Himchhari National Park

Anthropogenic disturbances put biodiversity at risk

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Excessive exploitation, clear cutting, poaching, expansion of settlement, agricultural activities, betel leaf cultivation, land encroachment, accessibility to forest, easy mobility, brickfield/sawmill operation, hunting, sand extraction, invasion of sun grass are the major threats to biodiversity as well as natural regeneration.

HIMCHHARI National Park is a lush tropical forest, about 05 KM south of Cox's Bazar town. It is a part of Cox's Bazaar Peninsular Reserved Forest offering a scenic beauty of green hills and blue sea waves. Once upon a time this ever-green tropical forest was a passage for the Asian Elephants. Tigers, which once roamed on this area, are now extirpated due to lack of habitat. The natural beauty of the area provides a welcome break from the hustle and bustle of city life, for locals as well as tourists. More than two million visitors come here each year for recreational activities, picnics, hunting, sunbath and bird watching. It is a paradise for bird watchers.

The park was established in 1980 comprising the reserve forest areas of Bhangamera and Chainda blocks under Cox's Bazar Forest Department. The total area of this park is 1,729 hectares bordering the Bay of Bengal, with few remaining hillside semi-evergreen tropical forest patches. The park is managed under several small administrative units (locally known as bits) such as Kolatoli, Himchari, Jhilongja, Link Road and Chainda bit.

There are about 50 tree species, and another 50 species of shrubs, grasses, canes, palms, ferns and herbs in the park, while beautiful orchids break the innumerable shades of green with splashes of color. The species richness, composition, structure and canopy closure differ from one place to another. Asar/Patka, Teli-Garjan, Ahoi, Bayur, Kanak Champa, Am-chundul/ Miolam, Talmuli, Satilata and Kulanjan are the indicator plant species of this ecosystem. Most of the plants have highly ethno-botanical values. Many herbs found in this park have therapeutic properties that the local people understand and can make use of.

The forest cover is degrading in natural sub-tropical hilly zones, and high forests are gradually shrinking down to low forests, scattered trees and eventually to brush land. The vegetation cover is dominated by herbs, sungrass, shrubs and bushes. Sungrass and scattered groves of natural bamboo are remnant non-wood forest products in the park.

At one time the stomping grounds of herds of Asian elephant, Himchhari is still home to a limited number of this majestic animal. Much of the area has been suffering severe deforestation, but nonetheless the reserve harbours important wildlife populations. A transitional ground for the fauna of the Indo-Himalayan and Indo-Malayan ecological sub-regions, the park provides breeding areas for some globally-threatened species of fauna. Its inshore water hosts globally threatened marine turtles and mammals.

There are 55 species of mammals, 56 species of reptiles and 13 species of amphibians in this evergreen forest. A small group of Capped Langur, Porcupine, Barking Deer, and Jungle Cat still exists great threats in this park. The park is a congenial habitat for Gibbon, Leopard Cat, Fishing Cat, Tiger, Sloth Bear, Wild Boar, Asiatic Wild Dog, Indian Muntjac, Assamese Monkeys, Slow Loris, Flying Squirrel, Malayan Giant Squirrel and the rare Malayan Box Turtle.

The bird lovers never fail to be delighted at the extensive bird-life. Many bird lovers are gathered here to see the variety of bird species, as over 286 birds are found here. Because the area is located along the international bird migration flyways, birds remain an important source of biodiversity with 268 species found in this area including the Barn Swallow, Asian Palm Swift, Indian Myna, and Fruit Pigeons.

Due to proximity to a rapidly growing tourist zone -- Cox's Bazar -- increasing population pressure made the park facing overwhelming challenges for last two decades. Dense settlements started in the early 90's by people from off-shore islands and Rohingas from Myanmer. They are dependent on forest reserves for their fuelwood consumption and a large portion of these communities further collect non-wood forest products for their livelihood.

The hard core poverty of local communities compels for indiscriminate collection of bushy vegetations as fuelwood and non-wood forest products, and encroachment on forest land. People living inside the park area and neighbouring population are primary resource users who are rampant in resource exploitation and expand encroachments. Cutting / leveling of the hills, removal of remaining vegetation coverage from hills and grazing by settlers' cattle are major causes of forest degradation, erosion and landslides.

Few decades ago extremely high level of illicit felling and extraction of timber, fuelwood, bamboo and other Non-wood forest products occurred. Due to absence of mother trees and consecutive firing no natural regeneration occurs and sungrass invades the areas. For the scarcity of fuelwood scavengers are removing thin bushy vegetation cover from hills.

Excessive exploitation, clear cutting, poaching, expansion of settlement, Rohinga immigrants, agricultural activities, betel leaf cultivation, land encroachment, shifting cultivation, unemployment, accessibility to forest, easy mobility, brickfield/sawmill operation, forest patrol, hunting, vegetable collection, sand extraction, invasion of sun grass are the major threats to biodiversity as well as natural regeneration.

