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Article

Survivor Women of the Sundarbans: A Multi-Perspective Study of Strategies for Empowerment and Sustainable Development

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ABSTRACT

Climate change (sea-level rise, soil and water salinization, intensifying cyclones, flooding due to embankment overtopping and failure as defined by Sanchez-Triana) is a global problem and crucial yet vulnerable ecosystems like the Indian Sundarbans are greatly affected by it. The mangroves which are native to the area play a very significant role in forming a bio-shield against tropical cyclones and floods which are more or less of regular occurrence. Thousands of lives, property, flora and fauna are thus naturally protected. Besides, mangroves also act as storehouses of carbon, called blue carbon, and thus have a significant role in carbon sequestration which in turn plays a contributory role in mitigating climate change. However, deforestation and climate change have wrought devastation in the area, affecting the lives of thousands who are left to the mercy of nature. Women residing in Sundarbans face different challenges—from nature and human society—but strive against all odds to play a decisive role in mangrove plantation and restoration and through other means, take control of their lives and better not only their own futures but that of the subsequent generations. Our paper intends to focus on these resilient women of Sundarbans who battle violence and exploitation—physical and mental—at all levels, whose stories often remain untold, but who are equally committed to the cause of sustainability and sustainable development.

Background

The Sundarbans is a unique habitat – in terms of geography, biodiversity, ecology, economics, and socio-cultural pattern of life. By virtue of this complexity, it has garnered the attention of scholars from various disciplinary backgrounds—historians, sociologists,

economists, botanists and cross-disciplinarians like climatologists and environmentalists—and they have produced a rich corpus of work which has added to and continues to add to our understanding of this delicate eco-system from various angles—ethnographic, ecological, socio-economic and cultural. Our article attempts to understand the position of women, who survive the challenges they face on almost a daily basis, in a habitat that has become the site where environmental (including climatic), and ecological concerns, human socio-economic and cultural issues converge. It also explores in brief, possible strategies of women empowerment in this specific environment. The scope, admittedly, is ambitious and certainly not possible to explore through a single article, but one may regard it as multi-perspective overview of engaging with the Sundarbans on an academic level, and opening up avenues of further research with the dual purpose of enhancing gender equity, while at the same time, attempting to counteract climate change in one of the most vulnerable ecosystems of the world.

From a socio-cultural viewpoint, our knowledge is broadened by the rigorous research of scholars like Annu Jalais (*Forest Tigers: People, Politics and Environment*, 2010) and Sutapa Chatterjee Sikdar (*The Sundarbans: Folk Deities, Monsters and Mortals*, 2017). Through their scholarly acumen they both bring to the forefront the human dimension of the region – what lies beneath the Royal Bengal tigers, the crocodiles, the mangroves. For tourists, a trip to the Sundarbans is an exposure to eco-tourism in the lap of nature, a breath of fresh air, but as both these researchers show, the struggle between humans and non-humans which includes –crocodiles, snakes, tigers and a wide range of 'spirits and demons' (Jalais) – dots the everyday landscape of the region. The relationship is one of love-hate, where, as Jalais, shows, the inhabitants, especially those whose livelihoods depend on the thick mangrove forests—view the tigers as their 'brothers.' As man and nature fight for resources, differences on basis of religion, ethnicity and class, get ironed out between humans, as encapsulated in the syncretic culture of *Bonbibi* (Amrita Sen and Jenia Mukherjee, 2020; Mousumi Mandal, 2022; Subhrodal Ghosh, 2024). As death becomes a part and parcel of their everyday lives, *Bonbibi* appears as the saviour of all, the only protection that they carry with them being the sacred blessing of the forest goddess, *Bonbibi* (Sen and Mukherjee). The origin of the cult of *Bonbibi*, as narrated in the folk-tales of the region, underscores this co-existence with death, where *Bonbibi*, is said to have saved the life of a small child named *Dukhe* from the clutches of *Dakshin Rai*, the tiger-god. Sobhrajani (2018) recalls her first-hand experience of this seamless blending of beliefs of –Hindus, Muslims and approximately 45 indigenous tribes which, she notes, –has resulted in an eclectic collection of folktales, legends and myths, and the birth of many deities. What is evident from the folk tales of the region regarding *Bonbibi*is the adaptive abilities of the local people, reflected in their instinctive and time-honoured ecological knowledge and a never-say-die attitude in their daily battle to conquer the inhospitable terrain.

