Understanding the Char Areas of Assam: A Review with Special Reference to Barpeta District

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ABSTRACT:

The Char areas of Assam, particularly in Barpeta district, represent a complex socio-economic and environmental landscape characterized by persistent challenges such as poverty, low literacy rates, inadequate healthcare, and vulnerability to floods and erosion. These riverine islands, formed by the Brahmaputra River, have historically been a focal point of migration, significantly altering the region's demographics and socio-political dynamics. This study examines the historical and contemporary factors shaping the Char areas, with a specific focus on migration patterns, socio-economic conditions, demographic changes, and the impact of natural disasters. Drawing from secondary data sources, including government reports, socio-economic surveys, and historical literature, the study explores the interplay of these factors in perpetuating multidimensional poverty and vulnerability among Char dwellers. The paper also reviews government initiatives aimed at addressing these issues, evaluating their effectiveness in improving the living standards and resilience of Char communities. The findings underscore the urgent need for integrated, community-driven development strategies that address systemic inequalities, enhance disaster resilience, and foster sustainable livelihoods.

Keywords: Char areas, migration patterns, socio-economic deprivation, floods and erosion, sustainable development.

1. INTRODUCTION:

The history of immigration in Assam is a complex and multifaceted phenomenon that has deeply influenced the region's demographics, socio-political landscape, and cultural identity. The origins of this immigration can be traced back to the colonial era, with significant developments continuing post-independence and into the present day (Guha, 1991). Immigration in Assam began to take shape after the annexation of the region by the British as a result of the Treaty of Yandabo in 1826, which ended the First Anglo-Burmese War (Baruah, 1999). Under British rule, Assam was treated as a frontier land primarily for the economic and strategic benefits of the empire. The British colonial rulers encouraged large-scale immigration to Assam from other parts of India, particularly from East Bengal (now Bangladesh). This was motivated by their desire to exploit Assam's fertile land for tea cultivation and other agricultural purposes. The immigration policy was part of a broader strategy to consolidate British control over the region and to utilize the abundant natural resources (Sharma, 1981).

During the tenure of the Saadullah Government (1937-46), immigration from East Bengal continued

unabated. This period saw significant debates and concerns over the 'Line System' and land settlement issues, raised in the Assam legislative assembly (Guha, 1991). The Line System was a colonial land management policy that aimed to control the settlement patterns of immigrants. However, despite these measures, the issue of immigration persisted and grew more pronounced over time (Das, 1990). After India gained independence in 1947, the immigration issue did not subside. The partition of India and the creation of East Pakistan (now Bangladesh) in 1947 further complicated the situation (Smith, 1980). The liberal immigration policy adopted by then Prime Minister Jawaharlal Nehru allowed East Pakistani immigrants to enter Assam without stringent checks. This policy was rooted in humanitarian concerns and the geopolitical realities of the time, but it exacerbated the immigration issue in Assam (Sarma, 1994).

The porous nature of the eastern border, unlike the western border which was heavily guarded, allowed for easy movement of people (Mahanta, 1999). This unguarded border led to continuous immigration, significantly altering the demographic composition of Assam. Premier Gopinath Bordoloi's demand for an

inner line permit system to regulate immigration was rejected by the central government, which instead directed the Assam government to accommodate East Pakistani immigrants. This period also saw the rejection of demands for sealing the Indo-Pak border, further complicating the situation (Das, 1990). The birth of Bangladesh in 1971, following the Bangladesh Liberation War, was another watershed moment in Assam's immigration history. Millions of refugees from East Pakistan (now Bangladesh) entered Assam during the war. After the war, the Indian government failed to repatriate these refugees, leading to their permanent settlement in Assam. Sheikh Mujibur Rahman, the first Prime Minister of Bangladesh, refused to take back pre-war infiltrators, cementing their presence in Assam (Smith, 1990).

The population growth rate in Assam during the periods 1951-1971 and 1971-1991 was abnormally high, reflecting the continuous influx of immigrants. Between 1951 and 1971, Assam's population increased by 34.95%, compared to the national average of 19.93% (Sarma, 1994). The trend continued in the subsequent decades, with the population growth rate reaching 52.44% between 1971 and 1991. The rapid demographic changes and the perceived threat to the indigenous identity of the Assamese people led to the Assam Agitation (1979-1985). This was a mass movement led by the All Assam Students Union (AASU) demanding the detection and deportation of illegal immigrants (Baruah, 1999). The movement saw significant participation from the Assamese youth, resulting in the martyrdom of 855 individuals. The agitation culminated in the signing of the Assam Accord in 1985 between AASU and the central government (Mahanta, 1999).

The Assam Accord set March 25, 1971, as the cutoff date for identifying and deporting illegal immigrants. It also called for updating the National Register of Citizens (NRC) based on the 1951 NRC and voters' lists up to 1971. However, the implementation of the Accord has been fraught with challenges and delays, leaving the core issue unresolved. The Illegal Migrants (Determination by Tribunals) Act (IMDT Act) of 1983 further complicated matters by providing procedural advantages to illegal immigrants, making their detection and deportation difficult (Guha, 1991). In recent years, the Supreme Court of India has played a pivotal role in addressing the immigration issue in Assam. In a landmark judgment on December 17, 2014, a two-judge bench directed the immediate implementation of certain aspects of the Assam Accord and referred Clause 6A of the Citizenship Act to the Constitution Bench. The Supreme Court mandated the finalization of the updated NRC by January 2016, based on the 1951 NRC and voters' lists up to 1971 (Sarma, 2014). This judgment provided a new ray of hope for the people of Assam.

The central government sanctioned Rs. 288 crores for the NRC update, which was to be monitored by the Supreme Court. The update process was aimed at identifying immigrants who entered Assam between 1966 and 1971 and deporting those who entered after March 25, 1971. The court also directed the central government to hold diplomatic talks with Bangladesh to facilitate the deportation of identified immigrants (Deb, 2019). The immigration issue in Assam has significant political and social implications. It has influenced electoral politics, with various political parties using the issue to garner support. The governments in Assam post-Chaliha's ministry have been criticized for their weak stance on illegal immigration (Das, 2017), often perceived as using the issue for political gains rather than seeking a permanent solution.

The continuous influx of immigrants has also strained Assam's economic resources and led to land encroachments in tribal areas, government lands, wildlife sanctuaries, and satras (monastic institutions). The population density in Assam, according to the 2011 census, is 397 persons per square kilometer, higher than the national average of 382. This high density is indicative of the demographic pressure on the state's resources (Barbora, 2022). The complete sealing of the Assam-Bangladesh border and strict vigilance are seen as essential steps to curb illegal immigration. The implementation of the NRC update, based on historical records, is also crucial. Additionally, a treaty between India and Bangladesh to address the immigration issue could provide a long-term solution (Banerjee and Ranjan, 2024). However, the political will of both the central and state governments is of utmost importance to resolve this long-standing issue effectively. The Indo-Bangla Land Swap Agreement, aimed at settling land under adverse possession, is another step towards managing the border effectively. This agreement is expected to facilitate the erection of fencing and floodlight systems along the border, particularly in the Karimganj district (Ghoshal, 2020). However, comprehensive border management would require similar measures along Assam's borders with Tripura, West Bengal, Meghalaya, and Mizoram.

The evolution of immigration in Assam is a narrative of colonial exploitation, post-independence policy failures, and ongoing demographic and socio-political challenges. The issue has deep historical roots and complex contemporary dimensions, requiring a multifaceted approach for resolution (Barbora, 2022). Sealing the border, updating the NRC, and political commitment from both the central and state governments are critical to safeguarding the indigenous identity, culture, and economic interests of the Assamese people. Without these measures, the long-standing issue of immigration in Assam will continue to pose significant challenges to the region's stability and identity.

This study makes an effort to delve into the population situation of the Char areas of Barpeta District in

relation to providing an overview of Assam's migration situation. The history of immigration in Assam is deeply rooted in the colonial period when British policies encouraged large-scale immigration from East Bengal for economic exploitation. This trend continued post-independence, with the porous India-Bangladesh border facilitating ongoing migration, especially after the partition and formation of East Pakistan, later Bangladesh. The study explores the socio-economic conditions of the Char area migrants, the impact of natural disasters, and the demographic changes that have ensued. Special attention will be given to the unique challenges faced by the Char dwellers, including poverty, inadequate education, and vulnerability to floods, offering a comprehensive overview of the demographic evolution in these marginalized regions.

2. MATERIALS AND METHODS:

This study focuses on the Char areas of Assam, with particular emphasis on Barpeta district, a region profoundly affected by migration, natural disasters, and socio-economic challenges. The Char areas, formed by sediment deposition along the Brahmaputra River, are dynamic and transitory in nature. These unique geographical features provide an important setting to examine the complex interactions between environmental vulnerabilities and socio-economic conditions that characterize the lives of the Char dwellers.

