

Chapter-IV

Climate Justice and Marginalized Communities: A case study on Sundarban Coastal area

By

Esita Das

Abstract

In the age of climate change marginalize populations suffer disproportionate vulnerabilities, which are encapsulated in the concept of climate justice. The front-lines include island nations and resource-dependent peripheries, whose survival and cultural continuity are under risk due to resource depletion, deforestation, increased storm intensity, and rising sea levels. This article looks at how the law has responded to these issues, using comparative viewpoints from small island governments, the peripheries of Africa and Latin America, and India's distinct environmental justice system. Frequently left out of international decision-making, it emphasizes how underrepresented voices are redefining climate change as a matter of justice, rights, and sovereignty. In recent years, climate change has garnered significant attention as one of the world's most pressing issues. Severe weather events are becoming more frequent and intense, particularly in coastal regions like the Sundarbans. This study's primary goal is to evaluate how migration is affected by climate change and comprehend the needs of migrants in terms of adaptation. Three migration-related factors—environmental, economic, and social—have been highlighted in this article. The primary environmental factors influencing migration in this region are: 86.67% of households have moved, either directly or indirectly as a result of climate change. A major challenge to population economic sustainability is the reduction in purchasing power and the absence of alternative developmental options in the face of climate variability. In order to help policymakers prescribe policies based on factual information, this study has attempted to examine vulnerability particular to both problems and regions.

Key words: adaptation, climate justice, marginalize, migration, vulnerability

“ Climate change is the single greatest threat to a sustainable future but, at the same time, addressing the climate challenge presents a golden opportunity to promote prosperity, security and a brighter future for all.”

Climate change is more than just an environmental phenomenon, a justice issue that exacerbates already-existing disparities. The hardest hits are those who emit the fewest greenhouse gases, especially small island states and resource-dependent peripheries.

⁹¹Climate justice highlights this injustice by advocating for responsibility redistribution and acknowledging past wrongs.

While resource-rich but economically marginalized countries in Africa, Latin America, and South Asia face environmental degradation, exploitation, and displacement, island states like Vanuatu, Kiribati, and the Maldives face grave dangers from rising seas.⁹² Even though India has a sizable economy, its marginalized groups—coastal fishermen, tribal people, and the rural poor—are disproportionately affected. This makes India a special situation.

Theoretical Framework: Climate Justice and Marginalization

Island communities are a prime example of how marginalization, justice, and climate change intersect. Even though they contribute very little to global greenhouse gas emissions, islands—both small island states and delta regions like the Sundarbans—are disproportionately impacted by sea level rise, harsh weather, and ecological degradation.⁹³

One of the largest mangrove ecosystems in the world, the Sundarbans span Bangladesh and India and are home to millions of marginalized people. Meanwhile, inundation poses existential dangers to small island developing states (SIDS) like Kiribati, Tuvalu, and the

⁹¹ Chakraborty, T. (2020). Gender and resilience in the Sundarbans: A critical perspective. *Asian Journal of Women's Studies*, 26(2), 245–264.

⁹² Schlosberg, D., & Collins, L. B. (2014). From environmental to climate justice: Climate change and the discourse of justice. *Wiley Interdisciplinary Reviews: Climate Change*, 5(3), 359–374.

⁹³ Klein, N. (2014). *This changes everything: Capitalism vs. the climate*. Simon & Schuster.

Maldives. Climate justice, environmental justice, postcolonial theory⁹⁴, and political ecology must all be incorporated into a theoretical framework for examining these situations in order to explain how vulnerability is socially produced and politically mediated.

Climate Justice: A Foundational Perspective

The larger environmental justice movement gives rise to climate justice, which emphasizes that climate change is a moral, ethical, and political issue in addition to an environmental one. According to the theory of climate justice, island communities and other groups that bear the least responsibility for climate change are frequently the ones most affected by it. Three dimensions can be used to frame this injustice. Distributive justice⁹⁵ is the study of how the costs and rewards of climate change consequences and solutions are allocated. Floods, erosion, and relocation are the worst problems faced by islands like the Sundarbans, which also do not benefit from the industrial emissions that cause climate change⁹⁶. The term "procedural justice"⁹⁷ describes how equitable the decision-making procedures are. Global powers and donor agencies create policies that are disconnected from local reality, and island communities are frequently left out of global climate negotiations. Beyond distribution and protocol, recognition justice takes into account cultural identities, historical oppression, and sociopolitical marginalization. The lived experiences, indigenous knowledge, and voices of island inhabitants are frequently marginalized. This triangle offers a starting point for placing marginalization inside the framework of climate justice. This triad provides a foundation to situate marginalization within the climate justice framework. One of the world's most climate-vulnerable areas is the Indian Sundarbans, which are found in West Bengal's southern region. Part of the larger Ganga-Brahmaputra-Meghna delta shared

