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**BANGLADESH**

# INTEGRATED PROTECTED AREA CO-MANAGEMENT (IPAC)

## PERFORMANCE MONITORING PLAN

June 5, 2008 – May 31, 2009

**July 19, 2008**

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# Performance Monitoring Plan

## Integrated Protected Area Co-management In Bangladesh

June 5, 2008 – May 31, 2009

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## Introduction

This document presents the draft Performance Monitoring Plan (PMP) of the Integrated Protected Area Co-Management (IPAC) Project in Bangladesh. The PMP incorporates indicators related to the development of a coherent strategy for integrated protected areas co-management and biodiversity conservation, building stakeholder and institutional capacity and site specific implementation of co-management in 5 targeted Clusters in Bangladesh. Additional indicators are designed to monitor progress in improving the welfare of rural communities through reduced vulnerability and increased adoption to climate change, improved access to drinking water supplies, as well as the development of public-private partnership, sustainable conservation financing, and strengthening of value chains associated with alternative income generation by communities participating in co-management.

This draft PMP will be finalized in consultation with USAID/Bangladesh's Environment team, and IPAC implementing partners and stakeholders. Short term technical assistance will be mobilized by IRG in the next three months to help develop composite indexes for some indicators, to review and adjust as necessary the targets proposed for selected indicators, and to establish targets for indicators that have not yet been determined.

## Context and Purpose of the PMP

Under the reporting requirements for projects funded by USAID, a performance monitoring plan (PMP) must be prepared for the review and approval of USAID. This draft PMP proposes a set of indicators to be used in assessing progress in the achievement of the results targeted by IPAC interventions and investments during the life of the project, from June 2008 to May 2013.

This performance monitoring plan lays out indicators that will be measured on a quarterly basis throughout the implementation of IPAC to establish trend lines for project performance, and to assess progress in achieving the annual targets agreed upon with USAID and IPAC stakeholders. The proposed annual targets for each indicator are cumulative.

Two types of indicators are designed to monitor the contribution of IPAC to globally important impacts targeted by USAID and to specific or customized indicators for monitoring IPAC interventions:

- *Common Indicators of the U.S. Foreign Assistance Framework:* these indicators are referenced in the statement of work for IPAC and will be used to report on the contribution of IPAC to the achievement of results in priority program areas identified in the US Foreign Assistant Framework; this includes 10 indicators related to the impact of IPAC investments on biodiversity conservation, economic growth and poverty alleviation, climate change and water supply. A list of common indicators is shown in Table 1.

*Custom Indicators for IPAC:* There are a number of indicators which are not explicitly cited in the IPAC statement of work but which are proposed in order to

track and report on additional important project impacts and results, particularly intermediate results that will contribute significantly to the longer term achievement of the specified common indicators. A detailed list of custom indicators is shown in Table 2.

The information collected by the performance monitoring activities of IPAC will feed into the overall program monitoring and performance reporting system for development assistance programs funded by USAID. The PMP data will also help USAID, key stakeholders and the IPAC team to identify changes in the management and implementation of IPAC that may be required to ensure that the targeted results of IPAC are progressively achieved over the next five years.

Primary data for several indicators will be collected from a variety of sources including IPAC staff and partners working on field level interventions, and by local and national government agencies involved with the IPAC program. Whenever applicable, PMP data will be gender disaggregated. As necessary, the IPAC team will provide assistance to selected government stakeholders to develop systems to track and report on program results.

Indicator reference sheets have been prepared for each indicator, to provide detailed information on the definition of each indicator, units of measure, their management utility, proposed methods for collecting and analyzing data including the frequency of data acquisition, and performance indicator values. The reference sheets also specify the relevant sources of information and identify the staff or institutions responsible for providing the data. A full set of indicator reference sheets is included as Annex A.

**Table 1- Common Indicators of the U.S. Foreign Assistance Framework for IPAC**

<b>Indicators</b>	<b>2009</b>	<b>2011</b>	<b>2013</b>	<b>Notes</b>
<b>1:</b> Number of hectares under improved natural resource management as a result of USG assistance.	<b>36,450 ha</b>	<b>175,000 ha</b>	<b>453,804 ha</b>	These targets include the total area of the landscapes being managed around targeted PA sites; PA management plans will be prepared for these areas to specify improved NRM practices for the core PA and adjacent buffer zones and landscapes inhabited by surrounding communities
<b>2:</b> Number of hectares in areas of biological significance under improved management as a result of USG assistance.	<b>18,701 ha</b>	<b>82,464 ha</b>	<b>305,372 ha</b>	These targets include the core protected areas of the targeted sites, except for the ECA Sundarbans
<b>3:</b> Number of hectares of natural resources showing improved biophysical conditions as a result of USG assistance.	<b>5,000</b>	<b>50,000</b>	<b>70,000</b>	These areas are a subset of sites brought under improved NRM (indicator 1)
<b>4:</b> Number of hectares in areas of biological significance showing improved biophysical conditions as a result of USG assistance.	<b>3,000</b>	<b>40,000</b>	<b>65,000</b>	These areas are a subset of core protected areas under improved management (indicator 2)
<b>5:</b> Number of policies, laws, agreements or regulations promoting sustainable natural resource management and conservation that are implemented as a result of USG assistance.	<b>5</b>	<b>10</b>	<b>20</b>	Based on # of national enabling policies, laws and regulations, # of new co-management agreements, # of regulations or conventions adopted by communities to support community patrolling, wetland protection and PA management
<b>6</b> Number of people with increased economic benefits derived from sustainable natural resource management and conservation as a result of USG assistance.	<b>100,000</b>	<b>200,000</b>	<b>500,000</b>	Based on data from participation in AIG activities and other inventions linked to increased economic benefit
<b>7:</b> Number of people receiving USG supported training in natural resources management and/or biodiversity conservation.	<b>5,000</b>	<b>15,000</b>	<b>20,000</b>	# of men (60%) and women (40%) trained through support from IPAC
<b>8:</b> Number of people with increased adaptive capacity to cope with impacts of climate variability and change as a result of USG assistance.	<b>50,000</b>	<b>100,000</b>	<b>200,000</b>	Based on a composite index integrating key factors affecting local level adaptive capacity; includes # of persons benefitting from IPAC assistance related to training and AIG that directly enable increased adaptive capacity
<b>9:</b> Quantity of greenhouse gas emissions, measured in million metric tons Carbon, reduced or sequestered as a result of USG assistance (million metric Ton C).	<b>4.29</b>	<b>6.85</b>	<b>8.26</b>	Requires baseline assessment of vegetative cover and annual surveys of changes related to IPAC interventions
<b>10.</b> Number of people in target areas with access to improved drinking water supply as a result of USG assistance	<b>10,000</b>	<b>20,000</b>	<b>30,000</b>	Includes # of persons benefitting from IPAC interventions and leveraged assistance in landscapes around PA

**Table 2 - Custom Indicators for IPAC**

<b>Indicators</b>	<b>2009</b>	<b>2011</b>	<b>2013</b>	<b>Notes</b>
<b>11:</b> Number of individuals benefitting from use of improved stove and bio-gas plants.	<b>1000</b>	<b>5000</b>	<b>8000</b>	Improved wood stoves and bio-gas plants will be installed in the targeted areas to reduce pressure on supplies of fuelwood
<b>12:</b> Market and non-market revenue generated from AIG, ecotourism and other economic activities in targeted sites	<b>\$250,000</b>	<b>\$1,000,000</b>	<b>\$2,000,000</b>	Includes revenues generated from AIG support, ecotourism enterprises, PA employment, entry fees; requires baseline surveys of current revenues and annual surveys of added revenues
<b>13:</b> Increase in density of indicator bird species in wetland and forested landscape	<b>TBD</b>	<b>TBD</b>	<b>TBD</b>	Baseline survey to be carried out with revised set of Indicator birds for forest health and additional bird species selected for wetlands
<b>14:</b> Amount of leveraged financing for conservation	<b>\$200,000</b>	<b>\$5,000,000</b>	<b>\$21,500,000</b>	Includes PPP, new donor and GOB investments and leveraged carbon financing
<b>15:</b> Number of individuals that are aware of a national Protected Areas network.	<b>50,000</b>	<b>1,000,000</b>	<b>2,500,000</b>	Estimated number of persons reached through awareness raising and other actions of communication strategy; based on annual surveys of sample population
<b>16:</b> Improved capacity of Forest Department, DOE& DOF to support integrated conservation and development programs.	<b>TBD</b>	<b>TBD</b>	<b>TBD</b>	Based on composite index of factors relevant to institutional strengthening of the FD, DOE and DOF and progress in shifting operating paradigm to promote co-management and integrated conservation issues and climate change.
<b>17: Number of communities with co-management agreements.</b>	<b>TBD</b>	<b>TBD</b>	<b>TBD</b>	After the initial assessment through RRA/PRA and from inputs from, dof FD, target values will be set.
<b>18:</b> Number of training curriculums developed and trained modules designed and taught	<b>5</b>	<b>10</b>	<b>20</b>	Includes diploma and certificate courses on biodiversity, climate change, wildlife management, Protected Area management etc.
<b>19:</b> Number of recorded visitors to targeted PAs.	<b>50,000</b>	<b>500,000</b>	<b>1,000,000</b>	This will capture increase in number of registered visitors in the PAs, additional information will be recorded on actual revenue earned Based on adoption of entry fee payment systems by the Government.
<b>20.</b> Number of GOB protected area management units with improved capacity for co-management	<b>9</b>	<b>19</b>	<b>45</b>	Based on composite index reflecting changes in effectiveness of protection, community participation, stakeholder representation, economic benefits generated, operating budgets, staffing and infrastructure improvements

## **Additional Supporting Performance Monitoring Activities**

The IPAC team will use performance monitoring as an integral part of our adaptive management approach to implement IPAC. Monthly reporting will provide information on interim progress, and quarterly progress reports will serve to collect data and assess trends in the achievement of indicator targets. Semi-annual team meetings will be held with all implementing partners and key stakeholders to collectively assess progress in completing activities and deliverables scheduled in annual work plans, and in achieving results and targets established in the PMP.