The research is primarily based on secondary data obtained from a range of official and academic sources. Key government reports, such as the District Census Handbooks and publications by the Directorate of Char Areas Development, provide foundational data. Additionally, socio-economic insights are drawn from the Assam Human Development Reports and surveys conducted in 1992-93 and 2002-03 by the Government of Assam. Academic literature, including the works of Guha (1991), Ahmed (2013), and Barbora (2022), offers historical and contextual understanding, while policy documents, such as those detailing the National Health Mission (NHM) and the Assam Agribusiness and Rural Transformation Project (APART), help evaluate government interventions.

A multidisciplinary analytical approach is employed to explore the historical, socio-economic, and environmental dimensions of the Char areas. The analysis is organized around key themes, including migration patterns, socio-economic conditions, the impact of natural disasters, and the effectiveness of government initiatives. Historical trends in migration and their demographic implications are examined through census data and academic studies. Socio-economic conditions, such as poverty, literacy, health, and asset possession, are analyzed using indicators derived from official surveys and reports. Data on floods and erosion are assessed to understand their socio-economic consequences, while policy measures are evaluated based on budgetary data and program reports to gauge their effectiveness.

Quantitative data, such as literacy rates, population density, and poverty indicators, are extracted from official reports and tabulated for comparative analysis across time periods and districts. Qualitative insights from historical accounts and policy literature are integrated to contextualize the findings, ensuring a comprehensive understanding of the factors influencing the Char areas.

Despite its breadth, the study acknowledges certain limitations. Relying on secondary data introduces potential biases, as official reports may not always provide complete or unbiased information. Additionally, the dynamic and transitory nature of the Char areas, shaped by the ever-changing course of the Brahmaputra River, poses challenges in accurately capturing demographic and socio-economic trends. The lack of recent and granular data further restricts the scope of the analysis.

3. RESULTS AND DISCUSSION:

3.1 Migration in Char areas:

The history of the char areas in Assam, particularly in Barpeta district, is characterized by a distinctive blend of dynamics involving life, conflict, prosperity, and economic significance. Char areas refer to the numerous sandbars formed by the Brahmaputra and other rivers in Assam, which have historically played a pivotal role in the state's economy. During the British colonial period, these char areas were identified for their agricultural potential, particularly in jute cultivation. The colonial authorities actively promoted settlement in these regions, often facilitating the migration of people from East Bengal to work on these lands (Ahmed, 2013; Barpujari, 1998). This migration gained momentum following the partition of Bengal in 1905, which temporarily attached Assam to East Bengal.

Assam has a rich history of migration, akin to India, where diverse communities have migrated to Assam over various periods, enriching both the Brahmaputra and Barak valleys. Throughout ancient times, Assam's landscape has been shaped by migrations, with prominent communities such as the Ahoms, Kochs, and others establishing themselves after migrating from different regions. People of various races, including Austric and Mongoloid origins, have also migrated to Assam during different epochs (Gait, 1906; Das, 1980). While migration was a common phenomenon in earlier times, the emergence of modern states and the rapid growth of populations have amplified its complexities, transforming it into a significant issue across geographical regions.

In the early decades of the twentieth century, a notable influx began from the Mymensingh district, present-day Bangladesh, to the riverbank and char areas of Assam. These migrants predominantly belonged to the economically disadvantaged classes, relying heavily

on agricultural labor for their sustenance. The mighty Brahmaputra River, spanning an 860-kilometer stretch across Assam, significantly influences the region's geography and agricultural productivity (Hussain, 2006; Sharma and Dutta, 2021). Originating from the mountains, the Brahmaputra carries a substantial sediment load, depositing fertile soil along its banks and forming expansive char areas that are particularly conducive to agriculture.

The Zamindar class of West Assam, facing labor shortages for their agricultural operations, played a crucial role in facilitating the migration of Muslim populations from East Bengal to the char areas of Lower Assam. These migrants were employed primarily in paddy cultivation, meeting the demand for labor in the region. Concurrently, the British administration sought to increase agricultural productivity and revenue collection, leveraging the influx of migrants to bolster cultivation efforts on these fertile but often unstable sandbars (Ahmed, 2013; Das, 1980). Over time, these migrant populations became integral to the char areas, establishing permanent settlements despite the inherent challenges posed by the geographical and environmental instability of the region. The char areas not only provided livelihood opportunities but also became centers of cultural exchange and adaptation, shaping the socio-economic fabric of Barpeta district and its surroundings.

The char areas have become home to many migrants from present-day Bangladesh, who play a crucial role in Assam's rural economy through their agricultural contributions. According to the Char Development Administration, Assam hosts a total of 2,089 char villages, covering an area of 2,318 square kilometers, with Barpeta and Dhubri districts alone housing 664 char villages. The combined population of these char areas exceeds twenty lakh people (Ahmed, 2013; Sharma and Dutta, 2021). Besides, the economic significance of these char areas cannot be overstated, as they not only support agricultura livelihoods but also contribute significantly to Assam's overall economic fabric. Their presence underscores the ongoing influence of historical migrations on contemporary socio-economic dynamics in Assam, illustrating the enduring impact of demographic movements on regional development and identity.

Chars are home to 10 percent population of Assam. Char dwellers live a precarious life. Battered by recurrent floods and soil erosion, chars have an impermanent existence. In western Assam, the char dwellers, mostly belonging to the migrant Muslim community of East Bengal origin, the process of inhabitation in chars is intimately linked to the history of British rule in Assam. Most chars, especially those in western Assam, are inhabited by Bengali-speaking Muslims. Migration of peasants from East Bengal started in the late nineteenth century and picked up in the early twentieth century, especially after 1905 when

Bengal was partitioned, and Assam was merged with East Bengal.

In the early and mid-decades of the 20th century, the Assamese landowning class, as recounted by the late Sailodhor Rajkhowa, initiated the migration of people from Mymensingh to Barpeta. Their aim was to settle these migrants on government reserve or wasteland, known as "eksoniya patta" land, in hopes of emulating the zamindar class of Bengal. Rajkhowa noted that these migrants were known for their diligence and superior agricultural skills compared to the local populace of Barpeta. The motivation behind the migration of these farmers from Mymensingh to Assam can be traced back to their status as an oppressed class in North Bengal, where they faced historical oppression from feudal lords and zamindars. Seeking better livelihood opportunities and the need for land ownership, many opted to migrate to Assam. During the period between 1920 and 1930, substantial amounts of land were allocated: 653,018 acres to Muslims and 74,389 acres to Hindus, totaling 727,367 acres, as reported in the Census of 1931 (Vol III, Part I, pages 51-62). By 1931, it was observed that the pace of migration from Mymensingh had gradually declined, largely because most of the available wastelands in Assam had already been settled by migrants from Mymensingh (Hussain, 2006). This migration wave commenced in earnest around 1905-06, marking a significant demographic shift during that period.

Between 1922 and 1925, inter-district migration occurred, with people moving from Dhuburi to Sarbhog and from Lakhimpur to Boko's Samaria, as reported in the Census of 1931. However, in Tezpur, most of the available wastelands were already settled by Gorkha people, which deterred migrants from Mymensingh from entering that region (Das, 1980; Ahmed, 2013). During the period from 1921 to 1931, the Muslim population saw significant increases in districts like Nagaon (152%), Kamrup (115%), and Darang (85%).

From 1905 to 1931, approximately 500,000 people migrated solely from Mymensingh to Assam. Considering the current population increase from 54 lakhs to 224 lakhs, these initial 5 lakh migrants from Mymensingh would equate to around 21 lakhs today. Between 1931 and 1941, a substantial number of people from the northern part of Bengal migrated to Assam to fulfill a special policy of the Assam Government (Ahmed, 2013). As a result, the Muslim population in Assam rose from 28 lakhs in 1931 to 35 lakhs in 1941. However, by 1951, this Muslim population decreased to 20 lakhs due to the Sylhet district becoming part of Bangladesh. Interestingly, during the same period, the Hindu community's population increased from 45 lakhs in 1941 to 56 lakhs in 1951. This demographic shift indicates that, following the partition, the population of every

community decreased except for the Hindu community (Hussain, 2006).

In March 1992, the Ministry of Home Affairs of the Government of India issued a note for departmental discussion, later published in the book "Illegal Migration from Bangladesh," edited by B.B. Kumar. The note from the central government's home ministry detailed various factors contributing to immigration from Bangladesh (Kumar, 1992). Key data highlighted in the note include:

1. A significant majority of Bangladeshi workers, nearly three-fifths of the total population, are employed in agricultural work or fishing. Approximately 80% of rural inhabitants in Bangladesh depend on agriculture for their livelihood.
2. Agriculture contributes to 48% of Bangladesh's GDP, with 80% of the country's export items being agricultural products.
3. Out of Bangladesh's total land area of 15.4 million hectares, 15% is covered by forests, and another 20% comprises rivers and other water bodies.
4. Bangladesh has 9 million hectares of land suitable for agriculture, out of which
5. 8.7 million hectares are already under cultivation. As of 1985-86, only 3% of the land remained unused as wasteland, indicating limited scope for expanding agricultural activities.

