



## LIVING ON THE EDGE: A THEMATIC REVIEW OF SOCIOECONOMIC VULNERABILITIES IN ASSAM'S CHAR AREAS

Debasmita Deka<sup>1</sup> & Prof. Anjan Bhuyan<sup>2</sup>

### RESEARCH ARTICLE



#### Author Details:

<sup>1</sup> Research Scholar, Department of Business Administration, Tezpur University, Assam & Assistant Professor, Department of Economics, Haflong Government College, India;  
<sup>2</sup> Professor, Department of Business Administration, Tezpur University, Assam, India

#### Corresponding Author:

Debasmita Deka

#### DOI:

<https://doi.org/10.70096/tssr.250306012>

#### Abstract

The char areas of Assam- riverine islands formed by the Brahmaputra river are the most socioeconomically backward and environmentally fragile regions in Northeast India. Floods, erosion, and inadequate infrastructure have resulted in chronic poverty, displacement, and marginalization of char community in Assam. Despite these limitations, scholarly attention is still limited in this area. This study includes a thematic review of 26 peer-reviewed publications (2012-2025) obtained from the Scopus database, aiming to synthesize existing literature and identify key areas of concern. Six major themes emerged: i. environmental and climate vulnerability, ii. livelihood insecurity and land erosion, iii. gendered vulnerability and health, iv. borderland politics and identity, v. migration and displacement, and vi. development deficit and infrastructure gaps. These themes are intricately linked, reflecting the multidimensional deprivations faced by char communities. The study advocates for an inclusive, interdisciplinary approach to research and policy-making in order to better understand and address the complex realities of char communities of Assam.

**Keywords:** Chars, Brahmaputra, Poverty, Vulnerability, Livelihood, Migration

### Introduction

Char regions are temporary riverine landforms generated by sediment deposition in big, braided river systems. These landmasses, also known as sandbars, are formed by natural fluvial processes such as erosion, accretion, and seasonal flooding. Chars are naturally unstable and transitory, with their location, size, and topography shifting in response to the river's dynamic flow and sediment load. In Assam, these chars are a notable feature of the Brahmaputra valley, generally located in isolated areas that are cut off from the mainland for the most of the year. Their temporary and shifting nature poses unique challenges for both settlement and governance.

Char dwellers face severe social and economic marginalization. These places often lack stable land tenure systems, formal infrastructure, access to basic amenities (healthcare, education, transportation), and state legal recognition (Bhagabati & Deka, 2022). Most char residents work in subsistence agriculture, fishing, or livestock rearing, all of which are severely subject to seasonal floods and soil degradation. The communities are frequently characterized as illegal immigrants or encroachers, resulting in further exclusion from development programs and citizenship benefits (Chakraborty, 2012; Sur, 2020). These areas are subjected to frequent flooding, riverbank erosion, and displacement, which exacerbate chronic poverty, land insecurity, and underdevelopment.

Despite these concerns, academic research on chars remains scattered among disciplines such as environmental science, agriculture, health, and migration studies, with minimal attempts to integrate findings. Much of the existing work focuses on single issues like displacement, erosion, and livelihoods, without investigating how they are interconnected and impacted by larger mechanisms of environmental governance, identity politics, and systemic neglect. Thematic reviews help to organize scattered and diverse studies by identifying common patterns, grouping similar findings together, and highlighting areas where more research is needed (Nowell et al., 2017; Maguire & Delahunt, 2017). This method has been especially useful in socio-environmental research, where overlapping challenges necessitate an integrated viewpoint (Terry et al., 2017; Khan et al., 2022). A thematic approach can help in understanding complex issues of the char areas in Assam, which includes environmental risks, livelihood instability, and institutional neglect. Therefore, a thematic study is both timely and required for critically synthesizing this fragmented body of literature and providing a more comprehensive knowledge of the socioeconomic realities in Assam's char regions.

This present study aims to identify and categorize the main themes emerging from existing literature on the socio-economic and environmental conditions in Assam's char areas. It further explores how these themes are interconnected and how they collectively reflect the complex, layered nature of deprivation faced by communities in these regions. In doing so, the review also highlights critical gaps in the current body of research and offers insights to guide future studies toward a more comprehensive and context-sensitive understanding of vulnerability in the char regions.

The paper is structured into seven main sections. Following the introduction, Section 2 outlines the methodology, detailing the data sources, search strategy, screening criteria, and thematic analysis process. Section 3 presents the thematic findings, categorized into six interconnected areas: environmental and climate vulnerability, livelihood insecurity and land erosion, gendered vulnerability and health, borderland politics and identity, migration and displacement, and development deficit and infrastructure gaps. Section 4 discusses the broader implications of these themes, emphasizing their interconnectedness and systemic nature. Section 5 identifies key research gaps and proposes future directions, while Section 6 offers policy recommendations to address the multifaceted challenges in Assam's char regions. Section 7 highlights the study's limitations, and the paper concludes by summarizing the main insights and advocating for inclusive, context-sensitive approaches to char development.

## **Methodology**

**Data Source:** Scopus was chosen as the main source of data for this study because of its thorough coverage, organized metadata, and reliability which are essential for carrying out an exhaustive thematic literature assessment. While Google Scholar can retrieve a larger volume of documents, including grey literature such as reports, and conference papers, its lack of transparency in indexing, inconsistent metadata, and limited filtering options make it unsuitable as the primary source for systematic or thematic reviews (Haddaway et al., 2015; Gusenbauer & Haddaway, 2020). Scopus, on the other hand, provides a curated database of peer-reviewed literature with advanced capabilities such as citation analysis, keyword mapping, and thematic clustering—all of which are useful for spotting research trends and gaps (Baas et al., 2020). Furthermore, when compared to databases such as Web of Science, Scopus includes a broader selection of journals, particularly from the Global South and development-related disciplines, which is critical for investigating localized and underrepresented topics (Mongeon & Paul-Hus, 2016). Thus, while Google Scholar provides more content, Scopus was chosen for its academic rigor, reproducibility, and analytical depth.

