

Written by

Md Shamsuddoha
Rezaul Karim Chowdhury

Contact:

Equity & Justice Working
Group, Bangladesh (EquityBD)
House 9/4, Road 2, Shyamoli
Dhaka 1207, Bangladesh
Tel: +88 (02) 8125181
Fax: +88 (02) 9129395
E-mail: info@equitybd.org
Web: www.equitybd.org

Devastating Development: a case of WB and ADB financed ecological debt

Summary

This story is about wholesale destruction of a natural forest, Chokoria Sunderban, a 7500 ha mangrove patch which was located in Cox's bazaar district in the Southeastern Bangladesh along the coast of the Bay of Bengal. The geographical location is between latitude 20°30' and 22° N and longitude 91°45' and 92°15' E. The Chakaria Sunderban, the oldest mangrove forest in the subcontinent and the second largest mangrove patch in the country, lost all its 20 species of trees with the expansion of World Bank and ADB supported shrimp cultivation project, which was imposed to the country with a loan package of US\$26.5 million under Structural Adjustment Program (SAP). The Chokoraia Sunderban which once formed a unique eco-system, wildlife sanctuary and used to support way of living of the local people is now turned to poisonous fenland with high contents of acid sulphate in the soil. The irresponsible financing of the World Bank and ADB on shrimp cultivation in Chokoria Sundarban benefited mostly non-local individuals, organizations and companies putting local people in distressed livelihood condition and exposed them to increased hydro-metrological disasters. Destruction of Chokoria Sunderban reduced earth's bio-capacity, which is required to sequester carbon dioxide (CO₂) emissions.

The value of the goods and services of the Chokoria Sunderban that we lost should be considered as 'Ecological Debt' of the World Bank and ADB to the poor and at-risk coastal people in Bangladesh.

Time Scale of Destruction

Chokoria Sunderban, the naturally grown mangrove patch came under institutional regulation in 1903 while the then British government formed the Chokoria Sunderban Range covering 8510 ha forest area; among which 7490 ha was declared as reserve forest and 1020 ha as protected forest. In 1926, the British government leased out 1600 ha of forest land to landless families and formed an association of settlers for co-operative farming. Although many of the early settlers in Chokoria used to earn living from the mangrove ecosystem services but their intervention didn't cause any destruction to the forest. Comparison of forest coverage map in 1952 with an aerial photograph taken in 1975 showed that the mangrove coverage remained unaltered i.e. 7500 ha though the local people used the forest resources. (Hossain et.al.)

Following the oil price hike in the 1980s that caused crisis in country's balance of payment (BoP), the multilateral development banks (MDBs) like the World Bank and ADB started pushing the country for the expansion of export-oriented shrimp farm especially farming of Tiger Prawn as this species has potential market demand in the USA and in the EU countries. Therefore, wholesale attack on the Chokoria Sunderban began in the 1980s when these MDBs started financing shrimp farms in the forest lands. In 1977, 2251 ha of mangrove forest were converted into shrimp farming and, again in 1982, another 694 ha were cleared for shrimp farming. In fact the direct financing on clearing forest by the MDBs started in 1982 with a loan from the ADB that helped set up over 100 shrimp farms each 11 acres in size and build a 16 kilometers embankment. (Gain Philip 2002)

The largest portion, about 3577 ha of mangrove forest, was leased for shrimp farming during 1985-1988 as the World Bank and UNDP provided \$26.5 million (U.S. dollars) under a project called 'Shrimp Culture Project (World Bank Credit No. 1651 BD).

Devastation of Development: hypocritical confession of the WB and ADB

The ADB project completed in 1986 and the World Bank project in 1993. By then, the entire mangrove forest wiped out but, interestingly, the project completion report of both the agencies came up with false and contradictory statement. The World Bank report said;

....there are no negative environmental effects caused by the project. On the contrary, some of the adverse effects which existed under the pre-project conditions,

such as water logging and uncontrolled cuts in embankments ...have been minimized or eliminated by the project interventions. No mangrove forests have been destroyed as a result of the project'

On the other hand the ADB report said; ...about 800 ha of mangrove forest was (or is being) cleared to culture brackish water shrimp. A large portion of the approximately 100, 000 ha of land now being utilized for shrimp culture in Bangladesh was originally mangrove forest ...the clearing of 800 ha of mangrove in the Chokoria Sunderban under the project has clearly reduced shrimp/fish breeding and nursery grounds in the area...

