in the formation and development of co-management organizations will have positive impacts on women and youth. At the outset of the project the IPAC will develop a gender strategy and action plan, specific to IPAC, as one of the initial deliverables. Furthermore, the key IPAC staff must have training and experience in and demonstrate an understanding of gender and youth considerations in natural resources management. The IPAC project shall promote the concept of expanded roles and responsibilities for women in seminars, workshops and conferences envisioned under this initiative. The children and youths provide an opportunity for economic growth, biodiversity conservation and poverty alleviation.

iv)**Employment, poverty alleviation, etc.**

IPAC will have a site-specific livelihood program and so will create both wage and self-employment opportunities for local stakeholders. The design of the Project -- and its focus on identifying means of ensuring that income streams are generated for the local population and key stakeholders around PAs -- is a reflection of the priority given to ensuring positive impacts on the alleviation of poverty, particularly rural poverty.

v) **Institutional, productivity**

The project will improve the institutional capacity of DoF that will be focused under component-II. The productivity of wetlands is expected to be increased as appropriate management interventions will be practiced by the community through the CBOs. Enhancing the income earning opportunities through improved livelihood activities will benefit the community members and help them to pretend themselves from over exploitation of resources.

vi) **Regional disparity**

Available data from secondary data studies conducted at the project sites makes it clear that the income levels of the local neighboring villagers is extremely low and there are wide variations. The Project's focus on identifying means of ensuring that incomes are distributed equitably for the local population will help reduce regional disparities.

24. Specific Linkage with PRS and MDGs
(In terms of number & percentage of policy matrix of PRSP)

As outlined in the Medium Term Rolling Plan and Poverty Reduction Strategy Paper (PRSP), biodiversity is one of the thrust areas of development. Co-management of natural resources is included as an important objective in the revised Poverty Reduction Strategy Paper, 2008. Further more, in the strategic goal-15 and 16 under policy matrix-3 of the PRSP-II, it is stated to increasing productivity of the inland capture fisheries and raising income of the poor fishers respectively. Through this particular project initiatives will be taken to raise the production of selected open water bodies up to 2-3 times and different alternate income generating activities would be undertaken to raise the income of the poor fishers. Development of eco-tourism through recreational facilities is another field priority in the plan. Primary objective of the project is biodiversity conservation through co-management approach. Also eco-tourism facilities and alternative income generating activities will be developed at co-managed sites by implementing the Project. Therefore, this project has direct relevance to the plan objectives and sectoral objectives/targets.

This Project, within the framework of GoB planning and policy initiatives, has direct linkages with the cross cutting issues of different sectoral and inter-sectoral development projects in general and with many land-based environmental programs/projects of GoB agencies engaged in fisheries sector. The Project will promote and institutionalize an integrated protected area co-management system for biodiversity conservation and sustainable natural resources management that results in responsible, equitable economic growth and good environmental governance. This will help promote MDGs and PRSP objectives.

25. Whether private sector/local govt. or NGOs participation :
was considered? Describe how will they be involved.

IPAC partner NGOs include RDRS, CODEC and CIPD in addition to a number of small local level NGOs who will be engaged during the project implementation period. Private sector will actively be involved through public-private partnerships including eco-tourism initiatives in which private tour operators and hoteliers and eco-cottage owners will play a big role. Local government representatives will be involved in the formation of co-management organizations such as Co-Management Committees and resource user groups.

Field activities will be implemented by RDRS, CODEC and CIPD. RDRS will be responsible for Sylhet and Central clusters with Site offices at Srimongal and Modhupur respectively.
.CODEC will work in South-Eastern cluster and Sundarbans cluster with site office at Cox's Bazar and Khulna respectively.
CIPD with it's site office at Rangamati will work in Chittagong Hill Tract cluster.
Partner NGOs were included in the IRG's technical proposal that was evaluated by a team that comprised two representatives from Government of Bangladesh.