IPAC's performance monitoring system will also be integrated into the IPAC communication strategy. Information from the monitoring system will serve to inform decision making and project management, but also contribute to the identification and sharing of lessons learned, success stories and increased public awareness of IPAC impacts and program benefits.

Training and capacity building will include short courses and other assistance designed to increase the level of local participation in data collection and analysis for performance monitoring, and to increase institutional capabilities at all levels to manage the PMP data and to make effective use of it to enhance program results.

An Applied Research Small Grant Program will be established by IPAC and coordinated by the WFC. Small Grants will be made available to support applied research and field level surveys that directly contribute to the performance monitoring process, while building capacity among students, researchers and other stakeholders supporting PA co-management. The Small Grants program will be overseen by a select committee including respected conservationists, scientists and researchers, including an environmental expert from USAID, to ensure that the funded applied research activities are consistent with IPAC objectives and USAID's overall interests in environmental management and economic development.

## **Organization and Staffing of Performance Monitoring Activities**

The IPAC COP will oversee the analysis and overall reporting of performance monitoring data, and collaborate closely with USAID, GOB Project Directors and IPAC key personnel to review and assess data as it becomes available. In the field, Cluster Coordinators and Technical Advisors will oversee the collection and periodic reporting of monitoring data in each Cluster. WFC will have responsibility for oversight of the scientific quality and soundness of monitoring data, in collaboration with IRG M&E specialists and EWC.

The day to day operations of IPAC performance monitoring and applied research (PMAR) will be managed by the PMAR team, led by the PMAR specialist, Nasim Aziz. He will be assisted by a socio-economic advisor, and Dr. Golam Mustafa, Biophysical Advisor and Small Grants Manager mobilized by World Fish Center. Additional short term expertise in PMAR will be mobilized through IRG, WFC and the East West Center.

All protocols for information collection under the Project are to be reviewed by the Performance Monitoring and Applied Research Committee, chaired by the COP and

coordinated by the PMAR Coordinator. The Committee's core members will include Dr. Golam Mostafa, the M&E socio-economic specialist consultant, although others may be requested to join the Committee on an ad hoc basis to review technical protocols specific to his/her areas of expertise.

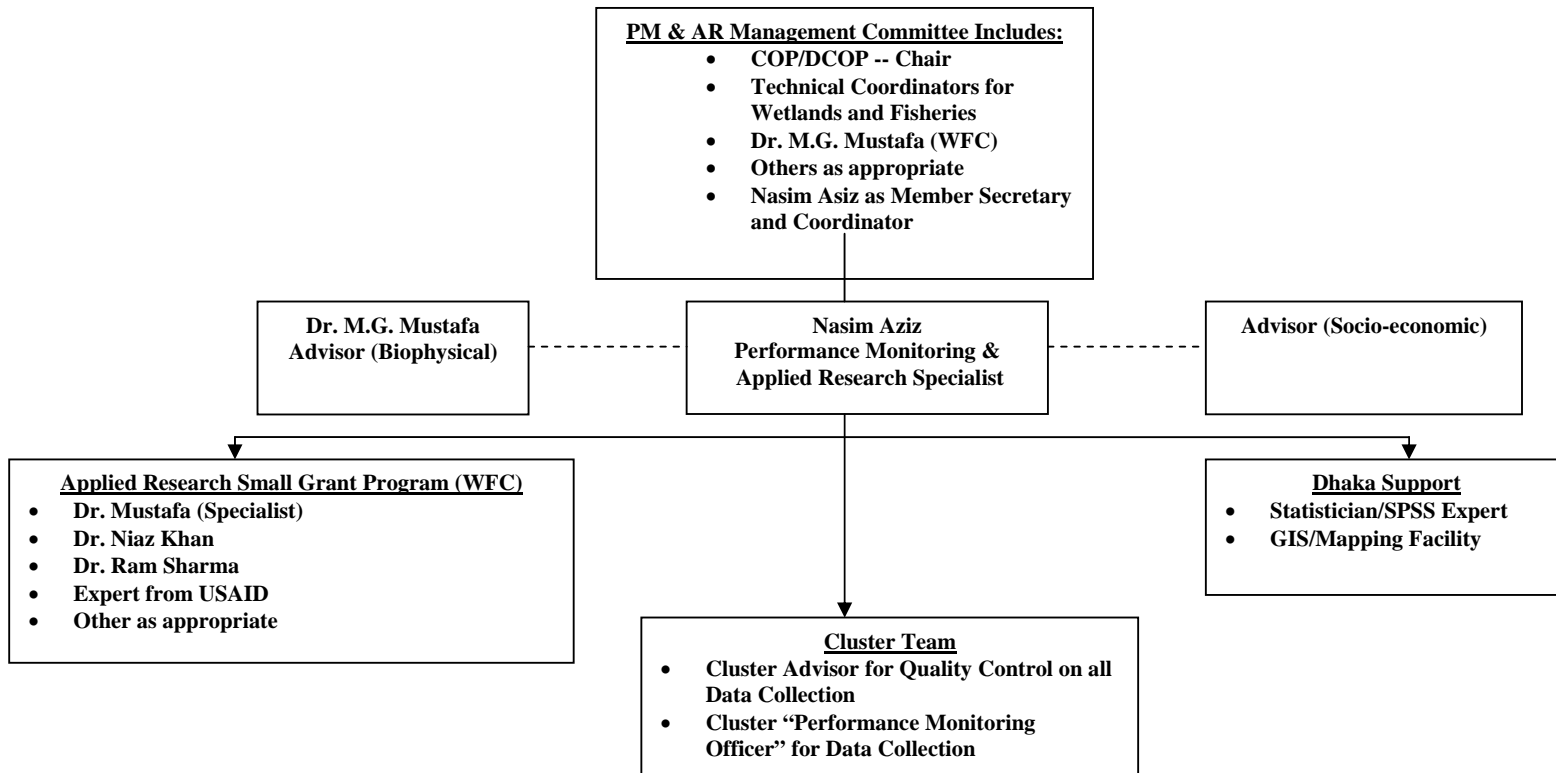
A central feature of IRG's PM&AR approach is the investment in highest quality information tool design and quality control during information collection and analysis. Our partnership with WFC is brought to bear especially on this quality control process, a role that is fitting for WFC in light of its being a member of the International Agricultural Research Network (IARC). WFC's monitoring specialist Dr. M.G. Mustafa will support the Team in setting protocols for wetland biophysical information collection so that it is both appropriate for local community monitoring and directly useful for statistically valid scientific analysis.

At the field level, this WFC partnership is furthered through the presence of designated Cluster Advisors at each Cluster. These Cluster Advisors, in addition to other roles, will be directly involved in ensuring the quality and consistency of all information collection undertaken by the NGOs. WFC staff will additionally conduct quality control checks of data as it is being collected and digitized.

The quality control process in design and analysis will be further supported through the creation of a PM&AR Management Group. This small Group will have the authority to vet and modify, as necessary, any and all data collection and analysis instruments and processes proposed under the Project. Its role is to provide frank, honest and strategic feedback on proposed survey instruments.

At the Dhaka level, the Team will be supported by a mid-level Statistician and SPSS specialist as well as the facility for undertaking GIS and mapping processes. Under Nishorgo, IRG regularly contracted for services of the country's leading remote sensing institution (CEGIS) under purchase order. IRG will assume that CEGIS will remain interested to continue its role in supporting remote sensing on such issues as co-management, and we would expect again to obtain access to its expertise via a similar arrangement.

