

Climate Change, Displacement, and Environmental Citizenship: A Political Ecology of the Assam Flood Crisis

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Abstract

Recurrent floods in Assam are typically framed as a natural disaster, but exposure, loss, mobility, and relief and recovery are socially and politically manufactured. The paper analyses the Assam flood situation of 2025 using a combined model of political ecology, climate displacement governance, environmental sociology and environmental citizenship, in comparison to the one in 2024. Qualitative content analysis of government memoranda, disaster management plans, policy instruments, national and international organization's scholarly research and publications are used. In 2025, 28 districts, 3,255 villages and 1,119,031 people were affected by the floods. 78,813 persons were hosted in relief camps and 36 people died due to floods, urban flooding and landslides. Such figures should be taken with a pinch of grain: the concept of affected population is distinct from that of evacuation; the stay in the camp is separate from the concept of migration and long-term displacement. It is claimed that the disaster is the result of the interaction of extreme monsoon conditions and a dynamic river system with historically built-up vulnerabilities such as river bank erosion, insecure tenure, fragile embankments, settlement in chars and low lying areas, livelihood dependence on land and inequitable access to public resources. While the state has enhanced its ability to save lives through relief and early warning, a response-centred approach is not sufficient to tackle landlessness, documentary precocity, cultural dislocation and long-term rehabilitation due to erosion. Flood displacement also remakes citizenship by creating a new emphasis on proof of residence, land and identity for claims for compensation, welfare and political membership. Environmental citizenship is thus envisioned as a rights-based, participatory relationship that sees vulnerable citizens not only as individuals who are responsible for their own environmental footprint, but also as a claimant for climate justice and a producer of knowledge about risk. The paper suggests a displacement-sensitive flood policy, portable entitlements, rights-based relocation, community participation, disaggregated data and long-term basin governance.

Keywords: Assam Floods, Climate Displacement, Climate Justice, Environmental Citizenship, Environmental Sociology, Political Ecology

1. Introduction

The Brahmaputra and Barak valleys have a natural history and ecological context of flooding. Soils, wetlands and fisheries are renewed each season from flooding, and channels are reshaped and soils are reorganized by channel migration and sediment transport. However, a crisis arises when a hydrological

event happens when there is unequal exposure, limited adaptive capacity, and development options which leave certain groups vulnerable. The starting point for political ecology is this difference. It queries not just the amount of rain, or the level of a river, but who was living on the most vulnerable land, how it was created, and whose losses were being recorded, what public works were deemed more important and who could transform public relief into lasting recovery.¹²

According to the official Assam Flood Memorandum 2025, there are three flood waves. Twenty-eight out of the state's 35 districts, 102 revenue circles and 3,255 villages were hit. Affected population: 1,119,031 persons; Relief camps: 381; Relief distribution centres: 1,782; Persons in camps: 78,813. Twenty-six river floods and one urban flood and nine landslides were blamed for the deaths. Crop, home, road, embankment, school, water system, and livestock damage occurred.³ By 2024, the official cumulative affected population was, however, approximately 4.296 million—a significant annual difference despite the fact that vulnerability is an annual occurrence.⁴ While the official data give the empirical baseline, they do not indicate whether households were able to get back home safely, move multiple times, or whether their land was lost permanently and they were socially displaced without moving away.

The term 'climate refugee' is often thrown around in the public discourse, but it is legally and analytically ambiguous for most of the people of Assam who are affected by flooding. Climate and environmental damage is not an autonomous basis of refugee status under the 1951 Refugee Convention.⁵ Very few of the flood-induced movements took place outside India and were best viewed as evacuation or disaster displacement, or internal migration, or planned relocation and/or erosion-induced landlessness. Climate change is also seldom a single, isolable cause. Rainfall, river morphology, erosion, poverty, livelihood dependency, land tenure, infrastructure, and conflict/household strategy are the factors that contribute to mobility.⁶⁷ In this paper, the notion of climate induced displacement is used as a relational category and not as a statement of monocausality.