One TPP on Integrated Protected Area Co-Management was executed by the ministry of Environment and Forest in 2008-2009. The proposed project (DPP) is the continuation of that TPP. During the implementation of that TPP the aforesaid NGOs were selected by the donor with the active participation from the government.

26. In case of foreign aided project mention the major conditionality

As per the PROAG the parties have agreed to the following covenants:

- The Grantee will make every effort to institutionalize co-management as the approach of natural resources management and biodiversity conservation, share management authorities with the natural resource dependent communities, develop a PA system strategy, and build institutional capacity of PA co-management.
- The Grantee will make every effort to institutionalize a sustainable financing mechanism for PA co-management, including introduction of a fee structure for recreational use of the PAs and retention of a reasonable portion of the collected fees to ensure sustainability of the co-management organizations.
- The Parties agree to set up a Project Steering Committee.

27. Does the project involve rehabilitation/resettlement? If so, indicate the magnitude and cost. Not applicable.

28. Identify risks duting implementation & operation and mitigation measures thereof :

Main risks during the IPAC implementation may stem from the lack of adequate support and desired collaboration both at field level but also at policy level. Inadequate allocation of GOB resources and constraints in field implementation may jeopardize IPAC operations. As a large number of stakeholders will be involved, difference of opinions may take occur during IPAC implementation. The coordination among two ministries and three GOB agencies would demand considerable efforts and time. The coordination among IPAC partners would require timely inputs particularly in holding regular meetings and providing feedbacks. Appropriate and timely management of the expectations of different stakeholders of IPAC would require intensive dialogue and frequent interactions.

As an important mitigation measure, the Project Steering Committee will play an important role for efficient IPAC implementation but also in achieving better inter-sectoral coordination. Appropriate training in inter-agency coordination and frequent meetings at policy level will help mitigate risks that may be faced during IPAC implementation. Adaptive management techniques would be followed in order to make required adjustments as and when relevant issues are faced for their resolution.

29. Any other important details, technical or otherwise (e.g., sustainability, governance, steering committee, Project Implementation Committee, etc.)

As per agreement between GoB and USAID; IPAC project will carry over MACH activities. It is also mentioned in the bilateral MoU, signed between DoF and MACH partner NGOs that, soon after completion of MACH follow on period, the intervened sites along with the CBOs formed and ongoing activities will automatically be merged with IPAC Project. Meanwhile IPAC has already started its activities in these sites like meetings with RMO, FRUG and MACH follow on period

partner NGOs. Orientation of RMO, FRUG, Site level appraisal etc. It is to be noted that all MACH sites proposed for inclusion in the DPP.

IPAC leveraged sites as proposed are actually CBFM-2 project sites. Beneficiaries of these sites are already identified and listed by DoF. IPAC will also work with those beneficiaries. However, if new beneficiaries required being included, then identification and inclusion of new beneficiaries will be done in consultation with local DoF and Upazila administration and then will be approved by Upazila Fisheries Conservation and Development Committee.

To ensure sustainability of CBOs under IPAC, they will be brought under conservation financing mechanism. During project period and even in the post project period these CBOs will be facilitated with different funding options like endowment fund; revolving fund; Climate Change, Mitigation and Adaptation fund; Microcredit by NGOs etc. Besides their Institutional, Financial, Technical and Managerial capacity will be developed through different interventions during project period. CBOs will be empowered through legal registration and by introducing democratic practices. Also Public-Private Partnership (PPP) will be developed for long term sustainability of these CBOs. There will be a detail exit plan for the Department of Fisheries with which department will be capable to run post project continuation activities with these CBOs

Signature of the Head
Of the Executing Agency with seal and date

Recommendation and signature of the Secretary
Of the sponsoring Ministry/Division with seal and date

