



Annual Report, 2010





Background:

Community Based Management of Sundarbans (CBMS) is a continuation of CBD 10 (C) case study, which has been running over the few years by Unnayan Onneshan in collaboration with Forest Peoples Programme (FPP), UK. Article 10(C) of CBD states that Parties shall (...): "Protect and encourage customary use of biological resources in accordance with traditional cultural practices that are compatible with conservation or sustainable use requirements" (See http://www.cbd.int/convention/articles.shtml?a=cbd-10). Customary sustainable use is an element of two cross-cutting issues of the CBD. It is part of the issue 'sustainable use of biodiversity' – which is the focus of Article 10 of the CBD. It is also an element of the issue 'traditional knowledge, innovations, and practices' – this is the focus of Article 8(j) and related provisions (article 10(c) is a related provision of Article 8(j)). Keeping customary sustainable use of biological resources in central focus CBMS project has extended its working mandate to promote collaborative management of Sundarbans. The projects addressed that without full and effective participation of concerned stakeholders in natural resources management, achieving sustainability is far reaching. Moreover, degradation of forest resources arisen from unplanned resource collection is contributing to increase vulnerability of the forest dependent communities due to overwhelming poverty and lack of available of livelihood options. It is therefore graving concern to increase the capacity of the communities to improve the management of Sundarbans. Such demands have influenced to redesign and redefine the project as Community Based Management of Sundarbans, even though promotion of customary sustainable use of biological resources remains unchanged.

Rationale:

Since the inception, the project always designs and carried its activities based on local demands through consultation with the stakeholders. Even though natural and political upheavals sometimes impede in achieving pre-defined objectives, however local communities' cooperation and implementing agencies' commitment to the project help to overcome those uncertainties to a greater extant. For instance, in 2009 Cyclone Aila and Political instability created impediment to implement number of prescheduled activities. Nevertheless, those uncertainties also created a new window of opportunity in activity design, where community based vulnerability assessment and collaborative management have received particular importance. Experience of 2009 has helped to set objectives and design activities in 2010 such a way which were able to address uncertainties adequately while fostering the process of shifting current unplanned resource management practices towards sustainability using traditional knowledge. The year 2010 has been successful both in research and advocacy work, even in innovation. Other than various activities designed under collaborative management umbrella, CBMS has introduced community based biodiversity monitoring as pilot basis in 2010 for the first time of its kind in Bangladesh. CBMS has been recognised as flagship project of Unnayan Onneshan's Climate Change, Biodiversity & DRR unit considering its success in achieving objectives and contribution to advancing knowledge in sustainable natural resource management. The project is a comprehensive action research project in the sense that it follows a holistic approach with combination of research, advocacy, capacity building, conservation practice and influencing national and international environmental treaties trough participating in policy formulation process. The year 2010 is earmarked for achieving number of milestones in each segment of the project. Under different objectives the project has set its activities; and most of the objectives were achieved through a combination of activities like research, advocacy and direct implementation.



Project Area

In 2010 the project area mainly covered two upazilas of Khulna District, namely Koyra and Paikgacha. More specifically the project is being implemented in 3 unions of Koyra, namely North Bedkashi, South Bedkashi and Koyra Sadar, and 2 unions of Paikgacha, namely Chandkhali and Goroikhali. About an estimated 73000 people of Sundarbans communities (directly dependent on Sundarbans' resources) live in these two upazilas where about 300 resource users are direct beneficiaries and more than 5000 resource users are indirect beneficiaries of the project. Upazila is a small administrative unit in Bangladesh

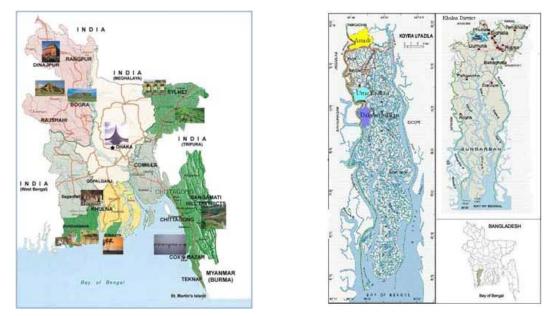


Figure: Map of the study area in the Sundarbans. Coloured highlights on the right hand map indicates project unions of Koyra upazila.