**PERFORMANCE MONITORING  
AND  
APPLIED RESEARCH TEAM  
ORGANIZATIONAL STRUCTURE**



## Annex - Detailed Indicator Reference Sheets

### 1. Common Indicator-1: Area under improved natural resource management (NRM) as a result of USG assistance

IPAC INDICATOR REFERENCE SHEET			
Program Area: Environment			
Element: EG 8.1 – Natural Resources and Biodiversity			
Indicator 8.1.1: Number of hectares under improved natural resource management (NRM) as a result of USG assistance			
DESCRIPTION			
<p><b>Specific Definition:</b> The areas to be measured under this indicator include the targeted PA sites, adjacent buffer areas and surrounding landscapes of IPAC targeted sites in 5 Clusters. Area under improved NRM will be measured in hectares (ha). The areas measured will be those in which the project will implement interventions – direct and indirect sites, having direct influence on the protected areas, wetlands and ecologically critical areas. “Improved NRM” refers to the planning and organization of activities defined in management plans endorsed by area stakeholders and approved by GOB authorities, that directly promote biodiversity conservation, habitat protection and restoration, establishment of sanctuaries, afforestation / reforestation, forest regeneration, timber stand improvement and other planned forest management operations, sustainable production and harvesting of fisheries and forest products, soil and water conservation, reduction of vulnerability and adaptation to climate change, and/or promoting sustainable agriculture and tree crops, as well as actions that indirectly support these practices, such as stakeholder organization, empowerment, clarification of rights and responsibilities, strengthening of locally organized rules and enforcement systems governing the access and use of natural resources and stimulation of value added enterprise opportunities linked to the improved management and sustainable use of these natural resources.</p>			
Unit of Measure: hectares			
Disaggregated by: Type of area – forest production area, wetland production area, agroforestry and tree crop systems, and sustainable agriculture			
Justification/Management Utility: This indicator includes all natural resource management interventions that help generate sustainable livelihood opportunities for the people living within the proposed integrated co-management cluster areas including biodiversity conservation, improved local governance and empowerment			
DATA ACQUISITION PROCESS OF IPAC			
<p><b>Management Notes:</b>  <b>(1) Forest Production area: (a) Reforestation:</b> all past social forestry plantations (benefits yet to be realized), Forest Dept. new social forestry activities, social forestry activities implemented / overseen by the Co-Management Council / Committee for benefit sharing and conservation purposes. <b>(b) Afforestation</b> includes those plantations in non-forested lands for benefit sharing and conservation purposes such as roadside, river and stream bank, and other public lands  <b>(2) Wetland Production area: (a) Reforestation of degraded wetland forest</b> (swamp and reed land) carried out in conjunction with respective government agencies and Co-Management Council / Committee for benefit sharing and conservation purposes. <b>(b) Afforestation</b> includes those plantations in non-forested lands for benefit sharing and conservation purposes such as roadside, river and stream bank, and other public lands  <b>(3) Agroforestry or tree crop farming:</b> This includes all the areas under homestead improvements promoted by the Project. Homestead improvements may include introduction of fruit trees, and timber and fuel wood species  <b>(4) Sustainable agriculture or farming:</b> Environmentally sound agricultural practices that may include organic fertilizers, integrated pest management, water and soil conservation, living barriers among others</p>			
Method of Acquisition by Project Monitoring Unit: Baseline information and target indicator values will be developed by collection and analysis of existing information from USAID and other donor projects, GOB Ministries, and approved management plans. We will build on GIS mapping available from MACH and NSP, expanding digitized maps to new areas using satellite imagery and aerial photography. Local stakeholders, cluster performance monitoring specialists, field implementing partners, and collaborating CMCs/RMOs will collect information and data			
Data Source(s): MACH and NSP project documents, data and information from the Ministry of Environment and Forests, Department of the Environment, local NGOs, Ministry of Lands, Department of Fisheries, Forest Department, and donor agencies			
Frequency/Timing of Data Acquisition: Annually			
Survey Instrument for the data: Multiple field survey techniques, depending categories of activities on which one of the four sub-categories is included. For agroforestry and sustainable agriculture, survey instrument will be executed at FUG household level. GPS ground truthing and updating of GIS maps			
OTHER NOTES			
Relevant Reference Sources: MACH and NSP project documents, data and information from the Department of the Environment, local NGOs, Ministry of Environment and Forests, Ministry of Lands, Department of Fisheries, Forest Department, and donor agencies			
Notes on Baselines/Targets:			
Other Notes:			
PERFORMANCE INDICATOR VALUES			
Year	Target	Actual	Notes
2009	36,450 ha		

IPAC INDICATOR REFERENCE SHEET			
2011	175,000 ha		
2013	453,804 ha		
THIS SHEET LAST UPDATED ON: date/month/year			
ADDITIONAL RELAVANT DATA (shown below)			

## 2. Common Indicator-2: Area of biological significance under improved management as a result of USG assistance.

IPAC INDICATOR REFERENCE SHEET			
<b>Program Area:</b> Environment			
<b>Element:</b> EG 8.1 – Natural Resources and Biodiversity			
<b>Indicator 8.1.2:</b> Number of hectares in areas of biological significance under improved management as a result of USG assistance.			
DESCRIPTION			
<p><b>Specific Definition:</b> “<i>Areas of biological significance</i>” are identified through national, regional, or global priority-setting processes and include national parks, wildlife sanctuaries, game reserves, ecologically critical areas, RAMSAR sites, World Heritage Sites, and also those important wetlands or flood plans under improved management. They represent the core areas with the most significant or highest levels of biodiversity within the various categories of protected areas.</p> <p>“<i>Improved NRM</i>” includes protection, restoration, regeneration, enrichment and improved management activities in the areas of biological significance based on ecosystem management and NRM principles, improved human and institutional capacity for sustainable NRM, access to better information for decision-making, and/or adoption of sustainable NRM practices which will be identified, endorsed by local stakeholders and approved by respective departments and ministries.</p>			
<b>Unit of Measure:</b> Hectares			
<b>Disaggregated by:</b> Types of protected areas: core areas within national parks, wildlife sanctuaries, game reserves, inland and coastal wetlands			
<b>Justification/Management Utility:</b> Prerequisite of improved NRM is a stakeholder endorsed, government approved management plan for areas of biological significance (as well as interface landscape) ensuring conservation and sustainable management and generating sustainable livelihood opportunities for the people living within cluster areas, improving local governance system & empowering the local people			
DATA ACQUISITION PROCESS OF IPAC			
<b>Management Notes:</b>			
1. <b>Forest Area:</b> (a) National Parks, (b) Wildlife Sanctuaries & (c) Game Reserve			
2. <b>Wetland Area:</b> (a) Inland wetland, (b) Coastal Wetland			
<b>Method of Acquisition:</b> Baseline information and target indicator values will be developed by collection and analysis of existing information from USAID and other donor projects, GOB Ministries, and approved management plans. We will build on GIS mapping available from MACH and NSP, expanding digitized maps to new areas using satellite imagery and aerial photography. Local stakeholders, cluster performance monitoring specialists, field implementing partners, and collaborating CMCs/RMOs will collect information and data			
<b>Data Source(s):</b> MACH and NSP project documents, data and information from the Ministry of Environment and Forests, Department of the Environment, local NGOs, Ministry of Lands, Department of Fisheries, Forest Department, and donor agencies			
<b>Frequency/Timing of Data Acquisition:</b> Annually			
<b>Survey Instrument for the data:</b> Multiple field survey techniques, depending categories of activities implemented. GPS ground truthing and updating of GIS maps for monitoring core areas of biological significance.			
OTHER NOTES			
<b>Relevant Reference Sources:</b> MACH and NSP project documents, data and information from the Ministry of Environment and Forests, Department of the Environment, local NGOs, Ministry of Lands, Department of Fisheries, Forest Department, and donor agencies			
<b>Notes on Baselines/Targets:</b>			
<b>Other Notes:</b>			
PERFORMANCE INDICATOR VALUES			
Year	Planned / Targeted	Actual	Notes
2009	18,701 ha		
2011	82,464 ha		
2013	305,372 ha		
THIS SHEET LAST UPDATED ON: date/month/year			
ADDITIONAL RELAVANT DATA (shown below)			

### 3. Common Indicator – 3: Area of natural resources showing improved biophysical conditions as a result of USG assistance.

IPAC INDICATOR REFERENCE SHEET			
Program Area: Environment			
Element: EG 8.1 – Natural Resources and Biodiversity			
Indicator 8.1.3: Number of hectares of natural resources showing improved biophysical conditions as a result of USG assistance.			
DESCRIPTION			
<p><b>Specific Definition:</b> The areas to be measured under this indicator are those located in buffer areas and surrounding landscapes of the targeted IPAC sites. <b>Improved biophysical conditions</b> will be determined by field level surveys of changes in the level of protection, extent of restocking, restoration or rehabilitation of targeted sites, reduction in erosion or sedimentation or other forms of degradation, changes in growth rates and resource productivity, changes in soil fertility as reflected in sustainable crop yields, changes in biodiversity as reflected by changing populations or presence of indicator species, and other measures of improved biophysical conditions agreed upon with field staff, local technical departments and stakeholders.</p>			
Unit of Measure: hectares			
Disaggregated by: Type of area –forest protection area, forest production area, wetland conservation and production areas, agroforestry and tree crop systems, and land devoted to sustainable agriculture			
Justification/Management Utility: This indicator helps to measure the impact of IPAC interventions on the biophysical conditions of targeted natural resources, as a consequence of the effective implementation of improved management practices and other natural resource management interventions that help to restore and improve NR productivity and generate sustainable livelihood opportunities for the people living within the proposed integrated co-management clusters			
DATA ACQUISITION PROCESS OF IPAC			
<p><b>Management Notes: Track the adoption and implementation of recommended NRM practices including:</b></p> <p><b>(1) Forest Production area: (a) Reforestation:</b> all past social forestry plantations (benefits yet to be realized), Forest Dept. new social forestry activities, social forestry activities implemented / overseen by the Co-Management Council / Committee for benefit sharing and conservation purposes. <b>(b) Afforestation</b> includes those plantations in non-forested lands for benefit sharing and conservation purposes such as roadside, river and stream bank, and other public lands</p> <p><b>(2) Wetland Production area: (a) Reforestation of degraded wetland forest</b> (swamp and reed land) carried out in conjunction with respective government agencies and Co-Management Council / Committee for benefit sharing and conservation purposes. <b>(b) Afforestation</b> includes those plantations in non-forested lands for benefit sharing and conservation purposes such as roadside, river and stream bank, and other public lands</p> <p><b>(3) Agroforestry or tree crop farming:</b> This includes all the areas under homestead improvements promoted by the Project. Homestead improvements may include introduction of fruit trees, and timber and fuel wood species</p> <p><b>(4) Sustainable agriculture or farming:</b> Environmentally sound agricultural practices that may include organic fertilizers, integrated pest management, water and soil conservation, living barriers among others</p>			
Method of Acquisition by Project Monitoring Unit: Baseline information and target indicator values will be developed by collection and analysis of existing information from USAID and other donor projects, GOB Ministries, and approved management plans. We will build on GIS mapping available from MACH and NSP, expanding digitized maps to new areas using satellite imagery and aerial photography. Local stakeholders, cluster performance monitoring specialists, field implementing partners, and collaborating CMCs/RMOs will collect information and data			
Data Source(s): MACH and NSP project documents, data and information from the Ministry of Environment and Forests, Department of the Environment, local NGOs, Ministry of Lands, Department of Fisheries, Forest Department, and donor agencies			
Frequency/Timing of Data Acquisition: Annually			
Survey Instrument for the data: Multiple field survey techniques, depending categories of activities on which one of the four sub-categories is included. For agroforestry and sustainable agriculture, survey instrument will be executed at FUG household level. GPS ground truthing and updating of GIS maps			
OTHER NOTES			
Relevant Reference Sources: MACH and NSP project documents, data and information from the Department of the Environment, local NGOs, Ministry of Environment and Forests, Ministry of Lands, Department of Fisheries, Forest Department, and donor agencies			
Notes on Baselines/Targets:			
Other Notes:			
PERFORMANCE INDICATOR VALUES			
Year	Target	Actual	Notes
2009	5,000 ha		
2011	50,000 ha		
2013	70,000 ha		
THIS SHEET LAST UPDATED ON: date/month/year			
ADDITIONAL RELAVANT DATA (shown below)			