The research aims at five objectives: to study the socio-economic and cultural effects of climate induced displacement; to understand the production of recurring vulnerability through the prism of political, ecological and developmental dimensions; to analyze environmental governance from a preparedness, relief, rehabilitation and resilience perspective; to examine the notion of citizenship, belonging and the state-citizen relations related to climate induced displacement and to situate Assam in the context of political ecology, environmental sociology, climate justice and climate migration. The main thesis is that

¹ Blaikie P., Cannon T., Davis I., Wisner B., *At Risk: Natural Hazards, People's Vulnerability and Disasters*, Second Edition, Routledge, 2004. <https://doi.org/10.4324/9780203714775>

² Robbins P., *Political Ecology: A Critical Introduction*, Second Edition, Wiley-Blackwell, 2012. <https://www.wiley.com/en-us/Political+Ecology%3A+A+Critical+Introduction%2C+2nd+Edition-p-9780470657324>

³ Assam State Disaster Management Authority, Assam Flood Memorandum 2025, Government of Assam, 2025. https://asdma.assam.gov.in/sites/default/files/swf_utility_folder/departments/asdma_revenue_uneecopscloud_com_oid_70/menu/document/assam_flood_memorandum_2025.pdf

⁴ Assam State Disaster Management Authority, Assam Flood Memorandum 2024, Government of Assam, 2025. https://asdma.assam.gov.in/sites/default/files/swf_utility_folder/departments/asdma_revenue_uneecopscloud_com_oid_70/menu/document/assam_flood_memorandum_2024_.pdf

⁵ United Nations High Commissioner for Refugees, *Convention and Protocol Relating to the Status of Refugees*, 1951 and 1967. <https://www.unhcr.org/media/convention-and-protocol-relating-status-refugees>

⁶ International Organization for Migration, *Institutional Strategy on Migration, Environment and Climate Change 2021-2030*, 2021. <https://publications.iom.int/books/institutional-strategy-migration-environment-and-climate-change-2021-2030>

⁷ Foresight, *Migration and Global Environmental Change: Future Challenges and Opportunities*, Government Office for Science, London, 2011. <https://assets.publishing.service.gov.uk/media/5a74b188e5274a3cb286582c/11-1116-migration-and-global-environmental-change.pdf>

the floods reveal a citizenship deficit, rather than an adaptation deficit. Stable belonging becomes the point of proof when the river is in an unpredictable state and for persons with repeated housing and land insecurity people are asked to make sure that they put their proof of belonging at risk every time. When the river is unpredictable with people losing their homes, land, and documents repeatedly, people are asked to make sure that they put their proof of belonging at risk each time.

2. Study Area and the Recent Flood Crisis

Assam is located in a riverine landscape, run by the Brahmaputra, the Barak and a vast system of tributaries coming down from the high rainfall areas. According to the state disaster plan, the rainfall is estimated to be in the range of 1,750 millimetres in the Plains and 6,400 millimetres in the hills. The narrow valleys receive water and sediment from upstreams areas and cause recurrent floods and erosion.⁸ According to the memorandum, the Brahmaputra has a total length of approximately 640 kilometres in the plains of Assam and is accompanied by many north and south bank tributaries. This geomorphology makes it impractical and undesirable to completely eliminate flooding.

There is differential risk in this area. Farmers living in chars, chaporis, wetlands, low embanked areas and in eroding river banks are experiencing the loss of their crops, houses, animals and roads on a recurring basis. The same water level can mean different things to agricultural labourers, small farmers, fishing households, communities of women, children, older persons, and persons with disabilities if they lack security of tenure or have few documents to prove their rights. A major concern with riverbank erosion is that it may be temporary (inundation) or permanent (erosion), removing a plot to which a family may want to return. The empirical research in the Brahmaputra valley link the erosion severity with poverty, informal employment, interrupted education, migration and deterioration of social and cultural fabric [9, 10].

Table 1: Official Snapshot of the 2024 and 2025 Assam Floods

Indicator	2024	2025	Interpretive Caution
Districts affected	35	28	Administrative coverage does not measure household severity
Villages affected	7,794	3,255	A village may be affected more than once across waves
Population affected	4,296,000 approximately	1,119,031	Affected persons are not automatically displaced persons
Relief camps and shelters	1,146	381	Camp counts exclude many who stay with kin or elsewhere
Relief-camp inmates	545,000 approximately	78,813	Camp residence is a flow measure, not proof of durable displacement

⁸ Assam State Disaster Management Authority, Assam State Disaster Management Plan 2022, Volume 1, Government of Assam, 2022. https://ndma.gov.in/sites/default/files/PDF/SDMP/assam_state_disaster_management_plan_volume_1.pdf

Indicator	2024	2025	Interpretive Caution
Flood, urban flood and landslide deaths	121	36	Mortality alone does not capture livelihood and cultural loss
Crop area affected	49,322.18 ha	7,958.12 ha	Recorded hectares do not capture all income effects

The source of the data is from Assam State Disaster Management Authority Flood Memoranda 2024 and 2025. Figures do not indicate the number of displaced persons in any particular country as a result of the crisis but are based on cumulative administrative counts.

