

German Development Cooperation in Bangladesh Conserving our natural Resources - Biodiversity



1. Context

Biodiversity in Bangladesh

Although Bangladesh is one of the most densely populated countries in the world (1,300 people per sq.km), it was able to conserve a remarkable rich biodiversity. For instance, next to one of the largest remaining Bengal tiger populations, about 705 bird species can be found. Among them the last strongholds for globally threatened species such as the Masked finfoot. Bangladesh has also the largest closed-canopy mangrove forest in the world, the Sundarbans (which are shared with India), a World Heritage Site. Including the Sundarbans, about 14.1 % of the land area is covered by forest. While the forests of the eastern hill tracts and central areas are decreasing dramatically, the tree cover in coastal mangrove areas is slowly increasing due to plantation activities although the 710 km coastline of Bangladesh remains highly vulnerable to flooding and storm erosion. Unique habitats in Bangladesh are the last patches of freshwater swamps, the wetlands in natural depressions with changing water level during monsoon seasons (*haors and beels* in the North-East of Bangladesh) and the only coral island St. Martin's. All these ecosystems are providing manifold services to the people of Bangladesh. For instance, more than 3.5 million people are dependent of the Sundarbans for livelihood. The coastal mangrove forests are largely reducing the destructive impacts of storms and thus enhancing coastal resilience. The Sundarbans and the marine areas around the delta river system of the Ganges (Padma), Brahmaputra (Jamuna) and Meghna are storing and sequestering huge amounts of CO₂. Despite SLR and locally dramatic erosion, there is still a net accretion of sediment deposits.

Threats and challenges

The rapid urbanisation and industrialisation with little coordinated spatial planning led to high fragmentation of ecosystems. There is little space left for healthy and functional ecosystems. There is a lack of coordination among the responsible authorities to include biodiversity conservation into planning and actual implementation. Poaching and wildlife trade are problems in several National Parks. The quality of law enforcement is improving but there is still a lack of capacity of authorities and low public funding for biodiversity conservation. The involvement of resource-dependent people in the management of ecosystems made progress but overall biodiversity awareness of the general public is low.

Legal framework on biodiversity and commitment

Bangladesh ambitiously supports the new Kunming-Montreal Biodiversity framework agreement (CBD-COP 15 in 2022) and intends to update the current National Biodiversity Strategy and Action Plan (NBSAP 2016-21). The Wildlife Act (2012) and Protected Area Rules (2017) promoted a network of protected areas and the rights of resource-dependent stakeholder. Main drivers for terrestrial and aquatic biodiversity are the Forest Department (BFD) and the Department of Environment (DoE) under the Ministry for Environment, Forestry and Climate Change (MoEFCC), and the Department of Fisheries (DoF) under the Ministry for Fisheries and Livestock (MoFL). The Marine Fisheries Act 2020 strengthened the stake of small-scale fishermen and marine conservation. Academic institutions as well as strong national and international NGOs increasingly provide urgently needed knowledge for better decision making.

Table 1: Key information on biodiversity conservation

Number of National Parks	19
Wildlife Sanctuaries	15
Special Conservation Area	2
Eco-parks (Botanical gardens, parks, etc.)	12
Land area covered by certain protection in ha (and as % of total land area)*	467,507 ha (3.17%)
Marine Protected Areas (MPAs)	4
MPA in ha** (and as % of Exclusive Economic Zone/ EEZ***)	736,700 ha (8.8%)
Dolphin sanctuaries (rivers!)	9
Designated Ecological Critical Areas (ECA)	13

Sources 2023: Ministry of Environment, Forest and Climate Change and UN; *= Forest inventory, **= including coastal ecosystems, ***= not identical with maritime boundaries of Bangladesh).

2. German Development Cooperation approach

Biodiversity became recently a core topic of German DC. The overarching goal is to support Bangladesh achieving national commitments for the SDGs 14 and 15. Special emphasis will be laid on increasing resilience of the coastal belt by strengthening mangrove afforestation and marine conservation. Strategic goals are connecting fragmented ecosystems, connecting people and digital tools, and enhancing the role of women and youth in biodiversity conservation, since these factors are closely interlinked and must be integrated in a successful approach. Resource-dependent people, especially women and youth, are in the centre of the German DC.

2.1 Our approach in the Technical Cooperation

The project **Support to the Management of the Sundarbans (SMP 2, 2019-22)** and its predecessors focused on the collaborative management of the Sundarbans. The project enabled the stakeholder to claim their rights and at the same time strengthened the Forest Department's capacity to manage protected areas more efficiently by technically upgrading patrolling and monitoring.

