



INTEGRATED PROTECTED AREA CO-MANAGEMENT (IPAC)

A BRIEF REPORT ON VISIT TO WEST BENGAL: LEARNING FROM JOINT FOREST MANAGEMENT

19-23 April 2009

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Introduction

This report provides a summary of cross visit to West Bengal, India by local stakeholders from Bangladesh, organized by the Integrated Protected Area Co-Management (IPAC) Project, from April 19-23, 2009. For a list of participants see Annex I.

The Purpose of the Visit

The purposes of the visit were to:

- undertake a critical study of the joint management system in selected Eco-Development Sites in Protected Areas in the Northern part of West Bengal, including Project Tiger and Project Elephant areas.
- learn lessons from those sites
- meet with key officials/professionals in West Bengal who have worked in establishing joint management system and draw lessons for Bangladesh
- expose local community members from Bangladesh will be linked with co-management projects to co-management activities in India, and facilitate interaction with their Indian counterpart for greater understanding and learning.

Visited Places

Mohananda Wildlife Sanctuary

Mohananda Wildlife Sanctuary stretches over two districts, Darjiling and Jaalpaiguri, and covers an area of 161 sq. km is located on the west bank of river Tista. River Tista defines the eastern boundary of the sanctuary while River Mahananda flows through the sanctuary in the west. The main entry is through Sukna, 12 km from Shiliguri on Shiliguri-Darjeeling road. The sanctuary is extended both to the North and the south of the region where the Himalayan ranges meets the Bhabar tract in a continuum. The sanctuary contain an array of foliage, Khair, Sisso, Seral grassland, wet mixed and dry mixed forests are the important constituent. Sals are dominating the forest.



Visitors can find the mighty herbivores Gaurs, Elephants in the glades where mainly *Chapti* grass (*Themeda arundinacea*) is planted as a fodder. The sanctuary serves as the habitat of elephants, exotic striped elusive Royal Bengal tigers, Clouded leopards, Black Bears, Sambers/Deers, white-socked Indian

Bisons, etc. The sanctuary also has rich variety of birds of different shapes and sizes like, colorful Peacocks and the red Jungle Fowls. Himalayan Black Bears also maintaining ecological balance in the sanctuary. Tourist can experience nature along the natural trails of 6 - 18 km long.

Non Timber Forest Produce Museum, Wildlife Museum and Nature Interpretation Center

Non Timber forest Produces museum located in Sukna, Darjeeling district was set up in 1998 with the objective is to make the people aware of different categories of non timber forest produces and promote their use for economic development and



conservation of biodiversity. More than 500 specimens have been displayed in different categories. Non Timber Forest Product Museum shows how people can earn their livelihood from the forest without destroying the timbers. It demonstrates the artistic creativity of the individuals. One should visit the wildlife museum to be acquainted with the lives available in the nature as some of them may not be seen during travelling inside the forest.

Kunjanagore Eco Park

In 1996 the Eco-Tourism spot was established. Later a leopard enclosure, deer enclosure, gharial breeding centre, aviary was established at different time. This spot is located at Falakata Block of Alipurduar Subdivision under Jalpaiguri district. Presently they have Leopard: 2 (1+1), Gharial: 3 (2+1), Sambar: 20 (10+10), Spotted Deer: (13+10), Hog Deer: 1, Star tortoise: 2, Parakeet: 30, open paddock for tigers & leopard and spacious night cell. Treatment cage and trained zoo keepers are available.



South Khairbari Tiger Rehabilitation Centre & Leopard Safari: A mini zoo.

History: In 2002-2003 an Eco-Tourism spot was established. In November 2003 Leopard Safari was started. In 2005 facility for rescued tigers from various Circuses was planned and constructed. Leopard rescue centre was opened in 2008 (transferred from , Madarihat)

Location: District: Jalpaiguri,
Subdivision: Alipurduar, Block: Falakata

Inventory: Tigers: 10, Leopard in Safari: 5, Leopard in Rescue centre: 10

Facilities: Open paddock for tigers & leopard, spacious night cell, medical facilities, treatment cage, trained zoo keepers.