The comparison highlights the need to consider recent as a time rather than a single day of catastrophe. Both seasons in 2024 and 2025 were notably high exposure seasons, and 2025 was also a season with widespread impact, albeit at lower levels. Repeation is an important factor: assets may increase in a house after the first year, only to decrease again after the second, in spite of the second year's overall reduction in assets. Environmental sociology brings focus to this recurring "social metabolism" of disaster, in which households continually convert savings, livestock, land and labor to short-term survival tools.

3. Theoretical Framework

3.1 Political Ecology

Political ecology is the study of environmental change in terms of relations of power, production and access. Hazards are seen as both material and political; what happens when it rains and the flow of the river is real, but land ownership, infrastructure development, state priorities, markets and past marginalization makes people vulnerable. When applied to Assam, the idea calls into doubt stories which argue that disasters are only caused by "unusual" rains or a "violent" river. It rather traces a chain of explanation from household losses to settlement patterns, embankment regimes, changes in land use upstream, managing sediment, planning development, and unequal political voice.

The framework also sheds light on the politics of scale. Local may experience a breached embankment, which can be due to age of infrastructure, procurement decisions, catchment processes and fragmented inter-state/transboundary basin governance. Likewise, the decision to relocate can be framed as a technical option, while decisions concerning the site, the period of stay and the access to compensation and livelihoods will decide whether or not relocation will actually alleviate vulnerability. Political ecology thus considers both the allocation of environmental costs and the power to determine what constitutes an acceptable level of risk.

3.2 Climate Displacement and Governance

Displacement governance relates to prevention, protection while in movement and durable solution after movement. Persons forcibly displaced by natural or man-made disaster and who are still in their own country are covered by the United Nations Guiding Principles on Internal Displacement. They confirm that they would provide protection from arbitrary displacement and rights in the event of displacement and return, resettlement or local integration.⁹ The Principles are not a treaty, but a rights based benchmark

⁹ United Nations, Guiding Principles on Internal Displacement, United Nations Office for the Coordination of Humanitarian Affairs, 2004. <https://www.unhcr.org/media/guiding-principles-internal-displacement>

for disaster governance. The Sendai Framework also emphasizes on risk knowledge, enhancing governance, investing in resilience, and reconstruction of damage (rebuilding better).¹⁰

There must be a categorical discipline when it comes to a governance lens. Evacuation is a movement done to prevent danger. Displacement is defined as forced displacement. Migration may be more choice, longer time perspective and livelihood strategy. Relocation is a process of transfer of programs, resettlement is a process of reconstruction of social and economic life. A camp closure does not constitute a durable solution, unless the safe environment, shelter, livelihood, public services, documentation and non-discrimination are made sustainable.¹¹ The difference is crucial in Assam where the erosion may make return a physical impossibility while the short inundation may leave the individual in a state of debt to creditors, disease and loss of assets.

3.3 Environmental Sociology

Environmental sociology is an interdisciplinary field that examines the interdependent connection between social structure and the environment. The treadmill of production perspective provides an understanding of how development systems can increase resource extraction and how environmental costs can be unevenly distributed, while the theory of risk-society emphasizes the creation of manufactured uncertainty and institutional conflict about expert knowledge.¹² These strategies are applicable to Assam's context given the growing construction of roads, towns and embankments, extraction, alteration of wetlands, and change in agriculture and a demand for hydropower and connectivity, which all contribute to flood risk. The issue is not "should not be developed" but "whose knowledge and losses are factored into the design of development."¹³

A single-household model of resilience is not paraded by environmental sociology. Capacity is entrenched in caste, class, gender, ethnicity, social networks, access to credit and public institutions. A land-holding family can recover from such an event in a different way than a tenant farmer, who is tied to daily labor and lacks transport and political connections. In so doing, social vulnerability is not a side issue but a fundamental aspect of disaster production.¹⁴

3.4 Environmental Citizenship

Environmental citizenship often is linked to obligations to curtail ecological damage at a level that goes beyond the local and private sphere.¹⁵ Citizenship, however, in the context of climate displacement should also be viewed as a space of rights, recognition and participation. Residents living in flood-affected areas are not only beneficiaries of the rescue, but also subject to behavioral education. They have rights to information, equality, safe homes, decent livelihoods, culture and involvement in decisions shaping their habitat.