#### 4. Common Indicator – 4: Area of biological significance showing improved biophysical conditions as a result of USG assistance.

IPAC INDICATOR REFERENCE SHEET			
<b>Program Area:</b> Environment			
<b>Element:</b> EG 8.1 – Natural Resources and Biodiversity			
<b>Indicator 8.1.4:</b> Number of hectares in areas of biological significance showing improved biophysical conditions as a result of USG assistance.			
DESCRIPTION			
<p><b>Specific Definition:</b> “<i>Areas of biological significance</i>” are identified through national, regional, or global priority-setting processes and include national parks, wildlife sanctuaries, game reserves, ecologically critical areas, RAMSAR sites, World Heritage Sites, and also those important wetlands or flood plains under improved management. They represent the core areas with the most significant or highest levels of biodiversity within the various categories of protected areas. The areas to be measured under this indicator are located in the core protected areas of the targeted IPAC sites.</p> <p><b>Improved biophysical conditions</b> will be determined by field level surveys of changes in the level of protection, extent of restocking, restoration or enrichment of targeted PA sites, reduction in erosion or sedimentation or other forms of degradation, changes in growth rates and resource productivity or ecosystem health, changes in soil fertility, changes in biodiversity as reflected by changing populations or presence of indicator species, and other measures of improved biophysical conditions agreed upon with field staff, local technical departments and stakeholders.</p>			
<b>Unit of Measure:</b> Hectares			
<b>Disaggregated by:</b> Types of protected areas: core areas within national parks, wildlife sanctuaries, game reserves, inland and coastal wetlands			
<b>Justification/Management Utility:</b> This indicator helps to measure the impact of IPAC interventions on the biophysical conditions of targeted protected areas and areas of biological significance as a consequence of the effective implementation of improved management practices and other natural resource management interventions that help to conserve biodiversity and restore and improve the condition of resources in targeted PA			
DATA ACQUISITION PROCESS OF IPAC			
<b>Management Notes:</b>			
3. <b>Forest Area:</b> (a) National Parks, (b) Wildlife Sanctuaries & (c) Game Reserve			
4. <b>Wetland Area:</b> (a) Inland wetland, (b) Coastal Wetland			
<b>Method of Acquisition:</b> Baseline information and target indicator values will be developed by collection and analysis of existing information from USAID and other donor projects, GOB Ministries, and approved management plans. We will build on GIS mapping available from MACH and NSP, expanding digitized maps to new areas using satellite imagery and aerial photography. Local stakeholders, cluster performance monitoring specialists, field implementing partners, and collaborating CMCs/RMOs will collect information and data			
<b>Data Source(s):</b> MACH and NSP project documents, data and information from the Ministry of Environment and Forests, Department of the Environment, local NGOs, Ministry of Lands, Department of Fisheries, Forest Department, and donor agencies			
<b>Frequency/Timing of Data Acquisition:</b> Annually			
<b>Survey Instrument for the data:</b> Multiple field survey techniques, depending categories of activities implemented. GPS ground truthing and updating of GIS maps for monitoring core areas of biological significance.			
OTHER NOTES			
<b>Relevant Reference Sources:</b> MACH and NSP project documents, data and information from the Ministry of Environment and Forests, Department of the Environment, local NGOs, Ministry of Lands, Department of Fisheries, Forest Department, and donor agencies			
<b>Notes on Baselines/Targets:</b>			
<b>Other Notes:</b>			
PERFORMANCE INDICATOR VALUES			
Year	Planned / Targeted	Actual	Notes
2009	3,000 ha		
2011	40,000 ha		
2013	65,000 ha		
THIS SHEET LAST UPDATED ON: date/month/year			
ADDITIONAL RELAVANT DATA (shown below)			

**5. Common Indicator - 5: Policies, laws, agreements or regulations promoting sustainable natural resource management and conservation that are implemented as a result of USG assistance**

IPAC Indicator Reference Sheet			
<i>Program Area: Environment</i>			
<b>Element: EG 8.1 – Natural Resources and Biodiversity</b>			
<b>Indicator:</b> Number of policies, laws, agreements or regulations promoting sustainable natural resource management and conservation that are implemented as a result of USG assistance			
DESCRIPTION			
<p><b>Specific Definition:</b> Policy development/ reform and implementation will take place at the national and local levels. At the <b>national level</b> assistance for policy reform and implementation will include an assessment of national level policies, laws and regulations to identify priority reforms to strengthen the enabling environment for improved, decentralized natural resources management, as well as preparation of an integrated Protected Area co-management strategy to harmonize implementation of NRM policies and plans; and <b>local level</b> policies, regulations and stewardship agreements that empower and support communities, CMCs, RMO to conserve, protect and manage resources at the local level. However, only the changes at the <b>national level</b> will be captured here.</p> <p><b>Unit of Measure:</b> #s of policies, regulations, agreements, bi-laws, agreements developed and implemented</p> <p><b>Disaggregated by:</b> National and local level policies, laws, regulations and stewardship agreements</p> <p><b>Justification/Management Utility:</b> This indicator demonstrates that national and local legal underpinnings are in place and being implemented to enable and sustain natural resources management</p>			
DATA ACQUISITION PROCESS IPAC			
<p><b>Management Notes:</b>  <b>National level</b></p> <ul style="list-style-type: none"> <li>• Integrated co-management strategy</li> <li>• Enabling policies developed/reformed</li> <li>• Enabling laws and regulations</li> </ul> <p><b>Method of Data Acquisition:</b> Initial assessment of current policy and regulatory framework conducted by IPAC staff and respective GOB agencies. Performance monitoring team, cluster performance monitoring specialists, field implementing partners, and collaborating CMCs/RMOs will collect information and data on development and implementation of national and local agreements or regulations, as part of quarter progress reporting</p> <p><b>Data Source(s):</b> MACH and NSP project documents, data and information from the Ministry of Environment and Forests, Department of the Environment, local NGOs, Ministry of Lands, Department of Fisheries, Forest Department, and donor agencies</p> <p><b>Frequency/Timing of Data Acquisition:</b> Annually</p> <p><b>Survey Instrument for the data:</b> Initial analysis of current policies, laws, agreements or regulations at the national level; analysis of local legal and regulatory instruments, and community level resource management agreements for each of the five clusters</p>			
OTHER NOTES			
<p><b>Relevant Reference Sources:</b> MACH and NSP project documents, data and information from the Ministry of Environment and Forests, Department of the Environment, local NGOs, Ministry of Lands, Department of Fisheries, Forest Department, and donor agencies</p> <p><b>Notes on Baselines/Targets:</b></p> <p><b>Other Notes:</b></p>			
PERFORMANCE INDICATOR VALUES			
Year	Actual	Target	Notes
2009	5		
2011	10		
2013	20		
THIS SHEET LAST UPDATED ON: date/month/year			
ADDITIONAL RELAVANT DATA (shown below)			

**6. Common Indicator – 6: Increased economic benefits derived from sustainable natural resource management and conservation as a result of USG assistance.**