The note further reveals the stark disparity in land ownership in Bangladesh, with 28% of the population lacking agricultural land altogether and 52% owning less than half an acre, effectively rendering them landless. Between 1983-84 and 1989-90, 5% of the population newly became landless (Afsar, 2003). Moreover, the wealthiest 5% of the population control approximately 30% of the land, while the poorest 40% possess a mere 3%.

Given these conditions, many people have chosen to migrate to India, driven by several compelling reasons:

1. Population growth and resulting pressure on resources (Ahmed, 2013).
2. High population density, reaching nearly 800 people per square kilometer (close to 1000 in some areas) (Afsar, 2003).
3. Limited economic development, particularly in agriculture (Kumar, 1992).
4. Alleged discrimination and persecution against religious minorities, including Hindus and Buddhists, in Bangladesh (Kumar, 1992).
5. Aspirations for a larger Islamic society, influenced by ideologies promoted by Bengali intellectuals such as Abdul Hamid Khan Bhasani and the concept of lebensraum (Hussain, 2006).

Additionally, the note acknowledges factors within India that facilitate migration:

1. A porous and easily traversable border with Bangladesh (Ahmed, 2013).
2. Comparatively better economic conditions in India (Afsar, 2003).
3. Support from certain religious and political groups in India for their respective agendas (Ahmed, 2016).
4. Assistance from opportunistic middlemen and criminal elements facilitating organized immigration (Kumar, 1992).

In response to these conditions, some individuals from Barpeta exploited the situation by selling land to migrants from Mymensingh, who initially settled in Char areas along the Brahmaputra riverbanks. These newcomers were colloquially referred to as "charuwa." Local entrepreneurs capitalized on the demand by selling their "eksoniya patta" land to these migrants, motivated by the prospect of quick financial gain (Hussain, 2006).

Bangladeshi researcher Professor Rita Afsar provides insightful commentary on the phenomenon of dalals, describing it as a "migration industry" that operates through a well-organized network spanning Bangladesh and India. This industry involves dalals, recruiting agencies, touts, brokers, informers, travel agents, and their associates in border-side villages of Bangladesh, facilitating new forms of trans-national migration flows (Afsar, 2003). She references R.A. Ahmed's report to the UNDP, highlighting how this migration industry enables individuals to migrate to India while minimizing the risks of settlement by providing essential documents such as passports and ration cards for a substantial fee.

Afsar also points out economic factors driving Bangladeshi migration to India. She notes that laborers in India can earn approximately 5% more in terms of purchasing power compared to Bangladesh. The Government of India's own research corroborates these findings, emphasizing the economic incentives that attract migrants from Bangladesh.

Furthermore, Afsar underscores the demographic implications of this migration on India's indigenous populations. She suggests that the influx poses a challenge to the demographic composition of these regions. Additionally, natural disasters in Bangladesh, particularly recurring floods, exacerbate migration pressures. Afsar estimates that every year, between 60,000 to 70,000 people in Bangladesh are displaced due to floods, further intensifying migration flows towards India.

Looking ahead, Afsar anticipates that climate change will amplify migration pressures from Bangladesh to India. Citing the United Nations' "The Global Outlook for Snow and Ice" report, she highlights projections that rising sea levels and increased flooding could displace millions of Bangladeshis living along riverbanks and coastal areas. Professor Anup Saikia of Gauhati University adds that if sea levels rise by 1 meter, an estimated 71 million people from Bangladesh

could be displaced, compelling them to seek refuge in other regions (Saikia, 2014).

According to economist Dr. P. C. Goswami, some Assamese who leased larger areas annually employed immigrants as hired laborers. These immigrants were initially treated as tenants, paying rent either in a share of the crop or in cash. However, over time, some of these immigrants (Goswami, 1974), having established themselves on the land, refused to pay rent and instead sought permanent settlement rights.

Further insights from Jagannath Bujarbaruah during the Assam Provincial Banking Enquiry highlight significant aspects of char chapori migration. Bujarbaruah noted that starting from around 1920, a substantial number of people began migrating from various parts of present-day Bangladesh to Assam, with approximately 40,000 to 50,000 settling by 1929-30. These migrants purchased land from local indigenous peasants, who had cleared these lands in forested areas (Bujarbaruah, 1931). The transaction rate was about 200 rupees per bigha.

During this period, there was a local practice in Barpeta where indigenous people cleared forest lands and sold them to migrants. Even the cooperative funds, like the hati (indigenous cooperative bank) of Barpeta, were involved in financing these transactions, albeit to a limited extent (Ahmed, 2015).

Consequently, migrants gradually settled in Barpeta, occupied these lands, and established villages in the char areas of the region.

3.2 Demographic and Social Aspects of Char Areas:

Determining the exact number of char villages and their population is challenging due to the transient nature of these landforms. The Assam Government's Char Development Authority conducted a survey in 1985, listing approximately 1,256 char villages across 11 districts along the Brahmaputra. By the time of the 1992-93 socio-economic survey, the number of char villages had increased to 2,089 across 14 districts, with a total population of 1,600,244 residing on 2.39 lakh hectares of land (Government of Assam, 1992-93). Of this, 1.68 lakh hectares were suitable for cultivation. However, a significant portion of the population, roughly 8,01,261 individuals, lived below the poverty line. The data on char villages, population, and literacy rates from the 1992-93 socio-economic survey is presented in Table 4.1.

The table 4.1 provides a district-wise overview of char villages, their population, and literacy rates for the year 1992-93. It captures important socio-demographic trends.

Table 4.1: District-wise Char Villages, Population, and Literacy Rates (1992-93)

Sl. No.	District Name	No. of Char Villages	Population	Rate of Literacy (%)
1	Darrang	121	135,876	10.12
2	Barpeta	351	275,525	12.90
3	Kamrup	148	105,687	16.85
4	Nalbari	58	62,892	7.90
5	Bongaigaon	150	110,215	12.58
6	Goalpara	187	130,007	8.38
7	Dhubri	313	233,206	19.06
8	Morigaon	41	55,581	8.02
9	Nowgong	129	45,161	9.44
10	Dhemaji	95	68,998	14.44
11	Lakhimpur	182	110,200	14.01
12	Sonitpur	118	92,061	12.63
13	Tinsukia	86	33,034	14.20
14	Jorhat	210	141,901	31.90
Total		2,089	1,600,244	15.45

Source: District Census Handbook, Govt. of Assam, 1992-93 and highlights significant regional disparities across the char areas of Assam.

A total of 2,089 char villages are recorded, with a combined population of 1,600,244. Barpeta district emerges as the region with the highest number of char villages (351) and the largest population (275,525), reflecting its status as a densely populated char area. Dhubri district follows closely with 313 char villages and a population of 233,206. Together, these two districts account for over one-third of the total char population and nearly one-third of all char villages in the state (Char Area Development Authority, 2003).

This concentration underscores the socio-economic significance of these regions within Assam's char landscape. In contrast, districts like Tinsukia and Morigaon report much lower figures, with only 86 and 41 char villages, respectively, housing populations of 33,034 and 55,581. These smaller populations suggest either lower levels of char formation or limited geographical suitability for settlement in these districts.

The literacy rates in the char areas reveal striking disparities, with an overall literacy rate of 15.45%. Jorhat district stands out with the highest literacy rate of 31.90%, significantly exceeding the average for char regions. This relatively high figure indicates better access to educational infrastructure or successful literacy initiatives in the district. Kamrup district also performs moderately well, with a literacy rate of 16.85%. On the other hand, several districts struggle with extremely low literacy levels. Nalbari records the lowest literacy rate at 7.90%, followed by Morigaon (8.02%) and Goalpara (8.38%) (Government of Assam, 1992-93). These figures highlight the acute educational challenges in these districts, likely stemming from limited access to schools, inadequate infrastructure, or socio-economic barriers that impede learning opportunities.

The data underscores the stark regional disparities in both population and literacy rates across the char areas. Densely populated districts like Barpeta and Dhubri face the dual challenge of managing high population density while addressing low literacy rates of 12.90% and 19.06%, respectively. These conditions emphasize

the urgent need for targeted interventions, such as improving access to schools, training teachers, and promoting literacy campaigns. The variation in literacy rates also suggests unequal access to educational resources, with districts like Jorhat and Kamrup serving as examples of better-performing regions. Meanwhile, districts with lower literacy levels require tailored approaches to address their unique challenges, such as improving infrastructure, providing financial support to families, and ensuring access to quality education. Overall, this table highlights critical areas for development in the char regions and underscores the importance of addressing disparities to promote equitable socio-economic progress (Assam Human Development Report, 2013).

In a subsequent survey conducted in 2002-03 by the Directorate of Char Areas Development, the char population was estimated to be around 2.5 million, spread across 2,251 villages in 14 districts. The findings emphasize the fluctuating nature of char populations and settlements, which complicates exact demographic tracking.

