

# **TRIP REPORT – INTEGRATED PROTECTED AREAS CO-MANAGEMENT (IPAC)**

**Todd Johnson, Carbon Finance Specialist, IRG/Washington**

## ***Background***

The Carbon Finance Specialist conducted a short-term technical assistance (STTA) assignment to the Integrated Protected Areas Co-management (IPAC), a joint activity of the United States Agency for International Development (USAID) and the Government of Bangladesh, implemented with technical support by International Resources Group (IRG) and a consortium of collaborating partners. The IPAC team coordinates all project activities with the Departments of Forestry (FD) and Environment (DOE) in the Ministry of Environment and Forests (MOEF), and the Department of Fisheries (DOF) in the Ministry of Fisheries and Livestock (MOFL).

One of the areas of cooperation between IPAC and these government agencies is to address global climate change and carbon financing. IPAC includes earmarked funding to address global climate change issues in Bangladesh, and several specific results related to climate change adaptation and mitigation are included in the project Statement of Work.

The STTA assignment was organized with two main objectives that contribute toward meeting those specific results:

- 1) To assist the IPAC team in reviewing the potential role of the national IPAC program in addressing climate change issues in Bangladesh, and to help identify specific, high priority activities to be implemented over the next year; and
- 2) To provide technical support to the land use carbon project development workshop conducted October 28 – November 17, 2009.

A copy of the specialist's terms of reference (TOR) is attached to this report. The specific deliverables from the assignment were:

- 1) Four presentations prepared for the land use carbon project development workshop, in hard and soft copy; and
- 2) This trip report, consisting of a brief description of activities completed and a summary of findings and recommendations.

## ***Activities Completed***

Upon arrival in Dhaka on 25<sup>th</sup> October, the specialist met with Deputy Chief of Party Dr. Ram Sharma and other project staff at the IPAC office. The following day, he met with the Chief of Party Dr. Robert Winterbottom and members of a technical support team from the US Forest Service to discuss details of the workshop and training course. Preparation of materials and presentations for those activities were reviewed, and plans made to finalize all materials in time for reproduction and distribution at the events.

The specialist then accompanied the IPAC and USFS teams to a meeting with Ishtiaq Uddin Ahmad, Deputy Chief Conservator of Forests to brief him on plans and preparations for the workshop on Global Climate Change and Carbon Financing: Opportunities for Bangladesh, as well as the Certificate Training Course on Carbon Financing Project Preparation.

The following two days consisted of completing materials for these two events, including final review by the IPAC leadership. In the afternoon of 28<sup>th</sup> October, the Global Climate Change and Carbon Financing: Opportunities for Bangladesh workshop commenced at the Radisson Water Garden Hotel, opened by Hon. State Minister for Environment and Forests Dr. Hasan Mahmud. This opening session was also attended by Dr. Mihir Kanti Mazumder, Secretary, MOEF and United States Ambassador to Bangladesh Mr. James F. Moriarty as well as Ms. Denise Rollins, USAID Mission Director for Bangladesh.

The week closed with the full-day workshop at the same venue, where the specialist presented two sessions on different aspects of carbon financing and the international carbon markets to the 80 or

more participants from a wide range of government agencies, development organizations, nongovernmental organizations, and private sector entities.

Those two sessions were:

- 1) The international business of climate change: global context of carbon markets and trading; and
- 2) International cooperation on climate change: pathways to a global agreement

Hard copies of these two presentations were distributed to all participants, and soft copies are available from IPAC.

After an abbreviated weekend, the specialist traveled with the IPAC team and USFS technical advisors to the Fisheries Training Academy in Savar. This location was the venue for the Certificate Training Course on Carbon Financing Project Preparation that began on 31<sup>st</sup> October. The specialist conducted two sessions during the first day of the training course. The original program called for one session on the carbon markets and the second session on ways to access those markets. The two were instead combined into one extended presentation that was thought to be less confusing for participants in that it covered the details of each market and ways to access that market at the same time rather than several hours later.

The presentation was split into two sessions: one on compliance-based allowance markets and the other on the project-based markets, including voluntary carbon markets. Both soft and hard copies of the presentation are available from IPAC and were distributed to the 25 training course participants.