Jaldapara Wildlife Sanctuary:

Jaldapara Wildlife Sanctuary has been placed on the wildlife map of India because of the presence of the Great Indian One Horned Rhinoceros.

History:

- Part of the Buxa Forest Division, managed for commercial purposes
- First 99.51 sq. km. was declared as a “Game Sanctuary” in the year 1941 under The Bengal Rhinoceros preservation Act to provide protection to the one-horned Rhino.
- 1951, transferred to the newly created Cooch-Bihar Forest Division managed under sanctuary working circle.
- Re-notified as Jaldapara Wildlife Sanctuary in 1976 under The Wildlife (Protection Act, 1972), area increased to 115.53 sq. km.
- Transferred to the administrative control of the Wildlife Division-II on 10.2.1982
- Another 100.98 sq. km. has been added to the sanctuary from Cooch Bihar Forest Division on 31.8.1990
- Entire sanctuary came under unified control of Cooch Bihar Forest Division (now Wildlife - III Division) on 25th September 1995
- Part of Eastern Duars Elephant Reserve



Constitution

- Area: 216.51 sq. Km.
- District: Jalpaiguri

- Ranges: 8 territorial, 3 functional
- Beats: 29
- Camps: 4
- Blocks: 12
- Compartment: 45

Forest type

According to Champion & Seth's classification 6 types:

Riverian forests: Northern dry deciduous seral Sal, Khair, Sissoo association

Sal forests: Eastern Bhabar Sal and eastern Terai Sal

Wet mixed forests: Sub-Himalayan Secondary Wet mixed forests

Semi evergreen forests: Eastern sub montane semi evergreen

Evergreen forests: Northern Tropical Evergreen

Savannah forests: Sal Savannah, Low Alluvial Savannah Woodland , Eastern Alluvial Grassland, Primary Grassland

Flora:

A study carried out in 1993 and found 584 species of angiosperms covering 411 genera and families. There are plants from highly evolved family also. There are at least 20 species of orchids, 51 species of grasses, 17 species of compositae, 28 species of Euphorbiaceae, 21 species of sedges are also growing inside the park area.

Fauna:

Like the flora, the sanctuary is also rich in faunal diversity. It represents nearly all the major groups of the animal kingdom. It also harbors numerous species of migratory and residential birds, insects etc. The total number of different groups of animals in Jaldapara Wildlife Sanctuary has been recorded in 1996-1997 as species of mammals 33, birds 260, reptiles 16, amphibians 16, fishes 8.

The unique feature is that the One-horned Rhino population has increased from only 14 to 108. Due to increase in numbers, animals are seen in the wild more easily than before and this has also attracted the tourists in large numbers contributing to increased income of the Forest Department and other stakeholders. Elephant ride early in the morning serves as a major tourist attraction apart from other arrangements made to give the tourists the worth of their money.

Major problems

- Threats of poaching, close proximity to inter state & international border
- Gradual succession of riverine grassland
- Invasion of weeds and woody species to the grassland
- Dolomite siltation in Sanctuary Rivers
- Lack of floods
- Fire
- High biotic pressure
- Wildlife health management
- Increasing tourism pressure
- Man-Animal conflict

- Fund constraints
- High average age of staffs

For Protection:

- ❖ Daily routine patrol (on foot & elephant back)
- ❖ Vehicle patrol
- ❖ Inter - range patrol
- ❖ Night patrol
- ❖ Watch tower at strategic location
- ❖ Intelligence network

For Habitat Management:

- ❖ Cut back
- ❖ Over wood removal
- ❖ Weed eradication
- ❖ Grass & fodder plantation
- ❖ Creation of water harvesting structure
- ❖ Soil moisture conservation works

For Fire Fighting:

- ❖ Creation of fire line
- ❖ Fire Fighting Squad

For Controlling Man - Animal Conflict:

- ❖ Elephant Squad at Madarihat
- ❖ Power Fence along fringe
- ❖ Elephant driving tower in the villages
- ❖ Distribution of search light & crackers
- ❖ Introduction of non - brows able crop - capsicum, melon in the fringe villages

For Wildlife Health Management:

- ❖ Permanent VS at Madarihat
- ❖ Well trained tranquilizing team
- ❖ Regular immunization programme at fringe
- ❖ Vet lab at Madarihat

For Eco - Tourism:

- ❖ NIC at Madarihat
- ❖ No of FRHs
- ❖ Elephant ride
- ❖ Vehicle safari - Jaldapara, Chilapata, Trolley line
- ❖ Day visit to Hollong
- ❖ Trained Eco guides



For Eco - Development:

- ❖ Alternative income generation activities
- ❖ Construction of school buildings, community halls, health centre building etc.
Share from Eco - tourism activities

For Infrastructure Development:

- ❖ Construction & Maintenance of roads
- ❖ Construction & Maintenance of buildings, camp sheds, watch towers
- ❖ Better system of communication
- ❖ Construction & maintenance of bridges, culverts etc
- ❖ Creation & maintenance of central nursery

For Human Resource Development:

- ❖ For staffs -seminar, workshops on regular basis.
- ❖ For EDC members, fringe area people - regular meeting, seminar.
- ❖ For students - Regular quiz show, sit - n - competition etc. on wildlife conservation

For Monitoring:

- ❖ Regular wildlife monitoring - direct sighting, sign survey
- ❖ Regular census programme



Buxa Tiger Reserve:

Buxa Tiger Reserve is well known for its panoramic beauty and is located in the foothills of Bhutan–Jainti hills and covers an area of 761 sq km. Several important rivers such as Kaljani, Dima, Bala Jainti, Raydak and Sankosh helps to create an ideal condition for forest and biodiversity growth. Sal, Champ, Chilaune, Kimbu, Katus and wide variety of climbers, grasses and orchids are wide available. The tiger Reserve also a suitable habitat for a wide range of animals, reptiles, birds and fishes. It has about 68 species of mammals, 41 species of reptiles, 4 species of amphibians, 31 species of fishes and 264 species of birds. Although it is known as tiger reserve the tiger population is much less than what it was in the past. Changing climate (rise in temperature), reduced food supply and human intervention have induced them to migrate to a higher altitude, towards Bhutan. Major attractions today, apart from tigers, are mighty Elephants, Leopards, Spotted Deers and the Gaurs.



The FPCs consist of representatives from all households of the revenue villages. Each FPC is responsible for patrolling a specific zone. The FPC members have also formed self-help groups involving mostly of women members of the households. FPC members and villagers are hired as paid labor by the forest department whenever is needed. They are allowed to go for intercropping after plantation in the clear felling coup for first 2-3 years.



Gorumara Sanctuary:

Gorumara National Park is located at Jalpaiguri District of West Bengal in the flood plains of Murti and Jaldhaka rivers. In 1949 it was declared as a Wildlife National Park covering a small area of only 2129 acres. Considering the great diversity of plant and animal and the urgency of protecting the endangered Indian One-Horned Rhinoceros it declared as a National Park in 1994 with an expanded area of 79.99 sq km; further inclusion of 6 sq km is under consideration. The Park harbours, among others, Indian One-Horned Rhinoceros, Elephants, Gaurs, Leopards, Rock Pythons, Malayan Giant Squirrels, etc. The Park has 48 species of carnivores and herbivores, 48 species of mammals, above 400 of birds, 29 species of snakes, 7 species of turtles and 27 species of fishes. The Park is an ideal place for bird watchers. Watch towers are located at various strategic points with excellent facilities for wildlife viewing. FD allowed EDCs to build eco-cottages on the land in buffer zone. Tourist can stay there and enjoy cultural programs of the ethnic communities. Privately owned eco-cottages are growing very fast as number tourist in this area increasing day by day.