Table 4.2: District-wise Demographic Profile of Char Areas in Assam (2002-03)

District	Total Population	Males	Females	Area (sq. km.)	Population Density	Sex Ratio	Literacy Rate (%)	Cultivable Area (%)
Dhubri	689,909	346,996	342,913	2,798	999.0	998	14.60	35.20
Bongaigaon	135,809	70,345	65,464	2,152	142.5	930	12.46	5.68
Goalpara	186,826	95,521	91,305	18,241	198.6	955	13.65	10.89
Barpeta	268,344	137,708	130,636	3,245	366.5	948	17.63	11.30
Nalbari	83,602	42,702	40,900	2,257	134.3	957	16.24	15.95
Kamrup	154,508	78,258	76,250	14,345	171.7	974	15.16	6.14
Darrang	142,405	74,269	68,136	3,481	167.5	917	12.34	4.81
Sonitpur	145,729	75,119	70,610	5,324	141.1	940	16.93	4.62
Lakhimpur	143,235	73,216	70,019	2,277	215.2	956	18.50	9.45
Dhemaji	91,203	47,689	43,514	3,237	169.8	912	15.69	5.24
Nagaon	89,803	45,302	44,501	3,973	120.4	982	17.59	3.14
Morigaon	91,324	47,912	43,412	1,551	119.3	906	18.50	7.00
Jorhat	215,095	109,617	105,478	2,851	421.7	962	60.55	14.80
Tinsukia	52,605	27,234	25,371	3,790	140.9	931	14.00	9.71
Total	2,490,097	1,271,588	1,218,509	78,438	3,609.1	958	19.31	4.60

Source: District Census Handbook, Govt. of Assam, 2003.

The table 4.2 provides a detailed district-wise demographic profile of the char areas in Assam for the year 2002-03, including data on total population, gender distribution, area, population density, sex ratio, literacy rate, and cultivable area percentage. When compared with the earlier data from 1992-93, significant demographic and socio-economic changes become evident, reflecting shifts in population size, literacy levels, and land utilization across the char regions over a decade. The total population of char areas has increased substantially, rising from 1,600,244 in 1992-93 to 2,490,097 in 2002-03. This notable growth, observed across all districts, highlights the growing demographic pressure on the char regions.

Dhubri remains the most populous district, with 689,909 residents, accounting for nearly 28% of the total population in the char areas, while Barpeta, with 268,344 individuals, continues to hold its position as the second most populous district. These figures reaffirm the significance of Dhubri and Barpeta as key regions within the char areas. In terms of population density, Dhubri records a staggering 999.0 persons per square kilometer, reflecting intense demographic pressure on its limited land area, followed by Jorhat, which has a density of 421.7 persons per square kilometer. In contrast, districts like Morigaon and Nagaon exhibit significantly lower population densities of 119.3 and 120.4 persons per square kilometer, respectively, indicating relatively less demographic strain in these regions.

The sex ratio in the char areas, which stands at 958 females per 1,000 males in 2002-03, represents a marginal improvement over the implied gender imbalances observed in the 1992-93 data, which highlighted male dominance in certain areas. However, some districts like Morigaon (906) and Dhemaji (912) report lower sex ratios, suggesting persistent gender disparities. On the other hand, districts such as Dhubri (998) and Nagaon (982) show relatively balanced sex ratios, indicating slight progress in gender equity. Literacy rates across the char areas have also shown modest improvements. While the overall literacy rate has increased from 15.45% in 1992-93 to 19.31% in 2002-03, the progress remains uneven across districts. Jorhat continues to lead with a significantly higher literacy rate of 60.55%, reflecting substantial educational advancements compared to other districts. In contrast, districts such as Bongaigaon (12.46%) and Darrang (12.34%) remain far below the average, underscoring the persistent educational challenges in certain regions. These disparities highlight the need for targeted interventions to address uneven access to education and improve literacy outcomes.

The data on cultivable area reveals a concerning trend of declining agricultural land utilization in several districts. In 2002-03, the overall percentage of cultivable land in the char areas is recorded at 4.60%, with significant variations across districts. For instance, Dhubri reports 35.20% cultivable land, the highest among all districts, while districts like Nagaon (3.14%) and Sonitpur (4.62%) reflect minimal agricultural land use. This decline in cultivable land utilization, when compared to the 1992-93 data, may indicate growing pressures from population expansion, land erosion, and environmental degradation, which are critical challenges in the char areas. The increasing population density in high-risk districts such as Dhubri and Barpeta further exacerbates these issues, limiting the availability of arable land and impacting the livelihoods of residents who depend heavily on agriculture.

The comparison between the two tables highlights significant demographic growth, limited progress in literacy, and declining cultivable land utilization in the char areas over the decade. While there are signs of improvement in certain indicators, such as literacy rates and sex ratios, the data underscores persistent socio-economic and environmental challenges that require urgent policy attention. The disparities in demographic pressure, educational access, and land utilization emphasize the need for region-specific interventions to address the unique challenges faced by each district, promoting sustainable development and improving the quality of life for char area residents.

3.3 Socio-Economic Conditions of Char Communities:

The char population in Assam, predominantly composed of immigrant Muslims, experiences high levels of socio-economic disadvantage. Cultural backgrounds and historical challenges have combined to make these communities some of the most marginalized in India, according to multiple studies including the Sachar Committee Report. The literacy rate in these regions is alarmingly low, with many communities showing rates far below the state average (Assam Human Development Report, 2013).

Char communities are structured under local leaders known as *Matabbars* or *Dewanis*, who act as intermediaries in local governance and land management. This social organization has maintained traditional hierarchies, often limiting access to modern amenities and educational opportunities, especially for women.

Land Tenure and Agriculture:

The char areas of Assam, particularly in Barpeta district, are among the most socio-economically disadvantaged regions in the state. These riverine islands, formed by the shifting course of the Brahmaputra River, are home to communities that face persistent challenges rooted in poverty, limited access to essential services, and the constant threat of natural disasters (Ahmed, 2004). Despite targeted government interventions, these challenges remain deeply entrenched, creating a cycle of deprivation and marginalization. Economic instability is one of the most pressing issues for the residents of the Barpeta char areas. Agriculture serves as the primary livelihood for most families. The char dwellers rely almost exclusively on agriculture, with over 95% engaged in farming. However, due to outdated techniques, limited access to high-yield seeds, fertilizers, and irrigation, agricultural productivity remains low. Land disputes are also common due to the unstructured land tenure system, with conflicts frequently arising over newly emerged char lands (Hazarika, 1994). More importantly, the recurring floods and riverbank erosion significantly disrupt agricultural productivity. Crops are often destroyed, leaving families without food or income.

For instance, in char villages like Majidbhita and Uttar Ghudhuni, farmers frequently report losing entire seasons of cultivation to flooding. Additionally, the lack of access to formal financial institutions exacerbates the problem. Most residents turn to informal moneylenders, who charge exorbitant interest rates, further impoverishing already struggling families. Seasonal migration to urban centers, where individuals take up menial labor jobs, has become a coping mechanism, but this comes at the cost of family stability and community cohesion (Government of Assam, 2003).

Education remains another critical challenge in Barpeta's char areas. Schools, if present, are often under-resourced, with inadequate infrastructure, untrained teachers, and a lack of basic educational materials. For example, Alopati Char has only one functional primary school for several hundred children, forcing many to travel long distances or drop out altogether. The literacy rate in these areas is significantly lower than the district average, and socio-cultural factors further hinder educational progress. Many families prioritize labor or early marriage over education, particularly for girls. The COVID-19 pandemic exacerbated the situation as schools were closed, and children in char areas, lacking access to digital resources, were excluded from online education opportunities.

Healthcare services in the char areas are grossly inadequate. The nearest health facilities are often miles away, making it difficult for residents to access medical care, especially during floods when transportation becomes impossible. Mobile medical units and health camps introduced by the government provide some relief but are insufficient to meet the community's needs. High rates of infant and maternal mortality, coupled with widespread malnutrition, highlight the severity of the healthcare crisis. Poor sanitation and stagnant water during floods also contribute to the prevalence of communicable diseases such as diarrhoea and malaria. Women and children are particularly vulnerable, with limited access to nutritious food and healthcare services.

The constant threat of natural disasters, particularly floods and erosion, defines life in the char areas. These disasters displace thousands of families annually, destroying homes, agricultural lands, and infrastructure. Villages such as Mandia and Kalgachia have seen entire communities forced to relocate repeatedly due to erosion. The destruction caused by floods not only disrupts livelihoods but also halts education and healthcare services, compounding the socio-economic challenges faced by residents. Government efforts to construct embankments and other flood protection measures have provided some relief, but these structures are often poorly maintained and fail during severe floods.

Land ownership is another contentious issue in Barpeta's char areas. Many residents lack legal documentation for the land they occupy, which prevents them from accessing government schemes and financial services. The absence of secure land tenure also discourages investment in permanent infrastructure or agricultural improvements, as families fear losing their land to erosion or legal disputes. Efforts to distribute land pattas (ownership documents) have been slow, leaving a significant portion of the population in a precarious position.