Survivors, Despite Adversity

Bonbibi is the most important of the region's folk deities, and yet, as the region's human inhabitants invoke the name of a goddess and bow down before her, in real life, do the women of the Sundarbans enjoy respect and recognition in the socio-temporal sphere? A big NO is the answer. Researches paint a bleak picture with regard to the condition of women. Karabi Das's collated data (2017) from various local level NGOs show that every

third house in the Kultali block has victims of human trafficking. The number has shot up in the aftermath of 'Aila' in 2009. Girls between the ages of 15 and 20 are the most vulnerable. An in-depth study by the Rights Lab of University of Nottingham (2022) links this peril to climate changes (flooding, storm surges, sea-level rise, salt-water intrusion) that beset the region and have thrown life out of gear. Through extensive interviews, the researchers extract the grim truth. Families who came forward to share their tales of sorrow have more or less similar stories to narrate which reveal a pattern, - [if] the father is not there, [and the] mother is not able to earn a living, the agent says that he'll give the girl a Rs. 20,000 paying job, then give an advance of maybe Rs 5,000 and easily lure the unsuspecting girl with them without any problem or resistance. The girl who dreamt of getting a good job now is to be found nowhere, she simply gets lost forever.

The other category of women who often become victims of trafficking are those named as 'Tiger Widows' and 'Sea Widows'—those whose husbands have been mauled to death by tigers or those whose husbands have drowned in the sea while fishing. Shunned by their natal families and in-laws and often cursed for their husbands' untimely deaths, they have limited opportunities for employment, being near-illiterate. The combined study of Saha, Gogoi, Das, Majhi and Deb Roy (2024) shows that although on paper, there are government schemes for compensation, very few are able to access these because of complicated paper work. Thus, these widows are reduced to destitution and in sheer desperation often take to prostitution or are taken advantage of by the hawk-eyed agents for trafficking.

Women Health and its Underlying Causes

Climate change further exacerbates gendered vulnerabilities by affecting women's health (Paul and Rai, 2025). Over the years, the quality of ground water has declined for the worse with a high degree of salinity – not fit for drinking – and in the absence of any safe alternatives this is what the families have to rely on. The study found that women who engage in saline-immersive prawn post-larvae catching have significantly greater health issues than women who engage in similarly comparable low-wage economic activities. Chourey and Laha,

(https://saciwaters.org/uploads/documents/1723099316_2.climatechange&healthequity_sundarbans.pdf) connect the use of polluted water to reproductive health problems, urinary tract infections, and genital infections. These can be attributed not only to the use of contaminated water but also to unhygienic toilet practices – 56% of women reported using open field, pond-side latrine or pit latrine for defecation (Bairagya, 2019). Within the age-group of 15-59, women have a disproportionately higher degree of health issues than men (Kanjilal, Guha Mazumdar, Mukherjee, Mondal, Barman, Singh, Mandal, 2010). Monsoons are the harshest when fields get flooded, leaving the women with no choice but to relieve themselves on the flooded grounds, making them more susceptible to viruses and bacteria and increased chances of cervical cancer (Sengupta and Choudhury, 2018).

Women's health becomes all the more compromised because of the near non-existent medical facilities in the region. When Sobhrajani's organisation arranged for a weekly visit by two doctors on every Sunday of the month, from the nearby metropolis of Kolkata from 8am, patients ranging from those with various ailments to lactating mothers with post-natal complications, started queuing up from 2 am lest they miss the chance.

Unable to cope with the devastating effects of climate change that takes a toll on their health and lives, the oft taken escape-route is migration, with the migrants termed variously as 'climate migrants, environmental refugees.' Das, Gupta and Hazra (2023) classify such migration into three categories— permanent, seasonal and temporary— resulting in disruption of normal family life.

The Women of the Sundarbans, Literature, and Local Dialect/s

While climate change and its deleterious effects on the Sundarbans, have gained scholarly attention, there has been minimal engagement with the same in literature, especially fiction, in the context of the Sundarbans. A translated compilation of short stories *Writings from the Sundarbans* (ed. Acharya and Dasgupta, 2023) is a commendable effort to mainstream the unheard voices. In his book, *The Great Derangement*, Amitav Ghosh observes that 'climate change casts a much smaller shadow within the landscape of literary fiction than it does even in the public arena…novels and short stories are very rarely to be glimpsed within this horizon.' (Ghosh, 2016, p-9)

The literature indigenous to the Sundarbans has been studied chiefly for its exotic value by the urban academia. Celebrated literary texts like *The Japanese Wife* by Kunal Basu or *The Hungry Tide* by Amitav Ghosh put into perspective the intricate maze of nature, animal and human lives. We may refer in this context to *Johurnama*, written in 1871 by Munshi Mohammad Khatter – which through the tale of *Bonbibi*, the resident deity of the Sundarbans – narrates the quotidian struggle of the inhabitants of the inhospitable terrain and the self-devised survival strategies premised on place-based customary norms. *Baman Buri-r Char* – a novel written in the local dialect – captures the constant fight between man and nature in the Gosaba block. Among others, the quarterly journal *Shudhu Sundarban Charcha*, a personal initiative of Jyotindra Narayan Lahiri, has been collating reports from the grassroots at Sundarbans and publishing the same since 2009. Literature and other forms of artistic expression like films inspired by it, except for Amitav Ghosh's *The Hungry Tide*, rarely engage with local issues preferring to use the Sundarbans as a unique setting. Likewise, we must also point out that the literary output of women has largely been ignored in the mainstream discourse. In *Writings from the Sundarbans*, the only female author whose work finds place in the compilation is Archana Mandal, and that too, at the very end– proof of the marginalized position of women of the Sundarbans.