IPAC Indicator Reference Sheet			
<b>Program Area: Environment</b>			
<b>Element: EG 8.1 – Natural Resources and Biodiversity</b>			
<b>Indicator:</b> Number of people with increased economic benefits derived from sustainable natural resource management and conservation as a result of USG assistance.			
DESCRIPTION			
<p><b>Specific Definition:</b> This indicator measures the number of direct beneficiaries with increased income, from the baseline established at the outset of the activity, of the targeted beneficiaries who are being given alternate income generating technologies or training and/ or grant or leveraged credit by the project. "Targeted beneficiaries" are those dependent on wetland and/or forest resources for their livelihoods, and who assists in protected and conservation.</p> <p><b>Unit of Measure:</b> # number of people and % increase income</p> <p><b>Disaggregated by:</b> type of beneficiary and by gender Types of Beneficiaries includes: (1) Change in household production practices; (2) Beneficiaries of enterprise creation or growth; (3) Beneficiaries of employment; (4) Beneficiaries from community livelihood changes</p> <p><b>Justification/Management Utility:</b> Increased income of target group from new income sources will reduce the dependency on natural resources. This will help protect PAs and other aquatic habitats.</p>			
DATA ACQUISITION PROCESS IPAC			
<p><b>Management Notes:</b> (1) Change in household production practices such as – home gardening, cow /goat/pig fattening. (2) Beneficiaries of enterprise creation or growth such as – bee keeping, nursery, handicrafts, elephant riding, ethnic cloth prod/mrk (3) Beneficiaries of employment such as - Eco-Guides, eco-rickshaw, rickshaw/van puller, toile and picnic spot service/mgt (4) Beneficiaries from community livelihood changes associated with the Committee and the co-management process. These "livelihood benefits" could come from: social forestry activities, homestead planting material for fuel wood or logs, improved bamboo production, improved homestead tree-crop mgt improved access to healthier stoves (via GTZ) etc.</p> <p><b>Method of Data Acquisition:</b> from AIG matrix, monthly progress report, half-yearly review and progress report and annual survey.</p> <p><b>Data Source(s):</b> field offices.</p> <p><b>Frequency/Timing of Data Acquisition:</b> AIG matrix monthly, assessment yearly.</p> <p><b>Survey Instrument for the data:</b> various survey instruments.</p>			
OTHER NOTES			
<p><b>Relevant Reference Sources:</b></p> <p><b>Notes on Baselines/Targets:</b></p> <p><b>Other Notes:</b> To be entirely accurate, the number of "losers" from the conservation activity should be subtracted from this number of beneficiaries. The "losers" would include those who once had access to the PA and extracted from it directly but who no longer have access because of the Project, and have not been given a direct alternative economic activity.</p>			
PERFORMANCE INDICATOR VALUES			
Year	Actual	Target	Notes
2009	100,000		
2011	200,000		
2013	500,000		
THIS SHEET LAST UPDATED ON: date/month/year			
ADDITIONAL RELAVANT DATA (shown below)			

## 7. Common Indicator- 7: People receiving USG supported training in natural resources management and/or biodiversity conservation

IPAC Indicator Reference Sheet			
<b>Program Area: Environment</b>			
<b>Element: EG 8.1 – Natural Resources and Biodiversity</b>			
<b>Indicator:</b> Number of people receiving USG supported training in natural resources management and/or biodiversity conservation			
DESCRIPTION			
<p><b>Specific Definition:</b> Training tailored to key stakeholders Training will include short-term, medium term (certificate and diploma), interactive applied research, regional cross-visits and US-based training</p> <p><b>Unit of Measure:</b></p> <p><b>Disaggregated by:</b> Gender; and type of training</p> <p><b>Justification/Management Utility:</b></p>			
DATA ACQUISITION PROCESS OF IPAC			
<p><b>Management Notes:</b></p> <ul style="list-style-type: none"> <li>• Certificate Programs in applied conservation biology, carbon financing and related topics –offered through public/private university partnerships</li> <li>• Diploma-level programs in protected area management: forestry and wetlands co-management in place years three thru five</li> <li>• Courses for GOB officials in protected areas management with the Fisheries and Forest Academies</li> <li>• Courses conducted by visiting scholars and experts</li> <li>• Short courses in proposal writing for NGOs</li> <li>• Sub-regional cross-visits and study tours to observe co-management</li> <li>• Presentations at international fora</li> <li>• Short courses in the US for senior officials and professionals to enrich skills and knowledge</li> </ul> <p><b>Method of Data Acquisition by Project Monitoring Unit:</b> performance monitoring data collected on number of persons trained, and training topics – on a quarterly basis using training evaluations and completion reports. Performance monitoring team, cluster performance monitoring specialists, field implementing partners, and collaborating CMCs/RMOs will collect information and data.</p> <p><b>Data Source(s):</b> Project training plan, training evaluations and completion reports, with information on number and gender of persons trained</p> <p><b>Frequency/Timing of Data Acquisition:</b> Quarterly</p> <p><b>Survey Instrument for the data:</b> Review of training evaluations and completion reports; interviews with training participants</p>			
OTHER NOTES			
<p><b>Relevant Reference Sources:</b> MACH and NSP training plans and reports; GOB agency training plans and requirements</p> <p><b>Notes on Baselines/Targets:</b></p> <p><b>Other Notes:</b></p>			
PERFORMANCE INDICATOR VALUES			
Year	Target	Actual	Notes
2009	5000		
2011	15,000		
2013	20,000		
THIS SHEET LAST UPDATED ON: date/month/year			
ADDITIONAL RELAVANT DATA (shown below)			

## 8. Common Indicator- 8: Increased adaptive capacity to cope with impacts of climate variability and change as a result of USG assistance

IPAC Indicator Reference Sheet			
<b>Program Area: Environment</b>			
<b>Element: EG 8.1 – Natural Resources and Biodiversity</b>			
<b>Indicator:</b> Number of people with increased adaptive capacity to cope with impacts of climate variability and change as a result of USG assistance.			
DESCRIPTION			
<p><b>Specific Definition:</b> There are few, simple, off-the-shelf indicators for measuring “adaptive capacity”. Smit et al (2001) identified six determinants of adaptive capacity in the context of climate change as a contribution to the third assessment report for the Inter-governmental Panel on Climate Change. These determinants are – economic resources (greater economic resources increase adaptive capacity), technology (lack of technology limits range of potential adaptation options), information and skills (lack of informed, skilled and trained personnel reduces adaptive capacity), infrastructure (greater variety of infrastructure can enhance adaptive capacity as well as characteristics and location of the infrastructure), institutions (well developed social institutions help to reduce impacts of climate related risks) and equity (equitable distribution of resources increases adaptive capacity as well as availability and entitlement to resources is also important). These determinants can be used as framework to develop a composite indicator to reflect changes in adaptive capacity at the local level. For example:</p> <p><b>Economic Resources:</b></p> <ol style="list-style-type: none"> <li>(1) Ratio to income to expenses – the higher the better</li> <li>(2) Off-farm earnings (AIG income) as a percent of total family income – the higher the better</li> </ol> <p><b>Technology:</b></p> <ol style="list-style-type: none"> <li>(3) Ratio of farms using climate resilient / adaptive farming technology to traditional technology – the higher the better</li> <li>(4) Number of climate change adoption strategy developed (by the farmers) and implemented – the higher the better</li> <li>(5) Number of farms practicing alternative cropping systems</li> <li>(6) Number of people have alternative income generating activities.</li> </ol> <p><b>Information and skills:</b></p> <ol style="list-style-type: none"> <li>(7) Number of communities implemented vulnerability assessment – higher the better</li> <li>(8) Number of people trained in climate change adoption technology – higher the better</li> <li>(9) Number of people informed about the impact of climate change – higher the better</li> </ol> <p><b>Infrastructure:</b></p> <ol style="list-style-type: none"> <li>(10) Hectare of area under sustainable soil management practices – higher the better</li> <li>(11) Hectare of watershed brought under forest cover to reduce soil erosion – higher the better</li> <li>(12) Hectare of riparian area / beels excavated and networked - higher the better</li> <li>(13) Hectare of land under shelter belt afforestation / reforestation – higher the better</li> <li>(14) Ratio of people with safe drinking water available in the home or with reasonable access – higher the better</li> </ol> <p><b>Institutions:</b></p> <ol style="list-style-type: none"> <li>(15) Indicators of transparency and accountability</li> <li>(16) Indicators of democratic, representative governance</li> <li>(17) Indicators of financial sustainability</li> <li>(18) Percentage of poor, women and vulnerable groups represented and participating</li> </ol>			
<b>Unit of Measure:</b> composite index, TBD			
<b>Disaggregated by:</b> Key categories included in composite index and by gender			
<b>Justification/Management Utility:</b> As IPAC works to strengthen CBOs and to protect and manage PA, safeguard ecosystem services, promote improved NRM, develop AIG, reduce poverty and develop human capital at the local level, the cumulative impact will be a reduction in vulnerability to Climate change and an increase in adaptive capacity of local communities			
DATA ACQUISITION PROCESS IPAC			
<b>Management Notes:</b>			
<b>Method of Data Acquisition:</b> from AIG matrix, monthly progress report, half-yearly review and progress report and annual survey..			
<b>Data Source(s):</b> field offices.			
<b>Frequency/Timing of Data Acquisition:</b> AIG matrix monthly, assessment yearly.			
<b>Survey Instrument for the data:</b> various survey instruments.			
OTHER NOTES			
<b>Relevant Reference Sources:</b>			
<b>Notes on Baselines/Targets:</b>			
<b>Other Notes:</b>			
PERFORMANCE INDICATOR VALUES			
Year	Actual	Target	Notes
2009	50,000		
2011	100,000		

IPAC Indicator Reference Sheet			
<b>Program Area: Environment</b>			
<b>Element: EG 8.1 – Natural Resources and Biodiversity</b>			
<b>Indicator:</b> Number of people with increased adaptive capacity to cope with impacts of climate variability and change as a result of USG assistance.			
2013	<b>200,000</b>		
THIS SHEET LAST UPDATED ON: date/month/year			
ADDITIONAL RELAVANT DATA (shown below)			

Smit, B., Pilifosova, O., Burton I., Challenger B., Huq S., Klein R.J.T. and Yohe, G. (2001): Adaptation to climate change in the context of sustainable development and equity; in Climate Change 2001: Impacts, Adaptation and Vulnerability, (ed.) J.J. McCarthy, O.F. Canziani, N.A. Contribution of Working Group III to the 3rd Assessment Report of the Intergovernmental Panel on Climate Change.

