

Exclusionary Conservation in the Sundarbans

Who Pays the Price?

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An ethnographic survey on the island of Satjelia in the Sundarbans shows how exclusionary conservation practices are intensifying the vulnerabilities of the local population. An inclusive conservation policy would privilege both biodiversity and people's livelihoods.

In March 2015, two weeks before I left the village of Emilybari in Satjelia gram panchayat of Gosaba block, South 24 Parganas, West Bengal, Amal Mandal, a man in his early 30s, was mauled by a tiger while collecting crabs in the forest creeks near the island of Pirkhali, a core area within the Sundarban Tiger Reserve. Two other fishermen accompanied Mandal. He is survived by his 26-year-old wife, a daughter studying in the fourth standard, and a differently-abled son. His family has been left penniless and without food. A week before this incident, an 18-year-old boy was attacked by a wild cat near Buridabri. He has left behind a 16-year-old wife and a one-year-old child.

The media generally reports one or two deaths every year within the Tiger Reserve, but these two deaths in two weeks in a single village point to the extent of the vulnerability of the local populations.

The Sundarbans, the largest stretch of mangrove forests in the world, form the southernmost part of the Gangetic delta, between the River Hooghly in the west of West Bengal and the River Meghna in the east, now in Bangladesh. The delta spreads over 25,500 km², of which two-thirds (15,870 km²) lies in Bangladesh and one-third (9,630 km²) in India. In India, the Sundarbans comprise 102 islands, 54 of them inhabited and the rest within forest cover. The Indian part of the Sundarbans falls in the state of West Bengal and the inhabited area is divided into 19 blocks, commonly known as community development blocks, over the North and South 24 Parganas districts. These 19 blocks include Basanti, Gosaba, Joynagar I, Joynagar II, Canning I, Canning II, Patharpratima, Mathurapur I,

Mathurapur II, Sagar, Kakdwip, Kultali and Namkhana, within the South 24 Parganas district, and Harowa, Minakhan, Sandeshkhali I, Sandeshkhali II, Hasnabad and Hingalgaon in the North 24 Parganas. The Sundarban delta in West Bengal is bounded by the River Bidyadhari to the west and the Rivers Raimangal and Ichamati to the east.

The colonial administration notified this forest as a "Reserved Forest" in 1878, with agricultural and fishing rights permitted only with the consent of the forest department. The Sundarban Tiger Reserve, which was notified in 1973, has an area of 2,584.89 km², of which 1,699.62 km² is designated a core area and 885.27 km² a buffer area. The Sundarbans National Park, declared a World Heritage Site by UNESCO (United Nations Educational, Scientific and Cultural Organization) in 1987, falls within the core area of the Tiger Reserve, divided into the Sundarbans National Park East and Sundarbans National Park West. It covers an area of 1,330.12 km². The Sajnekhali Wildlife Sanctuary lies within the buffer area of the Tiger Reserve, occupying 362.42 km². Apart from this, the Halliday Island Wildlife Sanctuary covers 5.8 km² and the Lothian Wildlife Sanctuary 38.9 km². Both fall within the reserved forest area outside the Tiger Reserve.

The Sundarbans National Park is an inviolate zone where no human activity is permitted under West Bengal state government policy. The buffer area, excluding the wildlife sanctuary, is the only area where subsistence activities such as fishing, crab collection, shell collection and prawn seed collection are allowed, with prior permission from the West Bengal forest department. The people living in the inhabited islands of the Sundarban delta are amongst the most backward and poorest in West Bengal, with a literacy rate below 35% and per capita income less than half the state average.

Emilybari, the small village where I carried out my research, is on Satjelia Island of Gosaba block, in the extreme south, farthest from the city of Kolkata

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and closest to the forest. This island is a part of the active delta,¹ where fresh breaches appear within the river embankments almost every day, causing the erosion of large chunks of land and leaving hundreds of people homeless. In this article, I demonstrate the contradictions of vulnerability and forest conservation emerging from my three-month fieldwork in the region. The vulnerability of the local population is not induced by poverty alone, but also by exclusionary conservation practices which grossly undermine the participation of local people in forest management.