¹⁰ United Nations Office for Disaster Risk Reduction, Sendai Framework for Disaster Risk Reduction 2015-2030, 2015. <https://www.undrr.org/publication/sendai-framework-disaster-risk-reduction-2015-2030>

¹¹ Inter-Agency Standing Committee, Framework on Durable Solutions for Internally Displaced Persons, Brookings Institution and University of Bern, 2010. https://interagencystandingcommittee.org/sites/default/files/migrated/2014-10/IDP_Durable_Solutions.pdf

¹² Schnaiberg A., The Environment: From Surplus to Scarcity, Oxford University Press, 1980. <https://archive.org/details/environmentfroms0000schn>

¹³ Beck U., Risk Society: Towards a New Modernity, Sage Publications, 1992. <https://uk.sagepub.com/en-gb/eur/risk-society/book203184>

¹⁴ Cutter S.L., Boruff B.J., Shirley W.L., Social Vulnerability to Environmental Hazards, Social Science Quarterly, 2003, 84 (2), 242-261. <https://doi.org/10.1111/1540-6237.8402002>

¹⁵ Dobson A., Citizenship and the Environment, Oxford University Press, 2003. <https://doi.org/10.1093/0199258449.001.0001>

In Assam citizenship and belonging can be facilitated through land papers, voter's register, identification documents, village recognition, and administrative confirmation. Documents can be lost, village geography can change and communities can be dispersed due to flood and erosion. Climate governance can thus generate differentiated citizenship: the citizen who can show that he has a documented and materialized stability has more chances to claim, while the citizen who has lost his land will be more likely to face suspicion, or even a delay in the administrative process. The Assam-centric analysis by Mauve illustrates the co-existence of contestation over the legitimacy and belonging of the migrant and the practice of climate migration governance. The analysis by Manuvie in Assam demonstrates how contestation over the migrant's legitimacy and belonging can co-exist with climate migration governance. The focus is on environmental citizenship to assess how institutions turn the affected into rights-bearing citizen or into the temporary recipient of compassion.

Table 2: Integrated Theoretical Framework and Analytical Questions

Framework	Central Concern	Question Applied to Assam	Expected Insight
Political Ecology	Power, access and production of vulnerability	Who bears flood and erosion risks, and who controls protection and relocation decisions?	Flood loss is socially distributed rather than naturally uniform
Displacement Governance	Protection across prevention, movement and durable solutions	Do evacuation, relief, return and rehabilitation protect rights over time?	Camp closure is distinguished from recovery
Environmental Sociology	Institutions, inequality and society-environment relations	How do class, gender, tenure, livelihood and infrastructure shape exposure and recovery?	Resilience is recognised as a social capacity
Environmental Citizenship	Rights, duties, participation, recognition and belonging	Can displaced residents claim entitlements and influence decisions despite lost land or documents?	Climate justice is linked to substantive citizenship

4. Research Methodology

A qualitative secondary data research design is used. Instead of an individual survivor, the unit of analysis is the institutional and scholarly articulation of flood vulnerability, displacement, governance and citizenship in Assam. Sources are Assam Flood Memoranda 2024, 2025, Assam State Disaster Management Plan, District documents, National documents, Statutory & Policy documents, Census documentations, Government documents, Papers published by peer-reviewed journals, Reports from International Organizations and Civil-Society Institutions. The timeframe of the principal temporal focus is 2024-2025, with the previous studies used to recognize structural and historical processes.

Qualitative content analysis was performed by five deductive coding domains that were based on the goals: consequences of displacement, production of vulnerability, preparedness and relief, rehabilitation and

resilience, citizenship and belonging. In these areas, topics for discussion included, among others, concepts that were repeated: erosion, tenure, camp, documents, livelihood, gender, participation, compensation, early warning and relocation. A second, theoretical stage de- and re-interpreted these codes in the four frameworks. Official numerical data were used descriptively and were not analyzed inferentially statistically since the source does not offer a harmonized household-level panel or a verified stock of persons still displaced.