**9. Common Indicator – 9: Greenhouse gas emissions, measured in metric tons CO<sub>2</sub> equivalent, reduced or sequestered as a result of USG assistance**

IPAC Indicator Reference Sheet			
<i>Program Area: Environment</i>			
<b>Element: EG 8.1 – Natural Resources and Biodiversity</b>			
<b>Custom Indicator:</b> Quantity of greenhouse gas emissions, measured in metric tons CO <sub>2</sub> equivalent, reduced or sequestered as a result of USG assistance			
DESCRIPTION			
<b>Specific Definition:</b> This indicator reflects the amount of carbon sequestered by afforestation and reforestation in forests and wetlands (coastal and inland) and from agro production systems in the surrounding landscape areas of the five project clusters			
<b>Unit of Measure:</b> Million metric tons of carbon			
<b>Disaggregated by:</b> Forest, wetland, and agro production areas			
<b>Justification/Management Utility:</b> The indicator will measure the project's contribution to avoidance and/or reduction of greenhouse gas emissions and climate change vulnerability reduction. Newly reforested and sustainably managed agricultural areas will serve as carbon sinks			
DATA ACQUISITION PROCESS OF IPAC			
<b>Management Notes:</b>			
<ul style="list-style-type: none"> <li>• Will require baseline of dry land and wetland perennial vegetative cover; annual assessment of vegetative cover changes (+/-)</li> <li>• Assess impacts in areas receiving direct and indirect project activities and assistance</li> <li>• Include in project applied research agenda</li> </ul>			
<b>Method of Data Acquisition:</b> Digitized GIS vegetative cover maps; updated annually; project performance monitoring information on number of hectares of improved NRM			
<b>Data Source(s):</b> National Adaptation Program of Action for Climate Change; project monitoring information			
<b>Frequency/Timing of Data Acquisition:</b> Annually			
<b>Survey Instrument for the data:</b> satellite imagery; aerial photography; reforestation and NRM program monitoring data			
OTHER NOTES			
<b>Relevant Reference Sources:</b> National Adaptation Program of Action for Climate Change			
<b>Notes on Baselines/Targets:</b>			
<b>Other Notes:</b> will also include stove & biogas savings along with forest/wetlands sequestration. Should include the Scout program on stoves.			
PERFORMANCE INDICATOR VALUES			
Year	Target	Actual	Notes
2009	4.29		
2011	6.85		
2013	8.26		
THIS SHEET LAST UPDATED ON: date/month/year			
ADDITIONAL RELAVANT DATA (shown below)			

## 10. Common Indicator – 10: People in target areas with access to improved drinking water supply as a result of USG assistance

IPAC Indicator Reference Sheet			
<b>Program Area:</b> Environment			
<b>Element:</b> E.G. 3.1.8 - Water Supply and Sanitation Element			
<b>Custom Indicator:</b> Number of people in target areas with access to improved drinking water supply as a result of USG assistance			
DESCRIPTION			
<p><b>Specific Definition:</b> Improved of drinking water supply include household water connections, public standpipes, boreholes, protected dug wells, protected springs, and rainwater collection. Examples of unimproved drinking water sources include unprotected wells; unprotected spring, rivers or ponds; vendor-provided water or tanker truck water. This will include improved drinking water supplies as a result of direct investment by IPAC, as well as the results of training and communication activities and leveraged project support by other organizations in the areas targeted by IPAC.</p> <p><b>Unit of Measure:</b> # of people</p> <p><b>Disaggregated by:</b> none</p> <p><b>Justification/Management Utility:</b> One of the experiences of NSP is that lack of access to safe drinking water in areas like Teknaf Game Reserve, Rema-Kalenga Wildlife Sanctuary, Lawachara &amp; Satchari National Park. The proposed areas under IPAC like Sundarbans, Chittagong Hill Tracts, entire Cox's Bazar and wetlands also have limited sources of drinking water. Lack of convenient water supply access has severe gender implications, as the time-intensive pursuit of water collection often prevents women from taking up income-generating opportunities or girls from attending school especially in the hilly regions. Similarly, the impacts of water-related disease are often borne by female members of the family, since they are the primary caretakers of children and the ill.</p>			
DATA ACQUISITION PROCESS OF IPAC			
<p><b>Management Notes:</b> Applications should include small-scale infrastructure activities that increase access to improved water supply services in target communities. This can include both surface water and groundwater-fed systems, as well as the full range of appropriate, affordable, and approved technologies and approaches for water supply infrastructure (e.g., boreholes, spring boxes, gravity-fed conveyance mechanisms, rainwater harvesting, etc.). Development of new infrastructure as well as rehabilitation of existing systems may be proposed.</p> <p><b>Method of Data Acquisition by Project Monitoring Unit:</b> performance monitoring data collected on number of households have access to safe drinking water, converted in number of people by average family size. Performance monitoring team, cluster performance monitoring specialists, field implementing partners, and collaborating CMCs/RMOs will collect information and data.</p> <p><b>Data Source(s):</b> field offices.</p> <p><b>Frequency/Timing of Data Acquisition:</b> quarterly and yearly</p> <p><b>Survey Instrument for the data:</b> sample survey.</p>			
OTHER NOTES			
<p><b>Relevant Reference Sources:</b></p> <p><b>Notes on Baselines/Targets:</b></p> <p><b>Other Notes:</b></p>			
PERFORMANCE INDICATOR VALUES			
Year	Target	Actual	Notes
2009	10,000		
2011	20,000		
2013	30,000		
THIS SHEET LAST UPDATED ON: date/month/year			
ADDITIONAL RELAVANT DATA (shown below)			

## 11. Custom Indicator - 11: Number of individuals benefiting from improved stove and biogas plants.

IPAC Indicator Reference Sheet			
<b>Program Area:</b> Environment			
<b>Element:</b> E.G. 8.2 – Clean Human Environment			
<b>Custom Indicator:</b> Number of individuals benefiting from improved stove and biogas plants.			
DESCRIPTION			
<b>Specific Definition:</b> Institutions may range from educational or governmental, or even brickfields.			
<b>Unit of Measure:</b> # of individuals			
<b>Disaggregated by:</b> n/a			
<b>Justification/Management Utility:</b> One of the causes of deforestation and degradation of PA is unsustainable harvesting of fuel wood, especially for commercial sales to urban centers and brickfields. Dissemination of fuel efficient wood stoves for cooking or biogas technologies is can reduce deforestation and carbon dioxide emissions. In addition to planting trees, and to increased patrolling and reduction of commercial extraction of fuelwood for brickfields and urban centers, IPAC will promote the expanded use of improved wood stoves and biogas plants. These technologies have been effective in: reducing local demand for fuelwood, reducing the felling of trees and carbon emissions from deforestation, reducing expenditures for fuelwood, and contribute to improved hygiene and health and generate useful by-products (composted waste).			
DATA ACQUISITION PROCESS OF IPAC			
<b>Management Notes:</b>			
<b>Method of Data Acquisition by Project Monitoring Unit:</b> performance monitoring data collected on number of institutions have installed fuel efficient technology. Performance monitoring team, cluster performance monitoring specialists, field implementing partners, and collaborating CMCs/RMOs will collect information and data.			
<b>Data Source(s):</b> field offices.			
<b>Frequency/Timing of Data Acquisition:</b> quarterly and yearly			
<b>Survey Instrument for the data:</b>			
OTHER NOTES			
<b>Relevant Reference Sources:</b>			
<b>Notes on Baselines/Targets:</b>			
<b>Other Notes:</b>			
PERFORMANCE INDICATOR VALUES			
Year	Target	Actual	Notes
2009	1000		
2011	5000		
2013	8000		
THIS SHEET LAST UPDATED ON: date/month/year			
ADDITIONAL RELEVANT DATA (shown below)			

## 12. Custom Indicator – 12: Market and non-market revenue generated from pilot Protected Areas

IPAC Indicator Reference Sheet			
<p><b>Program Area:</b> Environment</p> <p><b>Element:</b> E.G. 8.2 –</p> <p><b>Custom Indicator:</b> Market and non-market revenue generated from pilot Protected Areas.</p>			
DESCRIPTION			
<p><b>Specific Definition:</b> This indicator includes the market value of outputs produced by the beneficiaries listed in the previous indicator. It also includes the non-market values that are generated from conservation of the core zones of forest and wetland areas.</p> <p><b>Unit of Measure:</b> # USD per year</p> <p><b>Disaggregated by:</b> Marketed revenues generated from AIG support, enterprise generation, employment, entry fee, community benefits; non-marketed revenue includes improved health due to improved stoves, carbon sink value.</p> <p><b>Justification/Management Utility:</b> This is the comprehensive indicator that would show the major economic benefits of the investment.</p>			
DATA ACQUISITION PROCESS OF IPAC			
<p><b>Management Notes:</b></p> <p><b>Method of Data Acquisition by Project Monitoring Unit:</b> performance monitoring data collected by from AIG matrix, monthly progress report, half-yearly review and progress report and sample survey. Performance monitoring team, cluster performance monitoring specialists, field implementing partners, and collaborating CMCs/RMOs will collect information and data.</p> <p><b>Data Source(s):</b> field offices.</p> <p><b>Frequency/Timing of Data Acquisition:</b> quarterly and yearly</p> <p><b>Survey Instrument for the data:</b> various</p>			
OTHER NOTES			
<p><b>Relevant Reference Sources:</b></p> <p><b>Notes on Baselines/Targets:</b></p> <p><b>Other Notes:</b></p>			
PERFORMANCE INDICATOR VALUES			
Year	Target	Actual	Notes
2009	\$250,000		
2011	\$1,000,000		
2013	\$2,000,000		
THIS SHEET LAST UPDATED ON: date/month/year			
ADDITIONAL RELAVANT DATA (shown below)			