**Search Strategy:** A structured search strategy was used to identify relevant academic literature on the socioeconomic dimensions of char areas in Assam. The search was carried out in Scopus's basic search field with the following keyword combination: "char areas" AND "Assam" AND ("livelihood" OR "poverty"). The term "char areas" was used to describe studies that focused on riverine islands, also known as chars, which are ecologically fragile and socioeconomically marginalized places formed along the Brahmaputra River. These areas are uniquely vulnerable and are often underrepresented in academic discourse. The addition of "Assam" was intended to geographically delimit the search to the Indian state where such formations are both numerous and significant, thereby enhancing the contextual relevance of the retrieved studies. The thematic keywords "livelihood" and "poverty" reflect the core dimensions of socioeconomic vulnerability that char dwellers commonly experience. The Boolean operator OR was used to connect these terms to ensure comprehensive coverage of literature addressing either economic survival strategies or broader aspects of deprivation and marginalization. This keyword strategy was carefully chosen to balance specificity with inclusiveness, allowing the identification of empirical and theoretical contributions directly relevant to the study of poverty and livelihood dynamics in Assam's char areas.

**Screening and selection:** The Scopus database initially returned 56 documents in response to the keyword search. The retrieval of only 56 documents from the Scopus database is justified by the regional and highly localized focus of the study, which concentrates specifically on the char areas of Assam—a niche subregion within broader environmental and development research. Char areas are ecologically fragile and socially neglected locations, therefore scholarly research on them is rare, particularly in Scopus-indexed journals. Much of the current literature is published in regional or non-indexed journals, exists as grey literature, or is framed in fields other than Scopus' core coverage areas. Scopus indexes primarily high-quality, peer-reviewed international journals, so the limited number reflects the general underrepresentation of region-specific studies from the Global South, particularly those dealing with ecologically fragile and socially marginalized geographies like the Brahmaputra's riverine islands. Additionally, the use of refined and relevant keywords ensured that only conceptually aligned and thematically appropriate articles were included. As a result, the 56 identified documents indicate a conceptually confined but contextually rich body of study, which is consistent with the field's growing and interdisciplinary nature.

To ensure consistency with the theme of socioeconomic vulnerability, a two-phase manual screening process was used. During the initial screening, all records retrieved from the Scopus database—after removing duplicates and irrelevant entries—were reviewed at the title and abstract level to assess preliminary relevance. Records were omitted at this stage if they focused on char regions outside Assam (e.g., Bangladesh, West Bengal, or Bihar), examined socio-economic vulnerabilities of other communities (such as tea tribes, hill populations, or urban poor), were unrelated to the thematic focus (e.g., technical studies without a human or social context), or were review papers, as the study prioritized original empirical research. In certain situations, especially with book chapters and research notes (field reports), when abstracts were not present, the introduction and conclusion parts were assessed for relevance. This ensured that inclusion selections were performed following consistent criteria. Only chapters and notes that addressed socioeconomic vulnerabilities and actively discussed the backdrop of Assam's char areas were chosen

for full-text review. This stage tried to identify research that focused on the char areas of Assam and addresses primarily socioeconomic issues. This approach enables the inclusion of contextually rich content while maintaining methodological rigor.

In the second phase, the full texts of the remaining 26 studies were reviewed for conceptual relevance, with a focus on how they addressed socioeconomic issues affecting char communities. Finally, 26 studies were selected for thematic analysis. While limited in quantity, this sample was deemed reasonable given the unique and under-researched nature of Assam's char regions. These 26 studies provided diverse but complementary perspectives on multiple dimensions of vulnerability, including the environment, health, gender, livelihoods, identity, and displacement, allowing for a thorough thematic synthesis. The review's purpose was not to generalize findings statistically, but to investigate recurring patterns, gaps, and insights within a specific body of literature, which this selected group of papers sufficiently supported.

The PRISMA flow diagram provides a visual summary of the selection process (Figure 1).

