

Bengal Basin in the Midst of the Bay of Bengal and the Indian Ocean Littoral: A Study of the Earliest Trading Centre and the Nautical Network of Inland and Oceanic Trade originating from Ancient Bengal

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Abstract

This study explores the pivotal role of the Bengal Basin in shaping ancient maritime and inland trade networks in South Asia. Centered on the region's complex deltaic system and strategic coastal position, the research investigates how natural features such as the expansive Gangetic delta and extensive river networks fostered both local commerce and long-distance trade across the Indian Ocean. The aim is to integrate archaeological findings, numismatic data, and epigraphic sources to reconstruct the dynamic trade routes and navigational practices that underpinned ancient Bengal's economic and cultural development.

Key objectives include delineating the inland waterway systems that facilitated regional connectivity and demonstrating how climatic factors—particularly the predictable monsoon winds—enabled maritime voyages linking Bengal with Southeast Asia, China, and beyond. Analysis of copper-plate inscriptions, diverse coinage spanning several historical periods, and literary sources reveals that these natural and cultural networks not only stimulated economic integration but also promoted significant religious and artistic exchanges.

Findings indicate that Bengal's inland waterways served as vital arteries for the movement of goods and ideas, laying the foundation for broader overseas trade networks. Moreover, the evidence highlights that despite a gradual decline in direct long-distance maritime trade by the tenth century CE, the legacy of these networks persisted in the form of enduring cultural and economic influences throughout the Indian Ocean realm.

In conclusion, the study demonstrates that the Bengal Basin was integral to the development of early trade systems, combining environmental advantages with advanced navigational expertise. The findings advocate for a dynamic, interdisciplinary approach in reconstructing ancient trade networks, emphasizing that a deeper understanding of Bengal's maritime heritage is essential to appreciating its lasting impact on South Asian historical geography and cultural evolution.

Key Words: Bengal Basin, Maritime Trade, Inland Waterways, Monsoon Dynamics, Archaeological Evidence, Cultural Exchange.

Introduction

The eastern coast of the Indian Peninsula is renowned for its extensive network of seaports strategically located at river mouths and coastal inlets. In Bengal, the expansive Gangetic delta, along with deltas formed by the Krishna, Godavari, and other rivers, provided natural corridors for maritime and inland trade (Deloche 1994). Historically, the Bay of Bengal—though known by various names such as the Arab Sea of *Harkhand*, the European Gulf of Bengal, and the Chinese *Banggela Hai*—has long served as the arena for vibrant economic, cultural, and political exchanges.

Bengal's geographic expanse, which historically covered territories now part of both Bangladesh and West Bengal in India, is characterized by a complex mosaic of landscapes. From fertile plains and dense river networks to intricate deltas and coastal lagoons, the region's topography greatly influenced patterns of settlement and trade. Early historical sources, including literary texts and inscriptions, highlight the diversity of this landscape by recording the names of various ancient townships such as *Vanga*, *Samatata*, *Harikela*, *Gauda*, *Radha*, *Pundra*, *Varendra*, and *Suhmma* (Mukherjee 1987). However, the scarcity of comprehensive written records makes the

reconstruction of pre-Muslim Bengal's geography a challenging task, compelling researchers to rely heavily on archaeological evidence.

This paper sets out to integrate archaeological findings, numismatic data, and epigraphic sources in order to outline the maritime trade networks and inland waterway systems of ancient Bengal. The study also situates the Bengal Basin within the larger framework of the Indian Ocean Littoral, demonstrating how the regions navigational practices and climatic factors, notably the monsoon, were integral to the development and decline of its trading centre.

Historical and Geographical Context

Historically, Bengal was not a homogenous region but was divided into several subdivisions with distinct cultural and economic identities. Prior to the modern partition, Bengal was seen as a contiguous landmass, yet ancient texts refer to it in terms of its regional divisions. For example, B. N. Mukherjee (1987) notes that early foreign sources used the name "Ganga" for the coastal regions of lower West Bengal and western Bangladesh, while indigenous texts referred to it as "Vanga." Over time, the evolution of these regional identities has been influenced by geographical factors such as the formation of two distinct deltas—the western delta centered on Kolkata and the southeastern delta surrounding Dhaka. The historical evolution of these regions was further shaped by the fluidity of river courses and the dynamic nature of the deltaic landscape.