1 Poverty or Vulnerability? The Dimensions of Distress

Satjelia is one of the very few islands where, in addition to agriculturists and wage labourers, the population of forest-dependent islanders is highest. The region marks the highest quantum of poverty as well as vulnerability in the Sundarbans. Satjelia gram panchayat is divided into three *mouzas*, Satjelia, Dayapur and Sudhanspur, with a total population of 18,081. Of the 4,352 households within Satjelia gram panchayat, 1,231 are below poverty line (BPL) households of fisherfolk and landless labourers, who inhabit makeshift structures on the erosion-prone lands adjoining the river. Emilybari falls within Satjelia *mouza* and has a population of 2,300 in 356 households. Many of the landless and impoverished households of Emilybari have no BPL cards and cannot access any government entitlements. It is the better-off households that have managed to procure BPL cards and are thus entitled to the schemes for the underprivileged. There are around 30 primary schools and five higher secondary schools on the island of Satjelia. There is no electricity on the island, though generators are used to supply electricity in the market areas. The hutments of the landless families are at constant risk of erosion and wildlife intrusion. The river that flows between the village and the forest is not very broad, and especially during ebb tides, tigers can swim across.

More than the poverty, however, what strikes you immediately is the growing vulnerability of the region. While the

poverty and illiteracy in the region also need close attention, I argue that four additional vulnerability factors have caused widespread destruction of lives and livelihoods in the island. These are environmental hazards (including climate change), a difficult terrain, health hazards, and incessant tiger attacks. Global warming has raised surface water temperatures in the Sundarbans at the rate of 0.5°C per decade since 1980, compared to 0.06°C globally (Kanjilal et al 2010). As much as 82 km² of the Sundarbans have already been submerged. This includes the whole of the island of Lohachara and 59% of the island of Ghoramara (Kanjilal et al 2010). According to estimates, 70,000 people will be rendered homeless in the Sundarbans by 2020. In addition, Cyclone Aila in 2009 took several lives and left 4 lakh people homeless. Government and private aid was insufficient, and cholera, malaria and other diseases spread rapidly through the area, affecting thousands.² The effects of climate change have forced the indigenous populations to shift their habitat, especially in villages like Emilybari that are adjacent to the river embankments. Flooding and salinisation of land and agricultural fields threaten the existing habitations.

The island terrain is extremely difficult. In Emilybari, the earthen embankments bordering the river, which act as a shield between the River Gomor and the small fishing village called Jelepura in an area called Emilybari Paschimpara, are fragile and have been undercut several times by tidal surges, causing permanent seepage inside the hutments and cracks on the floor. Fifteen to 20 metre of land has already been inundated by high tide and monsoon surges following Aila. Water levels during high tides rise as much as 8 to 10 metre. Residents of the fishing village say the river could engulf their village at any time and claim their lives. This precarious existence is worsened by the fact that there are no paved roads within the village except for a 1-km stretch from Satjelia main market towards Sukumari in the south. No transport other than van rickshaws (the only locomotive on Satjelia island) can ply on these dilapidated road surfaces. With

embankments and floors and courtyards of houses made of mud, rainfall makes the surroundings extremely slushy and difficult to access.

Environment-induced health hazards, including death and debility from natural disasters, animal bites and arsenic poisoning affect 60% of the population (Kanjilal et al 2010). Hospitals are too far away, and in emergencies, pregnant women have delivered on the way to the hospital. The geo-climatic location has made the Satjelia region extremely vulnerable to saline floods and storms, which have health effects, including respiratory, gastrointestinal and musculoskeletal problems, as well as general weakness. The crude death rate in the Sundarbans is 7.6 against 6.3 for West Bengal as a whole (Kanjilal et al 2010). The only health centre near Satjelia, managed by the Tagore Society for Rural Development, is roughly an hour away, and in the absence of a direct roadway, is accessible only by boat across the River Gomor.

Tiger attacks in the Sundarbans, which claim the lives of several people every year, need elaboration. The people who venture into the forests are primarily fisherfolk and honey collectors. Fishing includes crab collection, prawn seed collection and fish collection. Each of these involves different fishing techniques, and each is equally vulnerable to tiger attacks during the process of collection. The most precarious, however, is the collection of honey, which requires a group of six to seven people (known as *mauley* in the local language) venturing into the forest in search of a beehive. In spite of praying to Bon Bibi, the goddess of the forest, the honey collectors are dogged by the fear that some of them may not return. Thus, according to them, “searching for honey and searching for a tiger are the same.”

Crab collection also carries a significant risk of tiger attack. The forests above the narrow creeks house tiger dens. The creeks are sometimes so narrow and dry during ebb tide that a boat can hardly enter. Often, the fisherfolk slash through the bushes as they move along the creek. They drop trout (locally known as *don*) tied to a thread along the

creek when the water level is low. The person at the back of the boat pushes the craft forward and the person in front drops the trout. After the entire distance is covered, they wait at the end of the creek for 15 to 20 minutes for the crabs to be caught. Then they come back to the mouth of the creek, lifting the thread, with the catch, along the way. Since the creeks are so narrow, the uplands on both sides make it easier for a tiger to jump onto a boat. The bush of a Hentali or Garan tree is dense and camouflages the tiger.