⁹⁴ Sen, S. (2021). Carbon inequality and the moral economy of climate change. *Global Justice Journal*, 15(2), 203–222.

⁹⁵ Roy, D., & Datta, K. (2022). Community-based adaptation in the Sundarbans: Lessons for climate justice. *Local Environment*, 27(1), 1–19.

⁹⁶ Roy, D., & Datta, K. (2022). Community-based adaptation in the Sundarbans: Lessons for climate justice. *Local Environment*, 27(1), 1–19.

⁹⁷ Ashrafuzzaman, M., Gomes, C., & Guerra, J. (2022). Climate justice for the southwestern coastal region of Bangladesh. *Frontiers in Climate*, 4, 881709.

with Bangladesh, it is a maze of mangrove islands, estuaries, and tidal rivers. The homes, livelihoods, and food security of millions of people in this region are in danger due to rising sea levels, rising salinity, and intensifying cyclones⁹⁸. These same communities, however, have made very little contribution to the global emissions that are causing climate change. The core of the idea of climate justice is this paradox. Understanding climate change as a purely environmental or scientific issue is only one aspect of climate justice. Rather, it draws attention to the crisis's moral and political aspects, emphasizing issues of accountability, equity, and human rights.⁹⁹ It acknowledges that the negative consequences of climate change are not dispersed equally but rather interact with prevailing social injustices based on geography, gender, caste, and class. Climate justice offers a compelling framework for comprehending how historical neglect, governance shortcomings, and global systems of inequality are intertwined with local vulnerability in the Indian Sundarbans.

The concern of procedural justice is the fairness of decision making process. It requires that impacted communities be given real chances to be involved in the creation and execution of policies that affect their daily lives. However, governance in the Indian Sundarbans is still primarily technocratic and top-down¹⁰⁰. A "command and control" approach is frequently used in climate adaptation projects, like the Integrated Coastal Zone Management Programme (ICZMP)¹⁰¹ and other World Bank-funded programmes. Distant bureaucracies make decisions regarding resettlement, mangrove restoration, and embankment placement with little village-level input. During project rollouts, rather than during the design or evaluation stages, community voices are frequently only asked for token participation. The

⁹⁸ Hossain, J., & Thieme, S. Adaptation Towards Justice?: Neo-Liberal Development and Gender-Class Complexities in the Sundarbans Delta of Bangladesh. *Neo-Liberal Development and Gender-Class Complexities in the Sundarbans Delta of Bangladesh*.

⁹⁹ Srivastava, S., Bose, S., Parthasarathy, D., & Mehta, L. (2025). Climate justice for whom? Understanding the vernaculars of climate action and justice in marginal environments of India.

¹⁰⁰ Kumar, Y. (2024). Climate Justice in India: Addressing the Impact of Climate Change on Vulnerable Populations. *Idealistic Journal of Advanced Research in Progressive Spectrums (IJARPS)* eISSN–2583-6986, 3(11), 148-157.

¹⁰¹ Sahana, M. (2025). Hindu nationalism, climate reductionism, and the political ecology of dalits on Char Islands: Does caste matter for climate resilience in India?. *Geoforum*, 163, 104298.

administrative intricacy of the Sundarbans exacerbates this procedural injustice. The area crosses several districts and is under the combined purview of the Forest Department, Panchayati Raj organizations, and disaster relief agencies.¹⁰² Effective governance is thwarted by bureaucratic silos and poor coordination. Furthermore, positions in these decision-making bodies are rarely held by the marginalized, especially women and lower caste groups. Formal policy frameworks rarely incorporate their lived knowledge, which has been gathered over generations of adaptation to monsoon cycles and tidal rhythms. Decentralizing adaptation governance and empowering local communities are therefore necessary for procedural justice in the Sundarbans. Transparent funding distribution, community-based disaster committees, and participatory planning can change the balance of power in favor of more equitable decision-making¹⁰³. Adaptation runs the risk of turning into yet another tool of control rather than a means of achieving justice in the absence of procedural reform.