Meeting with Senchal Eco-Development Committee:

Senchal Range is a part of the Sinchal Wildlife Sanctuary, previously known as the Sinchal Game Reserve. It is the oldest Sanctuary having an area of 38.9 sq. km. located at the height of above 7,000 feet.

The Sanctuary has two ranges—Sinchal East and Sinchal West. Originally, the vegetative cover included oak, maple, rododandrum, magnolia and bamboos; later enrichment was done through plantation of dhupis (tropical pine). Fauna available are Leopards, Red Pandas, Barking Deers and other small animals including various types of birds prominent among which are the Khalij peasants.



Seven EDCs formed in 1992 are involved in the protection of the sanctuary. They have 15 members Executive Committee where on the plain land EC consist of 9 members.

Padmaji Naidu Himalayan Zoological Park at Darjeeling:

Padmaja Naidu Himalayan Zoological Park is located on Birch hill (Jawahar Parbat) which is 2 hrs. drive by car and 6 hrs. by Toy Train from Siligori city. Altitude is 7000 ft and area 67.56 acres. Padmaja Naidu Himalayan Zoological Park, formerly known as Himalayan Zoological Park, was established on 14th August, 1958 in Darjeeling (west Bengal) as a joint venture of Govt. of India (department of science and technology) and Govt. of West Bengal (department of Education). This is the only specialized Zoo in India and internationally recognized for its conservation breeding programmes of Snow leopard, Red Panda, Tibetan Wolf and other highly endangered animal species of eastern Himalayan. The central Zoo Authority has allowed this Zoo to do conservation breeding of Himalayan Tahr, Blue sheep, Himalayan Monal, Grey Peacock Pheasant, Himalayan salamander, Blood Pheasant and Satyr Tragopan, in addition to above mentioned three species.

In 1975, late Smt. Indira Gandhi the then Prime Minister of India dedicated the Himalayan Zoological Park, Darjeeling in memory of Late Smt. Padmaja Naidu, ex-governor of West Bengal. The Zoo was renamed as Padmaja Naidu Himalayan Zoological Park. The Zoological Park falls under the category of small zoos as per central Zoo Authority's classification but is the largest high altitude zoo in the country.



Lessons Learned:

- Commitment of the officials of Forest Department is the key to involve the community people in joint forest management. Directives from the top also help in changing the attitude and behavior of the field level staff towards community people.
- Forest Department staff took the initiative of going door to door to dispel community people's negative attitude. Their determined efforts helped to trust each other and to motivate the illegal feller to be a protector and to obtain their assistance in fighting illegal felling and animal poaching.
- Dialogue and different types of awareness campaign helped to minimize the gaps between Forest Department officials and local. They used to say, "Oikka > Baikka > Manikka (Dialogue > Convince/motivation > Result)".
- The Central Government in India has taken initiatives to develop infrastructure and social development activities to improve the living condition and socio-economic status of the people living in and around the forest through the Forest. This helped to change the attitude of the community people.
- Forest department Provided/leveraged fund to the poor to start sustainable alternative income generating activities which is helping Forest Department to motivate and involve them in forest protection and bio-diversity conservation.
- Forest Department also organizes training to enhance their skills and management capacity to ensure better return on their investment.
- Forest Department is strict on enforcement of the laws not only on the offender but also on those are helping them in any forms.
- Local Government (Panchayat) is directly involved with the protection and conservation of the natural resources which is a strong tool to motivate the total community in favor of joint management.
- Forest Department allowed the community to create facilities and necessary infrastructures on their land to attract a large number of tourist resulting income opportunities both for the people and Forest Department. A portion of the income going to the EDCs and FPCs also ensured their sustainability and offered them greater latitude to invest and further strengthen their financial status.
- To promote ecotourism and to attract the tourist both native and international huge communication campaigns have been undertaken.
- Departmental staff are very cordial and playing a very vital role to satisfy the visitors.
- Foresters are leading all sorts of initiatives for forest protection and ensure the livelihood which is helping to maintain a good relationship and to respect each other.
- In landscape zone of some protected areas, women are organized under Self Help Group (SHG) and helping in forest protection. They are creating common fund through weekly savings. Members are allowed to take loan their fund, when an emergency arises. Forest department also helping them to get financial support from other sources.