Annexure-I

SL. No.	Division/District	Sub District/Upazilla	Estimated cost (In Lakh taka)	Comments
*	**PMU**	**Dhaka**	1772.66	The location wise cost may be changed according to the actual needs during project implementation
1.	Moulvibazar	Srimongal,	374.97	
		Moulvibazar Sadar		
		Kulaura,		
		Barlekha,		
		Juri		
2.	Gazipur	Kaliakor	78.18	
3.	Tangail	Mirzapur	234.53	
		Kalihati		
		Modhupur		
4.	Sherpur	Jhenaigati	156.35	
		Sherpur Sadar		
5.	Sylhet	Fenchuganj	156.35	
		Golapgalj		
6.	Sunamgonj	Dharampasha,	156.35	
		Tahirpur		
7.	Khulna,	Dakop,	156.35	
		Koira		
8.	Bagerhat,	Mongla,	232.53	
		Morelganj,		
		Sharankhola		
9.	Satkhira	Shyamnagar	79.18	
10.	Kishoreganj	Pakundia	145.43	
		Mithamoin		
11.	Netrokona	Kolmakanda	79.18	
			3622.06	

Annexure-II(b)

TOR for the project personnel.

Sl. No	Name of post	Educational Qualification and Experiences	Terms of reference
1.	2	3	4
1.	**Project Director (Deputation from DoF)**	Qualification as per recruitment rule of DoF. Minimum 15 years Experience in aquaculture extension and training, Management, project planning, implementation and Monitoring.	1**.** To act as the operational head both physical and financial aspects of the project under the administrative control of DoF. 2. To prepare detailed implementation plan of the project. 3. To implement various activities of the project as provision of pp. 4. To supervise and monitoring all the activities of the project. 5. To maintain liaison or coordinate with MoFL. Planning commission, IMED and all other concerned agencies.
2.	**Assistant Project Director (Deputation from DoF)**	Qualification as per recruitment rule of DoF. Minimum 07 years Experience in aquaculture extension and training, Management, project planning, implementation and Monitoring.	1. To Assist the Project Director to prepare annual implementation plan and training plan. 2. To prepare ADP and reports. 3. To Assist the Project Director in implementation of training program. 4**.** To Assist the Project Director in monitoring and evaluation of the project. 5.To prepare materials /flip charts/ poster and video documentation for training progress. 6. Any other work as assigned by Project Director.
3.	**Assistant Engineer (Deputation from DoF)**	Qualification as per recruitment rule of DoF. Minimum 05 years experience in aquaculture and fisheries related construction/ development work.	1.To be responsible for effective implementation of the construction and other engineering works of the project. 2. He will work as assigned by Project Director.
4.	**Sub-Assistant Engineer (Deputation from**	Qualification as per recruitment rule of DoF. Minimum 05 years experience in aquaculture and	1.To be responsible for effective implementation of the construction and other engineering works of the project. 2. He will work as assigned by Project Director.

Sl. No	Name of post	Educational Qualification and Experiences	Terms of reference
1.	2	3	4
	DoF)	fisheries related construction/ development work.	
5.	**Computer operator (Direct recruitment)**	Qualification as per recrutement rule of DoF. Bangla and English typing speed 40 and 50 word per minutes respectively. Computer training from any recognized institute on Ms word. Excel etc. Recruitment as per Govt. rules.	1**.** He will work as assigned by Project Director. 2. He will operate with all types of document.
6.	**Accountant cum Cashier (Deputation from DoF)**	Qualification as per recruitment rule of DoF. Having experience in bill preparation, keeping records etc.	1. keep all types of financial record. 2. Prepare all bills and vouchers. 3. Work as assigned by the authorities.
7.	**M.L.S.S** (**Out Sourcing**)	Minimum qualification Class VIII passes. Recruitment as per Govt. rules.	1**.** He will work as per the instruction of Project Director or other officers under whom he will be placed.

Annexure-II

Project Management Set-up

Director General
(Department of Fisheries)

Project Management Unit (PMU)	
Project director (Deputation from DoF)	01
Assistant Project Director (Deputation from DoF)	01
Assistant Engineer (Deputation from DoF)	01
Sub-Assistant Engineer (Deputation from DoF)	01
Computer Operator (Director Recruitment)	01
Accountant cum cashier (Deputation from DoF)	01
MLSS (Out Sourcing)	02