Marginalization in Island Contexts

Marginalization occurs on several levels in island situations and might be economic, political, or sociocultural. Economic Marginalization: A lot of islands rely on industries that are extremely susceptible to climate change, such as fishing, agriculture, and ecotourism. In the Sundarbans, cyclones frequently destroy livelihoods, and seawater intrusion threatens rice agriculture. As coral reefs bleach and coasts deteriorate, SIDS around the world confront dwindling fisheries and collapsing tourism industries.¹⁰⁴ Political Marginalization: In international climate conferences, islands are frequently underrepresented. For instance, compared to developed countries, the Alliance of Small Island States (AOSIS) has less

¹⁰² ASHRAFUZZAMAN, M. CLIMATE JUSTICE FOR WHOM? THE LIVELIHOOD STRUGGLES OF FEMALE TIGER WIDOWS IN BANGLADESH.

¹⁰³ Chatterjee, M., Srivastava, M., & Das, D. (2025). Displacement and Rehabilitation in Coastal Bengal: Navigating Social Inequalities Inside Climate ‘Communitas’. *Migration and Development*, 21632324251364640.

¹⁰⁴ Roy, D., & Datta, K. (2022). Community-based adaptation in the Sundarbans: Lessons for climate justice. *Local Environment*, 27(1), 1–19.

bargaining strength even though they support 1.5°C targets.¹⁰⁵ Communities in the Sundarbans that live on the edge of state borders (the boundary between India and Bangladesh) deal with poor disaster response, little financing for adaptation, and bureaucratic neglect. Social Marginalization: Low-income populations with little social mobility, fishermen, and indigenous peoples are frequently found in island settlements. Vulnerability is increased when national policies fail to acknowledge them. These communities bear a disproportionate share of the consequences of climate change, even though they are among the least accountable for greenhouse gas emissions. Because it highlights the unequal distribution of climate burdens, the idea of climate justice thus becomes especially pertinent. Landless workers, lower caste groups, fishermen, women, and minority groups are among the marginalized communities in the Sundarbans that face environmental degradation as a result of historical neglect, socioeconomic marginalization, and unfair governance systems, rather than just as a natural occurrence. Using the concepts of distributive, procedural, and recognition justice, this section examines the ways in which climate injustice appears in these communities and sheds light on their complex challenges. Because women are disproportionately affected by food insecurity and displacement, the effects of gender inequality are noteworthy. According to theories of marginalization, vulnerability is more about political and social exclusion than "natural exposure,"¹⁰⁶ as systemic injustices exacerbate climate hazards.

The Sundarbans: A Case of Localized Climate Justice

The marginalized communities that live in the Sundarbans, a deltaic island system, rely on agriculture, fishing, and forest products. Thousands have already been displaced due to salinization, stronger cyclones, and rising seas. Several injustices are exposed when the climate justice theory is applied in this situation. Sundarbans villages are being drowned by carbon emissions from the global north, but impacted communities are not given much

¹⁰⁵ Schlosberg, D., & Collins, L. B. (2014). From environmental to climate justice: Climate change and the discourse of justice. *Wiley Interdisciplinary Reviews: Climate Change*, 5(3), 359–374.

¹⁰⁶ Mukhopadhyay, A., & Ghosh, T. (2018). Social vulnerability and climate change in the Indian Sundarbans. *Climate and Development*, 10(6), 454–466.

compensation and planning for adaptation seldom incorporates local perspectives.¹⁰⁷ Top-down plans, such as mangrove plantations or forced relocation, frequently disregard the needs of the community. When discussing climate change, it is uncommon to recognize the Sundarbans' inhabitants' cultural identity, which includes their reliance on fishing and mangroves. Rather than being regarded as engaged citizens with rights, they are viewed as "climate refugees." About 4.6 million people live in the Indian Sundarbans region, which is made up of 104 islands, 54 of which are inhabited. It functions as a socioeconomic periphery as well as an essential ecological buffer¹⁰⁸. Land is being submerged and coastal erosion is being exacerbated by rising seas, which are predicted to rise by 3 to 8 millimeters per year. Cyclones like Yaas (2021), Amphan (2020), and Aila (2009) have repeatedly destroyed agricultural lands, destroyed embankments, and uprooted thousands of families.