Figure-1

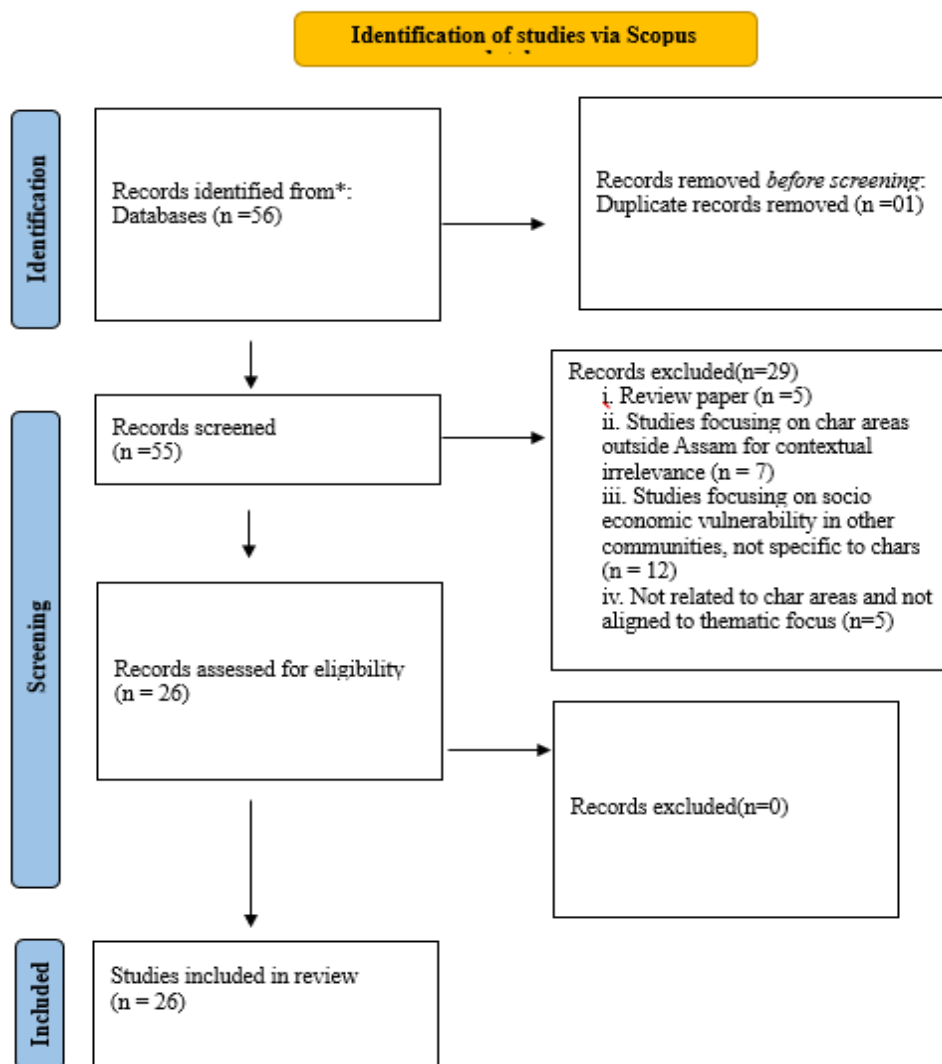


Table I provides a comprehensive list of the included studies, along with their citation tags, titles, publication years, and source titles.

Table-I

No	Citation	Title	Year	Source Title
1	Sur, M. (2020)	TIME AT ITS MARGINS	2020	Cultural Anthropology
2	Chakraborty, G. (2012)	The 'ubiquitous' Bangladeshis	2012	Economic and Political Weekly
3	Chakraborty, G. (2017)	The char dwellers of Assam	2017	Water Conflicts in Northeast India
4	Das, S. (2023a)	Navigating fieldwork amidst my menstrual cycle	2023	Women Practicing Resilience

No	Citation	Title	Year	Source Title
5	Das, S. (2023b)	Bringing and Being a 'Kaim-bride'	2023	Ecology, Economy and Society
6	Das, S. (2025)	Gendered vulnerability of community health workers	2025	Handbook on Sex, Gender and Health
7	Saikia, M., & Mahanta, R. (2023a)	Livestock, livestock loss and livelihood: a note on Mishing char dwellers of Assam	2023	Society Register
8	Saikia, M., & Mahanta, R. (2023b)	Does Livestock Loss Affect Livelihood? An Investigation on Char Residing Mishing Community of Assam	2023	International Journal of Community Well-Being
9	Saikia, M., & Mahanta, R. (2024a)	Why do people live in disaster-prone char regions? Perspectives from Assam, India	2024	Discover Global Society
10	Saikia, M., & Mahanta, R. (2024b)	An application of adjusted livelihood vulnerability index to assess vulnerability to climate change in the char areas of Assam, India	2024	International Journal of Disaster Risk Reduction
11	Saikia, M., & Mahanta, R. (2024c)	Riverbank Erosion and vulnerability – A study on the char dwellers of Assam, India	2024	Natural Hazards Research
12	Saikia, M., & Mahanta, R. (2024d)	Institutions' adaptability in reducing vulnerability: a study in the char lands of Assam	2024	Environment Systems and Decisions
13	Saikia, M., & Mahanta, R. (2024e)	Can institutions reduce the vulnerability to climate change? A study on the char lands of Assam, India	2024	GeoJournal
14	Saikia, M., & Mahanta, R. (2025)	An assessment of the nature and structure of institutions in the char areas of Assam, India	2025 2020	Asian Ethnicity Remote Sensing Applications: Society and
15	Talukdar, G., Sarma, A.K., & Bhattacharjya, R.K. (2020)	Mapping agricultural activities and their temporal variations in the riverine ecosystem of the Brahmaputra River using geospatial techniques		Environment
16	Talukdar, G., Sarma, A.K., & Bhattacharjya, R.K. (2021)	Sediment analysis and modelling based approach for optimal allocation of riverine sandbar for socio economic benefits	2021	Ecological Engineering
17	Bhagabati, A.K., & Deka, N. (2022)	Char Landscape of the Brahmaputra Riverine Tract, Assam: Elements of Evolution and Cultural Ecology	2022	Advances in 21st Century Human Settlements
18	Barman, P., Sarkar, B., & Islam, N. (2025)	Livelihood assessment through the sustainable livelihood security index in Majuli river Island, Assam	2025	GeoJournal
19	Kumar, B., & Das, D. (2019)	Livelihood of the Char Dwellers of Western Assam	2019	Indian Journal of Human Development
20	Saha, J. (2023)	The Pattern of Morbidity and Access to Healthcare Service in the Riverine Flood-prone Villages of Assam, India	2023	Open Public Health Journal
21	Sheikh, S.A., & Datta, K. (2022)	Poverty and microfinance in char areas of Dhubri district in Assam	2022	Research Anthology on Microfinance Services

No	Citation	Title	Year	Source Title
				and Roles in Social Progress
22	Misra, R. (2019)	From Farmland to Wasteland: A Study of Out-migration	2019	Indian Journal of Labour Economics
23	Momin, H., & Chakraborty, G. (2023)	INSIGHTS FROM THE FIELD Measuring Impermanence: A Community Perspective on Char Land	2023	Ecology, Economy and Society
24	Jagnoor, J., Bhaumik, S., Christou, A., Azad, A. K., & Ivers, R. (2020)	Weaved into the fabric of life: A qualitative exploration on impact of water-related disasters in the Char Community of Assam, India	2020	International Journal of Disaster Risk Reduction
25	Maity, S. (2020)	Public distribution system and food security: evidence from Barpeta district, Assam	2020	Development in Practice
26	Begum, S., Das, A.K., Hussain, A., & Kumar, M.S. (2025)	Living in transient riverine environment: environmental stressors and opportunities in the braid bars of Brahmaputra River	2025	Natural Hazards

After a thorough screening process, 26 documents were deemed appropriate for thematic analysis. To find recurrent themes, important issues, and research gaps, these texts were manually reviewed by carefully reading and taking notes. A manual thematic approach was used in place of formal coding software or inductive coding techniques, where patterns were recognized based on repeated references to specific issues. After that, the themes were categorized and arranged according to their frequency and conceptual significance, which served as the basis for the findings and discussion sections of this review’s structure.

