



A Journey towards Mangrove Ecosystem Conservation in Bangladesh

History of the Organization

Established on July 26, 2010 when an enlightened group of environmentalists, activists, academics, researchers and nature lovers came together from different disciplines and areas of society with the idea of advocating to protect the ever-degrading environment and ecosystem of Bangladesh for establishing a unique organization BEDS (Bangladesh Environment and Development Society) to work with the grassroots-level. The organization promotes the long-term co-existence of people and natural ecosystems on our planet, creating harmony among all living beings. The strategy of BEDS is to establish networking and partnership among local, national and international government and non-government organizations, individuals, donors, research institutes, universities for solving the regional social and environmental problems by the local people without harming the ecosystem.

BEDS Introduction

The Bangladesh Environment and Development Society is a non-profit, non-government, development organization committed to maintain ecological balance and create harmony between humans and nature.

BEDS was established for solving complex environmental and social problems in Bangladesh such as the adverse impacts of global warming, unsustainable use of natural resources, drinking water crisis, Sundarbans mangrove ecosystem and biodiversity destruction, increasing uses of dirty energy, gender inequity and human rights violation etc. BEDS is contributing to achieve Sustainable Development Goals.

General Members: 39

Executive Committee Members: 07

Registration

In 2013 BEDS was registered from the NGO Affairs Bureau, Prime Minister's Office, Government of Bangladesh. In 2011 BEDS was registered from the Department of the Social Service under the Ministry of Social Welfare, Government of Bangladesh.

Awards:

BEDS has completed more than 50 projects and received the following prestigious awards: Energy Globe National Award in 2018; Annual Balipara Foundation Award in 2018; Divisional Environmental Award in 2019, 2018, 2017, 2016, 2015; Top20 District Development Award in 2018. In addition, one of the BEDS implemented projects "Eco Village in Bangladesh" has been selected to be showcased at Expo 2020 Dubai's Global Best Practice Program.

Vision:

To promote ecological balance and create harmony between human and nature

Mission:

To build the capacity of the most vulnerable communities in the region to ensure sustainable use of natural resources, provide eco-friendly means of living, reduce the adverse effects of climate change and improve their socio-economic condition while maintaining the ecological balance.

Objectives:

1. Advocate to preserve existing natural treasures;
2. Conduct research to maintain the ecological balance;
3. Reduce the adversities arising from climate change;
4. Provide sources for clean energy;
5. Implement disaster risk-reduction strategies among the most vulnerable communities;
6. Establish human rights through good governance;
7. Create livelihoods opportunities for the most vulnerable populations;
8. Improve integrated water resource management and eco-habitat;
9. Ensure proper water, sanitation and hygiene within communities; and
10. Enhance women's empowerment by emphasizing equitable development.

Sectors of Interest



Environment and Ecosystem



Livelihoods



Disaster Risk Reduction and
Climate Change Adaptation



Clean/Solar Energy



Wildlife Conservation and
Protection



Health and Sanitation



Women and Child Rights



Gender Development



A large, ancient mangrove tree with thick, gnarled branches and dense green foliage dominates the upper half of the image. A small kingfisher with a bright orange beak and blue body is perched on a horizontal branch. Below the tree, the calm water of a mangrove swamp reflects the tree's structure and the surrounding greenery. The scene is bathed in soft, golden light, suggesting late afternoon or early morning.

The Sundarbans Mangrove Ecosystem

- Single largest Mangrove forest in the world.
- UNESCO declared Natural World Heritage site
- RAMSAR Wetland site
- Natural safeguard and livelihood support for the 3.5 million climate vulnerable coastal people of Bangladesh.

The Sundarbans Mangrove Ecosystem

Total area of the Sundarbans in Bangladesh and India is 10,000 square kilometers in which Bangladesh has 6017 square kilometers and rest goes to Indian part. The Sundarbans covers about 4% of the total area of Bangladesh which is roughly 40% of the total forest of our country.