To minimize the problems of a single institutional view, source triangulation was employed. Official memoranda are good sources for cumulative administrative response and for documented damage, but the types of memoranda are geared toward disaster operations and disaster funding, not to longitudinal displacement research. The scholarly research works do offer a household and political background, but tend to focus on specific districts or on previous periods. International frameworks articulate norms, and not necessarily local implementation. Claims, therefore, were restricted to those substantiated by the evidence.

There are four limitations to the study. First, primary interviews were not done which means that survivor voices are not presented via the primary voice of the survivor but through existing research. Second, disaster counts are not enough to determine climate attribution. Third, affected-person and camp-inmate numbers can be repeated across waves and do not include people living with their relatives or those who camped on their own. Fourth, the sources were compiled while outcomes of the rehabilitation programmes were ongoing in 2025. The results are therefore to be understood as a theoretically informed institutional analysis, not a causal estimate of climate migrants.

5. Findings and Discussion

5.1 Humanitarian Consequences of Displacement

Immediate and cascading losses result from flood displacement. In 2025, the memorandum stated that 7,958.12 hectares of affected crop land, hundreds of houses severely damaged, tens of thousands of houses partially damaged, losses to animals, road breaks, damage to water schemes and 683 damaged schools had been reported.¹⁶ The categories indicate that the mobility is not a stand-alone residential event. A family's departure from home can also result in the loss of seeds, stored grain, tools, livestock, and access to markets, as well as school continuity and access to safe water. Recovery costs may result in borrowing or distress sale of assets or insecure urban employment.

Political-economic impact of riverbank erosion is unique because it can destroy the household productive base. In Assam, research links erosion to the erosion of homestead and cropland, poverty, temporary and long-term migration, informal sector jobs, and disruption to education and transport.¹⁷ Another major change is in bargaining power due to landlessness. A cultivator can become a tenant, agricultural laborer or construction worker or rickshaw puller. Women can take on additional unpaid caring responsibilities, and copious responsibilities for collecting water and handling food provision; shelters may increase or exacerbate privacy, sanitation and safety issues for women. Children miss out on education and development and are at risk of ill health. The fact that these differential effects exist is what makes it

¹⁶ Manuvie R., *Climate Migration Governance and the Discourse of Citizenship in India*, T.M.C. Asser Press, 2023. <https://doi.org/10.1007/978-94-6265-567-6>

¹⁷ Savelli A., *Climate-related In-situ Displacement, Climate and Development*, 2026. <https://doi.org/10.1080/17565529.2026.2623631>

possible to reproduce intra-household inequality in aggregate household compensation without taking gender, age and disability into account.

Temporal poverty can be caused by repeated floods. When water goes down, workdays are not recovered, illness does not go away, tools are damaged and loan payments are still due. A household may look and sound like it is "back on its feet", but be economically "out of the game". In-situ displacement is useful here to describe the economic, emotional, ecological and political losses that can occur while remaining or returning to one's geographic location.¹⁸ Thus, income, debt, education, health and security of tenure should be part of durable-solution assessment in addition to residence.

5.2 Cultural Loss, Place and Belonging

Another aspect of displacement is a breaking of place-based social life. Villages manage kinship, worship, funeral, language, common resource and mutual aid. Cultural loss can be experienced even if houses are rebuilt elsewhere when a char is eroded or a settlement is dispersed. It's easier to measure monetarily physical structures than the loss of a sacred site, traditional fishing rights, neighbors' support or confidence that a village will survive.

This is because attachment to place accounts for the fact that repeated disasters do not necessarily lead to permanent out-migration. Residents can return as a result of local attachments to land, identity, occupation and community, or due to lack of viable alternatives. Mobility is not therefore to be equated with pure adaptation, and immobility with irrationality. Both may show restricted selection. A climate-justice perspective is one that asks whether people will be able to stay safe, whether they can move safely, and whether they will move if they want to, but rather than taking migration as a solution to the problem.