Manual thematic analysis is best suited for dealing with a moderate number of documents and keeping the researcher closely engaged with the data (Nowell et al. 2017). Manual coding was used for this thematic review because of the manageable volume of literature and the context-specific nature of the research focus. The dataset, which included only 26 documents after rigorous screening, was large enough to allow for in-depth, hands-on analysis without the use of computer-assisted software.

**Time frame (2012–2025):** The 2012–2025 timeframe was chosen to capture a critical period of scholarly and policy engagement with the socioeconomic vulnerability of Assam’s Char areas. Since 2012, there has been a significant increase in interdisciplinary and region-specific research focusing on poverty, flood-induced displacement, erosion, livelihood insecurity, and gender-based marginalization in Assam’s Char regions (Choudhury, 2013; Mahanta & Das, 2018). This time period also coincides with significant global policy developments, such as the adoption of the Sustainable Development Goals (SDGs) in 2015 and the Sendai Framework for Disaster Risk Reduction, which have influenced academic and policy attention to inclusive and climate-resilient development (UNDRR, 2015; United Nations, 2015).

Furthermore, around 2012, databases such as Scopus became more comprehensive and reliable for retrieving peer-reviewed and thematically coherent literature, making systematic reviews more methodologically robust (Gusenbauer & Haddaway, 2020). Previous research, while valuable, was frequently brief, fragmented, or inaccessible, and lacked the consistency required for a rigorous thematic assessment. This time frame ensures that the review is based on high-quality, relevant, and up-to-date research.

### Thematic Findings

This section outlines the main themes that came out of the literature review on the socioeconomic vulnerabilities in the Char areas of Assam. A thematic synthesis of 26 chosen documents revealed six main areas of concern: environmental and climate vulnerability, livelihood insecurity and land erosion, gendered vulnerability and health, borderland politics and identity, migration and displacement, and development deficit and infrastructure gaps. These themes were chosen due to their frequent appearance in the literature, their connection to char communities’ real-world experiences, and their wider significance for development planning. The essential concerns and illustrative sources related to each of these themes are highlighted in Table II. The subsequent subsections explore each theme in detail.

**Table-II**

Theme	Key Focus	Representative Studies
Environmental and Climate Vulnerability	Floods, erosion, climate change impacts, vulnerability indices	Jagnoor et al. (2020); Talukdar & Sarma (2020) Talukdar & Mahanta (2021); Bhagabati & Deka (2022); Saikia & Mahanta (2024a); Saikia & Mahanta (2024b); Saika & Mahanta (2024c).

Theme	Key Focus	Representative Studies
Livelihood Insecurity and Land Erosion	Livestock loss, agricultural instability, erosion-induced displacement	Chakraborty (2017); Kumar and Das (2019); Maity (2020); Bhagabati & Deka (2022); Momin & Chakraborty (2023); Saikia & Mahanta (2023a); Saikia & Mahanta (2023b); Barman et al., (2025)
Gendered Vulnerability and Health	Women’s health, ASHA workers, gendered labor, healthcare access	Chakraborty (2017); Sur (2020); Sheikh & Datta (2022); Saha (2023); Das (2023a); Das(2023b); Das (2025); Barman et al., (2025);
Borderland Politics and Identity	Surveillance, identity politics, ‘Bangladeshi’ discourse, citizenship	Chakraborty (2012); Chakraborty (2017); Sur (2020); Saikia and Mahanta (2025)
Migration and Displacement	Displacement due to erosion, floods, and socio-political exclusion	Chakraborty (2017); Misra (2019); Kumar and Das (2019); Bhagabati & Deka (2022); Saikia & Mahanta (2024a); Begum et al. (2025)
Development Deficit and Infrastructure Gaps	Poor access to healthcare, roads, education, financial institutions and basic services	Maity (2020); Sheikh & Datta (2022); Bhagabati & Deka (2022); Das (2023a); Das(2023b) Saikia & Mahanta (2024d); Saikia and Mahanta (2024 e); Saikia and Mahanta (2025);

**Environmental and climate vulnerability:** A growing body of academic work highlights how environmental and climatic stresses influence the vulnerability of char communities in Assam. Jagnoor et al. (2020) reveals how recurrent floods and erosion in Assam’s char areas create a continuous cycle of environmental vulnerability, rendering disasters a permanent feature of daily life. In the same year, Talukdar and Sarma (2020) propose a sediment analysis and modeling-based approach to optimize riverine sandbar distribution. Their work provides a scientific foundation for sustainable land use planning that could enhance the socioeconomic resilience of char communities. In a follow-up study, Talukdar and Sarma (2021) examine how hydrological interventions and shifting sedimentation patterns are altering river dynamics in Assam, leading to increased unpredictability in flood episodes and exacerbating ecological instability.

Building on these concerns, Saikia and Mahanta’s (2024) series of studies provide more targeted insights into environmental risks in Assam’s char regions. In 2024a, they explore the persistence of habitation in disaster-prone areas, citing economic dependency, cultural bonds, and institutional indifference as key drivers. In 2024b, they construct an Adjusted Livelihood Vulnerability Index to analyze how floods and erosion alongside inadequate adaptive capacity heighten household risk. Finally, in 2024c, they focus on the implications of riverbank erosion, highlighting how land loss and displacement cause long-term disruptions to livelihoods. Collectively, these studies demonstrate how natural hazards, when intersecting with weak governance, deepen the vulnerability of char communities in Assam.

**Livelihood Insecurity and Land Erosion:** The issue of livelihood instability is closely related to environmental risk. The main sources of income for the people living in char areas are farming, raising livestock, and fishing. However, the biophysical changes in the terrain pose a serious threat to these livelihoods. Chakraborty (2017) provides an early account of how chars’ geomorphic instability—especially frequent erosion and accretion—undermines long-term investment in agriculture, discourages land development, and keeps communities trapped in subsistence-level activities.

