

RESEARCH PAPER

Fluid Histories and Unruly Waters: The Brahmaputra River System, Political Ecology, and the Making of Pre-Colonial Assam

Anurag Borah*

Abstract: This paper examines the Brahmaputra River system as a central agent in the history of pre-colonial Assam, demonstrating how the ecological rhythms, shifting course, and socio-environmental dynamics of the Brahmaputra and its tributaries shaped the region's social, political, and cultural trajectories. Through a political ecology reading of copper-plate land grant charters, royal chronicles (*buranjis*), and narrative texts spanning the fifth to eighteenth centuries CE, the paper argues that the Brahmaputra's structural “unruliness”—its high sediment loads, catastrophic floods, constant channel migrations, and ecological unpredictability—generated a specific political logic: rulers who mastered hydraulic governance commanded the territory. Importantly, the Brahmaputra system was never static. Its capricious migrations and periodic floods compelled resilience: capitals were relocated, embankments and canals constructed, and new settlements established on the freshly deposited lands. Rulers who recognized the dual nature of rivers—fertility and devastation, connection and division—could better consolidate power and safeguard agrarian regions. The paper further contends that ordinary people were not passive subjects of a river-shaped landscape but active negotiators of its possibilities. By integrating geological dynamics, political ecology, and *longue-durée* analysis, the study reveals a fluid history in which the Brahmaputra's unruliness was simultaneously a threat to be managed, a resource to be harnessed, and a force that ultimately thwarted every human attempt at mastery.

Keywords: Brahmaputra River system, Pre-colonial Assam, Political Ecology, Environmental history, Kamarupa, Ahom Kingdom, Hydronyms, Fluvial geomorphology

* Assistant Professor, Department of History, Rangia College, Kamrup, Assam, India 781354; its_me_anurag[at]yahoo[dot]com.

Copyright © Borah 2026. Released under Creative Commons Attribution © NonCommercial 4.0 International licence (CC BY-NC 4.0) by the authors.

Dates: 3 Sep 2025 (submission), 1 Jul 2026 (acceptance), 31 Jul 2026 (publication)

DOI: <https://doi.org/10.37773/ees.v9i2.1800>

Published by Indian Society for Ecological Economics (INSEE), c/o Institute of Economic Growth, University Enclave, North Campus, Delhi 110007.

ISSN: 2581–6152 (print); 2581–6101 (web).

1. INTRODUCTION

To understand Assam's past, one must first comprehend the physical world the Brahmaputra created. Emerging from the Tibetan Plateau as the Yarlung Tsangpo and carving through some of the deepest gorges on Earth before debouching into the valley below as one of the world's largest rivers by discharge, the Brahmaputra is, in geological terms, an intensely active system. The valley it occupies stretches roughly 700 km from the Dibang confluence in the east to the Manas confluence in the west. It is cradled by the Eastern Himalayas to the north and east, the Patkai and Naga Hills to the northeast, and the Mikir Hills and Shillong Plateau to the south. This orographic configuration funnels some of the world's highest rainfall into a single drainage basin: annual precipitation exceeds 2,000 mm across much of the valley, with pockets in the foothills receiving over 10,000 mm. The result is a river that carries an extraordinarily high sediment load—estimated at approximately 402 million tonnes per year—maintaining a braided, unstable channel that shifts laterally, scours new paths, and deposits islands with remorseless regularity (Sarma 2005, 226). The valley floor is a patchwork of wetlands, riparian forests, tall-grass meadows, and agricultural clearings, bounded by dense tropical and subtropical forests on the surrounding hillslopes. Before modern road construction, this forested terrain made overland movement arduous; rivers were not merely useful; they were essential.

It is this structural character—geologically young, seismically active, perpetually sedimented—that this paper designates as the river's "unruliness". The concept is not merely rhetorical. The Brahmaputra's unruliness has a precise geomorphological basis: its braided planform, driven by enormous bedload, means that it maintains multiple unstable channels simultaneously rather than a single fixed course. Tectonic events—earthquakes in 1697, 1762, and the catastrophic Assam earthquake of 1950 CE—have periodically reorganized drainage patterns across vast areas. Floods of extreme magnitude have, on occasion, forced the river into entirely new courses, most dramatically in 1750 and 1787 CE. This is not a river that submits to human mastery; it is a river that must be continuously negotiated.

It is important to acknowledge Arupjyoti Saikia's *The Unquiet River: A Biography of the Brahmaputra* as a landmark contribution to river-centred environmental history (Saikia 2019). While the work engages with the medieval era, its primary emphasis is the colonial period, and its framework is more thematic than chronological. Consequently, the formative centuries of early Assam—where inscriptions and indigenous traditions vividly reveal the river's role—receive relatively limited attention. This paper addresses

that gap by presenting a sustained, long-term narrative of the pre-colonial Brahmaputra Valley, spanning from the early historical period to the eighteenth century CE. By placing the Brahmaputra at the centre of inquiry, the study argues for an environmental history of Assam that takes seriously the dynamic relationship between nature and society in the *longue durée* (French for “the long term”)—a historical approach, pioneered by the Annales School and most notably associated with Fernand Braudel, which emphasizes long-term historical structures and processes that shape human–environment interactions across centuries.

The paper makes five interconnected arguments. First, rivers in Assam shaped, rather than merely demarcated, political authority, giving sovereignty a territorial reality that was perpetually contested by the river’s own dynamism. Second, the sacralization of rivers was simultaneously a political mechanism, embedding royal legitimacy in the cosmological and environmental order. Third, the hydraulic state in Assam—most fully realized under the Ahoms—was a sophisticated political response to the river’s unruliness, and its achievements in embankment construction, canal engineering, and capital relocation were as much political as ecological. Fourth, ordinary people—farmers, fishers, and boatmen—possessed sophisticated environmental knowledge and exercised genuine agency within the river system, even though their voices remain muted in the official record. Fifth, the hydronyms of Assam constitute an environmental archive, recording in language what political documents often failed to note: the river’s migrations, dying channels, and geological transformations. By deploying a political ecology framework—attending to how power relations shaped and were shaped by environmental dynamics—the paper argues that the Brahmaputra’s unruliness was not an obstacle to history but its driving force.