Approached from the perspective of literature, literary and language studies, we once again find that there has not been adequate research on the potential/actual loss of local language and/or dialects used by indigenous communities inhabiting the Sundarbans, or on literature, both oral and written, composed by them in these languages/dialects. Understanding the reasons behind the near extinction of these dialects, and attempting to preserve/conserve the same, are exercises of crucial importance. The dominance of Bangla and to a great extent, of Hindi, has resulted in local dialects used by the indigenous communities of the region gradually being lost, which we might say, effectively mirrors the plight of the women of the region themselves, whose existence is relegated to the margins, and in some cases, physically erased as a result of trafficking. The local dialects like Sadri, spoken in certain remote areas of the region like Kamarpara in the Gosaba block, face the threat of extinction for lack of awareness, and declining numbers of those who use the

dialect for actual daily communication. The novel *Baman Buri-r Char*, written in that dialect, speaks of the existential crises of the locals, specially the women, how they relentlessly battle for survival and identity on a daily basis.

Unfortunately, we hardly know of any attempt to preserve these dialects. Heritage conservation, in the context of Sundarbans usually refers to the preservation and protection of mangrove forests, and religious-cultural practices. Linguistic conservation, we believe, should be an inalienable part of heritage conservation, bearing in mind the unique culture and socio-economic system of the area. This would help raise greater awareness, regarding intertwined issues of culture, gender, women empowerment and environmental concerns in a truly effective way.

Towards Sustainability: The Changing Scenario

Women-centric studies in the context of the Sundarbans, we find, have focused largely on particular categories– 'tiger widows' and 'sea-widows' – who are involved in mangrove plantation as part of their rehabilitation. These sub-categories within the category of Women, in a sense exclude other categories—women who remain within the familial set-up, i.e., the housewives, teenagers and young adults. Their life-narratives/stories have somehow been glossed over in the existing literature.

It is significant to note that efforts at including women in sustainability practices in the Sundarbans have met with positive responses. In this context, we may mention the MFF or Mangroves for the Future, a unique collaborative initiative by IUCN and the United Nations Development Programme (UNDP) for sustainable mangrove restoration and development in a number of countries where mangrove forests are a determinant of climate and ecology. Gender equity is a basic principle of this enterprise, and combines sustainable resource management with socio-economic progress, while keeping a keen eye on the intersection of environment and community. Projects and initiatives such as the abovementioned, ensure alignment with the SDGs, *viz*., SDG 13 (Climate Action), SDG 15 (Life on Land), SDG 8 (Decent work and economic growth), SDG 14 (Life below Water), SDG 5 (Gender Equality). The outcomes of such projects have led to the restoration of thousands of hectares of mangrove forests with about thousand tons of CO_2 sequestration per hectare, planting of numerous species of mangrove, along with lakhs of trees (Sen 2024), protection of countless species of fauna including those endemic to the Sundarbans biosphere, outcomes which have benefitted all locals, of which half the number are women.

A staggering 4.5 million people inhabit the Indian Sundarbans alone, and the majority of them depend on the mangroves for their livelihood. A separate Department of Sundarban Affairs was formed in 1994, with the aim of bringing about appreciable improvements in the fields of infrastructure, livelihoods and socio-economic conditions. This brought about qualitative shifts in the formulation, implementation and execution of policies leading to change for the better. In fact, it also facilitated the evolution of women in the Sundarbans from being cyclone survivors to emerging local conservation leaders. Today, in the face of climatic adversities, and potential threat of environmental disasters, women have been trained to play a pioneering role in environmental conservation and generating awareness among the region's inhabitants. Mangrove conservation and sustainable use of mangrove products yield profit to local women socio-economically (Sen, 2022). The generated revenue

from mangrove products may be utilized for enhancing academic and infrastructural facilities in community schools. Further women may no longer be weighed down with the tiresome burden of fetching drinking water over long distances with improvements in water availability and facilities. The time and labour saved might be used for various entrepreneurship functions (Sen, 2022).