Building on these concerns, Kumar and Das (2019) argue that recurrent land loss due to erosion, small landholdings, and large household sizes severely undermine livelihoods in western Assam, pushing households into poverty and seasonal migration. Maity (2020) adds that in Barpeta’s char regions, frequent floods and erosion disrupt agricultural activities, leading to chronic food insecurity among marginal and landless farmers. Bhagabati and Deka (2022) emphasize that erosion not only strips people of fertile land but also detaches them from legal land records critical for accessing welfare schemes.

Momin and Chakraborty (2023) explore how unstable land tenure, driven by constant erosion and accretion, fuels livelihood insecurity and land disputes. Their study highlights community-led responses to manage land conflicts amid the absence of effective institutional frameworks. Saikia and Mahanta’s (2023a, 2023b) work illustrates how livestock loss from floods and erosion intensifies economic vulnerability, reducing income and food security and triggering distress migration. Their more recent study (2024c) links riverbank erosion to widespread landlessness and the collapse of traditional livelihoods. Most recently, Barman et al. (2025) demonstrate that persistent flooding, coupled with poor infrastructure, limited institutional support, and deep social inequities, results in low ecological and economic sustainability—making char-based livelihoods increasingly fragile.

**Gendered Vulnerability and Health:** In Assam’s char regions, women’s sociocultural limitations, limited mobility, and vulnerability are the main focuses of gender concerns. Sur (2020) illustrates how women’s experiences of insecurity, constraint, and resilience in borderland communities are shaped by the intersection of governmental surveillance and informal economic

activity. Saha (2023), although not exclusively gender-focused, examines health concerns in Assam's flood-prone riverine settlements, including the chars, and identifies systemic barriers such as inadequate transportation and non-functional health care facilities that disproportionately impact women, especially during floods. Das (2023a), in her feminist ethnography, highlights the challenges of menstruation and safety that women health workers face while conducting fieldwork in male-dominated char communities. Das (2023b) further explores how marriage-related migration, exemplified by the case of "Kaim-brides," places women in unfamiliar social environments with limited autonomy. Sheikh and Datta (2022) and Barman et al. (2025) argue that, despite obstacles in accessing finance and participating in decision-making, women play a significant role in enhancing household resilience. Finally, Das (2025) emphasizes that gendered expectations and the lack of institutional support elevate the risks faced by female community health workers in these regions.

**Borderland Politics and Identity:** Assam's char regions serve as complex political and cultural boundaries, where borderland politics and identity collide with daily life. Chakraborty (2012) describes how political discourses refer to char dwellers as "Bangladeshis," exacerbating their isolation and calling into doubt their citizenship. This concept is expanded in Chakraborty's (2017) work, which depicts char dwellers as "floating people," both legally and geographically unstable. Sur (2020) investigates how cattle smuggling across the India-Bangladesh border exposes the ambiguous legality and constant surveillance that shape life in these marginalized areas, where identity is fluid and frequently criminalized. Furthermore, Saikia and Mahanta (2025) show how internal migratory patterns in these locations affect community identities, rights claims, and access to state support. These studies show how chars are deeply ingrained in issues of nationhood, belonging, and contested citizenship.

**Migration and Displacement:** Migration and displacement in Assam's char areas are shaped by a complex interplay of environmental, sociopolitical, and economic factors. Chakraborty (2012) discusses how migration from char areas is not only a response to ecological vulnerability but also entangled in political narratives, particularly the stigmatization of char dwellers as "Bangladeshi migrants." This framing contributes to social exclusion and policy neglect. Misra (2019) and Kumar and Das (2019) examine the economic drivers of migration, noting that land erosion, agricultural decline, and livelihood insecurity are primary causes of out-migration among char residents.

Bhagabati and Deka (2022) provide critical spatial and ecological insights into these migration patterns. Their study of the Brahmaputra's char landscapes shows how continuous erosion and deposition create unstable terrains that force repeated cycles of displacement and resettlement, resulting in chronic economic insecurity. Saikia and Mahanta (2024a) further highlight the paradox of continued settlement in high-risk areas. They show that despite recurring displacement, char residents often remain in disaster-prone zones due to a lack of viable alternatives, reflecting a deeper structural vulnerability. Most recently, Begum et al. (2025) emphasize how environmental shocks like floods and erosion not only displace people physically but also exacerbate their socioeconomic marginalization, reinforcing cycles of both economic and ecological migration.

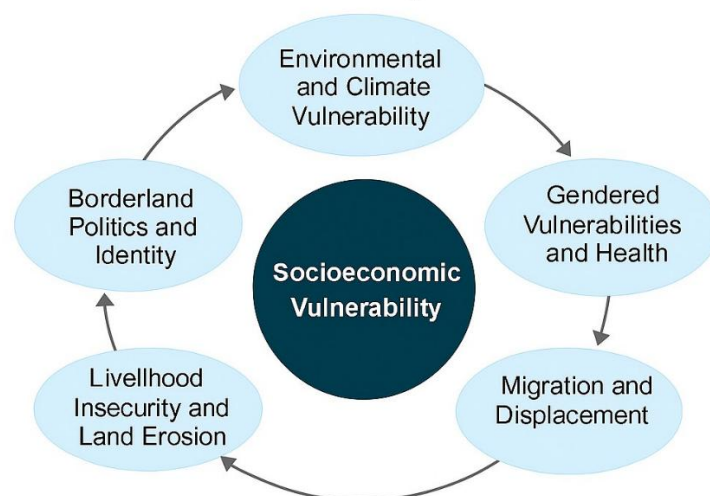
**Development Deficit and Infrastructure Gaps:** The char regions of Assam are representative of long-standing infrastructure deficiencies and systemic deficiencies in development that make the residents of these places even more vulnerable. The ongoing lack of access to basic services like healthcare, education, transportation, and institutional assistance is highlighted in a number of studies. Chakraborty (2017) provides early insight into the marginalization of char dwellers, noting their exclusion from formal governance and service delivery systems. Maity (2020) emphasizes how access to essential services is hampered by inadequate infrastructure, weak administrative outreach, and irregular PDS delivery in char regions, further entrenching their marginalization. Sur (2020) indirectly underscores institutional neglect by showing how informal and illegal cross-border activities emerge in the absence of state infrastructure. Sheikh and Datta (2022) highlight how limited access to formal financial institutions and credit facilities exacerbates poverty, stressing the urgent need for inclusive financial infrastructure. From a spatial perspective, Bhagabati and Deka (2022) contextualize the development deficit by showing that the chars' inherent environmental vulnerability due to shifting sandbar formations is compounded by poor state interventions, leading to systemic isolation.