During both the workshop and the training course, the specialist interacted with a number of participants to provide them an opportunity to ask more detailed questions, and for the specialist to gain insights into the challenges facing the Government of Bangladesh in facilitating carbon market transactions.

The specialist attended the next day of the training course, where the USFS team presented its protocol for carbon accounting, and held side discussions with DCOP Dr. Ram Sharma on specific activities that IPAC may undertake to support further development of projects for the carbon markets.

The remaining three days of the specialist's assignment were occupied with conducting an analysis of the IPAC program of work with specific reference to the areas where climate change activities could help to contribute toward overall project goals. This included identifying nine activities in the areas of carbon sequestration, reducing emissions from deforestation and forest degradation (REDD), and other emissions reductions. Another part of the analysis was a preliminary ranking of 19 protected areas in Bangladesh according to a rapid-assessment scoring against objective criteria. Data for this latter analysis came from the Nishorgo Support Program report on the State of the Protected Areas of Bangladesh 2007—2008.

Copies of results from these two analyses are attached to this report, with priority ranking of the activities, description and rationale for each, the IPAC indicators it may contribute toward, and approximate timing for conducting the activity if it is agreed by stakeholders to be a productive activity.

The Chief of Party requested the specialist to conduct a rapid assessment of the quantity of potentially tradable carbon credits that may be generated by each activity on the attached chart. Using the approved Tier I methodology of the Intergovernmental Panel on Climate Change in its Guidelines for National Greenhouse Gas Inventories, this rapid assessment will be completed as soon as possible from the IRG home office after the field portion of this assignment concludes.

Upon completion of that Tier I rapid assessment, the specialist will make any necessary changes to the recommended priorities in the list of activities, and finalize the PA analysis using more precise and accurate quantification. When that revised list of priority activities and PA analysis is finished and sent to IPAC, the assignment will be complete.

### ***Summary of Findings and Recommendations***

1. Bangladesh has the potential to become an active participant in the international carbon financing markets, yet a number of challenges could become impediments.
2. Perhaps the most critical of these impediments is the incomplete examination of specific legal and or policy reforms that may be undertaken to make the operating environment more conducive.
3. Preparation of a national strategy and action plan may provide both a guiding document for each of the relevant agencies and – perhaps more importantly – a forum for stakeholders to systematically identify and address provisions of current policy and legislation that at present could impede progress.
4. With most of the relevant Acts and policies developed at a time long before the emergence of carbon markets, a facilitative role for accessing these markets could not have been foreseen.
5. Preliminary results of the PA analysis show that Teknaf Game Reserve may provide the single best opportunity for REDD credits.
6. The three Sundarbans Wildlife Sanctuaries, Lawachara National Park and Satchari National Park also show high potential in the preliminary analysis.
7. The Sundarbans may, unfortunately, be disadvantaged by its relatively pristine state given that the carbon markets require an “additionality” of carbon above the baseline scenario of “business as usual”. Having a comparatively low rate of deforestation and degradation under the status quo means that marginal difference with business as usual is also comparatively lower. Their sheer size and high carbon stocking densities do, however, make them viable for REDD proposal(s).
8. Other quick-gain activities may include carbon sequestration from reforestation of other PAs, improved harvest techniques for sustainable management by forest-dependent communities, and agroforestry woodlots with participants in the improved cook stoves program. Additional emissions reductions could also be gained from the cook stoves, biogas plants, and an improved rice cultivation technology.
9. Arguably the **two most urgent actions** necessary to move quickly on accessing carbon markets before REDD becomes yet another frustration for rural Bangladeshis are:
  - a. Convening a national forum of government, academe, NGOs and private sector to formulate a strategy and action plan for accessing these markets and following through with its implementation due to Indonesia, Brazil, Andean states, and Congo already being discussed in some circles as the only countries where REDD will work; and
  - b. Strategically identifying and negotiating with a high-profile multinational corporation for them to invest in a Sundarbans REDD project. This would highlight the legal and policy impediments in a way that provides impetus for action while also demonstrating to the various agencies that REDD need not become another CDM, where countries such as Bangladesh are on the sidelines watching those who moved quickly and adroitly to facilitate their internal processes are the ones who garner the largest market shares.