Picnic is not congenial for natural regeneration due to the continuous human movements. Small seedlings cannot attain the size of large seedlings, saplings and mature trees. The intensity of picnic activities decreases the vitality of the mature trees. Picnic also decreases the level of humus, nutrient supply, pH values and electrical conductivity, and contrarily increases soil compactness. The most obvious impacts on the vegetation are caused by camping and walking with the effects of the vegetation being crushed, sheared off, and uprooted. These impacts change the vegetation including loss of height, biomass, reproductive structures (e.g. flowers, fruits), reduction in cover, damage to seedlings and change in species composition.

The following measures can be taken to conserve the biodiversity and minimize the human disturbances:

- Declaring the park as transnational ecosystem for plant and wildlife
- Prohibiting clearance of wood, shrubs and herbs
- Strictly prohibiting destruction, collection, hunting, poaching of rare species (either flora or fauna)
- Motivating not only the inside of the park but also buffer zone, forest edge and adjacent areas
- Promoting local people in conservation programme
- Aforestation in the open space and on sand dunes by the native plant species
- Monitoring of biological resources
- Establishing an information system of biodiversity
- Emphasizing on ex-situ conservation of endangered species
- Creating public awareness by using different media
- Raising funds for conservation programme
- Maintaining and restoring natural ecosystem
- Maintaining at least two canopy layers (bimodal or reverse J-shaped diameter distribution)
- Maintaining mixed canopy tree species suited to the sites
- Planting large diameter trees with strong root systems to provide critical structure for habitat of some animals and to prevent chronic erosion of beach
- Strengthening forest monitoring, research and development, education, and capacity building to maintain a "cradle" of biodiversity in the core buffer zone
- Halting introduction of alien invasive species
- Gap filling by rare tree species
- Facilitating natural regeneration
- Protecting natural regenerations (seedling, sapling and juvenile trees) from cutting
- Establishing gene banks to conserve the gene pool of endangered species
- Bringing endangered animals in captivity for breeding
- Adopting alternative income generation for local stakeholders
- Planning ecotourism management that will create a bioregional ecotourism plan
- Landscape regeneration coupled with well managed tourism programmes in buffer zones
- Sharing the conservation plan with the communities in pivotal areas
- Taking Adaptive Ecotourism Management backing by a set of research based indicators
- Allowing limited number of picnic parties for particular picnic spots
- Keeping balance between the number of picnic spots and the number of picnic parties
- Initiating comprehensive research activities to measure and monitor the impact of tourism on soil characteristics and plants to understand the role of the damages for ecosystem processes
- Reducing human population growth in forests
- Introducing biological corridors
- Leaving denuded forest lands untouched for 20 years to promote natural succession
- Introducing pioneer and early successional species in the degraded forests
- Taking effective actions against encroachers and land grabbers
- Taking appropriate actions against animal poaching
- Alleviating poverty in the adjacent areas of forests
- Searching for alternative fuel sources in the forest and adjacent areas
- Controlling animal grazing

Himchhari: Praised for natural beauty.

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Post Cancun

Prospects of climate regulatory regime

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Millions of people of Bangladesh would be displaced permanently or temporarily due to sudden and slow onset events of climate change. The scale of migration/displacement and associated socio-economic disruptions goes far beyond territorial limits and capacity. Hence beyond national capacity there are clear needs of bilateral, regional and international means of cooperation.

THE Climate Change Conference 2010, of UN Framework Convention on Climate Change [UNFCCC], held in Cancun is known formally as the Sixteenth Session of the Conference of the Parties to the UNFCCC [COP 16], which also serves a Meeting of the Parties to the Kyoto Protocol [CMP 6]. Cancun Conference approved a set of decisions under both the UNFCCC and the Kyoto Protocol.

UNFCCC or the Convention of 1992, established the legal basis for a system of international co-operation in order to advance further governance regime particularly for stabilization of greenhouse gas [GHGs] concentrations in the atmosphere to avoid the dangerous anthropogenic climate change.

The first Conference of Parties, 1995 was held in Berlin, where the member states realised an inadequacy of the voluntary commitments under the Convention to reduce GHGs. Hence, the Berlin Mandate adopted at decision 1/CP.1, initiating further negotiation for a legally binding instrument with aggregate commitments particularly from industrialized countries, responsible historically for anthropogenic climate change.

