

# Regional Capacity Building Workshop on NBSAP for South and Eastern Asia

## Bangladesh Country Status

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# Status of Biodiversity in Bangladesh

- Bangladesh is rich with diversity of species and we have a quite diverse ecosystem.
- Bangladesh is the living place for about 113 species of mammals, over 630 species of birds, 125 species of reptiles and 22 species of amphibians, 260 freshwater species and 475 marine species.
- As far available information, other faunal species include 327 mollusks and 66 corals.



# **Status of Biodiversity** (contd..)

- **Among plant biodiversity we've 5000 angiosperm species and several subspecies.**
- **160 angiosperms are used as crops. Some of the crops are rice, wheat, jute, pulses, oilseed plants, minor cereals, sugar corps, fruit plants, vegetables, root tuber crops, spices, forest trees, beverage crops, flowers, medicinal and aromatic plants and other wild plants.**
- **Rice grows throughout Bangladesh which has 30 agro-ecological zones. We've more than 12000 local varieties of rice.**



# Bio-ecological Zones

- Bangladesh has been divided into 12 bio-ecological zones, some of which were then further divided into sub-zones.
- In addition to the floral and faunal diversities, the information of its location, mean annual rainfall, mean annual temperature, administrative units and headquarters, physiography, land and soil types, flooding depths, major agricultural land uses and major cultivated crops have been published through IUCN Bio-ecological zones.



# Bangladesh and CBD related ICTPs

- Bangladesh has signed, ratified and acceded to CBD, Cartagena Protocol on Bio-safety to CBD, CITES, World Heritage Convention, Ramsar Convention, UNFCCC, UNCCD etc.
- Thus the country adheres its commitment to the conservation of biodiversity and the environment .
- Since signing and ratification of the CBD respectively in 1992 and 1994, Bangladesh is implementing various development activities under this convention



# Identification and Monitoring of Biodiversity

- **Red Data Book of animals (IUCN Bangladesh).**
- **Initiatives have been taken for generation of knowledge on conservation of the high profile and threatened biodiversity of the country.**
- **Program on waterfowl census is going on in the major wetlands of the country.**
- **Faunal survey is completed in ecologically critical areas (ECAs).**
- **Coastal and Wetland biodiversity management project has been undertaken with assistance of global environment facility (GEF) in two ECAs**



# ***In-situ* Conservation of ecosystems, wild species and genetic diversity**

- Bangladesh has three acts in which there are provisions for conservation of biodiversity through creation of Wildlife Sanctuary, National Park, Game Reserve, Fish Sanctuary, Ecologically Critical Area (ECA) etc.
- We have established 8 wildlife sanctuaries, 5 national parks and 1 game reserve under the provisions of the Bangladesh Wildlife (Preservation) Order, 1973.
- 8 ECAs under the Bangladesh Environment Conservation Act 1995.
- Fish sanctuary is established under the Bangladesh Fish Act for seasonal protection of fishes, and their habitats.
- Moratorium has been imposed on logging of trees in the reserve forests of the country.

# ***Ex-situ* Conservation of biodiversity**

- Bangladesh has *ex-situ* gene bank facilities.
- An important gene bank has been established for conservation of rice genetic resources at BRRI.
- This bank has so far collection of 4523 varieties of traditional rice excluding exotic varieties.
- It has a total of 7439 collection of rice varieties.
- Some other institutes have also gene-banks in their premises.






# Initiatives for sustainable use of components of biological diversity

- Prior to signing and ratification of CBD, Bangladesh undertook two major conservation initiatives, namely; National Conservation Strategy (NCS) and National Environmental Management Action Plan (NEMAP).
- Under NCS "National Conservation Strategy Implementation Project – I" was undertaken . The main purpose of the project was to prepare management plan in the biologically rich and intensively used ecosystems.
- The two main ecosystems included in this project are Tanguar Haor in the northeast region of Bangladesh and The southeast hill forest including the offshore island – Narikel Jinjira (St. Martins).