5.3 Political, Ecological and Development Production of Vulnerability

The official account accurately attributes major drivers as being intense monsoon rainfall, upstream catchments, and siltation, as well as a complex river system. It also mentions that many embankments were built in the 1950s and 1960s as a temporary solution and are not designed to last the required 25-50 years as intended.¹⁹ Political ecology also notes that the governance questions include maintenance and the prioritization of protection against breaches. Embankments can safeguard settlements and infrastructure but can also shift water, sediment and drainage loads. Their impact needs to be assessed over the floodplain as well as just the defended site.

Risk can be diminished and created from development. Roads offer evacuation facilities and market access, but can be a barrier to drainage if culverts are not sufficient. Wetlands are increasingly lost to urbanization and urban areas can worsen water logging. River-control works can help to stop erosion on one bank while changing it on another. Upstream land-use change and large infrastructure are possible causes of changes in runoff and sediment, but each causal statement needs to be supported through site-specific evidence. So it is not that all projects lead to floods, it is that the assessment of projects should cover cumulative, distributional and downstream effects, along with meaningful participation of exposed communities.²⁰

¹⁸ Intergovernmental Panel on Climate Change, *Climate Change 2022: Impacts, Adaptation and Vulnerability*, Cambridge University Press, 2022. <https://doi.org/10.1017/9781009325844>

¹⁹ National Disaster Management Authority, *National Disaster Management Plan 2019*, Government of India, 2019. <https://ndma.gov.in/sites/default/files/PDF/ndmp-2019.pdf>

²⁰ National Remote Sensing Centre, *Flood Affected Area Atlas of India: Satellite Based Study*, Indian Space Research Organisation and National Disaster Management Authority, 2023. https://ndma.gov.in/sites/default/files/PDF/FHA/Flood_Affected_Area_Atlas_of_India.pdf

These are local processes that are added to by the global climate context. The Intergovernmental Panel on Climate Change (IPCC) has determined that climate change is already impacting on weather and climate extremes and that exposure and vulnerability are disproportionately found in communities facing high exposure and low adaptive capacity.²¹ But climate change cannot be used as an excuse to avoid fixing governance problems. Labeled as climate-driven loss, adaptation finance can be mobilized, but the same can happen with ageing infrastructure, insecure tenure or exclusionary planning. Political ecology maintains global responsibility and local accountability in the same perspective.

5.4 Preparedness, Relief and the Limits of Response – Centred Governance

Important institutional capacity is evident in the 2025 preparedness system. Thematic coordination meetings were held by Assam State Disaster Management Authority, critical infrastructure and continuity of services reviewed, National Disaster Response Force (NDRF) and Assam State Disaster Response Force (ASDRF) teams are positioned, volunteers deployed, and Flood Early Warning System (FEWS) alerts disseminated with 12-48 hours advance warning. Prior to the onset of monsoon, over 4000 potential camps and shelter sites were identified.²² These measures are related to the Sendai priorities of risk knowledge and governance and preparedness.²³

But operational effectiveness is not limited to deployment. Warning should be conveyed in an accessible language and format, be trusted and be connected with transporting people, evacuating livestock, safe shelter and protection of documents. A technically correct alert is only minimally useful for a household that can't get rid of cattle, doesn't have a boat, or is afraid of thieves. Likewise, the quality of the camp should be assessed using water, sanitation and hygiene, disability access, education and grievance procedures, privacy, menstrual hygiene, and child protection. Women and marginalized residents' participation is not simply an optional extra, it is a means to recognize and understand operational risks that were not caught by centralized plans!²⁴

The biggest governance deficit is between relief and durable recovery. There is a difference between situations where disaster funds are organized around notified items and measurable damage, and situations of landlessness due to erosion, which require long-term land, housing and livelihood policy. Relocation of administrative relief camps can help to decrease administrative burden without providing a solution to the problem of displacement. Tracking households after return, local integration or relocation and repeated movement is essential for a rights-based approach. Recovery with build-back-better elements is a guiding principle of the National Disaster Management Plan²⁵ which needs to be supported by dedicated indicators and accountable institutions.

