

# RURALITIES

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THE RURAL POST PUBLICATION

# Human-Animal Conflict In The Sundarbans

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## Abstract

Sundarbans, situated in the lap of West Bengal, India and Bangladesh is famous for several reasons. It is not only the largest mangrove forest in the world but also a home to the endangered species of the Bengal Tiger. It is these characteristics of the forest that make it so important for the tiger and the humans inhabited around the reserved forest, most of who have their livelihood dependent on the Sundarbans. The case study attempts to throw light at the human versus animal combat prevailing in the World Heritage site and how it affects the lives of both. It attempts to reveal and question the existing balance system and provides solutions to improve upon the same such that the environment can exist sustainably in peace and harmony.

**Keywords:** Sustainable livelihood, environmental conservation, agriculture, land, fishermen, exploitation, equitable distribution

## To cite the case study

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## Introduction And Background

The Sundarban Reserved Forest shares its boundary with India (West Bengal) and Bangladesh and is one of the richest areas of biodiversity and natural resources. Owing to this exotic nature, it became a UNESCO World heritage site in 1987. It is the largest riverine mangrove forest in the world and covers an area of almost 10,000 sq. kilometres within which 6,000 sq. kilometres spread across Bangladesh and the rest 4,000 sq. kilometres stretch across West Bengal.

An intricate network of interconnecting waterways runs in a north-south direction and intersects the entire Sundarban area. The larger channels are often a mile or more in width and tidal waves are a regular phenomenon. The land is constantly being changed, molded and shaped by the action of these tides. Soil erosion is more prominent along estuaries while deposition occurs along the banks of inner estuarine waterways under the influence of accelerated discharge of silt from seawater. The landscape is characterized by low-lying alluvial islands and mud banks with sandy beaches and dunes along the coast. The Sundarban forests comprise of a long patch of estuarine forests which belong to various mangrove species like Sundari, Keora, Garjan, Khalsi, Baen, Goran, Genwa, Mental, Keya, Passur, Golpata.

However, in the contemporary period there are a number of problems emerging in the area - global climate change, rising sea level, coastal erosion, loss of mangroves, lack of freshwater and an enormous population pressure on a shrinking habitat of Bengal tigers.

## The Sundarban Reserve Forest And Its Zones

The Sundarban Reserve Forests consist of nineteen community development blocks among which six are located in the district of North 24-Parganas, and the remaining thirteen are located in the district of South 24-Parganas (Mandal 2003). The total area of the forest is 9,630 sq. kilometers and is divided into three zones - core, buffer, and transition. The core area is where the state Forest Department does not allow any anthropogenic activities (except research) in order to preserve the major habitats of the diverse flora and fauna of the Sundarbans. The core and buffer zones form the Sundarbans Reserve Forest and cover an area of 4,263 sq. kilometers (Mandal 2007)<sup>1</sup>. This means that a little less than half of the total area is uninhabited. The transition zone covers an area of 5,367 sq. kilometers

and is a densely settled area of the reserve with mono-cropped agricultural land. Nearly 4.5 million people live in the nineteen community development blocks in the transition area of the forest (Danda 2010)<sup>2</sup>. Most of the forested part of the biosphere reserve falls in the thirteen blocks of South 24-Parganas. The British Government first declared this forested part a protected area in 1878. By 1943, the entire forest of the Sundarbans was included under the category of reserve forests (STR Annual Report 2007–2008).

## The Village Profile

Sundarbans is one of the highest population density but the poorest regions of South Asia with an estimated 8 million people (India and Bangladesh combined) dependent on its fragile ecosystem. The population of Sundarban is heterogeneous, with a high influx of immigration from other parts of India and Bangladesh. In addition to the challenges of subdivision and fragmentation of landholding either through property division or climatic destruction (land erosion), people faced greater challenges as landed households gradually turned marginal and were no longer able to sustain through agriculture alone. In fact, the agricultural land area, measured in 2009, had shrunk from 2,149.615 sq. kilometers in 2002 to 1,691 sq. kilometers indicating a loss of 246 sq. kilometers. According to the 2001 census, 2,006,302 people live in the Sundarban area, out of which 770,776 people belong to scheduled castes and 55,425 people belong to scheduled tribes. Thus, scheduled castes and scheduled tribes in the area constitute 38.38% and 2.76% respectively. The corresponding figures in West Bengal are 23.62% and 5.60%. The density of the population is 748 per sq. kilometers as against the state average of 904. It is noteworthy to mention that in three blocks the density of population exceeds the state average. According to 2001 census (provisional), the literacy rate in different blocks of Sundarban area under study are encouraging compared to those of the population of South 24-Parganas (Total - 70.16%, Male - 79.89%, Female - 59.73%) and of West Bengal (Total - 69.22%, Male - 77.58%, Female - 60.22%). The literacy rate of the total population in five blocks is greater than the state literacy rate. The main forest-based livelihood groups are described below:

1. Fisher-folk-Micro-fishing (catching fishes in creeks and rivers) and Macro-fishing (in the sea) are the main livelihood activities for communities living in the fringe area of the forest and along the coastal line respectively. They are locally called as *Jele* (fisherman).