109

The moral and political ramifications of climate change are still poorly understood, despite the fact that its physical effects are widely known. These environmental changes are reframed as an inequality crisis by climate justice. The Indian Sundarbans are a prime example of how social disasters are exacerbated by structural factors such as caste hierarchies, poverty, landlessness, and a lack of government assistance. The poorest households on the most vulnerable islands, who frequently belong to marginalized castes and minority groups, are the ones most impacted. Globally, industrialized nations in the Global North have long been the main source of greenhouse gas emissions, with deltaic and island areas such as the Sundarbans experiencing disproportionate effects. Residents of the Sundarbans suffer devastating losses of land, livelihood, and life without restitution or sufficient international assistance, despite their insignificant carbon footprint. This is what

¹⁰⁷ Roberts, J. T., & Parks, B. C. (2007). *A climate of injustice: Global inequality, North–South politics, and climate policy*. MIT Press.

¹⁰⁸ Sahana, M. (2025). Hindu nationalism, climate reductionism, and the political ecology of dalits on Char Islands: Does caste matter for climate resilience in India?. *Geoforum*, 163, 104298.

¹⁰⁹ Schlosberg, D., & Collins, L. B. (2014). From environmental to climate justice: Climate change and the discourse of justice. *Wiley Interdisciplinary Reviews: Climate Change*, 5(3), 359–374.

Klein refers to as "climate colonialism,"¹¹⁰ in which the world's poorest regions bear the costs of fossil fuel-driven development while a select few benefit.

Theoretical Lenses: Postcolonial and Political Ecology Perspectives

It is necessary to look at structural and historical factors in addition to normative ethics in order to comprehend climate justice in the Sundarbans. Political ecology and postcolonial theory offer crucial frameworks for this work. From a postcolonial standpoint, the Sundarbans' vulnerabilities are not coincidental; rather, they are the result of colonial exploitation and postcolonial neglect. In the nineteenth century, British colonial reclamation projects turned mangrove forests into farmland that produced income. Natural hydrological flows were disturbed by these interventions, which also strengthened socioeconomic disparities between landowners and laborers without land.¹¹¹ Current development policies that put economic growth ahead of ecological balance are still influenced by the colonial logic of "improvement." This analysis is expanded upon by political ecology, which shows how power dynamics influence environmental results. Vulnerability in the Sundarbans results not only from biophysical exposure but also from political and economic choices about who owns land, who benefits from resource extraction, and who pays the price. For example, shrimp aquaculture has displaced small-scale farmers and degraded mangrove ecosystems while enriching local elites and foreign investors. Similarly, the government's focus on commercial development and ecotourism runs the risk of commercializing the very landscape it is trying to preserve¹¹². Climate justice in the Sundarbans can be viewed as a call for democratizing development and decolonizing environmental governance, as well as a moral assertion and political struggle.

¹¹⁰ Roberts, J. T., & Parks, B. C. (2007). *A climate of injustice: Global inequality, North–South politics, and climate policy*. MIT Press.

¹¹¹ Roy, D., & Datta, K. (2022). Community-based adaptation in the Sundarbans: Lessons for climate justice. *Local Environment*, 27(1), 1–19.

¹¹² Ashrafuzzaman, M., Gomes, C., & Guerra, J. (2022). Climate justice for the southwestern coastal region of Bangladesh. *Frontiers in Climate*, 4, 881709.