Social exclusion and discrimination further compound the difficulties faced by char dwellers, many of whom belong to marginalized communities. They are often labeled as "illegal immigrants," a stigma that limits their access to government services and opportunities for socio-economic advancement. Women, in particular, bear the brunt of these challenges. In addition to facing limited mobility and healthcare access, they often have no voice in household or community decision-making processes. Despite their significant contributions to household income through activities such as weaving and poultry farming, they remain largely excluded from the economic and social mainstream. Efforts by the Assam government, such as the National Health Mission (NHM), Sarva Shiksha Abhiyan (SSA), and the Assam Agribusiness and Rural Transformation Project (APART), have attempted to address these challenges. However, the implementation of these programs in the Barpeta char areas has been inconsistent, with limited monitoring and outreach. Infrastructure development remains a critical need, with all-weather roads, resilient embankments, and bridges required to improve connectivity and reduce vulnerability to natural disasters. In the education sector, establishing more schools, training teachers, and providing scholarships can encourage higher enrollment and retention rates. Healthcare services need to be expanded through the establishment of permanent health centers and the strengthening of mobile medical units to cater to remote locations.

Promoting alternative livelihoods and skill development programs can help reduce dependence on agriculture and daily-wage labor, offering residents more stable income opportunities. Disaster management strategies need to be enhanced, with better early warning systems, timely relief measures, and comprehensive rehabilitation programs for families affected by floods and erosion. Simplifying land documentation processes and ensuring secure tenure for char dwellers can empower them to invest in their lands and access formal financial services.

The socio-economic challenges of the char areas in Barpeta district are deeply interwoven, requiring a multi-faceted and sustained approach to address them. While the government and non-governmental organizations have made efforts to improve conditions, the scale of the problem necessitates greater investment and more effective implementation of programs.

Education, Health, and Living Standards:

Education in the Char areas of Assam, particularly in Barpeta district, remains severely underdeveloped, hindering socio-economic progress. Historical data highlights this deprivation, with the literacy rate in 1992-93 recorded at a dismal 15.45%. Over the subsequent decade, marginal improvement brought the rate to just 19.31% in 2002-03, still far below the state average. This low literacy rate reflects systemic issues such as the lack of access to schools, poorly trained teachers, and inadequate infrastructure. Studies have shown that educational attainment in the Char areas, measured through mean years of schooling (MYS) and expected years of schooling (EYS), lags significantly behind flood-prone areas, Hill areas, and the state average. For example, in villages like Alopati Char and Majidbhita in Barpeta, children often drop out early due to economic pressures and the need to support their families. Many households lack the financial stability or awareness to prioritize education, perpetuating the cycle of poverty and underachievement.

Health indicators in the Char areas similarly paint a grim picture. Life expectancy at birth (LEB) and maternal mortality rate (MMR) are below the state average, reflecting poor healthcare access and outcomes. Barpeta's Char residents face particular challenges in accessing basic health services, with the nearest health facilities often located miles away and inaccessible during the flood season. Mobile medical units deployed by the government provide some relief, but their irregular schedules and limited resources fail to meet the growing needs of the population. The lack of access to safe drinking water further exacerbates health vulnerabilities. An alarming 91% of the Char population lacks access to safe drinking water, leaving them dependent on untreated river water, which is prone to contamination. This situation leads to the widespread prevalence of waterborne diseases like diarrhea, cholera, and typhoid. Sanitation facilities are equally inadequate, with only 1.40% of households having access to sanitary latrines within their premises.

Poor sanitation contributes to high rates of communicable diseases, particularly among children and women, further increasing the region's health burden.

Living standards in the Char areas are marked by substandard housing and limited household amenities, contributing to the socio-economic marginalization of these communities. In Barpeta, 53.40% of the Char population resides in kutcha houses—temporary structures made of mud, bamboo, or thatch—compared to the state average of 43.70%. These houses are highly vulnerable to floods, which often leave families homeless. The densely packed nature of these settlements also increases the risk of diseases, as floodwaters stagnate around homes. In contrast, only 11.70% of Char households live in pucca houses, significantly lower than the state average of 27%. Pucca houses are more resilient to floods, but their construction is beyond the financial means of most Char dwellers, who often rely on daily-wage labor and agriculture for subsistence.

Household amenities further highlight the disparity between the Char areas and the rest of Assam. In Barpeta's Char regions, 47.10% of households lack electricity, forcing families to rely on kerosene lamps, which are both expensive and hazardous. This lack of electricity limits opportunities for education, work, and access to information, further isolating these communities. Access to sanitary latrines is also a significant issue, with 84.60% of Char households lacking basic sanitation facilities. By comparison, 70% of households in Assam lack sanitary latrines, illustrating the acute disparity faced by the Char population. The absence of proper sanitation contributes to environmental degradation and health issues, particularly during the monsoon season when open defecation becomes a serious problem.

The contrast between the Char areas and the broader state averages underscores the need for targeted interventions to improve living conditions in these regions. For instance, while only 10.5% of households across Assam lack access to safe drinking water, this figure is exponentially higher in the Char areas, revealing the urgent need for infrastructure development. Projects like tube well installations, water purification systems, and flood-resilient housing could significantly improve living standards. Similarly, increasing the number of schools and healthcare facilities in Barpeta's Char areas could address the severe deficits in education and health services, providing the foundation for long-term socio-economic upliftment. Sustainable development in the Char areas requires a multi-pronged approach that addresses these interconnected challenges, ensuring that communities like those in Barpeta are no longer left behind.

Multidimensional Poverty:

In the Char areas of Assam, poverty extends beyond the lack of income, encompassing various dimensions of deprivation, such as poor access to education, inadequate healthcare, and substandard living conditions. These regions, particularly in Barpeta district, exhibit stark socio-economic disparities when compared to other parts of the state. In 1992-93, 48.89% of the Char population was recorded as living below the poverty line. By 2002-03, this figure had surged alarmingly to 67.89%, indicating a deterioration in living conditions despite various developmental efforts (District Census Handbook, 2003). Comparatively, Assam's overall poverty rate was 34.4% in 2004-05 and had improved to 30.1% by 2011-12, demonstrating a trajectory of development from which the Char areas were largely excluded.

Multidimensional poverty, which considers factors beyond income—such as education, health, and living standards—provides a more comprehensive understanding of deprivation in these regions. The headcount ratio of multidimensional poverty in the Char areas is 44.59%, significantly higher than Assam's state average of 30.10%. In comparison, flood-prone areas have a ratio of 27.74%, and hill areas report 33.70%. The Multidimensional Poverty Index (MPI) for Char areas stands at 18.57%, compared to 12.49% for Assam as a whole, 11.70% for flood-prone areas, and 13.86% for hill areas. This disparity highlights the compounded nature of deprivation in the Char regions, where access to essential services and economic opportunities remains highly constrained.

Table 4.3: Multi-dimensional Poverty Indicators for Selective Spatial Diversity Groups in Assam

Poverty Indices/ Spatial Diversity Groups	Spatial Diversity Groups			
	Char	Flood-prone	Hill	State
Head Count Ratio of Multi-dimensional Poor (%)	44.59	27.74	33.70	30.10
Head Count Ratio of Vulnerable (%)	17.60	21.21	17.78	16.54
Multi-dimensional Poverty Index (MPI)	18.57	11.70	13.86	12.49

Source: Assam Human Development Report, 2013, pp.198.

Despite having a lower headcount ratio of vulnerability to poverty (17.60%) compared to flood-prone areas (21.21%), Char regions still face significant risks due to their unique geographical and socio-economic challenges. The annual per capita income in the Char areas is INR 21,156, which is considerably lower than the state average of INR 24,660 and the income in flood-prone areas at INR 23,604. However, it is slightly higher than the hill areas, where the per capita income is INR 18,060. These income disparities underline the persistent economic challenges in the Char regions, where opportunities for stable employment are scarce, and agriculture, the primary livelihood, is frequently disrupted by floods and erosion.

The Char areas also suffer from a lack of essential infrastructure, exacerbating multidimensional poverty. Only 11.70% of households in the Char areas have access to pucca houses, compared to 27% for the state as a whole. A majority of families live in kutcha houses, which are highly vulnerable to floods, leaving them at constant risk of displacement. Similarly, 91% of the Char population lacks access to safe drinking water, and only 1.40% have access to sanitary latrines, far below the state averages. These deficiencies in basic amenities further perpetuate the cycle of poverty and deprivation in the Char regions.

Poverty Indicators in Income, Education and Health:

The table titled 4.4 provides a comprehensive overview of disparities in income, education, and health across Char areas, flood-prone areas, and hill areas. The Annual Per Capita Income (APCI) in Char areas is reported as INR 21,156, which is significantly lower than INR 23,604 in flood-prone areas but higher than INR 18,060 in hill areas. This variation in APCI highlights the limited economic opportunities available to the residents of Char areas, where agriculture serves as the primary source of income. However, agricultural productivity is frequently disrupted by floods and riverbank erosion, leading to significant income volatility. Flood-prone areas show slightly higher income levels, likely due to better access to markets and more diversified economic activities. In contrast, the hill areas face even greater economic isolation due to poor connectivity and challenging terrain, which restrict access to resources and opportunities.