The inherent challenges in reconstructing Bengal's historical geography are compounded by the limited nature of surviving literary sources. As Abdul Momin Chowdhury (1977) remarks, the scant and specialized nature of early historical records requires that epigraphic sources—especially land grant charters inscribed on copper plates—be given significant weight. These inscriptions offer invaluable details regarding the boundaries of territories, the delineation of navigable waterways, and the establishment of early settlements. In doing so, they provide a critical window into understanding how natural features such as rivers and deltas not only shaped settlement patterns but also underpinned economic networks.

Nautical Networks of Inland Waterways

Waterways have historically been the lifelines of Bengal, facilitating the movement of goods, people, and ideas. The extensive river systems of the region, including the Ganges, Brahmaputra, and Meghna, served as natural highways for trade and communication. These rivers, deep and navigable for much of the year, enabled the movement of bulky agricultural produce and raw materials over long distances (Islam 1966). During the monsoon season, increased water volumes not only expanded navigational channels but also enhanced the ability of vessels to carry larger loads, making the riverine network a critical component of ancient Bengal's economy.

There are two primary categories of inland waterways that played distinct roles. The first consists of the large, deep rivers that allowed year-round navigation by sizeable vessels. These major rivers connected remote rural areas with established urban centres and served as arteries for economic integration. Their significance is underscored by numerous archaeological findings—from amphorae and ceramic shards to inscribed seals—recovered from sites along these waterways. Such evidence indicates that the rivers were not only routes for transportation but also focal points for the development of commercial and collection hubs.

The second category includes smaller, shallower rivers and seasonal streams. These waterways, although less reliable in terms of year-round navigation, were crucial during the monsoon when their flow was enhanced. References to local boat types—such as *nauvataka*, *nauvitana*, and *naudandaka*—appear in copper-plate inscriptions from Faridpur (Mukherjee and Maity 1967). Literary sources such as the early *Caryapadas* and the *Ramacarita* recount how these vessels were used for everyday transportation and commerce. The prevalence of these smaller watercraft reflects a deep-seated maritime culture that relied on an intimate knowledge of the deltaic landscape.

In summary, the inland waterway networks of Bengal fostered connectivity within the region. They allowed for the seamless movement of local produce, facilitated the exchange of goods across vast distances, and underpinned the economic and social integration of diverse communities. This sophisticated inland transportation system thus laid the groundwork for the later development of overseas trade networks.

The Nautical Network of Overseas Trade

Beyond the inland waterways, Bengal's strategic position on the Bay of Bengal positioned it as a gateway to the wider Indian Ocean world. The Bay of Bengal, the largest unified maritime expanse in the eastern Indian Ocean, was central to long-distance trade networks that linked South Asia with Southeast Asia, China, and even regions as far afield as the Red Sea (Chakravarti 2015). External observers from Arab, Persian, and Chinese backgrounds provided distinctive names for these waters, reflecting their varied experiences and the regional importance of maritime trade. Ptolemy, for instance, referred to the northern Bay as Sinus Gangeticus, while Arabic sources called it the "Sea of *Harkhand*" (Chakravarti 2015).

Trade in this maritime realm was multifaceted. Goods such as precious metals, textiles, spices, and luxury items moved along complex trade routes that connected the ports of Bengal with distant markets. Archaeological findings—ranging from coins of the Mauryan, Seleucid, Parthian, and Indo-Greek periods to punch-marked coin series—suggest a vibrant exchange of currency and commodities. For example, a silver *drachm* of Seleucos I (312–280 BC) was discovered near Dhaka, and similar evidence points to extensive numismatic interactions that reveal both local production and foreign influences (Mitchiner 2000).