দৈনন্দিন জীবনে সুন্দরবনের অবদান

Sundarbans Mangrove Ecosystem Services in Daily Life

জীবন-জীবিকায় অবদান
Life and Livelihood Support

প্রাকৃতিক দুর্যোগের রক্ষাকবজ
Natural safeguard

পরিবেশ ও প্রতিবেশগত অবদান
Ecological and Environmental Service

ঐতিহ্য ও সংস্কৃতি
Culture and Heritage



মাছ, চিংড়ি, কাঁকড়া



কর্মসংস্থান
ও বৈদেশিক আয়



মধু-মোম



গোলপাতা



মেলে



খাদ্য ও ওষুধ



পর্যটন



জ্বালানী



ঘূর্ণিঝড়



নদী ভাঙ্গন/ভূমিক্ষয়



বন্যা/জলোচ্ছাস



খরা

জীববৈচিত্র্যের আবাসস্থল খাদ্যের যোগানদাতা
বন্যপ্রাণীর বংশবৃদ্ধির ক্ষেত্র



প্রাকৃতিক বনভূমি ও জলাভূমি



কার্বন শোষণকারী



বাতাস ও পানির পরিবেশক



অক্সিজেনের ভান্ডার



পরিবেশের ভারসাম্য
রক্ষাকারী



জীববংশ জ্বালানীর উৎস



বিশ্ব ঐতিহ্য



রামসার সাইট



এশিয়ার বৃহত্তম মাছের
প্রজনন ও পালনক্ষেত্র



শিক্ষা



প্রাকৃতিক সৌন্দর্য
ও চিত্তবিনোদন



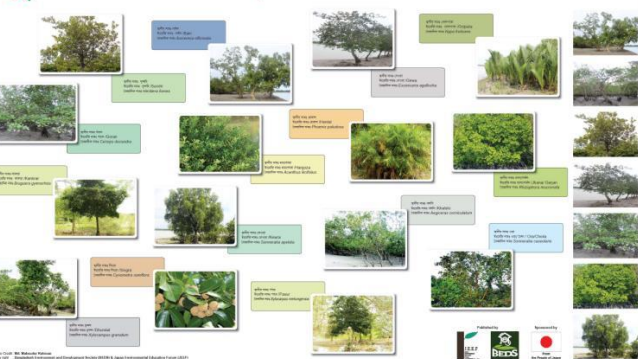
পূজা-পার্বন



This poster is printed by the Keidanren Nature Conservation Fund (KNCF) under Sustainable Mangrove Biodiversity Conservation through Livelihood Improvement of Sundarbans Fishermen Project

Biodiversity of the Sundarbans

সুন্দরবনের গাছ Plants of the Sundarbans Mangrove Forest



There are 35 species of true mangroves among 334 species of the Sundarbans plants (Source: Department of Forest)

সুন্দরবনের প্রাণি Wildlife of the Sundarbans Mangrove Forest



There are about 400 species of wild animals in the Sundarbans (Source: Department of Forest)

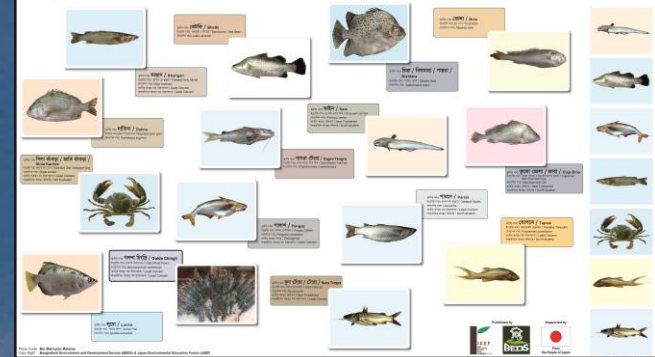
There are 315 species of Birds in the Sundarbans (Source: Department of Forest)

সুন্দরবনের পাখি Birds of the Sundarbans Mangrove Forest



There are more than 291 species of fishes in the Sundarbans (Source: Department of Forest)

সুন্দরবনের মাছ Fishes of the Sundarbans Mangrove Forest



The Sundarbans is unique ecosystems for its endemic biodiversity. It is the home of various species including many rare; endangered and critically endangered flora and fauna such as the iconic Critically Endangered Bengal Tiger, estuarine crocodile, Turtle, Dolphin, wild birds etc.



**MAJOR COMPLEX SOCIAL AND ENVIRONMENTAL PROBLEMS
of the Sundarbans Coastal region of BANGLADESH**

POVERTY



CYCLONE



**SEA LEVEL RISE AND
SALINITY INTRUSION**



RIVER BANK EROSION



DRINKING WATER



ELECTRICITY



A Journey towards Mangrove Ecosystem Conservation in Bangladesh

10 Years Journey with Mangrove

by BEDS

Conserve Mangrove Ecosystem by the local people through solving their complex social and environmental problems without harming the ecosystem.

Capacity
Building of the
local people

Our Initiatives

- Environmental and Biodiversity Education
- Community Based Nature Observation Program
- Mangrove Restoration and Protection
- Plantation
 - Formal Education Service
 - Business education
- Community Based Non Timber Forest Product Business/Social Business
 - Drinking Water Service
- Clean Energy/Electricity Service
- Disaster Preparedness Program
- Alternative Income Generating (AIG) activities
- Organize National and International Seminar and workshops

Creating Harmony between Human and Nature



Environment and Biodiversity Education Program

For conducting these education program we have developed a number of education materials such as Books, Posters, Booklets and games on Basic Environment, Mangrove Ecosystem, Urban Biodiversity, Waste Management etc.