# IPAC BANGLADESH CLIMATE CHANGE CONSULTATION AND TECHNICAL SUPPORT TO LAND-USE CARBON ORIENTATION TRAINING

## BACKGROUND

The USAID funded Integrated Protected Area Co-management (IPAC) project includes ear-marked funding to address Global Climate Change issues in Bangladesh, and several specific results related to climate change adaptation and mitigation are included in the project Statement of Work. In its second year of implementation, the IPAC will be taking account of climate change related program elements in the development of the strategic framework for the national program, and implementing a number of activities to achieve specific impacts targeted in the IPAC performance monitoring plan.

This consultancy is being organized with two main objectives:

1) to assist the IPAC team in reviewing the potential role of the national IPAC program in addressing climate change issues in Bangladesh, and to help identify specific, high priority activities to be implemented over the next year; and 2) to provide technical support to the land use carbon project development workshop being organized October 28 – November 17, 2009.

## SCOPE OF WORK FOR IRG FOREST CARBON SPECIALIST – DRAFT

The following are Key Tasks and Deliverables expected of the Specialist and approximate time frame for performance of the Tasks, and completion of the Deliverables, based on the IPAC Statement of Work and the principles and objectives outlined in the Land-Use Carbon Project Development Orientation document.

### Key Tasks

1. Review documentation on IPAC, including the IPAC contract SOW, progress reports and background note on IPAC and Climate Change.
2. Review and document important issues that are relevant to the following topics, and prepare appropriate training presentations to orient senior officials on each topic.
  - a. International cooperation on global climate change: a brief overview of the history and current status of international agreements, including:
    - i. UNFCCC and Kyoto Protocol;
    - ii. Bali Road Map, COP-14, and intersessional (e.g., Bonn) negotiations;
    - iii. Upcoming COP-15 (Copenhagen; December, 2009).
  - b. International and national carbon markets: a brief overview of the specific aspects of international carbon trade as they relate to terrestrial (AFOLU) carbon.
3. Deliver two 1-hour presentations described above to senior officials attending a 1-day high-level policy workshop on “Land-use Carbon Project Development Orientation”. Informal interactions with senior officials during the workshop are an important part of the assignment.
4. Review and document important issues that are relevant to the following topics, and prepare appropriate presentations to train mid-level officials of IPAC partner agencies on each topic.
  - a. International and national carbon markets, with specific reference to compulsory (regulated) and voluntary market trading; and
  - b. Mechanisms for accessing international and national carbon markets with specific reference to possibilities for Bangladesh – and project development requirements – in CDM, ETS, and other markets (regional, national, voluntary).
5. Deliver the two presentations described above to mid-level officials from IPAC partner agencies participating in a three-day workshop on “Land-use Carbon Project Planning, Design, and Carbon

Pool Assessment". Informal interactions with participants during the workshop will also important part of the assignment.

6. Discuss and agree with the IPAC team as to how carbon financing can be planned and implemented for Bangladesh carbon projects that will be developed under IPAC.
7. Discuss climate change related opportunities and initiatives in Bangladesh, and consider an appropriate niche and role for IPAC project support.
8. Review with the IPAC the range of climate change related actions and develop a prioritized list of activities to be supported by IPAC in the next year to achieve targeted results and impacts related to climate change.

### **Deliverables**

1. Four presentations as described above and on the training schedule, in hard and soft copy.
2. Trip report with a brief description of activities completed and a summary of findings and recommendations.

### **Time Frame**

1. Oct 22-23: conduct document review and prepare presentations at IRG/W; send to IPAC
2. Oct 24-25: travel from Washington to Dhaka [IPAC team reviewing presentations]
3. Oct 26-27: finalize training prep with country team; revise presentations as needed
4. Oct 28-29: policy workshop & interaction with senior government officials and selected organizations working on climate change in Bangladesh
5. Oct 30-Nov 2: technical workshop & interaction with mid-level technical officials and IPAC team
6. Nov 3-4: consultations with IPAC team and preparation of trip report
7. Nov 5-6: return travel to Washington