### 13. Custom Indicator – 13: Increase in density of indicator bird species in wetlands and forested landscapes

IPAC Indicator Reference Sheet			
<b>Program Area:</b> Environment			
<b>Element:</b> E.G. 8.2 –			
<b>Custom Indicator:</b> Increase in density of indicator bird species in wetlands and forested landscapes			
DESCRIPTION			
<p><b>Specific Definition:</b> Eight indicator bird species have been selected as indicators of biological diversity and forest health in Nishorgo five pilot PAs. These eight species come from different strata of the forest. Some of these birds showed response to change in the habitat, some did not. These bird species will be revised and more will be selected to track change in the health of the wetlands.</p> <p><b>Unit of Measure:</b> # indicator birds per square kilo-meter</p> <p><b>Disaggregated by:</b> Forested bird and Wetland birds</p> <p><b>Justification/Management Utility:</b> This indicator is to be measured year by year. It provides a useful and easily comprehensible measure of forest and wetland habitat change, useful both to policy makers and to the local inhabitants, for building awareness, constituency. This indicator serves as proxy indicator of biodiversity.</p>			
DATA ACQUISITION PROCESS OF IPAC			
<p><b>Management Notes:</b></p> <p><b>Method of Data Acquisition by Project Monitoring Unit:</b> Annual bird surveys following pre-established transects in each of the PAs and wetlands Local Eco Guides or other local residents and co-management participants take part in the survey process. Performance monitoring team, cluster performance monitoring specialists, field implementing partners, and collaborating CMCs/RMOs will collect information and data.</p> <p><b>Data Source(s):</b> field offices.</p> <p><b>Frequency/Timing of Data Acquisition:</b> yearly</p> <p><b>Survey Instrument for the data:</b> line transect survey.</p>			
OTHER NOTES			
<p><b>Relevant Reference Sources:</b></p> <p><b>Notes on Baselines/Targets:</b> Baseline value will be set within the first year for all direct PA and wetlands. Increase in the density will indicate ecosystem health.</p> <p><b>Other Notes:</b></p>			
PERFORMANCE INDICATOR VALUES			
Year	Target	Actual	Notes
2009	TBD		
2011	TBD		
2013	TBD		
THIS SHEET LAST UPDATED ON: date/month/year			
ADDITIONAL RELEVANT DATA (shown below)			

## 14. Custom Indicator - 14: Amount of leveraged financing for conservation

IPAC Indicator Reference Sheet			
<p><b>Program Area:</b> Environment</p> <p><b>Element:</b> E.G. 8.2 –</p> <p><b>Custom Indicator:</b> Amount of leveraged financing for conservation.</p>			
DESCRIPTION			
<p><b>Specific Definition:</b> This indicator will measure the ability of the PA (forest and wetland) system to raise funds for protected areas management. Funds raised would be used to support protected areas activities post project completion or for activities outside the pilot areas to initiate co-management activities in other sites. This includes carbon projects, public-private partnership and donor funding.</p> <p><b>Unit of Measure:</b> # million USD</p> <p><b>Disaggregated by:</b> n/a</p> <p><b>Justification/Management Utility:</b> This indicator will measure yet another aspect of improved institutional capacity, that of civil society capacity. The ability of the local governments, NGOs and other local organizations to effectively mobilize conservation finance to support co-management of PAs and other NRM programs is a fundamental aspect of effective co-management.</p>			
DATA ACQUISITION PROCESS OF IPAC			
<p><b>Management Notes:</b></p> <p><b>Method of Data Acquisition by Project Monitoring Unit:</b> Project documents.</p> <p><b>Data Source(s):</b> Dhaka offices.</p> <p><b>Frequency/Timing of Data Acquisition:</b> yearly</p> <p><b>Survey Instrument for the data:</b></p>			
OTHER NOTES			
<p><b>Relevant Reference Sources:</b></p> <p><b>Notes on Baselines/Targets:</b></p> <p><b>Other Notes:</b></p>			
PERFORMANCE INDICATOR VALUES			
Year	Target	Actual	Notes
2009	\$200,000		
2011	\$5,000,000		
2013	\$21,500,000		
THIS SHEET LAST UPDATED ON: date/month/year			
ADDITIONAL RELAVANT DATA (shown below)			

## 15. Custom Indicator - 15: Number of individuals that are aware of a national protected area network.

IPAC Indicator Reference Sheet			
<b>Program Area:</b> Environment			
<b>Element:</b> E.G. 8.2 –			
<b>Custom Indicator:</b> Number of individuals that are aware of a national protected area network.			
DESCRIPTION			
<p><b>Specific Definition:</b> This process indicator will record the number of people who can recognize ideas, items, brands or logos of the national network of protected areas and its objectives. The items to be recognized will emerge from the communication program and will be defined later. But this indicator will monitor those figures.</p> <p><b>Unit of Measure:</b> # of people</p> <p><b>Disaggregated by:</b> n/a</p> <p><b>Justification/Management Utility:</b> This process indicator will capture the desired impact of awareness generation activities in order to build a constituency for conservation and to raise awareness among the public of the biological richness of the country managed under a system of protected area network.</p>			
DATA ACQUISITION PROCESS OF IPAC			
<p><b>Management Notes:</b></p> <p><b>Method of Data Acquisition by Project Monitoring Unit:</b> Data collection and assessment will be headed by Asiatic Communication Team under the guidance of Performance monitoring team.</p> <p><b>Data Source(s):</b> Asiatic Communication Team and IPAC communication team.</p> <p><b>Frequency/Timing of Data Acquisition:</b> yearly</p> <p><b>Survey Instrument for the data:</b> Initial polls, surveys, and stakeholder analyses will gauge the current level of public awareness and will establish the baseline from which increased awareness will be measured. The project communication strategy will also identify data collection methods.</p>			
OTHER NOTES			
<p><b>Relevant Reference Sources:</b></p> <p><b>Notes on Baselines/Targets:</b></p> <p><b>Other Notes:</b></p>			
PERFORMANCE INDICATOR VALUES			
Year	Target	Actual	Notes
2009	50,000		
2011	1,000,000		
2013	2,500,000		
THIS SHEET LAST UPDATED ON: date/month/year			
ADDITIONAL RELEVANT DATA (shown below)			

**16. Custom Indicator – 16: More active and decisive support for PA co-management from Forest Department, DOE & DOF and local government**

IPAC Indicator Reference Sheet			
<p><i>Program Area: Environment</i></p> <p><b>Element: E.G. 8.2 –</b></p> <p>Custom Indicator: 16: More active and decisive support for PA co-management from Forest Department, DOE &amp; DOF and local government</p>			
DESCRIPTION			
<p><b>Specific Definition:</b> This indicator will measure improvements in the institutional support provided by FD, DOE and DOF and shifts in their operating paradigm in favor of co-management and integrated conservation issues and climate change.</p> <p><b>Unit of Measure:</b> composite index tracking institutional and administrative changes within the FD, DOF &amp; DOE and observation of field operations.</p> <p><b>Disaggregated by:</b> n/a</p> <p><b>Justification/Management Utility:</b> Staff of the Wildlife and Nature Conservation Circle of the FD will be critical to implementation of the PA co-management strategy and will receive specific attention and training. Similarly, the ECA Cell and Climate Change Cell within the DOE and the newly formed Inland Capture Fisheries Management Wing at the DOF will be targeted for capacity building.</p>			
DATA ACQUISITION PROCESS OF IPAC			
<p><b>Management Notes:</b></p> <p><b>Method of Data Acquisition by Project Monitoring Unit:</b> Periodic reporting on the progress of agreed to changes.</p> <p><b>Data Source(s):</b> IPAC project documents, data and information from the Ministry of Environment and Forests, Department of the Environment, Forest Department, Fisheries Department.</p> <p><b>Frequency/Timing of Data Acquisition:</b> quarterly, yearly</p> <p><b>Survey Instrument for the data:</b> grey literature survey.</p>			
OTHER NOTES			
<p><b>Relevant Reference Sources:</b></p> <p><b>Notes on Baselines/Targets:</b></p> <p><b>Other Notes:</b></p>			
PERFORMANCE INDICATOR VALUES			
Year	Target	Actual	Notes
2009	TBD		
2011	TBD		
2013	TBD		
THIS SHEET LAST UPDATED ON: date/month/year			
ADDITIONAL RELAVANT DATA (shown below)			