Moreover, the cultural interplay facilitated by these maritime routes extended to religious and artistic traditions. Buddhist and Jain monks, as well as navigators and traders, participated in the exchange of ideas and iconographic motifs. The spread of Buddhist *stupas* and monasteries near ancient ports not only underscored the role of religion in fostering trade but also highlighted the cosmopolitan nature of these trading hubs. Inscribed artifacts—such as copper plates bearing Sanskrit inscriptions—attest to the integration of local and foreign elements in these regions (Chowdhury 1977; Sircar 1951).

The network of overseas trade was further bolstered by regional maritime powers. The rise of the *Srivijaya* Empire in Southeast Asia, for example, coincided with an era of active exchange between Bengal and the Malay Peninsula. Historical accounts note that *Srivijaya* dispatched missions to Pala Bengal and that its ports served as critical intermediaries in the distribution of goods across the Bay of Bengal (Sen 2003). These interactions were not one-sided; the Chola naval expeditions extended Bengal's influence beyond its immediate coastal boundaries,

integrating the region into a broader commercial and cultural zone that transcended modern national divisions.

Monsoon Winds in Bay of Bengal: Time for Maritime Trade

A unique feature of the Indian Ocean system is the monsoon—a climatic phenomenon that has had an indelible impact on maritime navigation and trade. While early literary sources such as the Buddhist Jataka tales and Jain texts refer only obliquely to wind-powered vessels, later texts provide more explicit accounts of the role of seasonal winds in shaping trade routes (Jain 1984; Warmington 1974).

The monsoon winds, which shift in a predictable cycle over the Bay of Bengal, created a natural timetable for voyages. In the winter months, the northeast monsoon provided favorable conditions for ships sailing from India toward Southeast Asia and beyond, while the southwest monsoon enabled the return journey (Pliny 1974; Tripathi 2002). Maritime travelers quickly learned to harness these winds, using them to plan voyages that maximized both speed and safety. The seasonality inherent in the monsoon system thus not only dictated the timing of trade but also influenced the design of vessels and navigational practices.

Artifacts such as punch-marked coins from the *Satavahana*, *Salankayana*, and *Pallava* periods frequently depict ships with masts—a visual testament to the importance of wind power in ancient seafaring (Sarma 1980). Moreover, detailed observations of wind patterns—such as those documented by Hellerman and Rosenstein (1983) and corroborated by regional studies—indicate that ancient mariners possessed a sophisticated understanding of the wind and current dynamics in the Bay of Bengal (Tripathi 2002, 2011).

Social traditions and commemorative festivals also attest to the enduring influence of the monsoon on maritime culture. For instance, the *Bali Yatra* festival in Orissa celebrates the full-moon day during October–November, symbolizing safe voyages and the adventurous spirit of ancient traders. Similar festivals across Southeast Asia, such as Thailand’s *Loykrathong*, underscore the cultural resonance of seafaring traditions that emerged from this interlinked maritime network.

Decline and Transformation of Maritime Networks

While Bengal's maritime networks reached impressive heights in antiquity, the system underwent significant transformations by the tenth century CE. Several factors contributed to the gradual decline of Bengal's direct involvement in long-distance overseas trade. Political instability in key trading regions, shifts in the balance of economic power, and the reconfiguration of regional trade routes all played a role in this transition.

Following the decline of *Harshavardhana's* unified authority in northern India and the concurrent political fragmentation in Southeast Asia, smaller regional states began to assert control over localized trade routes (Mukherjee 2011, 2013). Historical inscriptions, such as the *Kaladi* and *Palabuhan* charters, reveal a marked decrease in references to merchant groups from Bengal during the ninth and tenth centuries. In Java, for instance, studies of shipwrecks from AD 883 to 1305 show a conspicuous absence of traders from Bengal, suggesting that the region's traditional trade networks were being supplanted by emerging commercial powers (Christie 1998).