Total estimated LOE: 16 days

2 days preparation

10 days in country

4 travel days

## INTEGRATED PROTECTED AREAS CO-MANAGEMENT (IPAC)

### Prioritized activities for support related to climate change

#### MITIGATION<sup>1</sup>: EMISSION REDUCTIONS & CARBON SEQUESTRATION

Priority <sup>2</sup>	Activity / Sub-activity	Description	Rationale	Indicator(s)	Timing
	<b>REDD+ carbon financing</b>	Activities generating reduced emissions through avoided deforestation and forest conservation	High-profile international attention; new mechanism where Bangladesh may be positioned to participate;	<i>Varies by activity</i>	2010-12
HIGH	1) National REDD Strategy/Action Plan	Inter-agency process to reach consensus on national priorities and identify specific legal, policy issues impeding achievement	Low level of knowledge outside small group of insiders; Finance, Law, Natural Resources, and other agencies have a role to play	12, 18, 5	2010
HIGH	2) Policy and legal framework	Detailed identification and resolution of impediments to being able to access international carbon markets	Carbon ownership; legal status of asset; contract law; financial instruments; national registry; aggregators; other issues	-do-	2010-12
HIGH	3) Sundarbans Reserve Forest REDD+	Development of marketable proposal for qualifying REDD+ carbon credits to be generated and sold	World's largest mangrove forest; high biodiversity co-benefits; marketable due to charismatic megafauna; prominent tourism	<b>Primary: 9</b> Other: 6, 12, 16	2010-12
	<b>Carbon sequestration</b>	Activities removing carbon from the atmosphere and storing it in terrestrial sinks: vegetation and soil	May have greater overall potential in Bangladesh due to limited number of areas with REDD possibility (assessment forthcoming)	-do-	2010-12
HIGH	1) Reforestation of selected PAs	CDM (or voluntary market) A/R activities generating credits bundled for sale on carbon market [target ~6-10 PAs]	NSP report indicates a number of PAs under degraded condition; carbon markets may finance reforestation of these areas	-do-	2010-11
LOW	2) Sustainable management of PAs	Possible voluntary market credits generated from increased forest growth and reduced impact harvest of forest products	NSP report indicates a number of PAs are undergoing logging; carbon markets may provide incentives to alter harvest practices	-do-	2010-11
MED	3) Agroforestry woodlots for fuel use by communities with cook stoves	Non-market carbon sequestration through establishment of woodlots to produce sustainable fuelwood supply as an IGA	IPAC target of 15,000 improved cook stoves distributed can be augmented by IGA woodlots designed through business analysis	<b>Primary: 14</b> Other: 6, 8, 9	2010-12
	<b>Other emissions reductions</b>	Other sectoral activities resulting in reduced emissions to generate either voluntary market or non-market C credits	May have greater overall potential in Bangladesh due to limited number of areas with REDD possibility (assessment forthcoming)	<i>Varies by activity</i>	2010-12
HIGH	1) Improved cook stove distribution	Collaboration (with GTZ?) to disseminate cook stoves that result in lower use of fuelwood and generate carbon credits	IPAC target of 15,000 units; climate co-benefit from accounting for carbon; very low-hanging fruit: recordkeeping is only addition	<b>Primary: 13</b> Other: 9	2010-12
MED	2) Install biogas plants in villages	Village biogas plants distributed by GTZ provide renewable energy while also generating voluntary market C credits	IPAC planned activity that can generate income, energy, and climate co-benefits; carbon accounting would be needed	-do-	2010-11
LOW	3) Improved soil management in rice cultivation areas	Collaborate with IFDC to expand dissemination of their rice cultivation technology for higher yield, lower emissions	Reduced use of urea fertilizer may reduce nitrous oxide emissions while generating higher yield at lower cost to farmers	<b>Primary: 6</b> Other: 8, 9, 11	

<sup>1</sup> An upcoming assignment by Yoon Kim may provide a more appropriate list of activities and their prioritization for the Adaptation portion of IPAC's overall climate change portfolio

<sup>2</sup> Forthcoming Tier I-level first approximation of carbon credit potential may result in re-ordering of priorities depending on which emerge as "low hanging fruit" for near-term action

## DETAILED LIST OF ACTIONS REQUIRED TO ACHIEVE ACTIVITIES AND SUB-ACTIVITIES

### REDD+ carbon financing:

Actions necessary to establish the legal and policy framework, along with one or more high-profile demonstrations, to facilitate Bangladesh being able to actively participate in international compliance-based and voluntary carbon markets