5.5 Environmental Citizenship and the State–Citizen Relationship

Citizenship can be fostered or undermined by disaster experiences. Recognition as a member of a protective polity may be communicated through rescue, early warning and accessible relief. Exclusion

²¹ United Nations Framework Convention on Climate Change, Paris Agreement, 2015. https://unfccc.int/sites/default/files/english_paris_agreement.pdf

²² National Disaster Management Authority, India Sendai Framework for Disaster Risk Reduction Midterm Review Report, Government of India, 2023. <https://ndma.gov.in/sites/default/files/PDF/India-SFDRR-Midterm-Review-Report.pdf>

²³ Government of India, Disaster Management Act 2005, India Code, 2005. <https://www.indiacode.nic.in/handle/123456789/2045>

²⁴ Gogoi A., Assessment of Climate Change, Rainfall Variability, and Displacement: Insights from Assam, India, International Journal of Environment and Climate Change, 2026, 16 (6), 226-238. <https://doi.org/10.9734/ijecc/2026/v16i65489>

²⁵ Dekaraja D., Mahanta R., Riverbank Erosion and Migration Inter-linkage: With Special Focus on Assam, India, Environmental Systems Research, 2021, 10, Article 6. <https://doi.org/10.1186/s40068-020-00214-0>

from lists, demands for 'Flooded papers', delayed compensation or relocation without consultation, however, can cause ecological loss to become civic marginalization. DP is seen over and over again by the state in the registration of camps, verification of damages, land claims, school enrollment, and in the delivery of food and electoral identity.

This connection is particularly significant in the context of political contestation of belonging. Individuals whose land has been eroded might not have a fixed residence, but could have persistent social and political connections. When systems of eligibility are aligned with certain territories and unaltered documents, mobility along rivers becomes an administrative red flag. Documentary resilience is, then, a precondition of environmental citizenship: digitized and retrievable records, alternative forms of evidence, portable entitlements and a refusal to exclude based on obvious failure to provide conventional proof of residence due to the disaster.²⁶

Voice is a part of citizenship. The residents are knowledgeable on erosion fronts, drainage routes, safe raised ground, vulnerable persons, and the performance of previous works. This knowledge can be used as evidence in making public decisions and in redistributing epistemic authority. The social audit for relief, participatory selection of relocation sites, village-level risk mapping and representation in embankment and wetland planning would make affected people co-governors rather than recipients. Such participation needs to be meaningful: information needs to be shared prior to decision making, reasons need to be documented, dissent should be protected and the final decision should be reviewable in the event of a grievance.

5.6 Climate Justice and Multi-scalar Responsibility

Assam's case connects local distributive justice to the global climate justice. Low-emission communities can suffer significant adaptation and loss and damage costs. The Paris Agreement acknowledges the need to prevent, reduce and compensate for loss and damage, and highlights adaptation and the needs of vulnerable groups.²⁷ The national and international financial resources should, therefore, not only cover emergency repair but also resilient housing, ecosystem restoration, diversification of livelihoods and culturally appropriate measures of relocation when unavoidable, and build on systems of data.

Justice also has a procedural and a recognition aspect. Distribution questions the beneficiaries of protection and compensation. Who decides (procedure) Recognition is a set of questions about the status of char dwellers and indigenous communities as legitimate knowers and citizens; migrants; women; informal workers. Corrective justice asks what obligations we have today based on the decisions made in history and on-going neglect. Political ecology and environmental citizenship are each needed to diagnose inequality in power; and each specifies a democratic relationship in which such power can be contested.

6. Recommendations

6.1 Adopt a Displacement-sensitive Assam Flood Policy

A state protocol should establish and document separately the evacuation, residence in a camp, self relocation, return, repeated displacement, permanent displacement due to erosion, and planned relocation and implementation of a durable solution. Household level identifiers should provide privacy and not be used for double counting across waves. Disaggregated data according to gender, age, disability, social

²⁶ Government of Assam, Assam Human Development Report 2014: Managing Diversities, Achieving Human Development, 2014. <https://sita.assam.gov.in/portlets/assam-human-development-report-0>

²⁷ Assam State Disaster Management Authority, Assam State Disaster Management Plan 2022, Volume 1, Government of Assam, 2022. https://ndma.gov.in/sites/default/files/PDF/SDMP/assam_state_disaster_management_plan_volume_1.pdf

group, tenure and district should be available on public dashboards. This should be updated after the monsoon to reflect those who are not making safe and sustainable recovery.²⁸

6.2 Create an Erosion & Durable Solutions Register

Administratively collapsing flood inundation and riverbank erosion are not warranted. The documentation of a geo-referenced register should include information on land and homestead loss, location, compensation, housing, livelihood and access to services. Registration should not be a citizenship or title measure, but should establish a record trail to guide assistance and policy. Households excluded from initial surveys should have their exclusion reviewed and appealed.