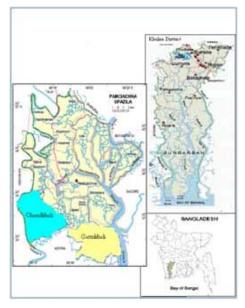


Figure: Map of Paikgacha project areas in the Sundarbans. Coloured highlights indicate project unions

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Objectives:

 \Box To mobilize the forest dependent community and build capacity in managing natural resources that could affect lands and livelihoods

□ To understand and identify the traditional practices that could easily be integrated into the national policies, specially forest policies;

□ To establish a sustainable natural resource and biodiversity management regime using traditional knowledge

To understand the nature of the inter and intra community resource use conflicts in the Sundarbans

□ To identify possible vulnerabilities of local livelihoods and obstacles of implementation of national policies;

To explore best options for climate change adaptation and set strategies for up scaling

To increase public awareness to biodiversity conservation and rights of forest dependant community

□ To increase responsiveness of the government and concerned stakeholders to the rights and livelihood of the forest dependant people

 \Box To create linkages, learning and evidence sharing on cross boarder actions (national & international), influence policies in different levels (micro, meso and macro) that support customary sustainable use of biological resources



Activities in 2010

1. To mobilize the forest dependent community and build capacity in managing natural resources that affect lands and livelihoods

1.1 Community Training on Improved Resource Management Practice

Objectives:

- □ To improve the natural resources management practice
- □ To enhance the livelihood security of the forest dependant community
- □ To foster traditional knowledge dissemination to young generations

CBMS project has started conducting training on improved natural resource management in 2010. The rationale for training is to establish a sustainable natural resource management regime using traditional knowledge. Under this backdrop, couple of trainings was conducted in different project locations of Sundarbans area. The unique feature of these trainings was selection of resource person from the community. Using PRA and FGD, experience resource persons were selected, who then trained the local forest dependent community on various resource collection methods such as honey collection, goal pata collection, fish collection and wood collection. Moreover, local elite persons trained the local community on various institutional aspects of resource collection & Management. Unnayan Onneshan facilitated the whole process and provided technical assistance to the community.

Output:

✤ The forest dependent communities learned about causes of forest resources degradation and customary sustainable resource management techniques as solution to this problem

- * The community informed about different institutional aspects of forest and biodiversity management
- * The young generations acquired the knowledge on improved natural resources management





Figure: Experienced Resource Collector (community member) is Conducting Training at 4 No. Koyra



Figure: Religious leader is informing the local community regarding customary rules of resource collection



Figure: Experienced Goalpata collector is conducting training to young collectors at Naksha village



2. Formation and strengthening of groups / networks and regular meetings of institutions etc.

2.1 Community Based Co-operative for Collaborative Management of Sundarbans

The year 2010 has been regarded as milestone year in CBMS project, since three cooperatives have been established in project areas to foster collaborative management. All the cooperatives are registered under Government's Cooperative Department and permanent structure has been built with support from UO & FPP. It is to be noted that all cooperatives are running exclusively by the forest dependent peoples, including administrative works. The understanding behind establishment of community cooperative is that unless the Sundarbans resource users grouped together they could neither manage the resources sustainably nor purse their rights. Moreover, the project beneficiaries are very poor and most of them are day laborer. They do not have any boat and accordingly are not entitled to Boat License Certificate (Boat license Certificate is issued by Department of Forestry and it is only valid document to enter into forest and collect resources). They, therefore, enter into forest under some big money lender, whom they have to bestow lion share of their collected resources or most of the time they are compelled to sell their products at very low price. Through these cooperatives they will stock their own capital (monthly subscription fee of members) and after one or two year they will buy their own boat and net. In addition, these cooperatives will serve as platform to develop shared understanding of diverse occupants such as honey collector, goalpata collector, fisherman and others. Their collective understanding and sharing of experiences will help to establish a co-management regime that will eventually ensure sustainability in Sundarbans area. The cooperative is intended to build capacity of local and indigenous communities. Hence, three cooperatives are established in different areas maintaining a diversity of members including local resource users and Indigenous communities.

Objectives:

To establish collaborative management of Sundarbans

To raise funds to buy boats and other equipments

To develop network within and among Sundarbans resource dependent communities

To raise awareness among resource dependent communities regarding their rights

Output:

Three cooperatives have been established and registered in three project areas

• 4 No. *Koyra Bonojibi Bohumukhi Unnayan Samity* (Forest Dependent people's cooperative at 4 No. Koyra)

• Horinagar Bonojibi Bohumukhi Unnayan Samity (Forest Dependent people's cooperative at Horinagar, Naksha)

Adibasi Munda Unnayan Samity (Indigenous Munda cooperative at North Bedkashi)

The forest dependent communities are raising their own fund to buy boats and other necessary equipments

* The forest dependent communities are self empowered and aware about their rights





Figure: UO & FPP are supporting Indigenous Munda community to construct cooperative building