Our Developed Sundarbans Mangrove Biodiversity education materials have been using in 32 districts out of 64 districts of Bangladesh. Around 28,500 students, 410 Teachers and 40,000 general people received Sundarbans biodiversity conservation education.

We have been conducting basic environmental education, Sundarbans biodiversity/wildlife conservation education, renewable energy education, water and sanitation education, waste management education, disaster preparedness education, natural resource management education, tree plantation education, business education, formal education as well as conducting nature observation program among the Students-Teachers, villagers and forest dwellers regularly.



Environment and Biodiversity Education Program

Species Conservation

There are many endangered and critically endangered species live in the Sundarbans mangrove ecosystem. So, BEDS has conducted different outreach and conservation education activities for existence of the species from the extinction such as Turtle both freshwater (*Batagur baska*) and marine (Olive Ridley), Vulture, Dolphin and Masked finfoot (bird) etc. BEDS provided education in the school and community level on the importance of the ecosystem. BEDS also assisted IUCN Bangladesh to implement Project Batagur and Vulture conservation project.

BEDS team confirmed that reproduction of *Batagur baska* is still occurring in the wild in 2013 when BEDS rescued five hatchlings caught from the wild around the Sundarbans and handed over to Project Batagur for captive breeding.





We have been trying to develop a platform to conduct Nature Observation Program among the city people (students/teachers and general people) by the local community

Community Based Nature Observation Program

Local people have around 35 persons accomodation, dyining and training facilities beside the the Sundarbans Mangrove Forest. So, we are inviting all of you to observe nature and enjoy local culture together with local community.



Almost 10000 national and foreign students and practitioners participated in our Nature Observation Program in order to learn mangrove ecosystem and local culture with local people.



Mangrove Restoration and Protection



Once there were plenty of mangroves in the periphery of Sundarbans. Those mangroves created a buffer zone which was beneficial for coastal protection from natural disasters as well as for habitat of the wild animals, birds and aquatic resources.

We have assisted to regenerate around 0.2 million (200000) mangroves in 3 hectare lands on the riverbank nearby Sundarbans Mangrove Forest together with 10,000 local people



After restoration in 2019

But this buffer zone has been destroyed by randomly from the coastal region of Bangladesh since 1980s due to Cutting of mangroves for agricultural land extension; Shrimp cultivation; hampering mangrove regeneration process through shrimp fry collection; Household making, furniture; collecting fuel wood/seed; free grazing of livestock; decreasing freshwater flow. Realizing this situation BEDS considers mangrove restoration and protection as one of it's prime programs.



During restoration in 2016

Social Tree Plantation for Environmental Protection



In coastal areas of Bangladesh number of social trees has been reducing gradually due to climate change and peoples' necessity. Considering the circumstance BEDS has been motivating and assisting local people to plant social (fruit, timber and medicinal) tree besides restoring mangroves for environmental protection

We have motivated and educated students, villagers and teachers for tree plantation. As a result, more than 150,000 fruit, timber and medicinal trees have been planted at school ground, beside the roads and public places in the coastal region of Bangladesh.



Formal Education Service to the Fishermen Children

89 students of fishermen families have been getting regular formal education service and education toolkits since 2014. We are connecting individual sponsor for children.

Resource harvesters of the Sundarbans are not well aware about their children's education. So, when their child turns in 8 to 10 years, they bring their children with them for natural resource harvesting like fish, crab, honey and Golpata/thatch. Moreover, the resource harvesters are unable to bear their children's educational expense. So, they do not show interest for their children's education. For this reason, BEDS has been supporting resource harvesters/forest dwellers' children education service and education toolkits to continue their education for a long run.





Business Education/Capacity Building of the local People

BEDS has been providing business education among 2500 forest dwellers, women and dropout students for improving their capacity on Livestock rearing, gardening, native seed preservation and cultivation, natural honey, agroforestry, pickle making, dried shrimp packaging, handicraft, sewing, eco fishing and farming, eco tourism etc. since 2014. Most of them have involved themselves with sustainable natural resources harvesting and using business as well as different Alternative income generating activities.

In the Sundarbans coastal region it is often seen that people without having a job or business are engaged with Sundarbans natural resource harvesting. Due to lack of employment opportunity, day by day people are engaging more and more with Sundarbans natural resource. So, BEDS has been providing business education to forest dwellers, women and dropout students for proper natural resource management, improve their socio economic condition and to reduce ever growing pressure from the Sundarbans.