6.3 Make entitlements portable, documents recoverable

Distributing food, health care, pensions, school access and social protection should accompany displaced households wherever they go, in districts and temporary locations. Important records must be safely digitized; other alternative records must be kept offline and verified in the community. No one should be deprived of critical relief in cases where an identity or land document was lost. Documentation camps and mobile legal-aid in the aftermath of the disaster should form part of a recovery process.

6.4 Transitions from Site Relocation to Rights-based Resettlement

For people whose return is unsafe or impossible, relocation should be voluntary, informed and participatory, unless there are very narrowly drawn emergencies. The sites should be held securely, and there should be access to water, sanitation, schools, health facilities, transport and common space, as well as viable livelihoods, and housing should be flood-safe. Relocation of groups to a preferred location should be based on cultural and community continuity. Infrastructure support for host communities to avoid competition and stigma. Outcomes need to be reviewed for several years beyond the handover, not just until the hand-over.

6.5 Establish Structural and/or Ecosystem-based Risk Reduction

Wetland protection, floodplain zoning, drainage restoration, raised shelters, resilient housing and room-for-the-river approaches should be used in conjunction with embankment safety audits and maintenance disclosure and independent post-break review. Project appraisal should consider cumulative & cross-bank impacts. Coordinated Basin operations with neighboring states and countries should build on good data sharing, communication about forecasts, and planning for sediment, acknowledging local livelihoods.

6.6 Institutionalise Environmental Citizenship

District and village disaster institutions must have significant representation of the women, char and riverbank communities, indigenous groups, persons with disabilities, youth and livelihood collectives. It is recommended that participatory risk maps are formally taken into account in plans. Social auditing is recommended for Relief lists, Damage assessment and Rehabilitation projects. Time-limited grievance systems and published reasons and independent appeal should make participation into accountability.

6.7 Finance Long-term Resilience and Research

Anticipatory action, resilient public infrastructure, livelihood diversification, mental-health and longitudinal displacement studies should be covered in funding. Ethical panel studies should be created in universities, government and civil society institution that tracks households over seasons. While climate attribution science could contribute to wider financing claims, eligibility for individual movements should

²⁸ Juned F., Natural Disaster and Displacement in Assam: A Review of Disaster Management and Rehabilitation, Social Policy Research Foundation, 2022. <https://sprf.in/wp-content/uploads/2022/09/DID-IB.pdf>

be based on loss and vulnerability experienced by households, not the impracticable task of attributing an individual movement to climate change.

7. Conclusion

The recent Assam flood situation is an example of how the two are not the same: Flood hazard and social disaster. However, the scale and duration of the loss is determined by the availability of places to live, assets of people, the condition of infrastructure, the type of damage that institutions can account for, and whether substantive rights are restored in recovery. The 2025 season impacted over 1.1 million people in 28 districts and the 2024 season reached about 4.3 million people. Such figures do not indicate the severity of exposure nor can they be read as the number of climate refugees, but they do set an indication of the scale and frequency of exposure.²⁹

The integrated theory provides 4 conclusions. Political ecology explains vulnerability as a result of unequal power, development, and access to protection. The displacement governance exposes the discrepancy between the short and long term solution. Environmental sociology is a theory that addresses the ways in which livelihoods, institutions and social inequalities shape hydrological events into differential crises. Environmental citizenship shows how to make loss of place a threat to place itself, to be recognized, to belong, to claim the state.

To achieve a just transition from relief to resilience, the capacity to stay safe, move with dignity, and return or resettle on one's own terms must be preserved. It should recognize the rights of displaced people and them as co-creators of environmental knowledge. The challenge for Assam is to construct institutions that can live with a dynamic flood plain without constantly shifting the costs of this dynamism from those with the least power.³⁰

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²⁹ Internal Displacement Monitoring Centre, Global Report on Internal Displacement 2026, 2026. <https://www.internal-displacement.org/global-report/grid2026/>

³⁰ World Bank, Groundswell Part 2: Acting on Internal Climate Migration, World Bank, 2021. <https://openknowledge.worldbank.org/handle/10986/36248>

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