- Eco Development Committees (EDCs) and Forest Protection Committees (FPCs) are well accepted and honored by the villagers as all sorts of development activities are channelized through them.
- Eco Development Committees and Forest Protection Committees have been allowed to operate many facilities to meet the needs of the tourists.

Annex I: List of Participants

Sl	Name	Occupation	Address	Site & Cluster	Remarks
1	Mrs. Asia Afindi	Upazila Vice Chairman	W/o, Mr. Md. Nabi Hossain Chowdhury Vill: Ledar- Bandh, Union: Bordol Dhakin, Upazila: Taherpur, Sunamganj	Tanguar Haor, North Eastern Cluster	01718-681113 No Passport
2	Mr. Md. Majharul Islam	UP Chairman	4 No Khadimpara Union Parishad, Sadar Sylhet Upazila, Sylhet	Khadimnagar NP, North Eastern Cluster	01711-324010 Passport Available
3	Mr. Abul Kalam Fakir	Ex-UP Chairman	Sundarbans Union; S/o: Abdul Gaffar Fakir, Vill: Banshtola, PO: Holdibaria, Upazila, Mongla, Bagerhat	Chandpai, Sundarbans East	01711342216 Passport Available
4	Mr. Swapan Kumar Mistree	Secondary School Teacher & Local Elites	S/O: Sree Pramoth Ranjan Mistree Village: Malia, Post Office: Janata, Upzila: Sarankhola, District: Bagerhat	Sarankhola, Sundarbans East	01715295123 Passport Available
5	Mr. Md. Rezaul Karim	Social Worker & Upzila Chairman	Chakaria Upzila; S/O: Abdus Sukkur, Shamser Vila, Thana Road, Cox's Bazar	Chakaria Southeastern, Cluster	01711317028 Passport Available
6	Mr. Salim Ullah Bahadur	Social Worker & Upzila Chairman	Cox's Bazar Sadar; S/O: Haji Tanda Mia Masjid Road, Tekpara, Cox's Bazar	Himchari/Inani Southeastern Cluster	01817451200 01818509656 Passport Available
7	Mr. Sohel Sarwar Kazal	Upazila Chairman	Ramu Upazila; S/o: Mr. Osman Sarwar Alam Chowdhury, Vill: Mondolpara, PO & Upazila: Ramu, Cox's Bazar	Himchari/Inani Southeastern Cluster	01817777161 Passport Available
8	Mr. Aungwe Chain Chowdhury	Upazila Chairman	Village: Chitmorom Headmanpara, Post: Shilchari, Upazilla: Kaptai, Dist: Rangamati	Kaptai NP, Chittagong Hill Tracts	01726754392 01556534283 Passport Available
9	Mr. Tushar Kanti Chakma	Ex- UP Chairman	Village: South Khagrachari, Post: Durchari, Union: Saroatali, Upazilla: Baghaichari, Dist.: Rangamati	Pablakhali WS, Chittagong Hill Tracts	01191604679 No Passport
10	Mrs. Justina Nocrek	Upazila Vice Chairman	W/o Mr. Bamed Mree, Vill: Baribaid (Gachua), PO: Jalchatra, Upazila: Madhupur, Tangail	Modhupur NP, Central Cluster	01719312137 No Passport
11	Mr. Babu Shekhor Mrong	Business	S/o, Late Tilok Bahadur, Vill: Jalchatra, PO: Jalchatra, Upazila: Modhupur, Tangail	Modhupur NP, Central Cluster	01715151893 Passport Available
12	Mr. Ajoy A. Mree	Chairman, Adivasi Unnyan Parishad	S/o: Late Monindra Nocrek, Vill: Gachabari, PO: Jalachatra, Upazila: Modhupur, Tangail	Modhupur NP, Central Cluster	01715404292 Passport Available