In Barpeta district, which has a significant Char population, the economic situation mirrors these broader trends. Most residents rely on small-scale farming and daily-wage labor, both of which are vulnerable to natural disasters. Seasonal migration to urban centers for low-paying jobs is common, as families seek to supplement their meager incomes. Financial exclusion exacerbates the economic challenges faced by Char dwellers; studies indicate that less than 10% of households in the Char areas have access to formal banking services. This forces many to rely on informal moneylenders, who charge exorbitant interest rates, trapping families in cycles of debt and poverty.

Table 4.4: Poverty Indicators in the Dimensions of Income, Education, and Health for Char Areas

Sl. No.	Poverty Indicators	Char Areas	Flood-Prone Areas	Hill Areas
1.	APCI (Rs)	21,156	23,604	18,060
2.	MYS (Yrs)	4.76	6.54	5.25
3.	EYS (Yrs)	11.76	11.90	11.87
4.	LEB (Yrs)	63.80	50.22	67.42
5.	MMR (per lakh live birth)	330	-	-

(LEB=Life Expectancy at Birth, MMR=Maternal Mortality Ratio, MYS=Mean Years of Schooling, EYS=Expected Years of Schooling, APCI=Annual Per Capita Income).

The educational dimension of the table reveals that Char areas lag significantly in terms of both Mean Years of Schooling (MYS) and Expected Years of Schooling (EYS). The MYS in Char areas is just 4.76 years, considerably lower than the 6.54 years observed in flood-prone areas and 5.25 years in hill areas. This indicates that individuals in Char areas, on average, receive fewer years of formal education compared to those in other regions. The EYS for Char areas stands at 11.76 years, slightly behind flood-prone areas (11.90 years) and hill areas (11.87 years). These figures reflect the persistent barriers to educational access in the Char regions, including the lack of schools, inadequate infrastructure, and insufficient numbers of trained teachers.

In Barpeta district, these educational challenges are particularly pronounced. Many Char villages, such as Alopati Char, have limited or no access to secondary schools, forcing students to travel long distances to pursue education. This often leads to high dropout rates, especially among girls, as socio-economic pressures and cultural norms compel families to prioritize household responsibilities or early marriage over education. The absence of consistent educational infrastructure and support mechanisms further deepens this gap, leaving a significant portion of the Char population without the skills or qualifications needed for economic mobility.

Health indicators in the table highlight severe deprivation in Char areas. Life Expectancy at Birth (LEB) in Char areas is reported at 63.80 years, which, although higher than the 50.22 years in flood-prone areas, remains lower than the 67.42 years in hill areas. This disparity reflects the inadequate healthcare facilities and services available to Char dwellers. The Maternal Mortality Ratio (MMR) in Char areas is particularly concerning, with 330 maternal deaths per 100,000 live births. Such high mortality rates underscore the critical gaps in maternal and child health services in these regions.

The health challenges in Barpeta's Char villages are exacerbated by poor access to healthcare infrastructure. Most residents must travel long distances to reach the nearest health centers, which becomes nearly impossible during the monsoon season when roads are submerged. Mobile medical units introduced by the government provide some relief, but their sporadic schedules and limited resources fall short of addressing the widespread health needs of the population. The lack of clean drinking water and sanitation facilities further compounds health risks. Approximately 91% of the Char population lacks access to safe drinking water, relying instead on untreated river water that is frequently contaminated. Sanitation facilities are also severely inadequate, with only 1.40% of households having access to sanitary latrines. These deficiencies lead to the prevalence of waterborne diseases such as cholera and diarrhoea, which disproportionately affect children and women.

The data in the table underscores the multi-faceted nature of poverty in Char areas, where economic instability, educational deficits, and poor health outcomes are deeply intertwined. The comparison with flood-prone and hill areas highlights that while Char areas fare marginally better in some indicators, such as APCI and LEB, they are significantly disadvantaged in others, particularly education and sanitation. This highlights the urgent need for targeted interventions to address these disparities and improve the quality of life for residents in the Char areas of Assam, including Barpeta district.

Asset Poverty:

The table titled 4.5 highlights significant disparities in the possession of critical assets across Char areas, flood-prone areas, hill areas, and the state average. It underscores the acute deprivation faced by the residents of Char areas in terms of agricultural and non-agricultural assets, transport facilities, household appliances, financial resources, and insurance coverage. These indicators collectively illustrate the multidimensional nature of poverty and the vulnerability of Char dwellers in comparison to other spatial regions of Assam.

The data reveals that 69.4% of households in Char areas lack agricultural assets, which is significantly higher than the 64.7% in flood-prone areas, 53.4% in hill areas, and the state average of 53.72%. This suggests that agricultural productivity in Char regions is severely constrained by the absence of tools, machinery, livestock, or land ownership. Agriculture remains the primary livelihood for most families in Char areas, particularly in districts like Barpeta. However, the frequent occurrence of floods and erosion destroys farmlands and reduces productivity, leaving households without the necessary resources to sustain farming operations. The inability to invest in agricultural assets perpetuates low yields and income instability, compelling families to either migrate for wage labour or depend on subsistence farming. In comparison, hill areas, with their challenging terrain, exhibit lower dependency on agriculture and therefore reflect a slightly better situation in terms of agricultural asset possession.

Table 4.5: Intensity of Asset Poverty in Char vis-à - vis other spatial diversities in Assam

Assets	Char Areas (%)	Flood-Prone Areas (%)	Hill Areas (%)	State Average (%)
No Agri-Asset	69.4	64.7	53.4	53.72
No Non-Agri-Asset	24.4	21.9	28.2	24.26
No Transport Asset	36.0	23.3	21.6	26.8
No Household Appliance	91.1	82.1	74.1	84.44
No Financial Asset	42.5	34.1	27.0	34.57
No Insurance Coverage	83.3	75.7	81.1	79.21

Source: Assam Human Development Report, 2013, pp. 207

In terms of non-agricultural assets, 24.4% of households in Char areas lack these resources, a figure slightly above the state average of 24.26%. While flood-prone areas fare marginally better at 21.9%, hill areas are the most deprived in this category, with 28.2% of households lacking non-agricultural assets. Non-agricultural assets, such as small-scale businesses, construction tools, or industrial equipment, play a critical role in diversifying income sources and reducing dependency on agriculture. The absence of these assets in Char areas indicates limited opportunities for alternative livelihoods, which further exacerbates economic vulnerability. Households in Barpeta's Char areas often lack access to credit or capital to invest in such assets, thereby constraining their economic mobility.

The data on transport assets further emphasizes the deprivation in Char areas, where 36.0% of households lack any form of transport, compared to 23.3% in flood-prone areas, 21.6% in hill areas, and the state average of 26.8%. Transport assets, such as bicycles, motorbikes, or boats, are critical in facilitating access to markets, schools, and healthcare facilities, particularly in geographically isolated regions like the Char areas. The higher proportion of households without transport assets in Char regions highlights the infrastructural challenges and the restricted mobility of residents. For instance, in Barpeta's Alopati Char, families often face difficulties transporting agricultural produce to nearby markets, which results in lower incomes and wasted produce during peak seasons. The lack of transport also limits access to emergency healthcare, particularly during floods, when roads become impassable.

Household appliances are a major area of deprivation for Char residents, with 91.1% of households lacking basic appliances, compared to 82.1% in flood-prone areas, 74.1% in hill areas, and the state average of 84.44%. This stark statistic reflects the deep material poverty in Char regions, where even basic appliances like fans, refrigerators, or cooking stoves are inaccessible to most households. The lack of household appliances not only affects quality of life but also reflects broader issues of energy poverty, as many Char areas lack reliable electricity connections. In Barpeta district, power supply is often interrupted during floods, further limiting the use of essential appliances. This level of deprivation also underscores the inability of households to invest in items that could improve their living standards and overall well-being.

The absence of financial assets is another critical dimension of poverty highlighted in the table. In Char areas, 42.5% of households lack financial assets, compared to 34.1% in flood-prone areas, 27.0% in hill areas, and the state average of 34.57%. Financial assets, such as savings accounts, fixed deposits, or investment portfolios, are essential for economic resilience and security. The lack of these assets in Char areas indicates a high level of financial exclusion. Studies suggest that only a small fraction of Char residents in Barpeta have access to formal banking services, as banks are often located far from these isolated regions. Instead, households rely on informal credit sources, such as local moneylenders, who charge exorbitant interest rates, further deepening poverty cycles. Initiatives like the Pradhan Mantri Jan Dhan Yojana have attempted to improve financial inclusion, but their impact in Char areas remains limited due to logistical and administrative challenges.