The forest fishers of Emilybari say that tiger attacks in the core areas are kept under wraps, because patrolling forest guards are liable to come down heavily on the other members of the team, regardless of whether the victim has survived or not. No compensation can be claimed for the victims since deaths that occur in the core areas are denied by the forest department. A fisherwoman from Emilybari stated that when her husband was carried away by a tiger in the Gopalkhali forest, which is in the buffer area, the local police refused to lodge a missing person complaint. Fishing and prawn seed collection are equally risky, for a tiger can pounce on someone spreading a net on the water. Women are mainly involved in prawn seed collection, and every year many women also fall prey to crocodiles while they are pulling nets through waist-deep water.

2 Conserving the Sundarbans

Fishing and honey collection are contentious activities in a region designated as a Tiger Reserve in 1973 and a National Park in 1984, where all human intervention is banned under Section 38v(4) and Section 35 (1) of the Wildlife Protection Act of 1972 (Gopal and Chauhan 2006; Danda 2010). Livelihood opportunities for the Sundarban islanders are limited by the harsh topography, saline water, poor communications infrastructure, frequent natural disasters and inhospitable climate. As a result, the islanders at the forest fringes like Emilybari are forced to depend on the forests for their livelihood—fishing, collecting honey and other forest resources. They have forged a relationship with the forest

over hundreds of years. They respect the forest, holding the trees and honey sacred. Their practices on conservation and sustainable forest management are integral to the forests and demand serious attention. However, conservation policy in our country grossly undermines the participation of local people in forest management.

The establishment of a national park or wildlife sanctuary in a given area assumes the political capacity to enforce regulations that will either curtail long-standing rights of access to these areas or effectively eliminate such rights (Saberwal and Rangarajan 2003). There has been ample literature stating the imperatives of conservation in India. The marginalisation and political disempowerment of the Sahariya tribes residing within the Kuno Wildlife Sanctuary in Madhya Pradesh has prompted them to mobilise and oppose the forest department over unequal rights to Protected Area (PA) resources. The Lion Reintroduction Project has displaced more than 5,000 people to the outskirts of the Kuno sanctuary (Sharma and Kabra 2007). There are several other cases of displacement and relocation from PAs where the officially stated reasons for displacement are “human pressures” and “human wildlife conflict.” The Nagarjun Sagar Srisailem Sanctuary and Tiger Reserve in Andhra Pradesh notes the displacement of 16 families, but no detailed information on the process of relocation was available. The Terai Arc Landscape (TAL), spread across Uttarakhand, Uttar Pradesh, Bihar and the low-lying hills of Nepal and one of the global priority tiger conservation landscapes, houses more than 500 people per square kilometre. The Rajaji National Park, located north-east of TAL, houses several Gujjar pastoralists within its boundaries. There have been several attempts to resettle these Gujjars since 1984, but it was only in 2003 that 193 Gujjar families were resettled in the Chidiyapur range near Haridwar, at an average cost of \$360 per household (Harihar et al 2009).

However, one of the striking differences between the Sundarbans and the other wildlife sanctuaries and national

parks cited above is that there is no human settlement within the Sundarban forests. People venture into the forests only for livelihoods. Their livelihood needs, however, are severely constrained by the forest department. The boat licence certificate (BLC) is a case in point. There are 942 BLCs in the Sundarban Tiger Reserve, of which only 708 are presently functional. These licences are quite old and owned by rich landowners and traders who presently have no connections with the forest and fishing. The fisherfolk who actually need the BLCs do not have the licence and are required to pay ₹30,000–₹45,000 to rent the BLCs from the landlords for nine months to a year. No fresh BLCs have been issued by the forest department of late, virtually banning indigenous practices like fishing within the forests. As a result, most of the fisherfolk have to go fishing without a licence. The charge for renewing the licence per fishing season is ₹500 while the rent of a BLC is around ₹45,000 a year. Thus if a boat, which usually has a crew of three, brings in an income of ₹1,00,000 per year, the profit after payment of rent is ₹55,000, which has to be divided three ways to sustain three families for a year. The owner of the boat obviously receives an amount higher than the other two. Villagers in Lahiripur and Satjelia say that after the declaration of about 1,669.62 km² of the Sundarban Tiger Reserve as the core area, a large chunk of the forests has been closed off to them. Areas where fishing is permitted, within the buffer zones, are congested with a number of boats, resulting in over-extraction of fish and crab in these regions. The fisherfolk are forced to enter the core areas secretly and if caught by a patrolling boat of the forest department, are fined ₹500 for the first offence, ₹1,000 for the second offence and ₹1,100 for the third, along with confiscation of the licence. A fourth offence may see the fine increase to ₹2,500 or ₹3,000. The catch of fish is also confiscated. Bribing the forest guards is routine, and further impoverishes the fisher community and honey collectors.