Figure: Area selected to construct Munda cooperative society (the construction is going on full pace and will be finished by end of January 2011)



Figure: Cooperative meeting at 4 No. Koyra



Figure: Cooperative members in front of area selected for cooperative office construction at Horinagar, Naksha



2.2 Formation of Indigenous cultural team to ensure survival of customary sustainable resource use and also traditional cultures

Customary rules and traditional knowledge of natural resource collection and management are recognized as important toll for ensuring sustainable management. Traditional knowledge is increasingly receiving importance in NRM, which is also acknowledged by modern science. However, with the aggression of modern western culture and population pressure many of the traditional rules, norms and beliefs related to NRM are under threat of extinction. Under the circumstance, CBMS has facilitated forming an Indigenous cultural team (Munda cultural team), who will perform traditional songs, folklore, dance and drama through which traditional knowledge on resource management will be rejuvenated. UO & FPP support the cultural team with musical instruments, traditional dresses so that they can perform their own traditional culture to create attention and aware forest dependent people regarding customary sustainable use of biological resources.



Figure: Munda cultural team is singing a song in their own language. The song is about conservation of biological resources for sustaining agriculture production



3. Natural Resources and Biodiversity Management Activities

3.1 Community Based Research

3.1.1 Participatory Model for Recognizing Forest People (ParMoRec)

This research project aimed at establishing a participatory model for identification and recognition of forest people in the Sundarbans Impact Zones (SIZ). This model will serve as the primary methodology for developing a set of common criteria of identifying forest people in a model union (in this case Amadi union of Koyra, Khulna District located south-west of Bangladesh). As recently the Forest Department agreed to issue pass and permits for Sundarbans forest resource collection only to the Forest Peoples, and given the fact that there is no such list of Forest Peoples exist neither in the Forest Department nor any other departments of Government, this project shortly known as ParMoRec-Sundarbans, has been developed to provide an authentic list of Forest Peoples in a model union of the SIZ to support the Forest Department and local government in ensuring forest people's rights.

Objectives:

- □ Identify the traditional forest resource users
- □ Help to secure legal recognition of the traditional forest users
- □ Identify the gendered livelihood in Sundarbans management
- $\hfill\square$ Support the traditional resource users to secure access to resources
- □ Ensure sustainable resource management practice in Sundarbans



Figure: Munda cultural team is singing a song in their own language. The song is about conservation of biological resources for sustaining agriculture production

Other than applicability in forest management, the study has broader implication of influencing national Occupation Classification System. In Bangladesh traditional occupants are not recognized by National Classification. In 2008 ILO has revised its classification system and recognized traditional occupants under several sub-units. Through the ParMoRec study it has been found that in Sundarbans area forest dependent communities' activity fall under different sub-unit of ISCO-08 (International Standard Classification of Occupation by ILO). The ParMoRec study, therefore, will put forward the issue of recognizing Sundarbans dependant community as traditional occupants by National Occupation classification, backed by ISCO-08.



Methodology

The project is exclusively participatory in nature and included local forest users, local elites, local government officials, forest department, civil society in project planning, designing and execution. Using PRA, FGD and extensive consultation with local people and forest department total 20 indicators were developed for data collection. Finally data were collected using questionnaire involving both qualitative and quantitative approach. Preliminary outcome of the study has been presented at COP-10 in Nagoya, Japan. UO & FPP has planned to write a book on this study and furthering the study in collaboration with ILO in 2011.

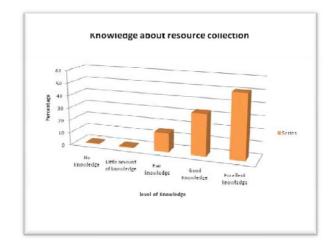


Figure: Level of knowledge on traditional forest resource collection methods by forest dependent community (one of the findings of ParMoRec)

3.1.2 Community Vulnerability Mapping

The communities around Sundarbans are continuously struggling to sustain their livelihoods. Most of the people in this area are entirely dependent on Sundarbans. However, forest degradation, recurring hit of cyclones, salinity intrusion and other factors are contributing to increase the vulnerability of the forest dependent people in Sundarbans area. It is therefore utmost importance to identify their vulnerability and map observed and potential threats so that a sustainable management regime could be established. Moreover, using a vulnerability map the local community as well as regulatory body can make decision on what areas need special attention in conservation and which area could be open for resource collection to what extent?