#### ***National REDD Strategy and Action Plan***<sup>3</sup>

***Q1-Q2, 2010***

Objective is to establish a process for overseeing all REDD-related activities in Bangladesh. The products of this would be both a document and a forum for ongoing discussion on progress against the Strategy and Action Plan

- Identify and convene a REDD Forum composed of relevant government ministries and departments, plus perhaps civil society, academe, and private sector representatives
- Undertake awareness raising, training, or workshop events as needed to provide a common framework of understanding among Forum members on the overall purposes and operational parameters of REDD
- Support the Forum in delineating roles and responsibilities within each member's areas of comparative advantage, and reach consensus on the scope of their activities; For example:
  - Limited only to REDD, or covering other terrestrial carbon financing mechanisms in addition to REDD,
  - Relationship to national DNA for UNFCCC and subsidiary bodies
- Facilitate meaningful discussions to arrive at key strategic decisions on operation of REDD in Bangladesh, including *inter alia* those related to policy reform, legislative reform, engagement with private sector (including banks), and others
- Support the Forum to organize and participate in a study tour to a regional country – perhaps Indonesia – that has made substantial progress in national readiness for REDD
- Facilitate production by the Forum of a National REDD Strategy and Action Plan that articulates **what** Bangladesh hopes to achieve through implementation of a REDD program, sets targets for GHG mitigation, prioritizes specific geographic areas to meet those targets, and assigns responsibilities for implementation
- Support the Forum in establishing and operating a monitoring, reporting, and verification (MRV) process that meets UNFCCC guidelines or requirements

#### ***Policy and legal framework***

***Q3 2010-Q4 2012***

Objective is to systematically identify and resolve any legal or policy-related impediments that may slow or prevent operation of REDD in Bangladesh. This is known in international climate change parlance as “REDD Readiness”

- Facilitate, as part of developing the National REDD Strategy and Action Plan, detailed discussions about **how** Bangladesh will implement the Action Plan
- Provide technical support in highlighting specific provisions in relevant laws or policies which may inhibit Bangladesh being able to access international carbon markets with offset credits generated through REDD+ activities
- Provide technical support as needed to reduce or remove these impediments to “smooth the road” for Bangladesh to participate in REDD and other carbon financing mechanisms in formal and informal markets

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<sup>3</sup> It may be useful to verify that neither UNDP nor the World Bank are already engaged in this process; if they are, then IPAC may explore collaboration with that effort.

### **Sundarbans Reserve Forest REDD+ proposal**

**Q1-Q3 2010**

Objective is to develop and submit for approval to official (or voluntary) implementers of REDD+ mechanism a proposal for generating carbon offsets through reduced deforestation or forest degradation, and/or sequestration through conservation of existing carbon pools

- Facilitate completion of a Tier III forest carbon inventory of the Sundarbans Forest Reserve using the inventory protocol developed by the US Forest Service and skills acquired during the USFS training
- Provide technical support to FD – perhaps with additional assistance from USFS – in calculating key parameters of interest for a REDD project, including at a minimum:
  - Total *ex ante* carbon storage and portion of that storage in each pool<sup>4</sup>
  - Rate of change of each component pool, including, *inter alia*, estimates of:
    - Annual volume of offtake by communities,
    - Rate and extent of degradation within specific locations,
    - Rate of growth in each forest type
  - Estimated net annual anthropogenic GHG emission reductions and rates of change
  - Estimated net annual anthropogenic GHG removals and rates of change
- Provide technical support to FD and DOE to complete other elements of a REDD proposal, including, *inter alia*:
  - Precisely what is being proposed:
    - Participants in the project – institutions and their legal identity – and clearly defined roles for each
    - Geographic delineation of the area, with legal description and boundaries
    - Formal description of the area, including climate, hydrology, soils, land use, flora and fauna – including any endangered species – and human populations
    - Detail on legal title and formal or informal land and resource tenure
    - Specific activities to be undertaken that will result in generating carbon offsets
    - Crediting period(s) proposed, with both annual and total offsets expected
    - Methodology applied in calculating baseline carbon stocks and in monitoring changes over crediting period(s), including detail on any deviations from approved methodologies, including quality control and quality assurance
    - MRV processes and responsibilities, including treatment of data uncertainty
- Assist MOEF or other project proponent in conducting structured, formal assessment of demonstrated additionality as well as risks of non-permanence and leakage; a plan for managing these risks is also necessary
- Assist MOEF or other project proponent in writing and submitting the REDD proposal, and in conducting any follow-up actions required such as engaging a verifier organization
- Upon approval of the REDD proposal, support project owners in launching activities<sup>5</sup> to generate credits, then provide technical support as necessary in packaging the offset credits for sale on international carbon markets