Climate Justice & Marginalized communities

The estimated 4.5 million people who live in the Indian Sundarbans (Census of India, 2021) are subject to unstable socioeconomic circumstances. Most are landless laborers, sharecroppers, or small and marginal farmers. Livelihoods are largely reliant on agriculture, fishing, honey collection, and forest products—activities that are extremely vulnerable to climate variability—because there are few industrial or formal employment opportunities. The Sundarbans' socioeconomic division is a reflection of larger disparities in rural India. The poorest households are disproportionately composed of members of lower castes, such as Scheduled Castes (SCs) and Scheduled Tribes (STs).¹¹³ These communities frequently live on low-lying, cyclone-prone islands with unstable land tenure and extremely limited access to essential services like roads, electricity, healthcare, and education. These groups were left to bear the brunt of the devastation caused by cyclones such as Aila (2009) and Amphan (2020) with little support or compensation from the state. These trends highlight how intricately geography, caste, and class shape vulnerability. Preexisting social hierarchies are exacerbated by the uneven distribution of climate impacts in the Sundarbans. The most disaster-prone areas are frequently inhabited by the poorest citizens, particularly those without official land rights.¹¹⁴ Families without land usually erect their huts next to embankments or beside tidal creeks, which are the areas most affected by erosion and cyclonic surges. In contrast, wealthier households can afford to rebuild after every disaster or live on relatively elevated land. Access to state resources for adaptation and relief is another area where distributive injustice is visible. Land titles or other identification documents that marginalized residents lack are frequently required by post-disaster compensation plans. In certain instances, marginalized groups—particularly widows, women-headed families, and migrant households—are ignored while politically connected households receive disproportionate aid.

Fairness in decision-making and involvement in environmental governance are referred to as procedural justice. Marginalized communities in the Sundarbans are routinely left out of these procedures. Programs for disaster management, conservation, and adaptation are frequently created and carried out by far-off entities—state agencies, non-governmental

¹¹³ Haque, C. E. (2019). Governance and climate resilience in the Sundarbans. *Climate Policy*, 19(7), 845–860.

¹¹⁴ Government of West Bengal. (2022). Sundarbans Development Board Report 2021–22. Kolkata.

organizations, and foreign donors—without adequate communication with impacted communities. For instance, after significant cyclones, embankment reconstruction projects are usually contracted out to outside organizations with minimal involvement from locals. Despite depending on these vital structures for protection, communities are rarely involved in the planning, design, or upkeep of these structures. In a similar vein, mangrove restoration initiatives occasionally limit customary fishing or honey harvesting, eliminating vital sources of income without providing sustainable substitutes. Historical power disparities are the root cause of this exclusive governance structure. Local residents were viewed as encroachers rather than stakeholders in the Sundarbans' long-standing top-down bureaucratic system, which was carried over from colonial forest administration¹¹⁵. As a result, residents who are marginalized do not have institutional representation or decision-making authority. Technocratic and donor-driven agendas frequently eclipse their expertise, needs, and priorities. Participatory governance—local committees, community-based disaster planning, and the inclusion of women and underrepresented castes in decision-making—would be necessary for true procedural justice. However, in reality, these mechanisms continue to be arbitrary, which serves to further marginalize those who are most impacted by the process.

Climate-vulnerable communities and the law

One of the world's most climate-vulnerable areas is the Sundarbans region, which straddles Bangladesh and India. Millions of locals' lives and means of subsistence are still in danger due to salinization, cyclones, and rising sea levels. Despite the fact that climate justice is frequently discussed in moral or ethical terms, legal frameworks that specify rights, obligations, and redress channels are essential to its realization. Law can either be a tool of protection or exclusion for the Sundarbans' marginalized communities, which include fishermen, landless laborers, and displaced families. Examining international climate obligations, constitutional rights, and domestic environmental law is necessary to comprehend the legal aspects of climate justice in this context. The right to life (Article 21),

¹¹⁵ Haque, C. E. (2019). Governance and climate resilience in the Sundarbans. *Climate Policy*, 19(7), 845–860.

which the Supreme Court has broadly construed to include the right to a clean and healthy environment, serves as the legal basis for climate justice in India. Important rulings like *M.C. Mehta v. Union of India* (1987) and *Subhash Kumar v. State of Bihar* (1991) established environmental protection as an essential component of fundamental rights.¹¹⁷ According to this interpretation, the state is legally required to protect the people of the Sundarbans from environmental damage and harm brought on by climate change. Furthermore, the state and citizens are required to safeguard and enhance the environment under the Directive Principles of State Policy (Articles 48A and 51A(g)).¹¹⁸ These clauses have influenced environmental governance and judicial activism even though they are not directly enforceable. However, poverty, illiteracy, and bureaucratic complexity frequently make it difficult for marginalized communities to access justice. In remote deltaic islands, the lack of localized legal support systems restricts their capacity to successfully assert their environmental rights. Climate justice and human rights law are related. Recurrent floods and displacement in the Sundarbans jeopardize internationally recognized rights, including the right to sufficient housing, food, and water.