Objectives:

- To identify the threats to livelihood of the forest dependent people in Sundarbans area
- To inform the local community about state of forest
- □ To foster the process of biodiversity conservation of Sundarbans
- $\hfill\square$ To augment the process of collaborative forest management



Working Methods

The forest dependent community of CBMS project area has prepared their vulnerability map with the facilitation of UO. Experienced resource collectors from different occupants (honey collector, fisherman, goalpata collector) grouped together to identify their resource collection area into three zones such as green zone where resources are abundant, blue zone where resources are decreasing and red zone where resources have decreased considerably. They also identified factors relating to resource degradation.

Output:

- □ The community is better informed about observed and potential threat to their livelihood
- □ The community is informed about state of forest resources
- □ The community has identified importance of biodiversity conservation and sustainable forest management



Figure: Experienced resource collectors are preparing vulnerability map at 4 No. Koyra



Figure: Community Vulnerability map at 4 No. Koyra



3.2 Research on Natural Disasters

3.2.1 One Year after Cyclone Aila: Natural Disaster to Human Sufferings

This research has been conducted as a follow up of the initial damage assessment report on Cyclone Aila by Unnayan Onneshan, which was published during June, 2009 (Roy, *et al.* 2009). In continuation, this review report aims to provide an account of socio-economic and environmental scenario of the affected people and their present livelihood condition in the affected regions after one year of cyclone Aila that ravaged in the South Western region causing most damage in Shyamnagar, Koyra and Dacope Upazila of Satkhira and Khulna District. Both primary and secondary data collected through semi-structured open ended questionnaire, personal observation, Focus Group Discussion (FGD); information from existing literature were also fed into the study. A total of 1200 interviews were carried out including 300 from each area. Moreover, 3 FGDs, 1 from each site accompanied the study.

(full report http://www.unnayan.org/reports/climate/ailareport_final.pdf)

3.3 Maintenance and transfer of knowledge

Preservation and transfer of knowledge are important pre-requisites for ensuring and continuing customary sustainable use of biological resources. The CBMS project beneficiaries gathered formally and informally in regular intervals. In these group meetings people of different ages were present and shared their experiences and discussed about different aspects of Sunadarbans' resource management. These meetings catalyze dissemination of customary knowledge and also create platform for collaborative management. Moreover, UO has arranged couple of community gatherings and showed many documentary film and posters relating to natural resource management practices of Sundarbans and other parts of the country including other areas of around the globe. In addition, UO has established a Sundarbans Resource centre containing more than 250 Books, articles, posters, leaflet and project reports related to Sundarbans and other similar natural resources regime.



Figure: People of different ages are grouped together and sharing their knowledge on natural resources management



Figure: Community people is being informed about traditional fishing system of Nicaragua



3.4 Research on changes in the Sundarbans

3.4.1 Responses to the changes in the Sundarbans

Over the last few decades Sundarbans has been experiencing major ecological and physiographical changes due to some human and natural interventions which are taking a toll on the forest regenerative capacities and its ability of self sustainability. Gradual exploitation of the natural resources beyond its sustainable yield, industrial and marine pollution, oil spills, effort made for oil, gas and mineral exploration, deforestation for settlements, shrimp firms and fishing with chemicals in canals, agricultural activities, construction of polder in upstream are all playing negative role in gradual destruction of this diverse ecosystem. This situation is further aggravated by havoc natural disasters like cyclone of 1988, the super cyclone Sidr 2007 and a very recent cyclone Aila. It is commonly observed that the Sundarbans has ability to recover from the damages incurred by natural calamities. However, the frequency and intensity of natural calamities has increased many folds which leave a little time to recover, hence natural recovery capacity of the Sundarbans is eroding day by day. On the other hand, the adjacent communities are continuously trying to cope with changed condition through initiating some innovative management practices such as practicing agro-forestry, introducing community based management, developing mangrove plantation in private land etc. In this paper some of the anthropogenic and natural causes of change and subsequent response mechanisms will be discussed.

3.4.2 State of Livelihood

As one of the core research programme, Unnayan Onnsehan has started measuring state of livelihood since 2009, which is unique of its kind in Bangladesh. To make the research rigorous and robust the study is continuously collecting data from both rural and urban areas through a pre-tested scientifically valid methodology. Data from 6 rural and 2 urban stations are used for this survey; which covers 10 agro-ecological and 4 geographic regions. The study is measuring state of livelihood of the respective regions monthly. Under this research Koyra and Naksha village (project areas of CBMS) have been selected for data collection and to measure state of livelihood of forest dependent people. Already baseline survey completed and 2 months data collected.

