

## **Study on the Changes of Coastal Zone: Chittagong to Cox's Bazar along the Bay of Bengal**

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A twenty-five years long study was conducted on the changes of coastal zones from Chittagong to Cox's Bazar along the Bay of Bengal. The changes of water flow and the flora and fauna of the estuaries of four major rivers viz. Karnaphul, Halda, Sangu and Matamuhuri, which are flowing down from the adjacent Chittagong hill Tracts (CHT) and Arakan Lusai Hills, were studied. Hydroelectric dam on the Karnafuli River damaged 700 km<sup>2</sup> hill forests, caused mass migration of tribal people.

Human pressure, deforestations, pollution, upstream dams, flatland cultivation practices, shrimp culture, and unplanned infrastructures are the major causes of the changes of coastal zones and of the adjacent hills. Destruction of mangroves of Chokoria Sundarban and Cox,s Bazar are the results of shrimp culture. 91% of the perennial streams of the Chittagong and CHT have lost their dry season flows and a serious water crisis has been prevailing now. Discharge of effluents from the shrimp hatcheries, digging of shrimp ponds and hill-cuttings have caused erosion. The sea current has already damaged 3.4 km sea beach from Kolatoti to Himchari in Cox's Bazar, the world's longest beach.

The study reveals that, 34 species of tropical rainforest plants including Podocarpus nerifolia and Enteda phaseoloids are facing extinction. Animals e.g. cats, bear, porcupine, wild boars, pythons and anteater etc. are rarely available. Among the marine and coastal zone species Red crabs, jelly fish, sharks, and dolphins are rare but these were the major species before 1980. Great migration of Hilsa ilisha towards Myanmar is observed but marine Hilsha used to breed in the fresh waters of the Ganges, Brahmaputa and Meghna's meeting point Chandpur to Gualanda about 150-200 km inside Bangladesh. The Halda fresh water fish breeding zone has been shifted 14 km east due to salinity intrusion of the Bay of Bengal.

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