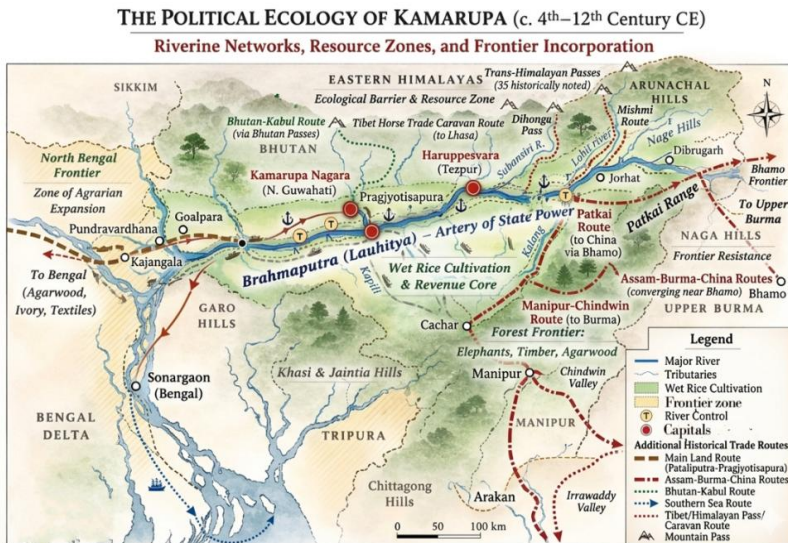
2. METHODS

This study employs an interdisciplinary methodology that combines textual analysis, environmental history, and historical geography to examine the Brahmaputra River system as an active agent in the history of pre-colonial Assam. The primary sources include copper-plate land grant charters, the royal chronicles of the Ahoms, and other literary texts spanning the fifth to the eighteenth centuries. To situate these textual references within their ecological context, the study draws on secondary literature from geology, hydrology, and environmental history. The method emphasizes the *longue durée*, tracing continuities and adaptations over centuries to demonstrate the evolving human–river relationship.

3. RIVERS AS BOUNDARIES AND POLITICAL FRONTIERS: DEFINING SOVEREIGNTY THROUGH WATER

The standard observation—that rivers in Assam served as boundary markers—understates the deeper political reality. Rivers did not simply delineate political boundaries; they constituted political authority by rendering it spatially legible and ontologically real. A kingdom without rivers was almost unthinkable in the inscriptional vocabulary of early Assam. The copper-plate land grant charters of Kamarupa and subsequent dynasties make this explicit: every donated plot is bounded by water—rivers, streams, ponds, or dried channels—as if the very act of granting land required it to be defined by the surrounding hydrological landscape. This was not mere administrative practice; it represented a political epistemology in which territory was real because it was riverine.

Figure 1: Brahmaputra Valley, the Surrounding Hill Ranges, and the Major Rivers of Early Assam



Note: The map is intended for illustrative purposes only and is not drawn to scale.
Source: Prepared by the author based on Choudhury (1959, 540).

Before examining the epigraphic evidence, it is important to consider the ecological and topographic context that made rivers so indispensable as boundary markers. The Brahmaputra Valley is enclosed on all sides by hills and mountains, and its floor is dissected by hundreds of rivers and streams flowing from both the northern Himalayan slopes and the southern escarpments of the Shillong Plateau and Naga Hills. Dense tropical and subtropical forests used to cover the inter-river zones, making overland

travel arduous, slow, and militarily hazardous. Rivers, by contrast, provided natural corridors for the movement of armies, traders, and pilgrims alike. In this landscape, controlling a river meant controlling a route, a frontier, and a resource simultaneously. The political ecology of early Assam was thus fundamentally riverine: power flowed along the water.

The richest epigraphic evidence for rivers defining political geography comes from the corpus of royal copper-plate land grant inscriptions. The Nidhanpur copper plates of King Bhaskaravarman (seventh century CE, Varman Dynasty)—which reissued an earlier grant by his ancestor Bhutivarman—describe the boundaries of an *agrahara* (a tax-free village established through a royal land grant) named Mayurashalmala in Chandrapuri Vishaya (Sharma 1978, 38). The charter specifies the plot borders, which include two rivers, Kausika and Gangini:

To the east lies the dry Kauśika, to the south-east, that very dry Kauśika, marked by a hewn fig tree, to the west now the boundary of Gangini, to the northwest a potter's pit and the said Gangini bent eastward, to the north a large jatali tree, to the north-east the pond of the controlling tradesman Khasoka and the dry Kauśika. (Sharma 1978, 53)

The Kausika is qualified as *suska* (dry). While *suska* does explicitly indicate a non-flowing state, the qualifier could plausibly refer to seasonal desiccation rather than the permanent abandonment of the channel. Rivers in a climate as variable as Assam's may experience dramatically reduced or intermittent flow during the dry season, and a channel that appeared "dry" during the season when the grant was issued might have been active during the monsoon. Whatever the Kausika's precise hydrological status, the grant's detailed hydrographic vocabulary reveals how intimately political and administrative space was mapped onto the fluvial landscape, while also demonstrating how even the absence of a river (a dry channel) was politically significant, constituting a boundary as effectively as a flowing one. The description of the Gangini as "bent eastward" is equally significant: it is a notational record of channel morphology that could only have been observed by people who knew this river intimately enough to be able to describe its curvature.

The Nagajari-Khanikar stone inscription of the fifth century CE records a grant by King Vasundharavarman. The grant references the Dibrumukkhada—the confluence or mouth (*mukha*) of the Dibu River (Boruah 2002, 75). That even a minor tributary's confluence could serve as a boundary underlines how deeply rivers were embedded in the region's political geography. The Doiyang-Dhansiri valley, which this grant concerns, was not a peripheral appendage of Kamarupa; archaeological

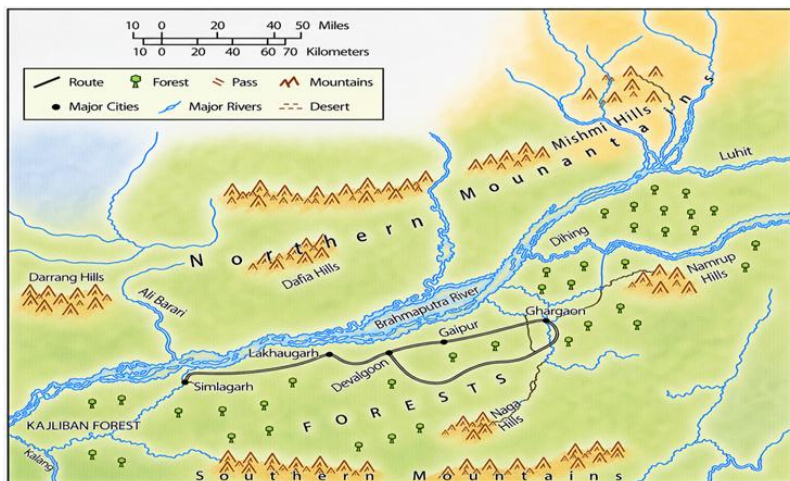
evidence of brick temple ruins and a water fort connected by canals to the Dhansiri River suggests a locally organized polity with its own hydraulic infrastructure (Dutta 1997, 37). These smaller river valleys were not passive recipients of authority from the Brahmaputra-based kingdoms; rather, they were active centres of political life, whose relationship with the main valley was continuously negotiated across riverine frontiers.