Key outcome of Baseline survey of State of Livelihood in Koyra

- Mowal (66%), Fishing (14%), Bowali(12%), Agriculture (4%)
- Male (52.73%), female (47.27%) Ratio-Male: Female- 111:100
- Average employed person per household is 1.39. 67.3% of households have only one employed person

• Fuel collection: Collect from Sundarbans 63%, buy (37%). Money spent on fuel on an average is Tk. 496. Average time needed to collect fuel is 35 minutes. Min 10 minutes, max 60 minutes

• Source of drinking water is tube well. Cooking water: pond (75.5%), tube well (24.5%). Time (average): collect drinking water 105 minutes, cooking water 30 minutes.

- Agricultural land owned by 4%, sharecropping land (4%).
- Type of toilet used by households: Hanging (77.5%), open place (12.2%), sanitary (10.2%).



3.5 Community Based Biodiversity Monitoring

Millennium Ecosystem Assessment (MA 2005) reported that 60% of the ecosystem services, accessed, are in decline due to unsustainable human actions. The main driver of declining ecosystem services is the indiscriminate loss of biodiversity. Unnayan Onneshan, therefore, deems biodiversity as a tool for poverty alleviation and thus conservation of biodiversity is of utmost importance for sustainable development. Biodiversity is a part of the solution for worldwide food demands, in that it provides the genetic information used in plants and animal breeding. Furthermore, it makes vulnerable livelihood more resilient by providing risk spreading options across a range of domesticated and wild species rather than relying on a few staples that may become susceptible to diseases, pests, climate changes and market collapse.

Sundarbans is one of the biodiversity hotspots of Bangladesh containing 334 species of vegetation, 49 species of mammals, 53 species of reptiles, 120 species of birds, 8 species of amphibians and 300 species of fishes. However, over the few decades lots of species have been extinct and some others are in the threat for extinction or in a vulnerable condition which are ultimately affecting ecology of the Sundarbans and consequently livelihood of the forest dependent people. FPP & Unnayan Onneshan recognized biodiversity loss as great threat to the sustainability of Sundarbans and therefore started community based biodiversity monitoring as pilot basis in 2010. In the pilot phase, only fish species monitoring conducted at 4 No. Koyra of Khulna. If pilot phase produce good result then wide scale monitoring will be started in 2011.

Objectives:

- To know the current status of biodiversity in Sundarbans area
- □ To increase awareness of local community regarding biodiversity conservation
- □ To inform community on various benefits of biodiversity
- $\hfill\square$ To develop participatory strategies to halt biodiversity loss

Working methods of Community Based Biodiversity Monitoring

In the pilot phase, the CBMS team firstly contacted Forest department, Fishery department and other departments relating to Sundarbans management and collected list of different flora and fauna found in Sundarbans. With the assistance of forest department CBMS team collected images of different fishes of Sundarbans. The team then went to the village and upon consultation with the villagers formed an expert fisher group who are fishing in Sundarbans area more than 20 years. The grouped together and the images were shown to them and asked them to answer couple of predesigned questions like how often they catch the fish (every day, in every week, last 6 months, 1 year), how much they catch each category of fish in every catch, in which season they catch what kind of fish most etc. Every question was weighted in a 4 point scale and finally upon summation based on score they were categorized as extinct (0-4), endangered (4-7), threatened (8-10), good (10+).



Figure: Community based fish species monitoring at Sundarbans



4. Promotion of community mangrove forestry: a tool for adaptation in coastal areas

Overwhelming pressure on the Sundarbans to collect resources is responsible for degradation of Sundarbans. If these unregulated pressures continue, it would not be surprising if Sundarbans face the fate of Chokoria Sundrabans (Chokoria Sundarbans was situated in South-Eastern coastal belt having wide array of flora and fauna. However, conversion to shrimp firm and indiscriminate resource collection catalyzed conversion of forest into barren land within 100 years. Now, only 5 mangroves bear the reminiscent of once deep forest). Moreover, climate change induced salinity increase & sea level rise are degrading the forest quality and therefore resource collection is being hampered. Under these circumstances, few enlightened Bawali of Naksha village (one of the project areas of CBMS) started a new form of mangrove forestry in mainland. Khaibar Sardar, pioneer of this special mangrove forestry, started Agro-Silvo-Aquaculture in 2006 and now many community people are practicing this forestry. In this system, mangrove species is growing along with fish, duck and vegetables. Such community based mangrove forestry reduces pressure on Sundarbans by providing forest resources as well as secured livelihood through generating multiple incomes. Unnayan Onenshan & FPP promoted this special type of community forestry and Awarded Mr, Khaibor Sardar Mangrove Award for his outstanding innovation and contribution to forest conservation in 2008. Likewise, in 2009 CBMS projects carried few advocacy programmes at local level to popularize the Agro-Silvo-Aquaculture model. It is good news that many Bawalis have started practicing Agro-Silvo-Aquaculture in their private or leased land and able to improve their livelihood condition.