Numismatic evidence further supports this decline. Although local coinage had long played an essential role in facilitating commerce, a noticeable scarcity of coin circulation across the northern Bay of Bengal in the ninth to tenth centuries has been documented (Gutman 1978). This scarcity is not necessarily indicative of an economic downturn but rather reflects a shift in the modalities of trade—from coin-based transactions to barter systems and the use of standardized metal lumps or *cowrie* shells as currency.

In addition to these economic and political factors, the physical environment also imposed constraints on maritime operations. The northern Bay of Bengal, notorious for its frequent cyclones, fostered a trade system characterized by short, coastal voyages rather than long oceanic passages. This “peddling trade,” as described by some scholars, relied on small vessels engaging in coastal cabotage, which further contributed to the localized nature of trade during this period (Van Leur; Bhattacharjee 2004).

Despite these challenges, the legacy of Bengal's maritime heritage persisted. Even as the region's role in long-distance trade diminished, its historical networks continued to influence cultural and economic interactions across the Indian Ocean. For example, the production and

export of Buddhist votive icons—a practice that once bolstered Bengal’s commercial clout—eventually spread to neighboring regions such as Kedah and Java, highlighting the enduring nature of these cultural exchanges (Hall 2010).

Discussion and Conclusion

The evidence presented in this paper underscores the pivotal role of the Bengal Basin in shaping the early maritime and inland trading systems of South Asia. Through a meticulous analysis of archaeological findings, inscriptions, coins, and literary sources, we have seen that the region’s extensive deltaic network and its advantageous position along the Bay of Bengal rendered it a critical hub for both local and international trade.

Two principal themes emerge from this study. First, the inland waterway systems of Bengal, which were nurtured by a network of large rivers and smaller seasonal streams, provided the foundation for economic integration within the region. These waterways enabled the circulation of goods, fostered cultural exchange, and underpinned the growth of numerous trading centres—from ancient port sites like Chandraketugarh and Mahasthangarh to later urban hubs. The continuous presence of such settlements from the early centuries of the Christian era through the medieval period attests to the enduring importance of riverine transportation (Mukherjee 2013; Chakrabarti 2001).

Second, Bengal’s participation in the broader maritime networks of the Indian Ocean Littoral was a product of both environmental forces and human ingenuity. The predictable yet dynamic monsoon winds provided the natural propulsion necessary for long-distance voyages, while the region’s shipbuilding traditions, as evidenced by depictions on coins and inscriptions, point to an advanced seafaring culture. This duality of inland and overseas navigation not only expanded Bengal’s economic horizons but also facilitated the dissemination of cultural and religious practices across South and Southeast Asia (Chakravarti 2015; Tripathi 2002, 2011).

The eventual decline of Bengal’s direct engagement in long-distance maritime trade during the ninth and tenth centuries illustrates the fluid nature of ancient trade networks. Political fragmentation, the rise of regional powers in Southeast Asia, and shifting economic practices all contributed to a transformation in trade modalities. However, the enduring impact of Bengal’s

maritime legacy is evident in the continued circulation of ideas, technologies, and religious iconographies throughout the Indian Ocean realm (Mukherjee 2011, 2013; Hall 2010).

This paper advocates for a dynamic and interdisciplinary approach to reconstructing ancient trade networks. Rather than relying solely on isolated archaeological findings or fragmented literary sources, a comprehensive understanding of Bengal's past emerges when history, archaeology, and anthropology are studied in tandem. Such a collaborative approach not only enriches our understanding of ancient economic and cultural systems but also offers valuable insights into the ways in which human societies have historically adapted to and shaped their environments.

In conclusion, the Bengal Basin's role in ancient maritime trade is a testament to the region's rich and multifaceted history. Its inland waterway systems, its strategic coastal position, and its integration into the vast Indian Ocean network all contributed to a legacy of economic dynamism and cultural exchange that resonates even today. By preserving the original inscriptions, coinage, and literary testimonies, scholars can continue to unravel the complex tapestry of interactions that defined ancient Bengal, thereby contributing to a deeper and more nuanced understanding of South Asia's historical geography (Chowdhury 1977; Sircar 1951; Mukherjee 2013).

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