The inscriptional evidence of the Salastambha Dynasty (seventh to ninth centuries CE) introduces a further dimension. The inscriptions of the Salastambha kings refer to Haruppeswara (also Hadapeshvara) as a royal capital on the bank of the Lauhitya (Brahmaputra). The identification of this city with the vicinity of modern Tezpur is supported by several convergent lines of evidence. Tezpur sits at a natural constriction of the Brahmaputra, where the river, exiting the broader upper valley, narrows between the Himalayan foothills and the Shillong Plateau escarpment, forming a choke point that granted decisive military and commercial advantages to whoever controlled it. The topographic logic closely parallels that of Guwahati and other strategically chosen capitals: command of a river narrow meant command of lateral movement through the valley. The Tezpur area is archaeologically rich, with sculptural and architectural remains suggesting sustained occupation.

In the medieval period, rivers remained decisive political frontiers. The Ahom chronicles (*buranjis*) document this in considerable detail. When the Ahom King Suhungmung conquered the Chutiya domain in 1523 CE, the Dihing River served as the primary boundary marker; Suhungmung's subsequent decision to relocate his capital to Bakata on the Dihing's banks was simultaneously strategic and symbolic—declaring his possession of the river and, through it, of the territory it bounded (Gogoi 1994, 133). His title, “Dihingia Raja” (King of the Dihing), makes the constitutive logic explicit: the king's political identity was inseparable from the river's identity. Other riverine frontiers reinforced the same principle: the Barnadi River between Ahom and Mughal territories, the Na-noi between the Ahom and Kachari kingdoms, and the Manah as the western boundary of the Ahom Kingdom at different periods (Gogoi 1994, 161). Crucially, rivers not only defined political boundaries but could also destabilize and reshape them as dynamic political agents. When the Dihing changed course following the earthquakes of 1691 and 1696 CE—which reconfigured the Burhi Dihing's drainage—the boundaries it had stabilized were suddenly meaningless (Saikia 2019, 27). This dynamic created a structural tension at the heart of riverine politics in Assam: the river that gave a kingdom its territorial coherence could, through shifts in its course, also dissolve that coherence overnight.

What is frequently absent from the official record—but must be hypothesized from circumstantial evidence—is the agency of those who inhabited these riverine frontiers. At every crossing, ferrymen, boat builders, and customs officials formed communities that mediated between polities. These communities exercised real power. A ferryman who refused to carry troops, a boatman who knew the safe channels through a braided reach, and a fisherman who could read flood signals—these were not politically neutral actors. They formed the capillary network through which state authority at the frontier was either asserted or disrupted. The naming of specific ferry ghats in the chronicles—Kutuha Ghat, Ahom Ghat, Ghiladhari Ghat, and Naga Ghat on the Dihing River alone—suggests that these communities were sufficiently important to be recorded, even if their agency remains largely invisible in the surviving sources (Gogoi 1994, 133).

Figure 2: Map Showing the Major Rivers, Forests, and Riverine Centres of Medieval Assam



Note: The map is intended for illustrative purposes only and is not drawn to scale.

Source: Prepared by the author based on Nath (2019, 70)

The Ahom Kingdom constructed strategically vital earthen ramparts (*garh*) to defend key riverine entry points. Situated at the confluence of the Manah and Brahmaputra rivers, Jogighopa controlled westward riverine traffic. The twin forts of Samdhara and Simalugarh, positioned on opposite banks of the Brahmaputra, formed a choke point to monitor and block enemy movements (Barpujari 2004, 75). The most formidable system encircled Guwahati, where interlocking ramparts and hills created a defensive ring that forced invading naval forces into narrow, ambush-prone channels. The Mughal expeditions of Mir Jumla in 1662 CE and Raja Ram Singh in 1671 CE learned, at considerable cost, that Assam's network of swamps and

rivers could neutralize a conventionally organized army: the Ahoms opened up embankments to flood the plains and deployed swift river craft to harass enemy flanks (Barpujari 2003, 180, 231). At the Battle of Saraighat (1671 CE), Lachit Barphukan's naval command of the Brahmaputra's narrows proved decisively superior to the Mughal fleet with its numerical advantage, confirming that sovereignty over the river was sovereignty over the territory (Borah 2026, 304).

4. SACRED RIVERS AND CULTURAL LANDSCAPES: THE POLITICAL THEOLOGY OF WATER

The sacralization of Assam's rivers was never purely a religious phenomenon; it was simultaneously a political strategy. To establish divine authority over a river was to claim a form of sovereignty over the landscape it animated—its banks, tributaries, and dependent communities—that transcended the jurisdiction of land grants and military conquest. The political theology of water in Assam wove together cosmological legitimacy, territorial claims, and community identity in ways that were as strategically sophisticated as any military campaign. This does not imply that religious patronage was merely a political instrument or that royal actions were devoid of sincere devotional intent. In premodern South Asia, political authority and religious merit were deeply intertwined rather than mutually exclusive. Acts such as temple construction, pilgrimages, river worship, and the patronage of sacred landscapes could simultaneously express genuine piety, accrue religious merit, and reinforce the moral and cosmological legitimacy of kingship. The political significance of these practices therefore emerged not despite their religious character, but through it. The Brahmaputra's unique mythology illuminates this dynamic. Unlike the goddesses of the Gangetic cultural sphere—the Ganga, Yamuna, and Sarasvati, all conceived as feminine deities—the Brahmaputra is persistently personified as male, the “son of Brahma”, in the Sanskrit textual tradition (Hunter 1975, II). This gender asymmetry is politically significant. A river personified as a divine masculine sovereign could be understood as a co-sovereign alongside the human king—a riverine counterpart whose authority was cosmologically prior to that of the human king and whose goodwill was essential to royal prosperity. The Dubi copper plate of King Bhaskaravarman (seventh century CE) describes the king as the “lord of the river” and records his establishment of a new city on the sacred banks of the Brahmaputra (Sharma 1978, 24, 30). The formulation positions the king's authority as complementary to, and legitimized by, the river's divine presence.