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<sup>4</sup> The five pools specified are: above-ground biomass, below-ground biomass, dead organic matter, litter, and soils

<sup>5</sup> Because credits generally – although not always – must be generated before they can be sold, this step would gain considerably from there being a private sector partner involved from the beginning of project development. In the ideal scenario, this may be a company that needs to generate offsets for its activities, and views investment in the Sundarbans as a way to both meet its climate change commitments for emissions reductions and reinforce a positive image with the public. For this reason, efforts to strategically target specific companies who may be potential investors should begin as soon as possible.



# Integrated Protected Areas Co-management (IPAC)

## Prioritized activities for support related to climate change

Priority ranking of PAs according to potential for A/R or REDD+ carbon credits

Scoring: (4) = V. High; (3) = Mod. High; (2) = Mod. Low; (1) = V. Low; (0) = unknown

Size scoring: (4) = >10,000; (3) = 5,000-9,999; (2) = 1,000-4,999; (1) = <1,000; (0) = unknown

#	IPAC PA	Size (ha)	Size rank	Size score	Ecological Value	Socio-economic	Carbon storage	Additionality	Permanence	Leakage	Total Score	Rank
1	Lawachara NP	1,250	14	2	4	3	2	4.0	4.0	2	21.0	6
2	Satchari NP	243	17	1	4	4	4	3.5	3.0	2	21.5	3
3	Rema-Kalenga WS	1,795	11	2	3	3	1	3.0	4.0	2	18.0	11
4	Khadim-Nagar NP	679	15	1	1	2	2	2.0	2.5	3	13.5	16
5	Ram Sagar NP	27	19	1	1	3	1	2.0	0.5	3	11.5	19
6	Modhupur NP	8,436	7	3	3	4	2	1.5	2.0	3	18.5	9
7	Bhawal NP	5,022	10	3	3	4	2	2.0	3.5	2	19.5	8
8	Teknaf GR	11,615	6	4	4	3	4	3.0	3.0	2	23.0	1
9	Chunoti WS	7,764	8	3	2	3	2	2.5	3.0	1	16.5	12
10	Fasiakhali WS	1,302	13	2	2	2	2	3.0	0.0	1	12.0	18
11	Medha Kachapia NP	396	16	1	4	2	3	2.0	2.5	1	15.5	14
12	Himchari NP	1,729	12	2	1	4	1	1.0	1.0	3	13.0	17
13	Kaptai NP	5,464	9	3	3	4	4	2.0	2.5	3	21.5	4
14	Pablakhali WS	42,087	2	4	3	2	1	2.5	2.0	2	16.5	13
15	Sundarbans East WS	31,226	4	4	4	1	4	3.5	2.5	2	21.0	7
16	Sundarbans South WS	36,970	3	4	4	1	4	3.0	2.5	3	21.5	5
17	Sundarbans West WS	71,502	1	4	4	1	4	3.0	2.5	4	22.5	2
18	Nijhum Dweep NP	16,352	5	4	3	2	3	1.5	1.0	4	18.5	10
19	Char-Kukri-Mukri WS	40	18	1	3	2	3	2.5	0.0	4	15.5	15

### NOTES:

Priorities likely to change after completing Tier I assessment of carbon storage

Ecological Value and Socio-economic Value from NSP Protected Areas report

Carbon storage based on general range of main land cover type reported in NSP PA report

Additionality based on legal security + management effectiveness (NSP PA report)

Permanence based on inverse of pressure and threat + management quality (NSP PA report)

Leakage based on extent of illegal harvest in and nearby areas at risk (text portion of NSP PA report)