## 17. Custom Indicator - 17: Number of communities with co-management agreement.

IPAC Indicator Reference Sheet			
<b>Program Area:</b> Environment			
<b>Element:</b> E.G. 8.2 –			
<b>Custom Indicator:</b> Number of communities with co-management agreement.			
DESCRIPTION			
<p><b>Specific Definition:</b> This indicator will capture active local participation in the management of protected areas as well as acceptances of government on devolution of power at the local level for sustainable resource management. Local participation is key to the long-term sustainability of protected areas. Communities must identify with the protected area and see it as a resource worth protecting because the protected area is viewed as an asset that provides the community with goods and services. Local participation is defined as communities and local resources groups incorporated in planning for, identifying local resource priority needs, defining uses of and managing a protected area. Communities can participate in co-management of protected areas by providing services like patrolling and protection activities, offering services for tourists (guides, food, souvenirs), providing wetland, forest and resource maintenance services, among other activities. Community and local resource management group participation will be established through co-management agreements.</p> <p><b>Unit of Measure:</b> Number of communities and/or resource management organizations with signed co-management</p> <p><b>Disaggregated by:</b> forested lands and wetlands.</p> <p><b>Justification/Management Utility:</b> By definition co-management requires the participation of local groups and communities. As such this indicator will measure progress toward attaining greater local participation. If procedures developed for co-management are functioning, this indicator will provide proof that local groups are participating and benefiting from the implementation of the procedure.</p>			
DATA ACQUISITION PROCESS OF IPAC			
<p><b>Management Notes:</b></p> <p><b>Method of Data Acquisition by Project Monitoring Unit:</b> Initial assessment of current policy and regulatory framework conducted by IPAC staff and respective GOB agencies. Performance monitoring team, cluster performance monitoring specialists, field implementing partners, and collaborating CMCs/RMOs will collect information and data on development and implementation of national and local agreements or regulations, as part of quarter progress reporting.</p> <p><b>Data Source(s):</b> IPAC project documents, data and information from the Ministry of Environment and Forests, Department of the Environment, Forest Department, Fisheries Department.</p> <p><b>Frequency/Timing of Data Acquisition:</b> quarterly, yearly</p> <p><b>Survey Instrument for the data:</b> grey literature survey.</p>			
OTHER NOTES			
<p><b>Relevant Reference Sources:</b></p> <p><b>Notes on Baselines/Targets:</b> After the initial assessment through RRA/PRA and from inputs from DOF &amp; FD, target values will be set.</p> <p><b>Other Notes:</b></p>			
PERFORMANCE INDICATOR VALUES			
Year	Target	Actual	Notes
2009	TBD		
2011	TBD		
2013	TBD		
THIS SHEET LAST UPDATED ON: date/month/year			
ADDITIONAL RELEVANT DATA (shown below)			

## 18. Custom Indicator – 18: Number of training curriculums and modules designed and taught

IPAC Indicator Reference Sheet			
<p><b>Program Area:</b> Environment</p> <p><b>Element:</b> EG 8.1 – Natural Resources and Biodiversity</p> <p><b>Indicator:</b> Number of training curriculums and modules designed and taught</p>			
DESCRIPTION			
<p><b>Specific Definition:</b> Training module or curriculums of short-term, medium term (certificate and diploma) on biodiversity, climate change, wildlife management, Protected Area management, community based eco-tourism, climate change adoption, venerability assessment etc.</p> <p><b>Unit of Measure:</b> # of training modules</p> <p><b>Disaggregated by:</b> n/a</p> <p><b>Justification/Management Utility:</b> development of appropriate training modules or curriculums in different aspect will be important in developing capacity and building constituency.</p>			
DATA ACQUISITION PROCESS OF IPAC			
<p><b>Management Notes:</b></p> <p><b>Method of Data Acquisition by Project Monitoring Unit:</b> performance monitoring data collected on number of persons trained, and training topics – on a quarterly basis using training evaluations and completion reports. Performance monitoring team, cluster performance monitoring specialists, field implementing partners, and collaborating CMCs/RMOs will collect information and data.</p> <p><b>Data Source(s):</b> Project training plan, training evaluations and completion reports, with information on number and gender of persons trained</p> <p><b>Frequency/Timing of Data Acquisition:</b> Quarterly</p> <p><b>Survey Instrument for the data:</b> Review of training evaluations and completion reports; interviews with training participants</p>			
OTHER NOTES			
<p><b>Relevant Reference Sources:</b> MACH and NSP training plans and reports; GOB agency training plans and requirements</p> <p><b>Notes on Baselines/Targets:</b></p> <p><b>Other Notes:</b></p>			
PERFORMANCE INDICATOR VALUES			
Year	Target	Actual	Notes
2009	5		
2011	10		
2013	20		
THIS SHEET LAST UPDATED ON: date/month/year			
ADDITIONAL RELAVANT DATA (shown below)			

## 19. Custom Indicator – 19: Number of recorded visitors to targeted PAs.

IPAC Indicator Reference Sheet			
<p><b>Program Area:</b> Environment</p> <p><b>Element:</b> EG 8.1 – Natural Resources and Biodiversity</p> <p><b>Indicator:</b> Number of recorded visitors to targeted PAs.</p>			
DESCRIPTION			
<p><b>Specific Definition:</b> This indicator will measure the increased interest of the general public to visit national parks and their willingness to pay an entrance fee. It will also measure the increase in revenues made available to finance PA management, and reflect the government commitment to financing of PA co-management through the retention / return of entry fees to CMCs.</p> <p><b>Unit of Measure:</b> Annual numbers of paid visitors and annual percent increase of paid visitors</p> <p><b>Disaggregated by:</b> number of visitors, number of visitors paying fees, total value of fees, and % of entry fees retained / returned to CMCs</p> <p><b>Justification/Management Utility:</b> This indicator will provide evidence of increased civil society awareness, government acceptance and interest in natural areas. The planned communications campaigns should provide some of the stimulus for the increased visitation. Although under NSP, visitor number increased tenfold (from 5000 to 50,000 in LNP) however, as the Min Finance has not yet approved the entry fee, the number of paying visitors is still 0, officially.</p>			
DATA ACQUISITION PROCESS OF IPAC			
<p><b>Management Notes:</b></p> <p><b>Method of Data Acquisition by Project Monitoring Unit:</b> visitor register of respective PAs.</p> <p><b>Data Source(s):</b> Visitor registers of respective PA. Visitors are requested to collect “ticket” with serial number (payment is not required to get a ticket or entry to the PA at this moment). A part of this “ticket” is kept with the information center and monthly register is maintained.</p> <p><b>Frequency/Timing of Data Acquisition:</b> monthly, Quarterly and yearly.</p> <p><b>Survey Instrument for the data:</b> Review of training evaluations and completion reports; interviews with training participants</p>			
OTHER NOTES			
<p><b>Relevant Reference Sources:</b></p> <p><b>Notes on Baselines/Targets:</b></p> <p><b>Other Notes:</b></p>			
PERFORMANCE INDICATOR VALUES			
Year	Target	Actual	Notes
2009	50,000		
2011	500,000		
2013	1,000,000		
THIS SHEET LAST UPDATED ON: date/month/year			
ADDITIONAL RELAVANT DATA (shown below)			

## 20. Custom Indicator – 20: Number of GOB protected areas with improved performance

IPAC Indicator Reference Sheet			
<b>Program Area:</b> Environment			
<b>Element:</b> EG 8.1 – Natural Resources and Biodiversity			
<b>Indicator:</b> Number of GOB protected areas with improved performance.			
DESCRIPTION			
<p><b>Specific Definition:</b> A PA management performance score was developed and applied for all PAs in Bangladesh, although contractually targeted to only five pilot PAs under NSP. The methodology was developed based on WWF's "Rapid Assessment and Prioritization of Protected Area Management Methodology (Ervin 2003) and Site Consolidation Scorecard developed by The Nature Conservancy (1999). Adjustments were made to match local condition or reality to the extent possible. Protected areas is considered to be improved when they have the "management plans, proper infrastructure, staff with increased capacity, secure &amp; sustained budget, proper site design, legally secure and dispute is low. These aspects were measured through a number of verifies on a predetermined scale (1 –5, where 1 represents the minimum and 5 represents optimal management and protection conditions). Maximum score is 130 and lowest is 0. The higher the total score, the better the performance.</p> <p>This scorecard method will be revised to develop a composite index reflecting changes in effectiveness of protection, community participation, stakeholder representation, economic benefits generated, operating budgets, staffing and infrastructure improvements in targeted PA, and applied to wetlands to track improvements in the capacity for co-management of the integrated PA system for the entire country.</p> <p><b>Unit of Measure:</b> score</p> <p><b>Disaggregated by:</b> forested PA and wetland PA</p> <p><b>Justification/Management Utility:</b> The management performance scorecard can give ecological, social, economic and legal context of each PAs and assessment of management capacity to better decision making. This scorecard method will be helpful in communication, advocacy, constituency building, leveraged financing, resource allocation by the policy makers and will also help in formal recognition and institutionalization of the IPAC system in Bangladesh.</p>			
DATA ACQUISITION PROCESS OF IPAC			
<b>Management Notes:</b>			
<b>Method of Data Acquisition by Project Monitoring Unit:</b> survey reports carried out by FD, DOE and DOF.			
<b>Data Source(s):</b>			
<b>Frequency/Timing of Data Acquisition:</b> yearly.			
<b>Survey Instrument for the data:</b> qualitative survey techniques.			
OTHER NOTES			
<b>Relevant Reference Sources:</b>			
<b>Notes on Baselines/Targets:</b> baseline for all forested PAs has already been done under NSP. For wetlands, similar study needs to be taken.			
<b>Other Notes:</b>			
PERFORMANCE INDICATOR VALUES			
Year	Target	Actual	Notes
2009	9		
2011	19		
2013	45		
THIS SHEET LAST UPDATED ON: date/month/year			
ADDITIONAL RELAVANT DATA (shown below)			