Villagers complain about dacoits who cut the flowering trees within forests and hamper their reproduction. The

National Fishworkers Forum (NFF) recently announced that more than 20 acres of mangrove plantations have been cleared by timber mafias. The Nypa palm (commonly known as *Golpata*), which is used to make roofs and buildings, is dwindling. The villagers know how to cut the trees in ways that will allow them to grow and regenerate. The forest-dependent communities of the Sundarbans have traditional knowledge of conservation and sustainability, which is an integral part of their relationship with the forests.

According to Baburam Mondol, who was a member of the Satjelia gram panchayat from 1993 to 1998, the forest department, West Bengal, strictly prohibited entry into the core areas of the Tiger Reserve for fishing and wood collection after 23 December 1973, following the notification of the Sundarbans Tiger Reserve. Joint forest management (JFM) has been introduced in the Sundarbans Reserve Forest since 1991 (through a Forest Protection Committee) and in the Sundarbans Tiger Reserve since 1996 (with an Eco-Development Committee). The government has tried to introduce new income-generating activities through CAG (Comptroller and Auditor General) Committees³ by providing domestic livestock, including goats to households, granting irrigation pumpsets, providing van rickshaws and building brick roads. However, there was a stark inconsistency here since the benefits did not accrue to all the forest-dependent people, but only to a handful, creating local disagreements and disgruntlement. Measures like the Mahatma Gandhi National Rural Employment Guarantee Act failed as a result of delays of more than eight months in fund disbursement, the physically demanding nature of tasks like mud-cutting, especially for women, and gross underpayment. The standard payment in Emilybari village was ₹165 in 2015 for clearing 100 cubic feet (ft³) of mud for embankment-building. There were discrepancies in payments since some people received ₹1 for clearing 1 ft³ of mud while others received ₹1 for clearing 0.88 ft³. Women received ₹1 for clearing 0.66 ft³ of mud.⁴

Repeated attempts have been made to close off the forest from the local people. The people, who claim to have significant indigenous knowledge about the forests, are not even involved in forest management plans. Recalling the 1979 eviction and massacre of Bangladeshi refugees from Morichjhapi island in the Sundarbans, Annu Jalais writes,

The incident marks for the people the beginning of a politics of betrayal by what they saw as a government run by the political elite. How the government has put all its importance on the protection of wildlife and its subsequent use of force against these poor refugees which resulted in hundreds of them dying was seen as a betrayal not only of the poor and marginalised in general but also of Bengali Nimnabarno identity. (Jalais 2007: 4)

Even today, more than three decades after the massacre, the situation remains the same. Verbal abuse of the fisherfolk by forest guards for entering the forest, confiscation of their fishing equipment, seizure of their catch and boats, the imposition of steep fines and the extortion of bribes have made conditions even worse. Mismanagement, corruption and over-exploitation threaten both the forest and its dependent communities. According to some conservationists, local people are adversaries of biodiversity since their presence results in forest degradation and wildlife depletion.

Forging a middle path calls for a gradual shift to an inclusive conservation strategy that privileges both wildlife and people's livelihoods, thus building up a public constituency for conservation (Kothari and Pathak 1998). The study suggests that, in a place like the Sundarban, which has been declared a World Heritage Site, the moral imperative of conservation is shrinking. Unless we recognise the traditional roots of biodiversity conservation, we cannot address the vulnerable livelihoods and threatened identities in the region. We cannot continue to maintain a watertight compartmentalisation between the natural world and the human world.

NOTES

- 1 There is a difference between an "active delta" and a "stable delta" in the Sundarbans. A stable

delta refers to the islands which are situated upstream, less exposed to tidal currents. They are more developed, situated closer to the cities and have lower risks. An active delta, on the other hand, refers to islands located downstream, closer to the forests and the mouth of the river. Tidal currents are always inundating them. Islands within the active delta are formed and reformed by constant tidal erosion.

- 2 Information collected from Kanjilal et al (2010).
- 3 CAGs are responsible for the audit of receipts and expenditures from government funds. They also grant loans for panchayats and urban bodies.
- 4 The information on MGNREGA is collected from the report "NREGA Scheme on Embankment" (March 2010).

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