Saikia and Mahanta (2024d) further reveal that in many char areas, institutional visibility is weak and access to government programs remains inconsistent, which results in continued infrastructural stagnation. In a separate study, Saikia and Mahanta (2024e) underscore how the fragile presence of state institutions limits disaster-preparedness, particularly in relation to flood management and resilient infrastructure. Das (2025) adds to this by documenting how logistical constraints and inadequate health infrastructure obstruct the efforts of community health workers. Finally, Saikia and Mahanta (2025) synthesize these challenges, illustrating how char dwellers persist without reliable access to public services or disaster-resilient infrastructure due to brittle institutional mechanisms and ineffective policy execution.

## **Discussion**

The Char areas of Assam are socioeconomically vulnerable due to a complicated, self-reinforcing cycle. Women and children are most affected by the displacement and loss of livelihood caused by frequent floods and erosion. This makes gender inequality and health issues worse, which forces families to migrate seasonally. In consequence, migration restricts access to welfare and citizenship rights by intersecting with concerns of identity and exclusion. These factors, when coupled with inadequate governmental services and infrastructure, exacerbate land insecurity and poverty, trapping char communities in a never-ending cycle of marginalization. Figure II illustrates the interconnectedness of several aspects of vulnerability in Assam's char regions, which feeds a vicious cycle of poverty and marginalization.

**Figure II: “The Interconnected Vicious Cycle of Socioeconomic Vulnerability in Assam’s Char Areas”**



Source: Author’s own elaboration based on literature review

This thematic analysis shows that a network of interrelated and systemic factors—environmental, institutional, political, and sociocultural—are responsible for the vulnerability of Assam’s char areas rather than individual events like erosion or floods. These weaknesses are ingrained in historical trends of contentious identity construction, unequal access to resources, and governance failure. Thus, examining the relationship between ecological precarity, socio-political exclusion, and spatial marginality is necessary to comprehend life in the chars.

The assessment also emphasizes how the cyclical and erratic rhythms of the Brahmaputra perpetually shape and destabilize land, livelihoods, and legal recognition in the chars. Although rivers can be both fertile and destructive, institutional invisibility and sociopolitical neglect are responsible for turning environmental instability into long-term vulnerability. Char residents are viewed as burdens on the system rather than as complete citizens since they are frequently left stateless, undocumented, and geographically dispersed. Their marginality is therefore structurally manufactured rather than natural, stemming from a developmental paradigm that has failed to incorporate these communities into the mainstream.

Gender emerges as an important, intersecting line of research for understanding marginalization in Assam’s char regions. Women have a critical role in supporting family economies and participating in informal labor networks, but their contributions are usually overlooked in official policy frameworks. Simultaneously, prevailing political discourses focused on “illegal immigration” prioritize surveillance and securitization, frequently at the expense of critical social services. In this context, char migration is more than a reaction to natural disasters; it is a strategic response to rising livelihood instability and a serious breakdown of institutional trust.

In the end, the chars cannot be viewed as merely geographical boundaries. Instead, they represent a crucial intersection of governmental power, socio-political marginalization, and environmental risk. A complex, multi-layered type of marginality is produced when historical injustices, sociopolitical negligence, and infrastructural marginalization combine with ecological fragility. In order to critically reframe the lived realities of char dwellers—not as helpless victims of nature, but as resilient actors navigating a system that has consistently failed to recognize their rights, needs, and existence. This discussion will unpack the intertwined dynamics of identity politics, governance failure, environmental precarity, and everyday resilience.

### **Research Gap and Future Direction**

This research indicates many crucial areas that deserve additional scholarly attention to advance understanding and facilitate more effective interventions in Assam’s char regions. First, there is an urgent need for primary, field-based research that details char inhabitants’ daily experiences, particularly on remote and unexplored islands. Such research should focus on youth-centered and gender-disaggregated methodologies to investigate how goals, vulnerabilities, and coping strategies differ across age and gender groups.

Secondly, there is a considerable gap in longitudinal research that examine the long-term effects of displacement, policy interventions, and livelihood transformations. These are vital for determining the long-term viability and impact of development projects. Furthermore, more emphasis should be placed on the role of non-state actors in defining the socioeconomic landscape of the chars, including as NGOs, religious entities, and informal governance structures, which frequently operate in areas where official presence is limited or nonexistent.

Future research should also explore comparative analyses between Assam’s char areas and other riverine or borderland regions, such as those in Bangladesh, Nepal, or Bihar, to uncover shared ecological and institutional challenges. Moreover, scholars should make expanded use of major academic databases such as Web of Science, and Google Scholar to source a broader range

of interdisciplinary and regionally relevant literature. Incorporating such diverse academic sources can enhance the depth, credibility, and comparative scope of future studies.

### **Policy implications and recommendations**

The chronic environmental, economic, and political vulnerabilities of Assam's char regions necessitate specific and inclusive policy responses. There is a critical need to move beyond conventional rural development initiatives and create char-specific strategies that acknowledge their ecological vulnerability, mobility-driven livelihoods, and sociopolitical marginalization. Based on this review's thematic results, the following main recommendations are proposed to address the region's multidimensional vulnerabilities:

**Protect Land and Legal Rights:** To guarantee recognition and the right to public services, implement land tenure systems tailored to chars and streamline identity document access.

**Invest in Resilient Infrastructure:** Use community involvement and locally adaptive designs to construct roads, schools, health facilities, and sanitation systems that can withstand flooding.

**Empower Women:** Integrate women's perspectives into planning while acknowledging women's efforts by providing microcredit, skill training, and support for female health workers.