The current project **Integrated Management of the Sundarbans Mangroves and the Marine Protected Area Swatch of No Ground (SoNG, 2022-25)** is aiming to strengthen the coordination of relevant actors for the protection and sustainable use of the Sundarbans and Swatch of No Ground (SoNG) marine protected area by building up planning and surveillance capacities (coordinated patrolling with Coast Guard), by enhancing the scientific monitoring and by engaging active participation of women and youth in marine protection. The methodological approach includes marine spatial planning, remote sensing, SMART technology (Spatial Monitoring and Reporting Tool), citizen science as well as skill development for women in the fishery value chain and environmental education of youth.

2.2 Our approach in the Regional Financial Cooperation

Financial Cooperation (FC) focuses on the implementation of the regional Integrated Tiger Habitat Conservation Programme (ITHCP), with the International Union for the Conservation of Nature (IUCN) as the overall implementing agency. The Programme started in 2014 and will last until 2027, contributing a total of €47.5 million for tiger habitat conservation to India, Bangladesh, Nepal, Bhutan, Myanmar and Indonesia. In Bangladesh, the ITHCP is active in the Sundarbans involving the two key partners, WildTeam Bangladesh and Jahangirnagar University. Activities are closely coordinated with the Wildlife Trust of India, active on the Indian side of the Sundarbans. Key components are: protecting tiger species through anti-poaching and human-wildlife conflict mitigation measures, conserving tiger habitats and supporting peoples' livelihoods. The ITHCP contributes to the Global Tiger Recovery Program and the Bangladesh Tiger Action Plan.

3. What have we accomplished so far

3.1 Technical cooperation

- 140.000 highly resource-dependent people take benefit of the better protection of the Sundarbans.
- The protection of 3,179 sq.km wildlife sanctuaries and a total of 6,017 sq.km forest is improved.
- 9,351 poor households organised in 57 Village Conservation Fora (VCFs) are participating in decision making in the context of the Co-management process.

- 587 women were trained in leadership and organisational development of Co-management. 97 women received external services from public and private service provider.
- The standardised digital protocols of the "Spatial Monitoring and Reporting Tool (SMART) led to a more effective, fair and evidence-based surveying of illegal activities and rare wildlife in the vast protected mangrove forests. SMART was elevated to a national protocol and technique for all protected areas in Bangladesh. A pool of 32 SMART master trainer is established.
- In 2019-22, 1,488 days and 146,558 km of standardised patrolling in the Sundarbans were conducted. 903 offenders were arrested and 22,442 sightings of 23 key-indicator species were recorded.
- The introduction of systematic long-term Ecological Monitoring in the Sundarbans using Remote Sensing, drones and up to 103 field parameter allows the regular assessment of the state of the ecosystem and helps to predict possible impacts and trends.
- 14 BFD staff were trained in piloting drones (using 6 technically advanced drones) for observation of storm damage and forest growth.
- A Localised Oil and Chemical spill contingency plan for the Sundarbans was formulated.
- During the Covid-19 pandemic, 7,000 extreme poor families received subsistence assistance and 1,500 students of local (closed) schools were engaged in street drama and art activities to release psychological pressure.
- The current SoNG project builds on these achievements and continuous to raise capacity of authorities in planning, monitoring and active involvement of resource-users in order to protect forests and marine areas more effectively.

3.2 Regional Financial Cooperation

The ITHCP project in the Sundarbans has contributed to the stabilisation of the tiger population. Available data further show that human wildlife conflicts (HWC) incl. retaliative killings of stray tigers in target group villages have substantially declined. Awareness raising activities and training of village action groups have reached around 40,000 people.

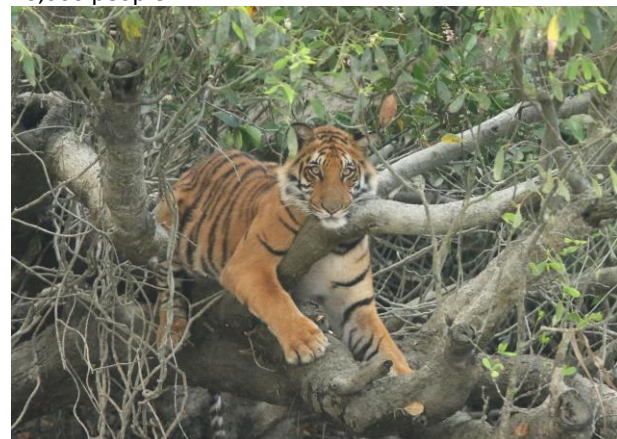


Fig.1: Tiger in the Sundarbans (Photocredits IUCN, A. Azad)

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