The Kalika Purana, composed in Kamarupa (likely between the ninth and eleventh centuries CE), represents the most elaborate theological systematization of Assam's riverine sacred geography. The text enumerates a substantial number of holy rivers—Sitaganga, Kapilaganga, Phenila, Navatoya, Svarnasiri, Divyayamuna, Karatoya, and many others—and prescribes ritual bathing in them for specific spiritual rewards (Shastri 1994, 1185–1202). Crucially, these rivers coincided almost precisely with the territorial claims of the Kamarupa Kingdom. This convergence is most evident in the spatial logic of Assam's major temple sites. Kamakhya Temple atop Nilachal Hill overlooks the Brahmaputra at one of its narrowest and most strategically significant points near Guwahati—the same area that the Ahoms defended in the Battle of Saraighat (Borah and Sarma 2023, 289). Tamreswari Temple near Sadiya stood on the banks of Dibang River, which also marked the eastern limit of Kamarupa's territorial claims. Dirgheswari Temple on the Brahmaputra's northern bank was revered by the Ahoms, who performed rituals there, recognizing the sanctity of the riverbank itself (Barpujari 2004, 227). These temples were not randomly distributed across the landscape; they were concentrated at politically significant points along the region's major rivers—confluences, crossings, and narrows—where the sacred and strategic converged.

Perhaps the most striking example of river sacrality as political performance is King Suhungmung's expedition in 1524 CE to find the source of the Lohit (Tilao), a lake identified with the holy Brahmakunda (Parashuram Kund in present-day Arunachal Pradesh) (Gogoi 1994, 108). This act was simultaneously a religious pilgrimage, cartographic expedition, and imperial performance. By figuratively “possessing” the river from its sacred Himalayan source to the valley floor, Suhungmung inscribed his sovereignty across the entire hydrological system of the Brahmaputra, framing his authority not as mere military dominance but as cosmologically ordained sovereignty, legitimized by the natural and sacred order of the land. The gesture recalled broader South Asian traditions of cosmological kingship. Just as the Chola kings had performed rituals at Gangaikonda Cholapuram to symbolically “bring the Ganges to the south” after their northern conquests (Nandakumar et al. 2023, 171), Suhungmung sought to bring the Brahmaputra's sacred source within his political horizon through this ritualized engagement with the landscape.

The legend of the Koch King Naranarayan's canal excavation near Pandu in the sixteenth century CE—said to have straightened the Brahmaputra's course for the benefit of pilgrims and navigation—illustrates the intersection of hydraulic engineering, religious patronage, and political self-presentation. The Darrang Raj Vamsavali's verse records the king's “great

zeal” (*kautubole*) in directing the river towards Hajo, a major pilgrimage site (Sastri and Chaliha 2013, 85). Whether the intervention was as dramatic as the chronicle suggests, its political significance is clear: a king who could bend the river towards a sacred site was performing a form of sovereignty that transcended military power, presenting himself as a figure whose authority extended to the natural order itself. Even today, the old channel near Hajo is largely a wetland, while the “new”, straight channel continues to form the primary course—preserving a physical trace of royal hydraulic ambition long after the dynasty that created it had disappeared.

5. RIVERINE CAPITALS AND TRADE NETWORKS: THE HYDRAULIC CITY AND ITS ARTERIES

The concentration of early Assam’s political centres along riverbanks was shaped not by preference but by the ecological imperatives of the region, which made riverine locations a political necessity. In a landscape of dense forest, seasonal flooding, and limited overland infrastructure, rivers were the primary corridors of communication and movement—the arteries through which goods, armies, information, and authority could circulate at scale. Any political centre without direct access to the river was effectively isolated and consequently remained peripheral. The history of Assam’s capitals is thus simultaneously an environmental history of the Brahmaputra’s riparian edge, reflecting the ecological intelligence required to adapt to a river that refused to remain on course. The Varman Dynasty (fourth to seventh centuries CE) maintained its principal centre of power near the western Brahmaputra Valley. King Bhaskaravarman’s Pragjyotishpura is generally identified with the vicinity of modern Guwahati—a location of extraordinary geographic significance. Guwahati is situated where the Brahmaputra exits a narrow gorge between the Shillong Plateau and the Himalayan foothills, before compressing into a relatively slender channel and expanding into the broad lower valley. This constriction had profound geopolitical consequences: as stated earlier, it was the most defensible point on the Brahmaputra’s entire course through the valley, forming a natural choke point where a fleet of modest size could prevent the upriver passage of a far larger enemy force.

The defensive ramparts and moats mentioned in Pala-era inscriptions extended this hydraulic logic further—moats filled with river water transformed citadels into water forts, making the conquest of any capital not merely a military challenge but also a hydrological one. The Kalika Purana’s reference to the *jala durga* (water fort) as one of six types of fortifications codified this long-established practice (Barpujari 2007, 424);

the *jala durga* at Duboroni in the Doiyang-Dhansiri Valley—connected by canals to the Dhansiri River—confirms that the principle was widely applied across the region’s river valleys (Dutta 1997, 37). The Pala Dynasty’s oscillations between Durjaya (near modern Guwahati on the south bank) and Hadapesvara on the north bank of the Brahmaputra reflect not so much political instability as a deliberate strategy of maintaining riverine flexibility—the capacity to shift the centre of power along the river’s axis as military, commercial, or environmental conditions demanded (Boruah 2002, 93, 212).

The Ahom Dynasty’s capital trajectory—from Charaideo (established c. 1253 CE) through Garhgaon and Rangpur to Jorhat (late eighteenth century CE)—traces a pattern of strategic riverine adaptation. The founder, Sukapha, arrived in the Brahmaputra Valley by navigating down the Dihing River, using bamboo rafts to transport his retinue, including men, women, horses, and elephants. After several relocations driven by repeated flooding, he reached Charaideo around 1253 CE, choosing elevated terrain near the Dikhow River that offered both protection from inundation and access to fertile plains suitable for wet-rice cultivation (Nath 2007, 465). The *buranji* accounts of this journey are not mere narratives; they are records of ecological knowledge in action, documenting how the Dihing’s course served as a navigational corridor that guided the dynasty’s foundational migration.