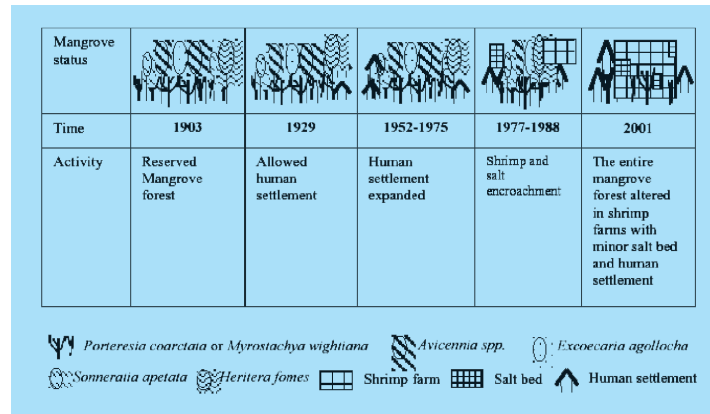
Against the above hypocritical confession of the WB and ADB, the Landsat TM data of 1988 showed that the mangrove forest removed completely except some patches on the banks and almost entire forest of 7500 ha has been converted to shrimp farms. (Study of Chokoria Sunderbans Using Remote Sensing Technologies, May 1990)

Climate change and weather extreme events: defenseless coastal people

Research and experience show that forest ecosystems play an important role in reducing the vulnerability of communities to disasters, both in terms of reducing their physical exposure to natural hazards and providing them with the livelihood resources to withstand and recover from crises. The storm buffering characteristic of the mangroves has become more evident after the Indian Ocean Tsunami that ravaged parts of Asia in December 2004. Similar claims on the benefits of coastal forests was observed in Bangladesh while South West part of the country was affected by Category 4 Cyclone, Cyclone Sidr, in November 2007. In contrary, many in the conservation community have voiced the opinion that the destructive power of the storm, cyclone Nargis in 2007, was intensified by recent loss of forest in Myanmar (anon 2008, FAO 2008). Research indicates that a network of coastal defenses, especially a belt of mangroves, is capable of absorbing 30 to 40 per cent of the total force of a tsunami or typhoon and ensuing waves before they swirl over inhabited areas by the shore.

Therefore, the complete destruction of Chokoria Sunderban in the South East coastal belt made people more exposed to natural hazards. The absence of mangrove forest in that coastal part first felt in April 1991, when a super cyclone hit the country and caused death of 138, 000

people. That cyclone reminds the importance of mangrove forest as a 'bio-shield' to safeguard the coastal people. In the recent years, people of Chokoria Sunderban area are feeling more insecure than ever before as global warming is causing more frequent and intensified disasters, like cyclone and storm surge.



Destruction of ecological goods and services: a growing demand for reparation and compensation

Mangrove forest is considered as an extremely important resource both ecologically and economically. In long-term, the goods and services (e.g. carbon storage, increased fisheries production, or water purification) provided by mangrove forests are likely to be more valuable than gains from unsustainable agriculture or aquaculture (Huitric et al. 2002, Barbier 2006). Besides, vegetation can, over the long term, alter topography and bathymetry through processes of sediment accretion, reducing the vulnerability of the landscape to future inundation (Day et al. 2007).

In addition, mangroves provide goods and services to the local communities also serves as the provision of feeding, breeding and nursery grounds for fish, shrimp, crab, mollusc and other aquatic organisms. The annual economic value of mangroves, estimated by the cost of the products and services they provide, has been estimated to be US\$ 200, 000 - \$ 900, 000 per ha (Wells, 2006). Therefore, the economic loss for the destruction of 7500 ha Chokoria Sunderban in Bangladesh should be compensated for the restoration of eco-system services. Communities around the world are demanding reparation and compensations of this historical exploitation of natural resources.

Conclusion

The Chokoria Sunderban was a part of global public commons which once used to provide "public goods", such as the absorptive capacity of the atmosphere. Thus, in broader sense, the destruction of Chokoria Sunderban reduced earth's bio-capacity which is required to sequester (through photosynthesis) the carbon dioxide (CO2) emissions from fossil fuel combustion. On the other hand, the goods and services of "Chokoria Sunderban", to which we all have an innately equal claim, have been destroyed completely to satisfy the consumer demand in the rich countries. The value of the goods and services of the Chokoria Sunderban that we lost should be considered as 'Ecological Debt' of the World Bank and ADB. The debtor should pay this ecological debt to mitigate the impact of climate change in Bangladesh.

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