Figure: Khaibar Sardar in front of his Agro-Silvo-Aquaculture Model



Figure: Community People is learning about Agro-Silvo-Aquaculture model from Kahibar Sardar



5. Advocacy & lobby (enhanced access to and involvement in natural resource management)

5.1 Participation

5.1.1 National:

> Developing a Conservation Education and Community Outreach Strategy for Tiger Conservation in Bangladesh

A 5-day long training workshop entitled Developing a Conservation Education and Community Outreach Strategy for Tiger Conservation in Bangladesh was held from March 13-17, 2010 on board the 'M.V. Aboshar' boat of The Guide Tours Ltd. The workshop was jointly organised by Wildlife Trust of Bangladesh (WTB), Zoological Society of London (ZSL), US Fish and wildlife Service, and HECT.33 participants from different national an international organisations attended the workshop and collaboratively endeavoured to develop an effective Conservation Education and Community Outreach Strategy for Tiger Conservation in Bangladesh. Mr. Mohammed Abdul Baten, Research Associate of Unnayan Onneshan, participated in this event.

5.1.2 International:

> SBSTTA-14 at Nirobi, Kenya

The Fourteenth meeting of Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA) of the Convention of Biological Diversity (CBD) was held at Nairobi, Kenya between 10 and 21 May, 2010. This meeting tried to develop recommendations that will be negotiated and adopted as decisions by the Conference of the Parties to the Convention in Nagoya, Japan (COP10) this October. Mr. Mohammed Abdul Baten, Research Associate of Unnayan Onneshan, participated the meeting and presented a research paper in side event titled 'Community Based Management of the Sundarbans: local people's rights and participation in protected area management'. The research work received substantial applaud from the audience and they emphasised on carrying such type of researches more and more to support indigenous and local people's demand of establishing their traditional rights over natural resources management. Moreover, Unnayan Onneshan participated International Indigenous Forum for Biodiversity Meeting on Indicators held at Nairobi, Kenya in between 7 and 9 May 2010, and presented a research paper focusing mainly traditional occupation in the Sundarbans area.



Figure: Mohammed Abdul Baten is presenting in a side event at SBSTTA 14 in Nairobi, Kenya



> International Conference on Biological and Cultural Diversity for Development (ICBCD)

International Conference on Biological and Cultural Diversity for Development (ICBCD), organised jointly by UNESCO and CBD was held at Montreal, Canada from 8-10 June 2010. The conference focused on integrating cultural diversity with biological diversity. Experts on two different by closely interlinked issues of cultural and biological diversity gathered in the three days conference to prepare a joint declaration on bio-cultural diversity that will be adopted to the convention at COP-10 in Nagoya, Japan this October. Mr. Mohammed Abdul Baten, Research Associate of Unnayan Onneshan, has attended the conference and presented a research paper titled 'Responses to the bio-cultural changes in the Sundarbans'. The paper clearly documented the changes that have occurred in the Sundarbans over period of time and also local, national and international responses in regard to changes. The paper established a link between traditional practice and its implications for biodiversity conservation. Finally it has been suggested that a comprehensive management plan has to be adopted form coupled social-ecological systems point of view to sustain both livelihood of the local people and valuable biodiversity resources in the Sundarbans.



Figure: Mohammed Abdul Baten participated in ICBCD at Montreal, Canada



Figure: Mohammed Abdul Baten is presenting a research paper at COP 10 in Nagoya, Japan

> 10th Conference of Parties to CBD at Nagoya, Japan

The Tenth Conference of Parties (COP-10) to the Convention of Biological Diversity (CBD) was held at Nagoya, Japan between 11 and 29 October, 2010. The key outcomes of the are Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization & Strategic Plan for Biodiversity, 2011-2020 along with other operational strategies under different convention articles.

Mr. Mohammed Abdul Baten, Research Associate of Unnayan Onneshan, attended the meeting as UN supported Local community participant and presented research paper in couple of side events titled '*Recognizing forest peoples in the Sundarbans*'. Given the formulation of new strategic plan and developing indicators for indigenous people, the research work received substantial attention of the audiences and policy makers. UO participant also worked closely with Bangladesh Government chief negotiators to uphold national interest as well as contributing towards sustainable biodiversity conservation at global level.