The subsequent history of Ahom capitals reflects a continuous negotiation between the river’s resources and its dangers. Garhgaon and Rangpur, clustered near the Dikhow River system, were positioned to access the Brahmaputra’s transportation network while being situated a few kilometres from its main channel—close enough for commerce and communication yet far enough to avoid direct inundation. Guwahati, deployed as a strategic military garrison during the seventeenth-century wars against the Mughals, gave the Ahoms their decisive advantage in the Battle of Saraighat (1671 CE), where Lachit Barphukan’s intimate knowledge of the Brahmaputra’s currents, shoals, and narrows proved crucial. When the capital moved to Jorhat in the late eighteenth century CE, an artificial channel was created from the Disoi River to ensure the new city had river access—a decision that led to the formation of the Bhogdoi River in one of the most illuminating episodes in Assam’s environmental history.

This late-eighteenth-century creation of the Bhogdoi River represents the apex of Ahom hydraulic statecraft. When the capital shifted to Jorhat following the Moamoria Rebellion, there was an inadequate supply of potable water due to the marshy terrain. Under King Kamaleswar Singha (1795–1811 CE), at the direction of Chief Minister Purnananda

Burhagohain, the natural course of the Disoi River was artificially diverted to channel water through the new capital (Saikia and Amin 2016, 556). The resulting waterway—renamed Bhogdoi after the ritual food offerings (*bhog*) made to the workers during its excavation—was simultaneously a hydraulic feat, a political performance of royal benevolence, and a sacred act. In this single intervention, political power, environmental modification, and religious symbolism intersected to reshape both the landscape and the cultural geography of Assam.

Trade and communication in pre-modern Assam were largely river-centric. The Brahmaputra and its navigable tributaries served as natural highways in a landscape where dense forests and hills made overland bulk transport unreliable. The *bar-mudois*, Assam's elite merchant class, deployed their boats on the monsoon-swelled rivers to arbitrate price differentials across the valley (Nath 2002, 156–57). The Katha-Guru-Charit's account of traders from eastern Assam carrying salt and areca nut by boat to western markets illustrates the river's function of economic integration: goods that were cheap in the east were expensive in the west, but the river's navigability closed that gap (Lekhara 2002, 65, 94).

The Ahom state's systematic management of this riverine commerce—through customs checkpoints (*chokies*) at strategic confluences; royal dockyards (*naosal*) at Garhgaon, Rangpur, Majuli, Dergaon, and Jaipur; and policing of river routes by naval flotillas—reveals a sophisticated political economy of water (Saikia 2019, 123). The five royal dockyards were not just boat-building facilities; they were nodes in a state-managed network of riverine power. The important trading emporiums of Kandahar (Hadira), Rangamati, Goalpara, and Jogighopa—all located at river confluences or crossings—derived their prominence primarily from their strategic position near the river. The suffix *mukh* (mouth/confluence) in place names—such as Dikhowmukh, Bharalumukh, and Kajalimukh—directly encodes this riverine commercial logic, each name announcing the settlement's identity as a river port (Rajkumar 2000, 249). By the late eighteenth century CE, when the British East India Company was granted permission to station agents at Kandahar Chokey and Guwahati, the Company had inserted itself into a commercial geography that the river had constructed over centuries (Saikia 2029, xxiv).

6. THE RIVERINE ECONOMY AND ITS POLITICAL ECOLOGY: HYDRAULIC LABOUR, INDIGENOUS KNOWLEDGE, AND AGRARIAN POWER

The agrarian economy of pre-colonial Assam was inseparable from the Brahmaputra's hydraulic regime: its prosperity depended on the river's annual deposits of silt and water, while its social organization evolved in response to the labour demands of flood control and irrigation. Yet the political ecology of this hydraulic world was far more complex than a simple narrative of state-directed water management might suggest. Alongside—and often in tension with—the state's embankment and canal works, indigenous communities maintained their own hydraulic traditions, exercised ecological knowledge, and occupied distinct positions within the water economy that official records systematically under-represent. Without considering the roles of these communities, any account of Assam's riverine economy will remain necessarily incomplete.

The annual inundation cycle of the Brahmaputra structured the entire logic of agrarian life in the valley. Gentle floods replenished soil nutrients, deposited fresh silt on agricultural lands, and provided the standing water that wet-rice cultivation required; excessive floods could destroy crops, breach embankments, and displace entire communities. The floods in 1240 and 1244 CE compelled the early Ahoms under Sukapha to explore and settle in new areas (Gait 1926, 78). The eighteenth century witnessed several major flood events—1735, 1750, and 1780 CE—of which the 1750 event was particularly transformative, redirecting the Brahmaputra's course and contributing to the formation of the present-day Majuli Island (Sarma and Phukan 2004). Far from viewing floods purely as disasters, local communities historically adapted to these inundation rhythms. This dynamic structured the entire agricultural programme: the *sali* variety of wet rice—the principal crop in the Ahom-controlled eastern regions—required careful water management, including creating puddled and ridged fields, maintaining shallow water depth through the growing season, and achieving dry conditions at harvest (Guha 1991, 64). This was not passive adaptation to the river's rhythms but an active technical programme demanding sustained collective labour.

The earliest evidence of formal water management in the valley can be found in inscriptions. The mention in the Alichiga-Tengani grant of *setu-bandha* (bridge or bund) constructions as early as the fifth century CE indicates that embankment technology was already practised in the Doiyang-Dhansiri Valley (Boruah 2002, 76). The Ulubari copper plate inscription of Balavarman III (late ninth century CE) records a royal initiative to construct a *vrhad ali* (high embankment), indicating the state's

assumption of responsibility for flood management (Lahiri 1991, 94). Evidence of widespread paddy cultivation from at least the sixth century CE—reflected in the practice of denoting donated lands in terms of paddy measures (Choudhury 1959, 359)—confirms that rice agriculture and floodplain management had become integral to life in the valley by the first millennium CE. In the seventh century CE, Hiuen Tsang’s observation that the land “lies low, but is rich, and is regularly cultivated” (Beal 1906, 195–96) attests to the transformation of low-lying tracts into well-developed rice fields through active hydraulic management.

Embankment construction required the mobilization of *corvée* labour—under the *paik* system, Ahom subjects owed the state a defined quantum of annual labour. The allocation of *paik* labour to embankment construction was a political act as much as a practical one: flood control was important enough to compete with agricultural production and military service for the state’s primary non-fiscal resource. The embankment was a materialization of political power inscribed on the landscape. Its construction embodied the state’s authority; its maintenance—or failure—indexed the state’s capacity. The Bar Ali and Dhodar Ali, long raised roads in Upper Assam, also doubled as flood embankments. In the sixteenth century CE, King Suhungmung undertook systematic embankment construction along the banks of the Dihing to protect newly settled villages and reclaim land for rice cultivation (Gogoi 1994, 133). Later colonial observers marvelled at this network: Major Briggs, superintendent of works in Assam, congratulated the Ahoms for their “bold engineering skills and wonderful contempt of difficulties”, referring to the raised embankment roads they maintained (Saikia 2019, 65).