2. Woodcutters- Locally called as *Kathuria* and *Kathkurani*. The annual average timber collection from Sundarbans is about 120,000 quintals. Officially, approximately 5% of the population is involved in wood collection with usually a team of 6–10 woodcutters led by a *Boulay* into the forest. A *Boulay* is a man with traditional expertise, one who knows the art of keeping the team out of danger in the forest.
3. Honey Collectors- This is a seasonal group activity. Usually, a team of 8–10 members is led by a *Moulay* (also called *Moule* or *Mouli*) into the forest. *Moulays* are indigenous people known for their traditional wisdom and expertise. They are also especially skilled in identifying good beehives (by observing the flying directions of bees) in the dense forest and they are skilled in beehive cutting and honey collection techniques. As with the *Boulay*, the *Moulay* is also believed to possess supernatural powers to prevent tiger attacks by their rituals and chants.
4. Crab Collectors- The estuarine mud crab- *Scylla Serrata* (locally called *Bada-Kanckara* – mangrove crab) is an edible species distributed across the mudflats of the Sundarban forest and has a good local and international market demand.
5. Shell Collectors- Locally called as *Chunari*. Snails, clams and giant oysters are distributed around the forest floor and mudflats. These mollusks are also of ecological importance to the mangrove in converting leaf litter into detritus. Their shells are used by people for preparing lime, shrimp and chicken feed.

## Emerging Point Of Conflict

### A. The antagonism between Man and the Bengal Tiger

The Royal Bengal Tiger has the reputation of being a ‘natural’ man-eater. The earliest documents of the Portuguese Jesuit merchants who traveled to Bengal in 1598 and 1599 pointed out that the tigers of Gangetic Bengal are fond of human flesh. Several factors have been suggested that might have reinforced this natural fondness for human flesh which includes increasing salinity, reducing prey density inside the forests and biotic interference. One reason that the forest department commonly provides for the man-eating trait of the tigers is that the latter has added humans to their diet after feeding on the human corpses following the devastating cyclones.

Despite its global recognition, Sundarbans has one of the most poverty-stricken populations in the country. The per capita income in the Sundarbans is estimated to be less than half of the state average. Here a resident’s socioeconomic status is determined by the possession of land (Jalais 2010)<sup>3</sup>. Broadly, there are two groups: people who possess a large amount of agricultural land and people who possess a meager amount of land, including their homestead and therefore work in the forest, rivers and creeks for their livelihood (Jalais 2010)<sup>3</sup>. It is they who are engaged primarily in the four sectors namely- fishing, catching crabs, collecting honey and harvesting nipa palm. It is during these attempts that they strive to make a living for themselves, which results in nothing more than a hand to mouth existence and often an interface between them and the Bengal tigers.

### B. The rise of the Modern Environmental Movement and its impact

In the 1960s and the 1970s, environmentalists began to adopt a trans-boundary approach to protect the endangered species. In the case of Bengal, it was protecting the unique species of the Royal Bengal Tigers and soon it became one of the nine initial tiger reserves of the country. Therefore, several conservation norms in the post-Independence period were brought in. One such was the Wildlife Protection Act of 1972, which was implemented or rather enforced to protect the biodiversity and wildlife, thereby restricting human intervention. The rhetoric of wildlife conservation that fuelled a universal campaign totally disregarded local priorities and knowledge systems. The first management plan of Sundarbans was laid down by R.K. Lahiri who was the state wildlife officer from 1973 to 1974 and then from 1978 to 1979. The contemporary management plans from 2013 to 2014 emphasize on using modern techniques of stewardship like the Geographical Information System (GIS), the creation of land-based camps for protection works, police camps and regulation in coupe areas. (Naskar et al. 2012)<sup>4</sup>

The several policies which have been undertaken include:

1. Protection against theft and poaching.
2. Mudflats on the periphery of the reserve to meet local fuel-wood demand.
3. Soil conservation to stabilize vulnerable sites.
4. Availability of sweet water ponds for animals.
5. Controlling human-tiger conflicts through restrictions on entry to specific forest areas.
6. Use of human masks, electric human dummies, etc. for forest workers.