Environmental and Disaster Management Laws

A number of laws pertaining to the Sundarbans are part of India's environmental protection legal framework. Resource use and conservation are governed by the Environment (Protection) Act of 1986, the Wildlife (Protection) Act of 1972, and the Forest Conservation Act of 1980¹¹⁹. However, these laws frequently put ecological preservation ahead of community rights, which leads to conflicts between local livelihoods and conservation objectives. For example, traditional fishing and honey gathering are restricted by forest access restrictions in the Sundarbans Biosphere Reserve, which disproportionately affect low-income households. A legislative framework for disaster relief and preparedness is provided by the Disaster Management Act of 2005. However, there are still implementation

¹¹⁶ Roy, D., & Datta, K. (2022). Community-based adaptation in the Sundarbans: Lessons for climate justice. *Local Environment*, 27(1), 1–19.

¹¹⁷ Klein, N. (2014). *This changes everything: Capitalism vs. the climate*. Simon & Schuster.

¹¹⁸ Bhattacharyya, D. (2018). *Empire and ecology in the Bengal delta: The making of Calcutta*. Cambridge University Press.

¹¹⁹ The Forest (Conservation) Act, 1980 is an important legislation enacted by the Parliament of India to provide for the conservation of forests and to regulate the diversion of forest land for non-forestry purposes.

gaps. Marginalized residents often have difficulty meeting documentation requirements, and compensation schemes are often delayed. Furthermore, the Act prioritizes immediate relief over long-term adaptation or climate resilience. It would be necessary to amend such laws to specifically include equity, participatory governance, and climate adaptation in order to take a justice-oriented approach.

International Legal Context and State Obligations

India is a signatory to a number of international treaties and conventions that support climate justice, such as the Paris Agreement (2015), the Kyoto Protocol, and the United Nations Framework Convention on Climate Change (UNFCCC).¹²⁰ The concept of "common but differentiated responsibilities" (CBDR), which acknowledges that developed countries have a greater responsibility to address climate change, is recognized by these agreements. It is still difficult to turn these international pledges into real protection for the Sundarbans' marginalized communities. The Paris Agreement's focus on loss and damage mechanisms as well as adaptation offers a possible legal path to restitution and resilience-building¹²¹. However, state governments and local authorities are not legally bound by these frameworks at the federal level.

The concept of environmental justice, which emphasizes sustainability and equity, has been used more frequently by Indian courts. One important organization for environmental adjudication is the National Green Tribunal (NGT), which was founded by the NGT Act (2010).¹²² Direct interventions tailored to the Sundarbans are still scarce, despite the fact that it has addressed a number of cases pertaining to the coast and forests. Legal remedies could be more inclusive if vulnerable groups are represented and access to the NGT is strengthened. The public trust doctrine, which holds the state accountable for protecting natural resources for the general public's use, is another tool that courts can employ. This idea could be applied in the Sundarbans to make sure that tourism or embankment reconstruction projects don't negatively impact ecosystems or forcibly uproot locals.

¹²⁰ The United Nations Framework Convention on Climate Change (UNFCCC) is the UN process for negotiating an agreement to limit dangerous climate change. It is an international treaty among countries to combat "dangerous human interference with the climate system"

¹²¹ Mukhopadhyay, A., & Ghosh, T. (2018). Social vulnerability and climate change in the Indian Sundarbans. *Climate and Development*, 10(6), 454–466.

¹²² NGT originated after the Stockholm and Rio De Janerio Convention from 186th Report of Commission of India (2003). It came into force on 8th Oct, 2010 was enacted to satisfy the need to alternative means to deliver speedy and inexpensive justice over environmental issues.

Suggestion

A comprehensive and justice-focused approach to climate adaptation is necessary in the Sundarbans region, which is characterized by ecological fragility and social inequality. Due to economic hardship, political marginalization, and restricted access to resources, marginalized communities—including women, fishermen, lower-caste groups, and landless laborers—face increased risks from climate change. Targeted interventions that integrate social empowerment, legal reform, participatory governance, and environmental protection are necessary to address climate injustice in the Sundarbans.

