



IS THE Sunderbans facing extinction? The question makes for an absorbing debate. If anything, the rise in sea levels, massive deforestation and increased soil salinity fuelled by the entry of sea water after Aila have made the world's largest delta an endangered ecosystem. The mangrove dominated forest has even earned an entry in a competition for the New Seven Wonders of Nature worldwide to be held in 2011. But, for local nature activists, it's high time to find an immediate solution to save the World Heritage Site, as branded by Unesco in 1997. "If corrective and scientific action is not taken immediately, there will be a big question mark over the existence of the Ganges delta," says Sunderban expert Tushar Kanjilal.

The rise in sea levels has started proving its might. As many as 13 islands of the region face serious trouble and three of them have already submerged into the Bay of Bengal. The latest in the extinction is the New Moore Island, which Bangladesh referred to as South Talpatti. India and Bangladesh have fought over the control of the tiny uninhabited island for the last three decades and this may come to an end now.

Oceanographer Sugata Hazra, who has studied satellite images, confirms the development. The rising sea levels in the Bay of Bengal have erased another two islands lately -- Lohachara and Ghoramara. Experts say another five inhabited islands here could disappear in the next 10 years. Even Namkhana Island lost about 8 sq km and Sagar Island about 12 sq km to the sea. Prof Hazra, director of Oceanography at Jadavpur University, says that till 2000, the sea levels in the Bay of Bengal rose about 3 mm annually. The rate of rise became more rapid over the last decade at 5 mm yearly.

The swelling sea levels have caused at least 10,000 environmental refugees and another 70,000 are estimated to see their homes vanishing in the next decade. When Lohachara was submerged in 1996, its inhabitants moved to the mainland. In any case, the rise in population has led to the exploitation of the forest. From 11,59,559 in 1951, the region's population rose to nearly 47 lakh. They largely relied on the forest for a living. But, as Mr Kanjilal explains, it is difficult to earn a living from the Sunderbans, which is a low revenue-generating forest. One can find 72 species of fish in the region's river system, but most are of low quality.

Yet, the delta earns foreign exchange worth Rs 700 crore, on an average, every year by exporting tiger prawns, some special variety of sea fish and honey. However, post-Aila, the Sunderbans populace, which lives in a predominantly monocrop economy, has hit hard times. "There was no harvest at all after Aila as salinisation of soil caused by the entry of sea water has thrown farming completely out of gear," Mr Kanjilal says.

The National Bank for Agriculture & Rural Development (Nabard) has started experimenting with the rain-water harvesting system in Beliachandi and Jhakhali villages to fight salinity. It also plans supplementary livelihood schemes to support distressed farmers. "We are aware of the alarming situation at the Sunderbans and are trying to raise the height of the mud embankments of the islands. But, it's too expensive for the state government," state minister for Sunderbans development, Kanti Ganguly, observes.

It is another matter that 778 km of 3,500 km long embankments was washed away by the floods triggered by Aila. "It was not easy for the 150-year-old embankments to withstand the floods. The embankments were weak as they were never maintained properly by the landlords till 1960 and after that by the irrigation department," Mr Kanjilal says.

Mr Kanjilal, who launched an income generating and social development programme covering five lakh people at Rangabalia in the Sunderbans in the 1970s, says that the man-animal conflict continues unabated as people continue to encroach upon the core area of the forest to collect honey or forest products. The Ban Raksha Committee (which is fighting to save the forest) does not always succeed in conserving the forest. To top all

Deep In The Woods

The existence of Sunderbans is seriously threatened by billowing sea levels, rampant deforestation and increasing soil salinity, discover Atmadip Ray & Tamal Sengupta

EXPERT VIEW



Tushar Kanjilal

PHILANTHROPIST AND Sunderbans expert Tushar Kanjilal, who was conferred a Padma Shri in 1986 for his Rangabalia Project, calls for micro management to bail the region's distressed people out of the woods. The Rangabalia project focused on the thematic areas of environmental sustainability, education, and livelihood opportunities for the poor. It aims to maintain ecological balance through conservation of mangroves in Satjelia and Lahirpur gram panchayats. The project benefited more than five lakh people before Aila struck them.

"Now, 60% of the working population have gone for better opportunities to places as far as Pune, Mumbai and even the Andamans," Kanjilal says. He adds that the money they received for building homes after Aila has mostly been used for conspicuous consumption, which is a cause for concern.

"What we need to do is try to maximise the utilisation of available land. This needs micro level intervention as land is not uniform in the Sunderbans and no single theory works here," advises the veteran social activist.

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these huge predicaments, intelligence agencies have found traces of Maoist infiltration into the delta region, which is also home to the declining population of the Royal Bengal Tiger. If this information is correct, it would certainly be a mammoth task for security forces to track them down in such adverse terrain.

The other danger of Maoists using the Sunderbans as a cover is the region's close proximity to Bangladesh.

The forest spans 10,000 sq km of which about 6,000 sq km are within the ambit of Bangladesh. Therefore, it's technically possible to find one's way across to the neighbouring country either on foot or in 'dinghies' (country boats) that people of the Sunderbans use everyday to either fish or to navigate from one island to another to collect honey.

Sunderbans has evolved through natural deposition of upstream sediments accompanied by intertidal segregation. It's a unique delta now comprising 99 islands criss-crossed by saline river channels. Its floor varies from 0.9 to 2.11 metre above sea level. Post-Aila, Sunderbans has been witnessing significant exodus amid absence of livelihood options. The working population, who were hard-pressed for a living, were forced to try out destinations like Pune, Mumbai, Chennai and even far-flung Port Blair for an alternate livelihood.

Immediately after Aila, the Centre announced a Rs 1,000-crore compensation package. The Centre promised another Rs 5,500 crore for construction of permanent embankments on the rivers in the delta. "The state government has so far received just about Rs 186 crore from the Centre. Our government has spent Rs 700 crore of its own funds to repair thousands of embankments and rehabilitate the affected people," Mr Ganguly says.

"We need a scientific approach to save the endangered region. A study of the river behaviour system would help in this endeavour. But, lack of po-

MINISTER'S TAKE

ABOUT 42 lakh people living in the Sunderbans are still fighting the odds after Cyclone Aila hit the delta in May 2009. Immediately after the devastation caused by the storm, the Centre had announced a Rs 1,000 crore compensation package for the victims, most of whom had lost their homes and are now finding it difficult to till their land as it has become unfit for cultivation because of salinity.



Kanti Ganguly

Minister Kanti Ganguly says that the Centre had promised another Rs 5,500 crore for construction of permanent embankments on the rivers in the delta. A Central team had also visited the delta and the state government was asked by Delhi to prepare a detailed project report (DPR) on how to construct the permanent embankments. "On the basis of the Central team's instructions, our government has already prepared the DPR. The state government estimates an outlay of Rs 5,032 crore and received clearance from Delhi.

But only a technical clearance is not enough to start such a huge work. More than year has gone by after the Aila devastation, but we are yet to receive the green signal from the Planning Commission and the Union finance ministry," Ganguly says.

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political will is something which is seriously missing," laments Mr Kanjilal. The depleting forest cover is another prime cause for concern. As things stand, the green cover has completely vanished in 54 islands of the delta which is home to some 47 lakh people.

In tandem with global warming, the intensity of cyclones is increasing, causing more coastal erosions.

"Not only is the Sunderbans in danger, if the authorities do not address the issue of deforestation, soil salinity and strengthening of embankments, the very existence of Kolkata and its outskirts is also endangered," Mr Kanjilal says.



PH: SUBHAJIT PAL