The Kyoto Protocol 1997 supplemented and strengthened the Convention by adopting legally binding targets on GHGs emission reduction for Annex I Parties that required an average 5.2 per cent reduction on 1990 levels during the 200812, known as first commitment period. However, the Protocol recognizes the need for additional commitment periods. As such, decision was adopted in 2005, by the Meeting of the Parties [Decision 1/CMP.1] to initiate a process for further commitments for period beyond 2012 and formed an Ad Hoc Working Group on Further Commitments from Annex I Parties. The mandate of this working group was to provide agreed outcomes in Copenhagen, 2009, at the Meeting of the Parties (CMP 5).

In accordance with the mandates of the dual track negotiations expected outcomes of the Copenhagen deal were an amendment or amendments of the Convention and the Protocol or new Protocol leading to adopt new policy direction in the climate regime. Instead of any agreed outcomes, Copenhagen extended the mandates of the dual track negations to continue and to present the outcome to Cancun. Failure of the COP 15/CMP 5 and the Copenhagen Accord, an unconventional upshot of Copenhagen conference, raised serious concerns over multilateral negotiation process under UNFCCC.

However, Cancun Conference, approving a set of decisions at least demonstrated that multilateralism is preserved and can still shape up the future climate regime.

Some of the critics argue that Cancun agreements take us backward rather than forward, while without framing specific mitigation structure, work programme has been taken to strengthen the adaptation and financial mechanisms. The ground is being prepared in Cancun for paradigm shift in climate governance regime denying the equitable access to global atmospheric space and justice. It might be the apprehension of failure of stabilization of greenhouse gas [GHGs] concentrations as adaptation as alternative means is prioritized with same degree to the real solution of mitigation to avoid dangerous climate change. However, to date, there is no comprehensive framework on adaptation, technology transfer and financial mechanisms and Cancun decisions have provided the path for developing institutional frameworks.

The LCA track decisions called for the new or strengthened mechanisms for adaptation and mitigation frameworks in developing countries, employed under the Copenhagen Accord including the Green Climate Fund, new mechanisms on adaptation, technology, and forestry. It was decided in Cancun to establish the Cancun Adaptation Framework and the Committee and invited Parties to submit to the secretariat, by 21 February 2011, views on the composition of, and modalities and procedures for, the Adaptation Committee, including on proposed linkages with other relevant institutional arrangements. The decision also incorporates the finance goals set fourth in the Copenhagen Accord a collective commitment by developed countries to provide $30 billion in fast-start finance for developing countries in 2010-12; and to mobilize $100 billion a year in public and private finance by 2020 in the context of meaningful mitigation actions and transparency on implementation.

Moreover, Parties agreed to operate the Green Fund under the guidance of, and as accountable to the COP. A 24-member board is suggested to govern the fund and to support by an independent secretariat. The committee is mandated to design various aspects of the fund but it was agreed that World Bank would act as the trustee initially, which is a contentious decision instead of considering competitive bidding. But Transitional Committee, in accordance with the terms of reference in annex III to this decision would convene its first meeting by March 2011 to shape the further structure [LCA para 109]. A technology mechanism was also established, with a policy-making committee, and a centre. However, in terms of technology transfer, the Cancun text did not introduce the important aspects of intellectual property rights (IPRs), which have an influence over developing countries' access to and cost of technology.

Nonetheless, most important decision in the context of climate vulnerability of LCA track is to recognise the need for strengthening cooperation to understand and reduce loss and damage associated with climate change. It is also invited to submit to the secretariat, by 21 February 2011, views and information on what elements should be included in the work programme including climate risk insurance facility to address impacts associated with severe weather events and addressing rehabilitation measures associated with slow onset events. [LCA, Para 28]. It is significant to establish an autonomous international organ with micro level institutional arrangements, so that bottom up approach can assess the real loss and damage, and to response with remedial measures. It is also important to form a Compensation Fund in the context of climate justice along with an Independent International Climate Tribunal to deal with the claims of loss and damage caused due to climate change.

Millions of people of Bangladesh would be displaced permanently or temporarily due to sudden and slow onset events of climate change. The scale of migration/displacement and associated socio-economic disruptions goes far beyond territorial limits and capacity. Hence beyond national capacity there are clear needs of bilateral, regional and international means of cooperation. Therefore, Bangladesh would submit its views particularly on the loss and damage taking into account the climate induced displacement [LAC para 14(f)] linking with rehabilitation measures all the way through legal protection approach at national and international level.

Moreover, Bangladesh is now not only referred as the most vulnerable countries to climate change, but also playing leading role in the climate negotiation, while State Minister Dr Hasan Mahmud was entrusted with the coveted task of co-chairing on behalf of COP chair to discuss the issues on finance, technology and capacity building in Cancun Conference. Hence, the due expectation of global community from Bangladesh is to play a pro-active role at the global level for extending the Kyoto protocol to second commitment period and at the same time for another legal instrument under LCA track by 2011. However, adequate ground work is needed with forming an expert committee to act strategically for shaping the national as well as global climate regulatory regime.

Cancun: Demonstration during conference.

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