1. **Enhancing Socio-Economic Resilience:** Diversifying sources of income must be the first step in developing resilience. Communities in the Sundarbans are extremely vulnerable to salinization and ecosystem degradation because of their reliance on agriculture and fishing. It is possible to lessen the strain on natural resources and establish sustainable revenue streams by encouraging alternative livelihoods like handicrafts, ecotourism, small-scale aquaculture, and mangrove-based businesses. For these projects, government and non-governmental organizations should offer market connections, microfinance access, and skill development. Furthermore, it is essential to guarantee the security of land tenure. Many marginalized families are excluded from government welfare and compensation programs because they reside on embankments or unregistered lands without ownership documents. Regularization of land and inclusive rehabilitation.

2. **Enhancing Involved Governance:** Procedural fairness is a crucial component of climate justice. Local communities should be directly involved in adaptation planning and decision-making in the Sundarbans should be decentralized. In order to guarantee that marginalized voices—particularly those of women and minority groups—have an impact on policies that affect their lives, Panchayati Raj institutions and community-based organizations should be strengthened. Transparency and accountability should be promoted by giving local committees the authority to oversee the building of embankments, the restoration of mangroves, and disaster preparedness. In addition to preventing financial mismanagement, participatory monitoring can guarantee that relief supplies are distributed fairly during emergencies.

3. **Gender-Inclusive Adaptation Strategies:** Women are essential to adaptation efforts because of their roles in running households, gathering water, and maintaining food security. Their lack of participation in decision-making, however, reduces the efficacy of policies. It

is crucial to incorporate gender viewpoints into climate planning at all levels. This entails giving women the chance to lead village councils, expanding their access to credit and education, and assisting women-led cooperatives in diversifying their sources of income. Gender-specific needs, such as reproductive healthcare, shelter safety, and targeted financial assistance for widows and female-headed households, must also be addressed by post-disaster rehabilitation programs.

4. Legal Empowerment and Access to Justice: It is common for marginalized communities to be unaware of their legal and environmental rights. In the Sundarbans, the establishment of community paralegal networks and legal aid centers can enable locals to demand accountability, contest exclusion, and seek compensation. Civic engagement can be enhanced by environmental rights education provided by neighborhood NGOs and educational institutions. Cases involving unlawful land acquisition, poor rehabilitation, and environmental degradation should be given top priority by the National Green Tribunal and local courts. The most vulnerable groups will be protected if climate justice principles are incorporated into India's environmental and disaster management legislation.

5. Cross-Border and Policy Integration: Since Bangladesh and India share the Sundarbans, regional cooperation is crucial. Coordination of adaptation initiatives, early warning systems, and collaborative research can improve resilience across the border. Social protection measures like universal basic services, climate insurance, and compensation for displacement must also be incorporated into larger climate action plans. Bilateral environmental agreements that support research, biodiversity monitoring, and mangrove restoration are among the current efforts, as are joint river commissions that oversee water sharing and deal with riverbank erosion. By exchanging early warning systems and coordinating cyclone response plans, the two nations also work together on disaster preparedness. A major gap still exists in spite of these efforts: no legally binding framework has been created expressly to address cross-border climate justice or to guarantee the protection of vulnerable populations. Many marginalized communities are left without sufficient support during climate-induced crises due to the lack of enforceable mechanisms, which also limits accountability.

Conclusion

More than environmental preservation is needed to achieve climate justice in the Sundarbans; equity, acknowledgment, and involvement are also necessary. It is possible to

turn marginalized communities from victims of climate change into proactive agents of resilience by empowering them through livelihood support, inclusive governance, gender equity, and legal reform. Only when adaptation and development give priority to those who have historically been marginalized but continue to be the region's true custodians will sustainable justice in the Sundarbans become a reality. Even with a strong legal system, it is still difficult to ensure that marginalized Sundarbans communities receive justice under environmental and climate laws. Justice is weakened by the absence of a distinct legal category for climate displacement, the lack of community involvement in the creation of policies, and the lax enforcement of environmental regulations. Marginalized communities in the Sundarbans embody the human face of climate injustice. Environmental vulnerability, social inequality, and political exclusion are intertwined forces that shape their identities, lives, and means of subsistence. These dynamics can be better understood through the distributive, procedural, and recognition aspects of climate justice, which show how structural and historical injustices intensify the effects of climate change. Policies must shift from disaster management to social transformation redistributing resources, democratizing governance, and elevating marginalized voices in order to achieve true climate justice. As a result, the Sundarbans are both a place of suffering and a place of resistance, where the fight for environmental justice and the larger struggle for equity and human rights meet.

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