5.2 Influencing public awareness

5.2.1 Celebration of World Environment Day

Unnayan Onneshan in collaboration with IRV, NEEDS and some other organization working on Sundarbans issue organized a two day seminar and rally on 6-7 June 2010 at Khulna on the occasion of World Environment Day, 10. Mr. Abdullah Mausd (Project officer, CBMS) presented a research paper titled *'Responses to the changes of Sundarbans: natural to anthropogenic'* in the seminar. The presentation received huge applaud and recognition. The participants agree that the research will help to prepare a substantive strategy for long term sustainability of Sundarbans.



Figure: Unnayan Onneshan organized a seminar on WED 2010 at Khulna

5.2.2 Media outreach, publications etc.

Raising public awareness through popular article

As a part of raising public awareness, CBMS used couple of tools. Since media is considered as fourth pillar of state, and playing important role in raising awareness on biodiversity conservation issue, couple of articles have been written in renowned newspaper on biodiversity issues, more particularly Sundarbans issues. On the occasion of World Biodiversity Day an article on Biodiversity issue published in the most renowned English daily- The Daily Star and the article received huge attention of conservationists, activists, researchers and common mass. The article rated 4 Star out of 5 and one of the most cited articles of the year-2010 in Bangladesh.

Tiger conservation in Bangladesh: importance and challenges. *The Daily star*, September 4 2010. Online-http://www.thedailystar.net/newDesign/news-details.php?nid=153482

Biodiversity for life and livelihood. *The Daily Star*, June 12, 2010. Onlinehttp://www.thedailystar.net/newDesign/newsdetails.php?nid=142290

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Figure: Article on Biodiversity published in the Daily Star on the occasion of World Biodiversity Day

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Figure: Article on Tiger conservation published in the Daily Star



5.2.3 Newsletter on Biodiversity Conservation

CBD Watch

Bangladesh has a rich diversity of flora and fauna covering a wide diversity of ecosystems from hills to sea; moist deciduous forests to the mangroves and different agro-ecosystems spread over wetlands, flood plains to the hills. Bangladesh is heavily dependent on her biological resources to sustain its economy and livelihoods of the people. Our traditional health care and culture, parts of our long heritage are also linked with different elements of biodiversity. In consonance with global effort of increasing awareness for conserving biodiversity, Unnayan Onneshan, a policy research organization has started to publish a monthly newsletter on Biodiversity and natural resource management. The newsletter named as CBD Watch, will act as a knowledge bank for country's rich but continuously decreasing bio-diversity resources that could otherwise be used as a sustainable tool to the endemic poverty of the vast majority of the population.

Already two issues of CBD watch published. Due to budget constraint the newsletter became irregular. However, UO is planning to regularize the newsletter in 2011 and already appointed a researcher to publish CBD Watch regularly.



Figure: CBD watch Volume 1, Issue 1



Figure: CBD watch, Volume 1 Issue 2

5.2.4 Establishment of Sundarbans resource Centre

As a part of Knowledge Management & Dissemination, CBMS has established a Sundarbans Resource Centre at Unnayan Onneshan's Khulna office. The resource centre is publically accessible having more than 250 Books, Journal articles, Research reports on Sundarbans and mangrove issues. The centre is equipped with modern digital technology and broadband internet connection.

Since, the resource centre is situated at Khulna and CBMS project area is at Koyra, therefore most of the project beneficiaries could not able to receive the benefits of Resource Centre. Therefore, Unnayan Onneshan planned to establish three resource centres in three project areas. With a view to establish local resource centre, Unnayan Onneshan already constructed three resource centre and planned to provide these centre with computers and other digital means of knowledge management.



6. Way forward...

Community Based Management of the Sundarbans (CBMS) Bangladesh Annual Work plan 2011 Implemented by: Unnayan Onneshan Sponsored by: Forest Peoples Programme, UK.

Project element	Description of activities (examples)
1. Community mobilisation and capacity building (to respond to matters affecting lands and livelihoods)	
1.1 Community capacity-building: enhancing knowledge and skills (incl. FPIC). Trainings & workshops.	• Community training on vulnerability mapping (vulnerability to natural disasters and livelihood insecurity) and conducting participatory research (linked to 2.1)
	• Community training led by experienced traditional resource users, who will transmit and share traditional knowledge and customary practices related to sustainable resource use, on e.g. honey collection, fishing, nypa palm collection
1.2 (Inter-) community collaboration (formation and strengthening of groups / networks, regular meetings of institutions, councils, networks)	Modelling in action; right based approach through collective ownership (co-management in practice)
	• Establishment, registration and maintenance of a co-operative for each traditional resource user group
	• Conduct regular group meetings to discuss communal natural resource management problems and devise collaborative actions and solutions through the cooperatives
	• Conduct research and documentation of collaborative resource management field experiences (up scaling of collaborative resource management)
	• Provide co-operatives with computers to establish digital community library and keep cooperative records digitally (including training to use the computers for the cooperative members)