The Ahom state’s hydraulic works, impressive as they were, coexisted with a parallel hydraulic tradition maintained by indigenous communities. The *dong* system—a gravitational irrigation technology using weirs to divert hill streams into field-watering canals, particularly associated with the Bodo-Kachari peoples—represented a fundamentally different political ecology of water (Guha 1991, 68). Where the state’s embankments were large-scale, labour-intensive, and top-down, the *dong* system was local, community-managed, and adaptive. It required intimate ecological knowledge of specific stream behaviours, seasonal flow patterns, and local topography—knowledge accumulated over generations of community practice rather than commanded from a royal court. The Apatani communities of the Assam foothills extended this principle further, using carefully graded low bunds to irrigate fields on sloping ground in a system characterized by extraordinary hydraulic precision (Saikia 2019, 61). The persistence of the *dong* system alongside the state’s embankment systems demonstrates that the hydraulic

landscape of pre-colonial Assam was plural rather than unitary: multiple approaches to water management coexisted, each addressing different ecological scales and reflecting different social relations of production.

This plurality raises important questions about whose understanding of the river shaped agrarian practice. Much of the ecological knowledge on which formal hydraulic works depended was rarely written down; instead, it circulated through practice, the seasonal rhythms of agricultural labour, and the oral traditions of communities that had managed specific streams for generations. The dong system's complexity—weirs precisely calibrated to stream gradients, canals distributing water across miles of fields—could only have been designed and maintained by people possessing deep, location-specific ecological knowledge. The limited recognition of this knowledge in inscriptions and royal chronicles reflects the political ecology of documentation: the state recorded its own interventions rather than the environmental knowledge of local communities.

Agricultural expansion in Assam's early and medieval periods created a dynamic relationship between sediment, cultivation, and political territory. The Brahmaputra's annual deposition of fresh alluvium on chars (riverine sandbars) and floodplains continually renewed the agricultural frontier, forming new land through its own fluvial processes. Communities that specialized in char cultivation—particularly the Mishing communities, who developed the distinctive *chang ghar* (raised-platform house) as an adaptation to the chars' seasonal flooding—exercised an intimate ecological knowledge of the unstable riverine environment that the state could neither replicate nor fully control (Saikia 2019, 61). These communities were not passive recipients of the land that the river created; they were active ecological managers whose cultivation practices—seasonal planting on receding floodplains, grazing on char grasslands, fishing in associated water bodies—helped sustain the productivity of these unstable lands. Their semi-rotational use of land—facilitated by the multitude of rivers, diversifying agricultural risk—represented a sophisticated response to the Brahmaputra's perpetual instability.

The *jalkar* (water body) tax—levied by the Ahom state for fishing rights in rivers and lakes—makes visible another dimension of the riverine economy (Nath 2002, 109). In a valley with hundreds of rivers, lakes, and seasonal wetlands, fish was the primary source of animal protein for most of the population. The Kaivarttas, mentioned in early inscriptions in association with *jolas* (streams) and *digbikas* (ponds), represent one of several communities whose livelihoods were built around the management of aquatic resources (Lahiri 1991, 38, 102). A grant from the Sundaridiya-sattra in 1738–1739 CE, which included three fishing lakes alongside agricultural

land, demonstrates that control of aquatic resources was a recognized component of landed wealth (Neog 1974, 156). The *jalkar* tax's very existence implies that fishing rights were sufficiently valuable to be taxed and, consequently, to become the subject of political contestation. Questions of who fished where and under what terms carried political stakes as well as ecological ones.

The creative dimension of floods deserves recognition alongside their destructive power. The annual inundation was not simply a hazard to be managed; it was the fundamental mechanism by which the valley's agrarian wealth was renewed. The Brahmaputra's enormous sediment load—deposited across the floodplain during high-water events—maintained soil fertility across millions of hectares without the need for the complex irrigation infrastructure that sustained comparable areas in drier regions. The adaptations of Assam's farming communities—raised-platform houses, deep-water rice varieties (*baos*) capable of elongating faster than floodwaters could rise, seasonal rotation between floodplain and highland crops—represented sophisticated ecological responses to the river's rhythms (Guha 1991, 64). These were not passive survival methods but active agrarian strategies that turned the river's unruliness to agricultural advantage. It was in the fields and waters of the valley that the agency of ordinary people was most continuously and consequentially exercised—even if it left only the slightest trace in the written record.

7. HYDRONYMS AND THE UNRULY RIVER: NAMES AS ENVIRONMENTAL ARCHIVES

The names by which Assam's rivers have been known across the centuries constitute a form of environmental archive distinct from—and in many ways more revealing than—the inscriptions and chronicles that explicitly address fluvial history. A hydronym preserves the intersection of language, ecology, and historical memory, providing evidence of the communities that inhabited a river's banks, the characteristics they observed, and the environmental changes the river underwent over time. Reading Assam's hydronyms against the grain of the official record reveals aspects of the region's environmental history that no charter or chronicle explicitly records, including the gradual drying of abandoned channels, the reorganization of drainage networks following tectonic events, and the slow accumulation of sediment that transformed sandbars into islands and redirected rivers into new courses. In this sense, the hydronym functions as a community environmental record, preserving evidence of landscape transformation long after it faded from official memory.

The argument of this section rests on a basic observation about the Brahmaputra system's geology. The river carries one of the highest sediment loads in the world—approximately 402 million tonnes per year—derived from the intense tectonic uplift and high erosion rates of the Eastern Himalayas. This sediment is deposited across the valley floor, progressively raising the bed, forcing the river to seek lower-resistance paths and producing the characteristic braided planform visible in satellite imagery of the upper Assam valley. Over centuries and millennia, this process has generated a landscape of abandoned channels, nascent islands, and river network reorganizations that can be seen, in part, through the accumulation and transformation of names. Every river name bearing the local-usage prefixes *Mara* (dead), *Burhi* (old), or *Sukan* (dried) is evidence of a channel that the Brahmaputra's sediment dynamics eventually silenced.

The most striking demonstration of hydronyms as environmental archives is the naming history of the Dihing River system. The name Burhi Dihing (Old Dihing) for a former channel implies the prior existence of a Noa Dihing (New Dihing)—a name that encodes earthquake-driven course change. Tectonic events in 1691 and 1696 CE reorganized the Dihing's drainage, causing a segment to capture the upstream Lohit and creating a channel subsequently labelled “new” to distinguish it from the pre-seismic course (Saikia 2019, 27). The naming sequence—the original unnamed river, the earthquake, and the new channel labelled “Noa” and the old channel retrospectively labelled “Burhi”—is preserved in toponymy long after the geological event that generated it has faded from political memory. These are not poetic inventions; they are empirical records of fluvial geomorphology encoded in the vernacular.