**Diversify Livelihoods:** Encourage alternate sources of income by fostering climate-resilient agriculture, skill, development, livestock support, and better market accessibility.

**Address relocation and Migration:** Provide migrant rehabilitation and portable benefits, and acknowledge relocation brought on by erosion as a disaster.

**Shift in Governance Approach:** Replace surveillance-based governance with welfare-based development that presents chars as areas of opportunity rather than threat.

**Enhance Data and Research:** Encourage multidisciplinary research and collect disaggregated data to inform inclusive policies and evidence-based planning.

### **Limitation of the Study**

This review has certain limitations even though it provides a thorough summary of the body of research on the socioeconomic situation in Assam's char regions. Firstly, the study mostly uses peer-reviewed publications that are listed in the Scopus database, which can leave out important grey literature, policy reports, papers from local governments, and non-English sources that offer insightful information at the ground level. Secondly, the study relies on published research and secondary data, which restricts the capacity to update or validate empirical findings through original fieldwork. Thirdly, thematic analysis was done manually, without the assistance of coding tools or inter-coder reliability tests. While care was made to maintain consistency through multiple readings, the manual procedure is prone to subjective interpretation or thematic bias, which may influence pattern discovery and categorization.

### **Conclusion**

This thematic assessment demonstrates that Assam's char regions are socioeconomically vulnerable due to a combination of environmental fragility, political exclusion, institutional neglect, and spatial marginalization. The six highlighted themes demonstrate that development failures in the chars are systemic and interconnected, resulting in a self-sustaining cycle of poverty and marginalization. Effective responses must be context-sensitive, participatory, and based on local knowledge systems. Interdisciplinary collaboration, long-term involvement, and inclusive governance strategies are required to convert char regions from neglected peripheries into resilient and empowered communities.

**Acknowledgment:** No

**Author's Contribution:** *Debasmita Deka:* Data Collection, Literature Review, Methodology, Analysis, Drafting, Referencing;  
*Prof. Anjan Bhuyan:* Drafting

**Funding:** No

**Declaration:** All the authors have given consent for the publication.

**Competing Interest:** No

### **References**

1. Baas, J., Schotten, M., Plume, A., Côté, G., & Karimi, R. (2020). Scopus as a curated, high-quality bibliometric data source for academic research in quantitative science studies. *Quantitative Science Studies*, 1(1), 377–386.
2. Begum, S., Das, A. K., Hussain, A., & Kumar, M. S. (2025). Living in transient riverine environment: Environmental stressors and opportunities in the braid bars of Brahmaputra River. *Natural Hazards*, 139, 120. <https://doi.org/10.1007/s11069-025-07253-9>