2. Natural resource and biodiversity management activities	
2.1 Community-based research & survey	• Community-based research on communities' vulnerabilities to disasters and associated livelihood insecurity (linked to 1.1)
	•Documenting and disseminating outcome of the research carried out on the co-management the Sundarbans including the research output of ParMoRec (writing a book)
2.2 Participatory mapping / demarcation activities	• Community training on vulnerability mapping and participatory research (Ongoing) (Linked to 1.1)
	• Community training on preparing own resource management plan
2.3 Maintenance & transfer of knowledge (e.g. education, training)	Transfer of TK will partly result from the community gatherings and group discussions and training workshop (linked to 1.1, 1.2, 2.2)
2.4 Management planning (preparation/development of management plans, community consultations, trainings)	Training to the traditional resource users to build capacity to prepare their own resource management plan. (linked to 1.1 & 2.2)
2.5 Community-based monitoring of biodiversity management	• Form groups comprising experienced traditional resource users (Fishers, forest resource users)
	• Developing local indicators for biodiversity monitoring
	• Continuous monitoring of biodiversity and keep records of the changes in the status of biodiversity digitally using computer technology (each co- operative will be given a computer)
2.6 Community conservation initiatives	Awarding and encouraging community initiatives on mangrove conservation
2.7 Economic livelihood activities	• Developing social entrepreneurship to proceed equally [ensuring equity in benefit sharing] (using soft loan through co-operatives)
	• Establishing local and national outlets for selling ecological products produced by traditional resource users
	• Developing and up scaling of an agro-silvo- aquaculture model using mangrove species to supplement income and also to reduce traditional resource users' dependence on the Sundarbans



3. Advocacy & lobby with government. (enhanced access to and involvement in natural resource management)	
3.1 National and local level dialogue, advocacy and negotiation (meetings, presentations, research/analyses)	 Forest people convention at Sundarbans area comprising traditional resource users, local government officials and representative from forest department [the convention will create an opportunity to better inform the local administrative unit regarding the problems of traditional resource users through field experience. Moreover, it will act as a conduit to share resource management knowledge among the traditional resource users) National level seminar comprising policy makers, legislative bodies, and grass-root stakeholders where traditional resource users will present their concerns and demand towards pro-poor policy changes Dialogues between local government officials and traditional resource users to make the local government officials more aware about traditional resource users' problems so that they can take better actions. Writing lobby papers to the relevant ministries on traditional resource users' livelihoods and other issues.
4. Influencing public awareness	
4.1 Media outreach, publications and other materials	 Establishment of digital resource centres on Sundarbans issues which are publicly accessible (computers equipped with e-books, information on Sundarbans, documentary films on customary sustainable use will be provided to each co- operative centre) Regular media articles will be published in national and local newspapers concerning traditional resource users' livelihood problems and their traditional strategies to cope with the challenging situations. These media articles are intended to create wider awareness among the public in Bangladesh.



	 Celebration of Biodiversity and Environment related days to increase awareness among traditional resource users as well as mass people regarding biodiversity conservation and sustainable Sundarbans management (International Biodiversity Day-22 May; World Environment Day-5 June) An annual report will be prepared based on all the activities and will be submitted to the donor agency and as well as uploaded on the organisation's website
5. Climate Change adaptation and mitigation (incl. REDD)	
5.1 Community-based research on local impacts and adaptation	• Documenting local best practices in climate change adaptation
	• Conducting research on locally practiced Agro- silvo-aquaculture model
5.2 Capacity-building on CC planning and policy- making (including FPIC)	Training workshop on REDD
5.3 Engage in national C.C. debates and policymaking	
5.4 Community proposals for reduced deforestation	
6. Other and emergency activities	
6.1 Other activities including emergency support	
7. Joint international activities	
7.1 Capacity building for informed and effective participation in international processes	
7.2 Influencing international biodiversity policy making	Prepare timely input in official CBD documents, and participate in and contribute to CBD meetings relevant for indigenous peoples, in particular:



7.3 Collect local community-based data required for CBD indicators relevant for IPs	Local and community level dataset has been collected (a census was done in a model region) and analysis has been completed to identify the possible indicators of Indigenous and forest people under the ParMoRec study. The result will be published through writing research reports, journal articles and a book (linked to 2.1). A research based advocacy will be carried out to recognize the forest people as right holders.
7.4 Partners' exchange meeting	Partnership with other relevant groups and Organize a partners' meeting to exchange experiences, obstacles and solutions.