The formation of Majuli Island—presently the world's largest riverine island—is the most dramatic instance of the Brahmaputra's sediment-driven landscape transformation, and its history deserves consolidated analysis here as the fullest expression of the river's structural unruliness. Prior to the seventeenth century CE, the region that would become Majuli was a modestly sized landmass, with the principal Brahmaputra channel flowing to its north. Sources document a progressive reorganization. By the later seventeenth century, references to a distinct “Gabharu Lohit” channel imply that the river had begun bifurcating around the growing landmass; references to “Sukan Suti” (dried channel of Lohit) in Majuli indicate that portions of the northern channel were already silting up (Gogoi 1994, 109; Nath 2007, 464–74). King Jayadhvaj Singha (r. 1648–1663 CE) is recorded to have halted at the mouth of the Gabharu-Lohit during an expedition, confirming that this bifurcating channel was sufficiently established to be named and navigated. Susan Wade's later reference to “Gabroo-Looicheh”

indicates its continued recognition as a distinct feature of the river system (Wade 1927, 31). This progressive sedimentation—driven by the Brahmaputra’s enormous bedload—was the geological engine of Majuli’s enlargement. As the northern channel silted, the southern channel captured an increasing volume of discharge and gradually became the dominant channel.

The flood of 1750 CE—one of the most catastrophic in the Brahmaputra’s recorded history—dramatically accelerated this process, making the southern channel the primary course and converting the northern arm into the “Kherkutia Suti” and “Lohit Suti”, which progressively shrank to secondary status (Sarma and Phukan 2004). The Majuli that emerged from this event was not merely physically larger; it was a new cultural and ecological entity. The Vaishnava *sattras* (monasteries) established on the island gained a distinctive institutional environment, simultaneously protected from the mainland’s military disturbances and dependent on ferry crossings for communication and commerce (Nath 2009, 28). Majuli’s sacred-institutional geography was thus, in its very foundations, a gift of the Brahmaputra’s unruliness, shaped by sediment dynamics rather than human design.

The cataclysmic sequence that culminated in 1787 CE extends this argument to a larger scale. That year, the coincidence of an exceptionally severe Brahmaputra flood with the avulsion of the Teesta River—which shifted eastward, dramatically increasing the Brahmaputra’s lower-course discharge—forced the Brahmaputra in present-day Bangladesh from its historic Mymensingh-Jamalur course into what would become the Jamuna River (Rahman et al. 2024, 21). By the early 1800s, the Jamuna had become the principal downstream channel, and the Old Brahmaputra had diminished to a secondary distributary. No political authority, however sophisticated its hydraulic engineering, could prevent or control reorganizations of this magnitude. Instead, the most resilient societies adapted, relocated, renamed, and rebuilt.

The cumulative pattern of dead channels (identified by the *mara*, *burhi*, and *sukan* prefixes), new channels (*noa*), and renamed rivers (Bhogdoi from Disoi) across Assam’s river network is not random; it reflects the geology of the valley floor. The Kopili–Kalang system’s documented changes—the Kopili’s shifting junction with the Kalang; the Kalang’s own abandoned courses across central Assam, recorded as Mori-Kalang and Pota-Kalang; the references to Bekka Suska and Mara-Manas—trace the footprints of tectonic and sedimentological processes on the cultural landscape (Boruah 2007, 66–80; Hunter 1975, 173). To read the hydronyms of Assam is to read the geological history of the Himalayas, translated into the languages of

the communities that have lived alongside its rivers for millennia. Hydronyms is, in this sense, a form of vernacular geology—an archive of environmental change maintained not by state institutions but by the everyday speech of communities who have continually named and interpreted the river's transformations.

8. CONCLUSION

The rivers of early and medieval Assam thus emerge as central agents of history. They nurtured a distinctive agrarian society, shaped cultural and religious life, and could alternately connect or divide polities. The historical record also reveals instances of remarkable resilience: capitals were relocated when river movements rendered old sites untenable, and new settlements arose on lands freshly deposited by the waters. In the *longue durée* of Assam's history, the Brahmaputra and its tributaries connected Assam to neighboring regions—carrying pilgrims, traders, and invaders—yet also protected it by their very force and complexity. They generated prosperity through fertile alluvial soils and abundant aquatic resources, yet periodically imposed devastating environmental costs. The most successful rulers were those who recognized the river's dual character and adapted their political and hydraulic strategies accordingly. The kingdoms of Kamarupa and Ahom were not polities that happened to be located near rivers; they were polities structured around rivers, whose territorial sovereignty was hydraulically constituted and whose legitimacy was continuously re-negotiated through the management of water. When rivers shifted, boundaries dissolved and had to be re-constituted; when floods overwhelmed embankments, state authority was tested; and when a king could divert a river to supply his capital, he was performing a form of sovereignty that transcended military power. The Brahmaputra was not merely the backdrop against which Assam's political history played out; it was a character in that history, with its own agency, its own dynamism, and its own capacity to make and unmake political arrangements.

The interface between the river and society was a dynamic one: floods could devastate yet also fertilize; rivers could isolate communities yet also link them through networks; water could be a bounty to be gifted (as when kings granted fisheries) or a force to be mitigated (by raising dykes). The people of Assam, in turn, exhibited a pragmatic reverence for the river—worshipping it while also dredging it, diverting it, and even legislating its use (as seen in royal edicts regulating ferry rights and fishing on certain stretches). Indigenous communities exercised genuine environmental knowledge and genuine agency, even though the official record reduced

them to instruments of state policy. Their knowledge of the river, accumulated over generations and embedded in practice, was the basis on which every grand hydraulic project was built. The hydronyms of Assam provide an archive that no official record preserves: the memory of how the Brahmaputra changed and how its people changed with it. This archive is still being written. The issues of flood control, riverbank erosion, and sedimentation that preoccupy Assam today are not problems created by modernity; they are the latest chapter in a long-standing relationship between this remarkably unruly river and the people who have made their homes alongside it for over two millennia. The story of Assam's rivers is ultimately a story of negotiation between nature's rhythms and human aspirations—a negotiation that is ongoing and shows no sign of ending.

Ethics Statement: I hereby confirm that this study was conducted in accordance with all applicable ethical requirements and standards for research.