Alternative Income Generating Activities

Poverty is the most alarming problem for the residents of the Sundarbans coastal region of Bangladesh due to lack of working opportunity/options. So, majority of the coastal people depend on Sundarbans natural resources and thus create continuous pressure on the natural resources of this mangrove ecosystem. So, BEDS introduces different environment friendly income generating activities among them.

We have been supporting the Sundarbans coastal people to earn more by engaging them in Alternative Income Generating (AIG) Activities like livestock (sheep and duck), eco farming and fishing, crab fattening, sewing etc. So far we supported approximately 1000 villagers.





Alternative Income Generating Activities



Drinking water scarcity is an alarming problem in the coastal region of Bangladesh. Pond (surface water) and rainwater is the main source of drinking water for the coastal people of Bangladesh.

Challenges regarding drinking water

1. Number of freshwater ponds is not enough for the community to meet up their drinking water demand.
2. Women have to walk for 3-4 kilometres for collecting drinking water and spend most of their time to collect drinking water.
3. In the dry season water level of the ponds goes down and sometimes gets dried.
4. Coastal communities frequently suffer from waterborne diseases because of drinking pond water without purification.
5. Poor coastal communities have not enough facilities to reserve the rain water
6. Communities are not well aware about their health and sanitation and frequently they suffer from waterborne diseases.
7. Communities are not financially capable enough to install water purification system by themselves.

Realizing this situation BEDS has taken an initiative to solve the drinking water crisis through re-excavated pond for preserving rainwater and installed Solar Ponds Sand Filter (SPSF) with Reverse Osmosis and Water ATM Systems for better access of safe drinking water of the villagers.

Drinking Water Service to the Villagers

A total of 5594 villagers have been getting safe drinking water from our system.



Most of the Sundarbans coastal area is non electrified and people are living in dark at night due to lack of electricity and increasing kerosene price. So, BEDS has taken comprehensive initiatives to solve these major problems. Under the initiatives, BEDS installed three solar stations and distributed solar lamps, solar home systems, solar generates and solar batteries etc.

Cooking fuel is another problem. They mainly depend on mangrove forest for their cooking fuel. For solving this problem we have introduced Fuel-efficient cooking stoves among the villagers

Clean Energy and Fuel-efficient Cooking Stove Service



Approx 3000 (70%) families of Banishanta Union are now using solar energy and conducting small business by using solar energy. Around 375 households received fuel-efficient cooking stoves from BEDS



Disaster Preparedness Program



We have been assisting the climate vulnerable Sundarbans coastal communities of Bangladesh to become a Disaster Ready Community by taking comprehensive initiatives since 2016.

People of the Sundarbans coastal region are not well aware about disaster preparedness due to poverty and lack of knowledge. BEDS established a Cyclone Shelter and Training Center in the Sundarbans coastal region of Bangladesh. Beside this, BEDS assisted the local community to protect their embankment by using local technology, established emergency disaster fund, formed and trained Village Disaster Management Communities, educated villagers on Community Managed Disaster Risk Reduction, introduced climate adaptive household design and distributed safety materials to face natural disasters.



Organize and participate National and International Seminar, conference and workshops

The Sundarbans is one of the major natural ecosystems of the world. Problems and initiatives regarding mangrove ecosystem should be introduced among the national and international communities. So, national and international conference, seminar and workshop are good mediums to represent the issues.

BEDS has been conducting, participating and workshop to raise issues of the Sundarbans mangrove ecosystem among the national and international communities.



BEDS publications on the Sundarbans Mangrove Ecosystem

List of BEDS Publications

Books

- Booklet for class three (Our Sundarbans in pictures)
- Booklet for class four (Our Sundarbans in rhymes)
- Booklet for class five (Our Sundarbans in stories)
- Sundarbans Model Game
- Book on local culture and Heritage of Sundarbans
- Beauty of the Sundarbans Mangrove Forest
- Environmental Education Manual for Villagers
- Practical Guidebook on Mangrove ecosystem

Poster

What is Environment, What is Climate Change, What is Natural Resources, What is Forest, What is Biodiversity, Biodiversity of Sundarbans, Sundarbans Mangrove Ecosystem Services in Our Daily Life, Our Eco Village, Sustainable Development Goals,

Games

- Sundarbans Playing Cards
- Sundarbans Board Game (Ludo Game)
- Sundarbans Education/Learning game cards (education game)
- A SATOUMI Conservation Board Game on interesting Animal Cetaceans (Dolphins, Whales and Porpoises) and Turtle
- A SATOUMI Dolphin and Turtle Conservation Game



Join with us to Conserve Mangrove Ecosystem



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