7. Training programs for the youth to enable them to play an appropriate role in controlling tiger straying situations.

Over time, Sundarbans has become a prominent tourist destination for its recognition as a global conservation frontier with its main attraction being the exotic Royal Bengal Tigers. According to Vasan (2018:482)<sup>5</sup> “spotting a tiger during the forest visits is often an experience central to the neo-liberal economy, popularised through media and international conservation agencies.” Environmental agencies outside the government like the World Wide Fund For Nature (WWF) have been highly influential in the development of this imagery of the Sundarbans.

### **C. The actuality of the conditions of the people in the core and the buffer zones**

Albeit, at the superficial level it might seem that neo-liberal policies are inclusive, thoughtful and community-oriented than the earlier forest conservation provisions but a microscopic view might enable us to understand that such is not the case. Tigers are a flagship species, emblematic of popular international attention for its endangered presence. The policies undertaken might at times appear to be enough to evade the human-animal conflict in the Sunderbans but in reality are arbitrary and feign in spirit.

For instance, let us take the case of the fishermen whose livelihood strategies depend on forest-based fishing in the Sundarbans. They live in several fringe villages located outside the buffer area along the northern boundary of the reserve. They, at times, are forced to enter the core areas where fishing is prohibited, for instance, the Sajnekhali Wildlife Sanctuary to meet their subsistence. This is so because the area where they are allowed to fish is typically a very small area and the number of catch per person is insufficient to sustain their livelihood. Several fishermen sometimes in their attempts to hide away from the patrolling boats enter the narrowest creeks of the forest. Some forest workers state that they welcome death by a tiger than giving away to the humiliation caused by the forest guards. By chance, if anyone ever gets caught in the core they face severe harassment. When a person is caught for the first time in the core and sanctuary areas he is often charged 200 Rupees. This may increase if the same person is caught again in the core area. The fine varies from 200 to 1,150 Rupees. Fishing permits issued by the Forest Department are valid for six weeks and a fine is charged for using an expired permit. Sometimes, when fishermen are found to be using expired permits, the forest guards seize their boats and other fishing

accessories such as fishing nets and cold storage. When a fisherman faces a tiger, attacking or killing it is not an option because it is a criminal offense to kill a protected species. So, these helpless victims ultimately succumb to their fates. The families of the fishermen or the other forest workers who get killed in the core areas often do not report such cases because of the fear of hefty fines and abuse. Such deaths cannot even be mourned publicly in the villages.

The Project Tiger Reserve has involved the relocation of many villagers from the buffer zone. This has led to a huge human displacement. Hundreds of people were being displaced for protecting each tiger. Only a few have been allowed to remain in the buffer areas. Surviving or living in the buffer zones is also a life-threatening task. Sometimes, through no fault of their own, the villagers are often attacked/killed by tigers that stray into the villages. Even then, the villagers are not supposed to touch the animal. It has to be informed to the Forest Department first, then the officials will come and inspect the matter and will take actions that deem fit in the situation.

The situation is no better even in the case of a casualty of a person working in the buffer area. After the dead body is recovered, the crew in the boat as well as the family has to go through a series of processes to claim compensation. At times it so happens that the police stations refuse from filing such cases. We hear of one such account from a fisherwoman Emilibari, who pointed out that when her husband was killed by a tiger while fishing near an area of the forest known as Gopalkhali, which is located in the buffer area, the local police station refused to report even a ‘missing diary’ of her husband. Forest workers claim that the police stations do not report incidences of accidents without the approval of the forest department. Before bringing the deceased to his/her family in the village, it is required to come back to the forest office to inform them about the occurrence of the accident. The exact location of the accident needs to be mentioned. The forest guards come all the way to the accident spot in the forest, inspect the place and need to get convinced (through the remaining pieces of evidences like the victim’s clothes, bloodspots or the pugmarks of the tiger) about the reality of the incident. Then only it is confirmed that the death has actually taken place in the buffer and thus, the family is eligible for compensation. Cases where full compensation is granted are rare.

### **Solutions**

This reveals the fact that how tiger lives are prioritized

over human lives in the region. The post-colonial tiger conservation projects have furthered their misery. Most of these policies have excluded the indigenous people and have deprived them of their rights to access forest products which are of utmost importance for their existence.

So, to quell this conflict what is needed is an attempt to reconcile community interests with the goals of conservation. This can be done only if the community gets an equal representation and are given an opportunity to make use of the immense knowledge of the wildlife and the ecosystem that they possess rather than neglecting or discarding their ideas. The same problems will continue for another epoch if they fall on deaf ears. The relevance of traditional knowledge needs to be understood in the full context of social and cultural milieu. What is necessary is a holistically equitable process of conservation, balancing concerns for human lives and stewardship mechanisms which would require a long-term and comprehensive engagement across communities with multiple interests.

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