3. Bhagabati, A. K., & Deka, N. (2022). Char landscape of the Brahmaputra riverine tract, Assam: Elements of evolution and cultural ecology. In *Advances in 21st Century Human Settlements* (pp. 141–166). [https://doi.org/10.1007/978-981-16-6415-1\\_6](https://doi.org/10.1007/978-981-16-6415-1_6)
4. Barman, P., Sarkar, B., & Islam, N. (2025). Livelihood assessment through the sustainable livelihood security index in Majuli river island, Assam. *GeoJournal*, 90(3), 105. <https://doi.org/10.1007/s10708-025-11360-2>
5. Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. <https://doi.org/10.1191/1478088706qp063oa>
6. Chakraborty, G. (2012). The 'ubiquitous' Bangladeshis. *Economic and Political Weekly*, 47(38), 21–23.
7. Chakraborty, G. (2017). The char dwellers of Assam: Flowing river, floating people. In *Water Conflicts in Northeast India* (pp. 178–192). <https://doi.org/10.4324/9781315168432>
8. Choudhury, M. (2013). Poverty and displacement in the char areas of Assam: A socio-economic perspective. *Journal of Regional Studies*, 5(2), 34–49.
9. Das, S. (2023a). Bringing and being a 'Kaim-brid': A note on marriage and migration in Assam chars. *Ecology, Economy and Society*, 6(2), 253–260. <https://doi.org/10.37773/ees.v6i2.1035>
10. Das, S. (2023b). Navigating fieldwork amidst my menstrual cycle: Being a female ethnographer in a remote Indian region. In *Women Practicing Resilience, Self-care and Wellbeing in Academia: International Stories from Lived Experience* (pp. 92–102). <https://doi.org/10.4324/9781003341482-10>
11. Das, S. (2025). Gendered vulnerability of community health workers in light of COVID-19: A note from the floodplains of Assam, India. In *Handbook on Sex, Gender and Health: Perspectives from South Asia* (pp. 801–812). [https://doi.org/10.1007/978-981-97-2098-9\\_32](https://doi.org/10.1007/978-981-97-2098-9_32)
12. Gusenbauer, M., & Haddaway, N. R. (2020). Which academic search systems are suitable for systematic reviews or meta-analyses? Evaluating retrieval qualities of Google Scholar, PubMed, and 26 other resources. *Research Synthesis Methods*, 11(2), 181–217.
13. Haddaway, N. R., Collins, A. M., Coughlin, D., & Kirk, S. (2015). The role of Google Scholar in evidence reviews and its applicability to grey literature searching. *PLOS ONE*, 10(9), e0138237.
14. Jagnoor, J., Bhaumik, S., Christou, A., Azad, A. K., & Ivers, R. (2020). Weaved into the fabric of life: A qualitative exploration on impact of water-related disasters in the Char community of Assam, India. *International Journal of Disaster Risk Reduction*, 47, 101551. <https://doi.org/10.1016/j.ijdr.2020.101551>
15. Khan, M. A., Rahman, M., & Hossain, S. (2022). Using thematic synthesis in migration and poverty studies: A methodological review. *Migration and Development*, 11(3), 289–305. <https://doi.org/10.1080/21632324.2021.1876812>
16. Kumar, B., & Das, D. (2019). Livelihood of the Char dwellers of Western Assam. *Indian Journal of Human Development*, 13(1), 90–101. <https://doi.org/10.1177/0973703019839808>
17. Maity, S. (2020). Public distribution system and food security: Evidence from Barpeta district, Assam. *Development in Practice*, 30(4), 485–500. <https://doi.org/10.1080/09614524.2019.1667957>
18. Mahanta, R., & Das, D. (2017). Flood-induced vulnerability to poverty: Evidence from Assam. *International Journal of Disaster Risk Reduction*, 24, 451–461. <https://doi.org/10.1016/j.ijdr.2017.04.014>
19. Maguire, M., & Delahunt, B. (2017). Doing a thematic analysis: A practical, step-by-step guide for learning and teaching scholars. *AISHE-J: All Ireland Journal of Teaching and Learning in Higher Education*, 9(3), 3351–3364.
20. Misra, R. (2019). From farmland to wasteland: A study of out-migration. *Indian Journal of Labour Economics*, 62(4), 749–762. <https://doi.org/10.1007/s41027-019-00196-3>
21. Momin, H., & Chakraborty, G. (2023). Insights from the field measuring impermanence: A community perspective on Char land. *Ecology, Economy and Society*, 6(1), 123–131. <https://doi.org/10.37773/ees.v6i1.808>
22. Mongeon, P., & Paul-Hus, A. (2016). The journal coverage of Web of Science and Scopus: A comparative analysis. *Scientometrics*, 106(1), 213–228.
23. Nowell, L. S., Norris, J. M., White, D. E., & Moules, N. J. (2017). Thematic analysis: Striving to meet the trustworthiness criteria. *International Journal of Qualitative Methods*, 16(1), 1–13. <https://doi.org/10.1177/1609406917733847>
24. Saikia, M., & Mahanta, R. (2023). Does livestock loss affect livelihood? An investigation on char residing Mishing community of Assam. *International Journal of Community Well-Being*, 6(4), 327–351. <https://doi.org/10.1007/s42413-023-00198-6>
25. Saikia, M., & Mahanta, R. (2023). Livestock, livestock loss and livelihood: A note on Mishing char dwellers of Assam. *Society Register*, 7(4), 57–70. <https://doi.org/10.14746/sr.2023.7.4.04>
26. Saikia, M., & Mahanta, R. (2024). An application of adjusted livelihood vulnerability index to assess vulnerability to climate change in the char areas of Assam, India. *International Journal of Disaster Risk Reduction*, 103, 104330. <https://doi.org/10.1016/j.ijdr.2024.104330>
27. Saikia, M., & Mahanta, R. (2024). Can institutions reduce the vulnerability to climate change? A study on the char lands of Assam, India. *GeoJournal*, 89(1), 22. <https://doi.org/10.1007/s10708-024-11015-8>
28. Saikia, M., & Mahanta, R. (2024). Institutions' adaptability in reducing vulnerability: A study in the char lands of Assam. *Environment Systems and Decisions*, 44(4), 810–835. <https://doi.org/10.1007/s10669-024-09973-y>
29. Saikia, M., & Mahanta, R. (2024). Riverbank erosion and vulnerability – A study on the char dwellers of Assam, India. *Natural Hazards Research*, 4(2), 274–287. <https://doi.org/10.1016/j.nhres.2023.10.007>
30. Saikia, M., & Mahanta, R. (2024). Why do people live in disaster-prone char regions? Perspectives from Assam, India. *Discover Global Society*, 2(1), 99. <https://doi.org/10.1007/s44282-024-00130-z>
31. Saikia, M., & Mahanta, R. (2025). An assessment of the nature and structure of institutions in the char areas of Assam, India. *Asian Ethnicity*. <https://doi.org/10.1080/14631369.2025.2459776>
32. Saha, J. (2023). The pattern of morbidity and access to healthcare service in the riverine flood-prone villages of Assam, India. *Open Public Health Journal*, 16(1), e18749445269914. <https://doi.org/10.2174/0118749445269914231023070506>
33. Sharma, D., Begum, A., & Hazarika, N. (2015). Agricultural practices and land tenure insecurity in the char areas. *Asian Journal of Agriculture and Development*, 12(1), 67–79.
34. Sheikh, S. A., & Datta, K. (2022). Poverty and microfinance in char areas of Dhubri district in Assam. In *Research Anthology on Microfinance Services and Roles in Social Progress* (pp. 673–688). <https://doi.org/10.4018/978-1-6684-7552-2.ch037>
35. Sur, M. (2020). Time at its margins: Cattle smuggling across the India-Bangladesh border. *Cultural Anthropology*, 35(4), 546–574. <https://doi.org/10.14506/ca35.4.03>

36. Talukdar, G., Sarma, A. K., & Bhattacharjya, R. K. (2020). Mapping agricultural activities and their temporal variations in the riverine ecosystem of the Brahmaputra River using geospatial techniques. *Remote Sensing Applications: Society and Environment*, 20, 100423. <https://doi.org/10.1016/j.rsase.2020.100423>
37. Talukdar, G., Sarma, A. K., & Bhattacharjya, R. K. (2021). Sediment analysis and modelling based approach for optimal allocation of riverine sandbar for socio economic benefits. *Ecological Engineering*, 173, 106415. <https://doi.org/10.1016/j.ecoleng.2021.106415>
38. Terry, G., Hayfield, N., Clarke, V., & Braun, V. (2017). Thematic analysis. In C. Willig & W. Stainton-Rogers (Eds.), *The SAGE handbook of qualitative research in psychology* (2nd ed., pp. 17–37). SAGE Publications.
39. Thomas, J., & Harden, A. (2008). Methods for the thematic synthesis of qualitative research in systematic reviews. *BMC Medical Research Methodology*, 8(1), 45. <https://doi.org/10.1186/1471-2288-8-45>

**Publisher's Note**

*The Social Science Review A Multidisciplinary Journal* remains neutral with regard to jurisdictional claims in published data, map and institutional affiliations.

**©The Author(s) 2025. Open Access.**

This article is licensed under a Creative Commons Attribution 4.0 International License, which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons licence, and indicate if changes were made. If material is not included in the article's Creative Commons licence and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder. To view a copy of this licence, visit <http://creativecommons.org/licenses/by/4.0/>