Insurance coverage is another area of acute deprivation in Char areas, where 83.3% of households lack any form of insurance. This figure is higher than the 75.7% in flood-prone areas, 81.1% in hill areas, and the state average of 79.21%. The lack of insurance leaves households highly vulnerable to economic shocks, such as crop failures, health emergencies, or property damage caused by floods. In Barpeta's Char regions, where natural disasters are a frequent occurrence, the absence of insurance significantly increases the financial burden on families, pushing many into deeper poverty. Efforts to introduce affordable insurance schemes, particularly for health and crop protection, have yet to gain significant traction in these regions due to poor awareness and accessibility issues.

As such, the table underscores the multidimensional nature of asset poverty in Char areas, revealing significant disparities in comparison to other spatial regions in Assam. The deprivation in agricultural and non-agricultural assets reflects limited livelihood opportunities, while the lack of transport assets highlights infrastructural isolation. The severe deficit

in household appliances and financial assets further illustrates the material poverty and economic vulnerability of Char residents. Finally, the absence of insurance coverage exacerbates the risks faced by these communities, particularly in the face of frequent natural disasters. The data highlights the urgent need for targeted interventions to address these challenges and reduce asset poverty in Char areas, particularly in districts like Barpeta, where the intensity of deprivation is among the highest in the state.

3.4 Population situation:

The Chars of Assam are experiencing tremendous population growth, which is putting immense pressure on the limited land available. This growth is not only due to the high fertility rates in the region but also because of persistent immigration from Bangladesh, which has been ongoing since the colonial era in successive waves. According to data, Assam's population was 26,655,528 in 2001, while the Char areas alone accounted for 2,490,397 people in 2002-03, representing 9.36% of the state's total population. Comparatively, Assam spans a geographical area of 78,348 square kilometers, whereas the Char regions cover just 3,608 square kilometers, or 4.60% of the total area. The fact that 9.36% of the population resides in only 4.60% of the state's area results in significantly higher population density in these areas. Specifically, the population density in Char areas in 2002-03 was 690 people per square kilometer, more than double the state average of 340 people per square kilometer in 2001.

The fertility rate in the Chars, at 2.8, is substantially higher than the state average of 2.0. A major contributing factor is the lower mean age of marriage for girls in these areas, which is 17.1 years. The percentage of married women aged 15-19 in Char areas is 25.3%, compared to the state average of 15.34%. This early marriage age is a key demographic factor driving the high fertility rates.

In examining the spatial distribution of the Char population within Assam, it was noted that in 1992-93, Barpeta district had the highest number of Char villages (351) and population (275,525), followed by Dhubri (313 villages and 233,206 people) and Jorhat (210 villages and 141,901 people). By 2002-03, Dhubri had the highest number of Char villages (480) and population (689,909), followed by Jorhat (293 villages and 215,095 people) and Barpeta (277 villages and 268,344 people).

The relentless immigration and high fertility rates are further exacerbated by social customs and religious beliefs among the Muslim immigrants in Chars. Practices such as polygamy and a high rate of procreation contribute to larger family sizes. Additionally, many residents are reluctant or unaware of available family planning techniques, and as a result, government strategies for controlling population growth have had limited impact in these areas.

The population explosion has resulted in extremely small average landholdings, insufficient for scientific cultivation, contributing to agricultural backwardness despite the majority of inhabitants relying on agriculture for their livelihood. Increased population density, reaching 690 people per square kilometres, significantly exceeds the state average and leads to severe shortages of basic amenities, creating slum-like conditions. Large family sizes and limited resources force many to live in poverty, and children often forego education to work and support their families. The lack of basic socio-economic amenities in these flood-prone areas makes it difficult to convert the vast population into social capital.

Although a few individuals have pursued higher education, most lack the necessary skills and training, relegating them to unskilled labour. Consequently, the demographic profile of Char areas hinders their improvement and poses a threat to the state's overall demographic balance. Instead of being a potential reserve of social capital, the burgeoning population in Char areas is becoming a demographic challenge for Assam.

3.5 Vulnerability Due to Floods and Erosion:

The Char areas of Assam are among the most vulnerable regions in the state, facing perennial flooding and severe land erosion, which have devastating consequences for the local population. These areas, especially in districts like Barpeta, are frequently affected by the dynamic and unpredictable course of the Brahmaputra River. Land erosion, a persistent issue, renders many residents landless, depriving them of both settlement and cultivation spaces. This cycle of displacement forces Char dwellers to relocate frequently, often relying on small country boats to transport their meagre belongings in search of new land. These displaced individuals are aptly referred to as "River Nomads," as their lives revolve around the precarious balance of survival amidst the river's shifting landscapes.

Floods in the Char areas have historically caused massive damage to life, property, and livelihoods. The 2003 floods in the Brahmaputra River basin eroded approximately 400,000 hectares of land, leaving more than 500,000 families landless. Similarly, the catastrophic floods of 2004 devastated Assam's economy, impacting 28.5 million hectares of land, including 12.57 million hectares of cropland. The disaster affected over 12.3 million people and submerged 10,560 villages, resulting in 251 deaths and the loss of countless cattle and wildlife. All 27 districts of Assam experienced damages, with total losses estimated at INR 6,500 crore. Char areas bore the brunt of this disaster, with Barpeta, Morigaon, Nalbari, Goalpara, and Dhubri districts among the worst affected. In Barpeta district alone, villages like Uttar Ghudhuni and Alopati Char were completely

inundated, displacing thousands of families and destroying essential infrastructure.

The annual flooding of the Brahmaputra River significantly contributes to the persistent poverty and socio-economic challenges faced by Char dwellers. Approximately 45% of families affected by floods in Assam reside in Char areas, and these regions account for 51% of the total land lost to erosion. Between 1980 and 2004, the Beki River, a tributary of the Brahmaputra, eroded land belonging to 775 households in Barpeta district, destroying 94% of their agricultural holdings. For the predominantly agrarian communities in the Char areas, the loss of farmland equates to the loss of their primary source of income and sustenance. Many families, already living in fragile economic conditions, are unable to recover from the repeated destruction of crops, livestock, homes, and utilities, perpetuating a cycle of poverty and deprivation.

Floods also disrupt essential services and infrastructure, further exacerbating the vulnerability of Char residents. Educational facilities in the Char areas, already inadequate, are frequently destroyed or rendered inaccessible during floods. Schools in affected villages often double as relief camps, disrupting the education of children for extended periods. Healthcare facilities are similarly compromised, with most health centers located on the mainland and inaccessible to Char residents during floods. This lack of access to medical care leads to heightened morbidity and mortality rates, particularly among children and pregnant women. Waterborne diseases such as cholera, diarrhea, and typhoid are rampant during flood seasons due to the contamination of water sources.

The socio-economic impact of flooding extends beyond immediate physical damages. Displacement and land loss lead to a loss of identity and social cohesion, as families are uprooted from their ancestral homes and forced to settle in unfamiliar and often hostile environments. Seasonal migration becomes a coping mechanism for many Char dwellers, who travel to urban centers like Guwahati in search of menial labor. However, these migrants face exploitation, job insecurity, and poor living conditions in urban slums, further entrenching their marginalization (Government of Assam, 2003).

Government relief measures, while significant, often fall short of addressing the long-term needs of the affected population. Immediate relief efforts, such as the distribution of food and temporary shelter, provide short-term respite but do little to address the structural vulnerabilities of the Char areas. The construction of embankments and flood control measures has had mixed results, as these structures are often poorly maintained and fail to withstand the intensity of the Brahmaputra's floods. In some cases, embankments have even exacerbated flooding by obstructing natural drainage channels.

Studies on Barpeta district indicate that Char dwellers adopt various coping mechanisms to deal with the recurring floods. These include constructing elevated platforms for housing, adopting flood-resistant agricultural practices, and relying on community networks for support. However, these strategies are often inadequate in the face of large-scale disasters. For instance, during the 2020 floods, over 200,000 people in Barpeta district were displaced, with many families losing all their possessions. The inability to secure stable livelihoods or rebuild lost assets leaves Char residents trapped in a continuous cycle of vulnerability.

In addition to physical vulnerability, the Char population faces socio-political marginalization, which hinders their access to resources and opportunities for development. Many Char dwellers, particularly those belonging to marginalized communities, lack legal documentation for the land they inhabit, making it difficult for them to access government schemes or secure compensation for land loss. This lack of recognition and inclusion in formal governance structures further alienates them, leaving them dependent on informal and often exploitative systems of support.

The vulnerability of the Char areas to floods is compounded by the effects of climate change, which have increased the frequency and intensity of extreme weather events. Rising river levels, coupled with unplanned urbanization and deforestation in upstream areas, have worsened the impact of floods in downstream regions like Barpeta. Projections suggest that climate change could lead to more severe and prolonged flooding in the Brahmaputra basin, posing even greater challenges for the Char population.