Consent to Participate: Informed consent was obtained from all respondents before the survey, ensuring their voluntary participation, with assurance of anonymity and confidentiality.

Consent for Publication: Consent for the publication of the research findings in a journal was obtained from all participants.

Data Availability Statement: The data have been anonymized and are not publicly available to ensure the privacy and confidentiality of the respondents.

Conflict of Interest Statement: The author declares that he has no competing financial, professional, or personal interests that could have influenced the work reported in this manuscript.

REFERENCES

- Barpujari, H K. 2003. *The Comprehensive History of Assam, Medieval Period: Political, from the Thirteenth Century AD to the Treaty of Yandabo, 1826*. 2nd ed. Vol. 2. Publication Board Assam.
- Barpujari, H K, ed. 2004. *The Comprehensive History of Assam, Medieval Period: Administrative, Economic, Social and Cultural*. Vol. 3. Publication Board Assam.
- Barpujari, H K. 2007. *The Comprehensive History of Assam, Ancient Period*. 3rd ed. Vol. 1. Publication Board Assam.

Beal, Samuel. 1906. *Si-Yu-Ki: Buddhist Records of the Western World*. Vol. 2. Kegan Paul, Trench, Trubner & Co.

Borah, Anurag. 2026. "Claims on Natural Resources: The Role of Political Power and Rights of Commons in Pre-Colonial Assam, India." *Asian Ethnicity* 27 (2): 295–328.
<https://doi.org/10.1080/14631369.2025.2488052>.

Borah, Anurag, and Chandan Kr. Sarma. 2023. "Ahom State Formation and Mobilization of Natural Resources in Pre-colonial Assam, India." *Asian Ethnicity* 25 (2): 283–302. <https://doi.org/10.1080/14631369.2023.2264229>.

Boruah, Nirode. 2002. "Major Political Centres and Cultural Zones of Ancient Assam from the 4th to the 12th Century AD." PhD diss., Department of History, Gauhati University.

Boruah, Nirode. 2007. "Rivers and Riverine Settlements: Interface of Environment and Emerging Agrarian Society in Early Assam." *Proceedings of the Indian History Congress* 68 (1): 66–80.
<https://www.jstor.org/stable/44147817>.

Choudhury, Pratap Chandra. 1959. *The History of Civilisation of the People of Assam to the Twelfth Century A.D.* Department of Historical and Antiquarian Studies.

Dutta, Hemendranath. 1997. "Art and Archaeology of the Doiyang-Dhansiri Valley of Assam." PhD diss., Department of History, Gauhati University.

Gait, Edward. 1926. *A History of Assam*. 2nd ed. Thacker, Spink & Co.

Gogoi, Nityananda. 1994. "Historical Geography of Medieval Assam." PhD diss., Department of History, Gauhati University.

Guha, Amalendu. 1991. *Medieval and Early Colonial Assam: Society, Polity, Economy*. K P Bagchi & Company.

Hunter, William Wilson. 1975. *A Statistical Account of Assam*. Vol. 1. B. R. Publishing Corporation.

Lahiri, Nayanjot. 1991. *Pre-Ahom Assam*. Munshiram Manoharlal Publishers.

Lekharu, Upendra Chandra. 2002. *Katha-Guru-Charit*. Edited by Hali Narayan Dutta Barua. 4th ed. Dutta Barua Publishing.

Nandakumar, S, K Bakialakshmi, S M Umayal, S Subalakshmi, R Sivanantham, and K Rajan. 2023. "Excavations at Gaṅgaikondaḥṇapuram: A Chōḷa Capital." *Heritage: Journal of Multidisciplinary Studies in Archaeology* 11 (2): 171–86.

- Nath, D. 2009. *The Majuli Island: Society, Economy, and Culture*. Anshah Publishing House.
- Nath, Jahnabi Gogoi. 2002. *Agrarian System of Medieval Assam*. Concept Publishing Company.
- Nath, Jahnabi Gogoi. 2007. "Forests, Rivers and Society: A Study in Social Formation in Medieval Assam." *Proceedings of the Indian History Congress* 68. <https://www.jstor.org/stable/i40173381>.
- Nath, Pratyay. 2019. *Climate of Conquest: War, Environment, and Empire in Mughal North India*. Oxford University Press. <https://doi.org/10.1093/oso/9780199495559.001.0001>.
- Neog, Maheshwar, ed. 1974. *Prachya-Sasanavali*. Publication Board Assam.
- Rahman, S M Druvo, Rituparna Sarker, Sayed Abul Anachh, Hannan Shams Al, and Md Tutul. 2024. "Evaluating Flood Risk Vulnerability in Bangladesh's Old Brahmaputra River Basin through Hydro-Morphometric Analysis." *American Journal of Environmental Engineering* 14 (1): 21–29. <https://doi.org/10.5923/j.ajee.20241401.02>.
- Rajkumar, Sarbananda. 2000. *Itihase Suvara Sasbota Bosor*. Banalata Publication.
- Saikia, Arupjiyoti. 2019. *The Unquiet River: A Biography of the Brahmaputra*. Oxford University Press. <https://doi.org/10.1093/oso/9780199468119.001.0001>.
- Saikia, Raktim, and Nurul Amin. 2016. "A Study of River Channel Modifications of Jorhat District of Assam." *Indian Journal of History of Science* 51: 556–59. <https://doi.org/10.16943/ijhs/2016/v51i3/48855>.
- Sarma, J N. 2005. "Fluvial Process and Morphology of the Brahmaputra River in Assam, India." *Geomorphology* 70 (3): 226–56. <https://doi.org/10.1016/j.geomorph.2005.02.007>.
- Sarma, J N, and M K Phukan. 2004. "Origin and Some Geomorphological Changes of Majuli Island of the Brahmaputra River in Assam, India." *Geomorphology* 60 (1–2): 1–19. <https://doi.org/10.1016/j.geomorph.2003.07.013>.
- Sastri, Biswanarayan, and Bhabaprasad Chaliha, eds. 2013. *Darang Rajvamsavali*. Lawyer's Book Stall.
- Sharma, M M. 1978. *Inscriptions of Ancient Assam*. Department of Publication, Gauhati University.

Shastri, Biswanarayan. 1994. *The Kalikapurana: Text, Introduction and Translation in English Verseise with Shloka Index*. Nag Publishers.

Wade, John Peter. 1927. *An Account of Assam*. Edited by Benudhar Sharma. R. Sarmah.

Wade, Susan R. 1884. *Glimpse of Assam*. Thomas S. Smith, City Press.