# **Sustainable use initiatives (contd..)**

- **Under NEMAP, Bangladesh has implemented "Sustainable Environment Management Program" (SEMP).**
  - **SEMP had 26 components, 3 comps were directly concerned with the conservation of biodiversity in the wetlands and in the floodplains of the country.**
  - **The Forest Department has implemented the Sunderban Biodiversity Management Project to conserve the unique ecosystem, the Sunderban world heritage site.**
  - **DOE is implementing Coastal and Wetland Biodiversity Management Project (CWBMP) with the assistance of GEF.**
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# **Sustainable use initiatives (contd..)**

- **Ministry of Environment and Forest through Forest Department, Forest Research Institute, Bangladesh National Herbarium and Department of Environment have various normal and development activities for conservation of biodiversity at species and ecosystem level.**
- **The current major development projects of Forest Department are Forest Resource Management Project (FRMP), Forestry Sector Project (FSP), Green belt project in the coastal districts.**
- **Ministry of Fisheries and Livestock has now initiated implementation of 4th phase of the fisheries management project.**



# **Impact Assessment and minimizing adverse impacts**

- **Under the environment conservation act it is mandatory for all the proposed development project to undertake environmental assessment.**
- **The rules and regulations framed in Bangladesh Environment Conservation Rules 1997 provides detailed procedures for EIA approval and environmental clearance against various types of projects.**



# Research and Training

- Bangladesh has by now, established a number of training and research institutes.
- Ministry of Science and Technology has been conducting academic researches in the field of biodiversity.
- There are several research institute for agricultural crop biodiversity like BARI, BRRI and BJRI etc.
- Forestry sub-sector has FRI; Fisheries sub-sector has Freshwater Fisheries RI, Brackish water Fisheries RI, Tidal water Fisheries RI; Livestock Department has Livestock RI. There is an institute for Tea Development.
- We need to establish centre of excellence with a view to conduct dedicated research on national and global aspect of Genetic Resources and Biodiversity.



# Cooperation under CBD beyond the boundary

- Bangladesh faces the Bay of Bengal in the south and has international border with India in the west, north and northeast; Myanmar in the southeast.
- It has almost similar biodiversity both in ecosystem and species with neighboring states.
- We've signed agreement with India for sharing of Ganges water.
- We're in the process to develop common approach for conservation of Sundarbans, particularly, the World Heritage Sites of the Sundarbans extended to both countries.



# Access to genetic resources

- Bangladesh has been working for generation of information for enabling the focal points of CBD and the concerned authorities to adopt legal documents for implementation of CBD provisions regarding access to genetic resources.
- We've already formulated a draft Traditional Knowledge and Biodiversity Protection Act.
- Regulatory and Institutional Framework for handling IPR issues focusing genetic resources has yet to be developed in the country.



# Ecosystem Approach

- Bangladesh government is putting emphasis on integrated management of land, water and living resources that promotes conservation and sustainable use.
- Environmental Impact Assessment of development activity, more and more participation of people's in the planning and implementation of development activity is a positive sign toward achieving the objective of CBD with Ecosystem approach.





# **Ecosystem Approach (contd..)**

- **Implementing ecosystem approach in environmental management, Bangladesh would require further technical and technological support to develop appropriate scientific methodologies to understand essential processes, functions and interactions among organisms and their environment in various ecosystems.**
- **To uphold the values of communities and their cultural diversity, government is also stressing to utilize indigenous and traditional knowledge in different development sector.**



# Constraints in Biodiversity Conservation

- There is a knowledge gap between biodiversity research and training with taxonomy of biodiversity.
- The concerned field managers in many cases are not able to identify the biodiversity and biological resources for proper conservation and management.
- There is spatial information gap.
- Absence of land use planning/zoning.
- Institutional incapability with shortage of manpower.
- A few numbers of trained manpower.
- Inadequate coordination and management.
- Overuse due to population pressure and poverty.
- Climate Change and natural disasters like flood, cyclone and tidal surges.



# Online Resources for Biodiversity in Bangladesh

These are few web sites those dealt Biodiversity issues

- <http://www.sdnbd.org>
- <http://www.doe-bd.org>
- <http://www.iucnbd.org>

There are many other sites which have incorporated information on biodiversity in their respective fields of interest



# Conclusion

- Pressures on Bangladesh's biological resources are intense and growing.
- We need to have more and more international cooperation for making meticulous policies and implementing them towards conserving our bio-diversity taking ecosystem approach into consideration.
- Peoples awareness is also needed
- More expert people should be recruited in the policy level.



*Thank you*