Addressing the vulnerability of the Char areas requires a multi-faceted and integrated approach. Investments in resilient infrastructure, such as raised housing and flood-resistant roads, can help mitigate the impact of floods. Strengthening early warning systems and improving disaster preparedness at the community level can reduce the loss of life and property during floods. Additionally, providing secure land tenure to Char residents and integrating them into formal governance and development processes can enhance their access to resources and opportunities. Long-term strategies, such as promoting sustainable agricultural practices and diversifying livelihoods, are essential for reducing the economic dependence of Char dwellers on flood-prone land.

The experience of Barpeta district illustrates the complex interplay of environmental, socio-economic, and political factors that contribute to the vulnerability of the Char areas. While the challenges are immense, targeted interventions and inclusive policies can provide a pathway toward resilience and sustainable development for these marginalized communities.

3.6 Government Initiatives for Char Area Development:

The Char areas of Assam, characterized by their unique geographical and socio-economic conditions, have long been a focus of government initiatives aimed at improving the quality of life for their residents. These low-lying riverine islands, formed by sediment deposition along the Brahmaputra River, are home to a population that struggles with poverty, lack of infrastructure, and vulnerability to natural disasters like floods and erosion (Assam Human Development Report, 2013). The Assam government, recognizing these challenges, has implemented several developmental programs and policies over the years. However, the effectiveness of these initiatives has been mixed, as evidenced by the data on budgetary allocations and socio-economic indicators.

Table 4.6 provides a detailed account of the budgetary allocations for Char area development from 1985 to 2001. The data shows a steady increase in the total budget over the years, starting from INR 50 lakh in 1985-86 and reaching INR 118 lakh in 2000-01. While this upward trend reflects the growing recognition of the need for focused interventions in these areas, the actual funds allotted and utilized often fell short of the allocations, highlighting challenges in financial disbursement and program implementation Directorate of Char Areas Development, 2012). For instance, in 1988-89, although INR 83 lakh was allocated, only INR 39 lakh was allotted, and INR 11.19

Table 4.6: Budgetary Allocation for Char Area Development (1985-2001)

Year	Total Budget (in Lakhs)	Fund Allotted (in Lakhs)	Development Expenditure (in Lakhs)	Expenditure on Salaries and Schemes (in Lakhs)
1985-86	50	50	16.84	33.16
1986-87	60	60	14.22	45.78
1987-88	78	78	19.36	58.57
1988-89	83	39	11.19	27.81
1989-90	83	83	20.96	62.04
1990-91	96	96	27.00	69.61
1991-92	110	109.77	34.86	74.91
1992-93	110	66.66	28.25	38.41
1993-94	110	110	36.35	73.65
1994-95	110	105.10	42.27	62.83
1995-96	110	107.78	50.40	57.38
1996-97	110	98.72	47.14	51.58
1997-98	110	89.52	47.44	42.08
1998-99	121	87.30	59.32	27.98
1999-2000	115	102.72	75.06	27.66
2000-01	118	94.30	75.09	19.21

Source: District Census Handbook, Govt. of Assam, 2003.

lakh was spent on development activities. This gap between allocation, allotment, and expenditure underscores systemic inefficiencies and administrative bottlenecks.

A significant portion of the budget was allocated to salaries and administrative costs, leaving limited funds for direct development activities. For example, in 1985-86, INR 33.16 lakh out of the INR 50 lakh budget was spent on salaries and schemes, while only INR 16.84 lakh was used for developmental purposes. This trend persisted throughout the years, indicating that a disproportionate share of the funds was consumed by administrative overheads rather than reaching the intended beneficiaries. This inefficiency limited the impact of these programs and hindered the overall development of the Char areas.

The Assam government has implemented a variety of initiatives to address the unique challenges of the Char areas. The Directorate of Char Areas Development has been instrumental in designing and executing programs focused on agriculture, education, healthcare, and infrastructure. These initiatives aim to improve living conditions by addressing both immediate needs and long-term developmental goals.

The Directorate of Char Areas Development implements special programs focused on agriculture, veterinary services, drinking water, cottage industries, and education (Directorate of Char Areas Development, 2012). These programs aim to improve the quality of life for char residents through infrastructure development and skill training.

In the realm of infrastructure, the government has prioritized improving connectivity in the Char areas. Roads and bridges have been constructed to link these isolated regions with the mainland, enabling better access to markets, schools, and healthcare facilities. However, the fragile geographical nature of the Char areas means that these structures are often damaged by floods and erosion, necessitating frequent repairs (Assam Human Development Report, 2013). The Assam State Action Plan for Climate Change has included Char areas in its agenda, emphasizing the

need for resilient infrastructure that can withstand the adverse impacts of climate change. Despite these efforts, many Char areas remain poorly connected, underscoring the need for sustained investments in infrastructure.

Education has been another critical focus area for the government. Initiatives such as the establishment of schools, provision of scholarships, and special training programs for teachers have been introduced to enhance educational outcomes. For instance, the Chief Minister's Special Scholarship Scheme provides financial assistance to students from economically disadvantaged backgrounds in the Char areas. Despite these efforts, educational indicators in the Char areas remain below the state average. The lack of adequate schools, trained teachers, and learning materials continues to pose significant challenges. Many children drop out of school due to economic pressures, contributing to the perpetuation of poverty in these regions.

Healthcare services in the Char areas have also been a priority for the government. Mobile medical units and health camps have been deployed to provide basic healthcare services to these remote and underserved communities. The National Health Mission (NHM) has played a vital role in extending healthcare facilities to the Char areas (National Health Mission, 2014). However, the lack of permanent healthcare centers, inadequate medical staff, and logistical challenges during floods limit the effectiveness of these initiatives. Maternal and child health indicators in the Char areas are among the worst in the state, reflecting the urgent need for more targeted healthcare interventions.

Agriculture, the backbone of the Char economy, has received considerable attention from the government. Programs to distribute seeds, fertilizers, and farming equipment have been implemented, along with training sessions on modern agricultural practices. The government has also promoted the cultivation of flood-resistant crops to mitigate the impact of recurrent flooding (Directorate of Agriculture, Assam, 2011). The Assam Agribusiness and Rural Transformation Project (APART), funded by the World Bank, has extended its activities to the Char areas, aiming to improve agricultural productivity and market linkages. Despite these efforts, the agricultural sector in the Char areas continues to face challenges such as limited access to irrigation, poor market connectivity, and frequent crop losses due to floods.

Poverty remains a pervasive issue in the Char areas, with socio-economic indicators revealing significant disparities compared to the rest of the state. In 1992-93, 48.89% of the Char population was living below the poverty line, and this figure surged to 67.89% by 2002-03. In contrast, the average poverty rate in Assam was 34.40% in 2004-05, decreasing to 30.10% in 2011-12 (Planning Commission, 2013). This stark contrast highlights the severity of poverty in the Char areas and the limited impact of development efforts in alleviating it. The annual per capita income in the Char areas, at INR 21,156, is lower than the state average of INR 24,660 and the income in flood-prone areas, which is INR 23,604. While it is slightly higher than the per capita income in the Hill areas (INR 18,060), it underscores the economic deprivation faced by Char residents.

In recent years, the Assam government has introduced additional measures to address these issues. The Char Development Board, established to oversee the implementation of development programs in the Char areas, has focused on integrated development through multi-sectoral interventions (Directorate of Char Areas Development, 2012). Efforts to promote cottage industries and self-employment schemes have been initiated to provide alternative income sources. The introduction of skill development programs aims to equip the youth with employable skills, enabling them to explore opportunities beyond the traditional agricultural sector.

The government has also taken steps to address the issue of flooding and erosion, which are perennial challenges in the Char areas. Embankments and riverbank protection projects have been undertaken to safeguard agricultural lands and settlements (Assam State Disaster Management Authority, 2015). Additionally, the government has collaborated with national and international organizations to develop long-term strategies for managing river systems and reducing the vulnerability of the Char areas to natural disaster(World Bank, 2017).

While these initiatives reflect the government's commitment to improving the living conditions in the Char areas, the persistent challenges highlight the need for a more integrated and sustained approach. A comprehensive development strategy that addresses the root causes of poverty and underdevelopment, coupled with efficient implementation and monitoring mechanisms, is essential for achieving meaningful progress. Greater involvement of local communities in planning and execution can also ensure that the programs are tailored to the specific needs of the Char areas.

4. CONCLUSION:

In conclusion, the Char areas of Assam, with a special focus on Barpeta district, represent a unique socio-economic and geographical challenge that requires a multi-dimensional approach to development. The interplay of historical migration patterns, persistent poverty, educational deprivation, health crises, asset poverty, and vulnerability to floods has created a cycle of marginalization that continues to affect the region's progress. Despite numerous government initiatives targeting infrastructure, education, healthcare, and agricultural productivity, the gaps in implementation and resource allocation remain significant. The growing population pressure, coupled with the impacts

of climate change and recurring natural disasters, exacerbates the already precarious conditions in these regions. For sustainable development, it is imperative to adopt integrated, community-driven policies that address systemic inequalities, improve resilience against environmental risks, and foster economic opportunities, ensuring that the Char areas and their residents are no longer left on the margins of Assam's development narrative.

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