To reverse the effects of climate change and improve the quality of lives, sustainable management is the key, which includes mangrove plantation programmes that have been undertaken by the government, NGOs and Self-Help Groups (SHG) alike. Under the NREGA scheme, a total area of 2500 hectares was selected during 2020-2021 (Government of West Bengal, 2022). Women often take the lead in such initiatives. Nearly 150 women from 24 SHGs were actively engaged in afforestation (Sen, Mukherjee, Ghosh, Fickert, 2024). According to Begum *et al.* (2022) local women participate in all tiers of forest co-management institutions, including the village conservation forum, people's forum, community patrol group, and co-management committees. This participation has increased their awareness and understanding of government rules and regulations in forest conservation, extending their social networks, and creating opportunities for alternative income sources. According to Begum, women have thus benefited from the provision of greater financial input into their families, which has successfully elevated their status.

It follows, therefore, that we must recognize the different roles and functions women and men play in the ecosystem and community, and that recognition of difference is mandatory in any conservation initiative we might undertake. This recognition highlights their notable contributions and influences, and outlines gender-specific roles women and men must assume. Despite the contemporary practice of incorporating local communities in conservation efforts, there remains the threat of overlooking special requirements, welfare and potential contributions of marginalized women members. This is natural because women usually have less social, economic and political visibility, control or freedom, effectively limiting their say in the decision-making process even within their own communities.

In spite of the hindrances, however, we find women slowly but steadily playing crucial roles and actively taking part in the conservation and restoration of mangrove ecosystems (Sen, 2025). The number of women involved in mangrove plantations in the Sundarbans is steadily increasing. One reason is that it offers a source of livelihood for the unskilled, the other being the growing concern about environmental hazards, especially the delicate nature of the unique biosphere the people call home. It must be kept in mind that mangrove plantations offer only seasonal employment and therefore, cannot be a source of steady income for the women. To protect the mangrove forests, women are playing a huge role in ensuring protection of the ecosystem through the Sundarban Mangrove Forest Protection Committee (SMFPC). Local women have initiated the task of restoring the Sundarbans by planting mangrove saplings along the river beds as protection from storms and cyclones (Sen, 2021). They prepare saplings at home and then plant them in rows along the river banks to ensure safety of the embankment and their houses.

Gainful employment, we may safely conclude, more often than not, leads to empowerment. Women who are wage-earners add to the family income, are more heard in the family, in comparison to women who do only household chores. Young girls are sent to schools and

encouraged to enter the professional world and build an identity of their own. Datta and Mete (2024) conducted a study to assess the socio-economic status of the women residing in Sundarbans. Karmakar (2022) commented that these women, in course of their continuous negotiation with climate change, have developed viable strategies to survive its disruptive effects in their daily lives. However, being climate crusaders do not always translate into emancipation and empowerment. Begum *et al*. (2024) reported that the participation of women in forest co-management was mostly influenced by family expectations, followed by religious and societal norms. The women expressed that these expectations limited their participation. The local men reported that women's participation was driven by a sense of responsibility to protect the forest, while women reported that participation was due to economic security for the family.

Honey collecting/ gathering is another significant seasonal activity typical of the region on which many women are dependent for their livelihood. However, it provides only seasonal employment, and is fraught with danger, involving as it does, the risk of tiger and crocodile attacks, since the hives mostly proliferate within the intertidal forests, which is the tiger's natural habitat. Training women to be apiarists alongside men, instead of letting them remain as 'collectors' of honey only, will provide a steady source of income, while minimizing the danger of risking human lives. Most importantly, human intrusion into animal habitat can also be avoided to some extent.

Women Empowerment and the Way Forward

What we have been able to conclude from the foregoing discussion is that slowly, yet surely women are playing significant roles and dynamically taking part in restoration and conservation practices of the mangrove ecosystems. Facilitating women with adequate and equitable access to education, skills and the information will not only help them emerge as leading advocates for mangrove conservation (Sen, 2025) but also play a key role in adopting and implementing appropriate management strategies that would ensure the long-term sustainability of mangrove forests. This is today a globally accepted paradigm in gender empowerment. Ensuring provisions of food and clean water, sanitation, health care, educating women in and outside schools, providing skills to earn a living, can catapult women to a position where they can demand their rights, especially regarding livelihood and economic opportunities. Gender equality stands at the core of all sustainable development strategies. We must see and value the role and achievement of women in this context, and acknowledge that gender mainstreaming needs to be taken into consideration for all sustainable solutions in all environmental aspects. It is not only a way forward for women but also a way to protect the ecosystem. It also testifies to the great potential of women empowerment in creating sustainable pro-environment approach towards life and livelihood at a time of unprecedented environmental and ecological crises of this, our 'living planet'.

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