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Original Research Article

Blue Tourism and Bangladesh's Sustainable Blue Economy: Untapped Potential, Economic Value and Blue Carbon Synergies along the Bay of Bengal Coast

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Abstract: Bangladesh has made the Bay of Bengal central to its development agenda since its maritime boundaries were settled in 2012 and 2014. Yet coastal and marine tourism, about a quarter of the ocean economy, is poorly measured and weakly governed. Using secondary data, mostly published between 2015 and 2026, this paper assesses the potential, economic value and impacts of blue tourism in Bangladesh. It also asks how visitor spending could support the ecosystems the sector depends on, including mangroves that store blue carbon. The analysis combines a site-level assessment of Cox's Bazar, Saint Martin's Island, the Sundarbans and Kuakata with estimates of visitor expenditure and public revenue capture, and a SWOT synthesis. Tourism and recreation generated about US$1.55 billion of ocean-economy value in 2015. Cox's Bazar alone may receive 6–7 million domestic visits a year, implying visitor spending of roughly US$340–570 million, while international arrivals fell to 585,145 in 2025. Public revenue capture is weak. The Sundarbans earned Tk 171 (about US$1.40) in fees per visitor in 2023–24, under 4% of the price of the cheapest multi-day boat package. At Saint Martin's Island, the coral area shrank by about 70% between 1980 and 2018, mainly because of tourism and coral extraction. The government responded with a cap of 2,000 visitors a day and a nine-month closure. The paper proposes a limits-based model that pairs carrying-capacity rules with conservation fees, community benefit-sharing and blue carbon finance, and it sets out ten policy actions.

Keywords: Blue Tourism, Blue Economy, Coastal And Marine Tourism, Ecotourism, Blue Carbon, Mangroves, Saint Martin's Island, Bangladesh

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1. Introduction

Coastal and ocean tourism is the largest single use of the ocean economy. By the United Nations' latest estimate, it accounts for at least half of global tourism spending, which exceeded US$5.5 trillion, or about 5% of world GDP, in 2022. It also supports about 174 million jobs (United Nations, 2024). At the same time, it is the ocean sector most directly exposed to the condition of the ecosystems it depends on. Degraded reefs, polluted beaches and cleared mangroves lower the value of the visitor experience long before they show up in national accounts (Hall, 2001; Spalding et al., 2017). This is why tourism has become central to debates about a "sustainable" or "blue" economy, in which ocean-based growth is expected to sustain the natural capital it draws on (Organisation for Economic Co-operation and Development [OECD], 2016; World Bank & United Nations Department of Economic and Social Affairs [UN DESA], 2017; Northrop et al., 2022).

Few countries have more riding on that idea than Bangladesh. The settlement of its maritime boundaries with Myanmar in 2012 and India in 2014 confirmed national jurisdiction over a large area of the Bay of Bengal, and the government adopted the blue economy as a development priority soon after. The World Bank estimated that the country's ocean economy produced US$6.2 billion of gross value added in 2015, about 3% of GDP. Tourism and recreation made up about a quarter of that total, roughly US$1.55 billion, a larger share than offshore energy or shipping (Patil et al., 2018). Despite this, blue economy strategy in Bangladesh has concentrated on fisheries, shipping and seabed resources, and tourism has received far less analytical and institutional attention (Sarker et al., 2018; M. W. Islam & Sarker, 2021).

The country's coastal tourism assets are unusual for a nation of its income level. They include Cox's Bazar, often described as the world's longest unbroken natural sea beach; Saint Martin's Island, the only coral-bearing island in Bangladeshi waters; the Sundarbans, the largest contiguous mangrove forest on Earth and a UNESCO World Heritage Site; and the beach at Kuakata, from which both sunrise and sunset can be seen over the sea. A coastline variously measured at 580 km (Uddin & Hassan, 2023) and 710 km (M. W. Islam & Sarker, 2021), about 75 islands with tourism potential, and four marine protected areas covering about 8.8% of the exclusive economic zone complete the resource base.

Demand for these places has risen sharply. The Padma Bridge (2022) cut travel times to the south-west coast, the Dohazari–Cox's Bazar railway (2023) halved the cost of reaching the main beach from Dhaka (The Business Standard, 2023), and the Cox's Bazar–Teknaf Marine Drive opened the southern shoreline to day-trippers. Officials now estimate 6–7 million domestic visits a year to Cox's Bazar alone (The Business Standard, 2023). Visits to the Sundarbans grew by 65% between fiscal years 2015–16 and 2023–24 (The Daily Star, 2025c). The pressures are also visible. The coral area around Saint Martin's Island shrank by about 70% between 1980 and 2018 (Gazi et al., 2020), microplastics are now widespread in Cox's Bazar's beach sediments (Hossain et al., 2021), and hotels and restaurants are among the main polluters of the coast (Miah et al., 2023). From the 2024–25

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season, the government responded by capping visitors to Saint Martin's at 2,000 a day and closing the island for nine months of the year (The Daily Star, 2025a, 2025b, 2026).

The academic literature has not kept pace with these changes. Existing studies fall into three groups. Policy papers from the Asian Development Bank Institute map coastal and maritime tourism as a blue economy avenue (Bhuiyan et al., 2020; M. W. Islam & Sarker, 2021). Remote-sensing studies document land-use change and reef loss at single sites (Ara et al., 2021; Biswas et al., 2025). Valuation and visitor studies estimate ecosystem service values or tourist behaviour at particular destinations (Rani et al., 2020). A 2023 UNDP commentary set out the case for "blue tourism" in broad terms (Uddin & Hassan, 2023). What is missing is a national assessment that brings together the asset base, the economic value, the impacts and the governance of blue tourism. Also missing is any analysis of how tourism revenue could be linked to the protection of blue carbon ecosystems, the mangroves, seagrass and salt marshes that both attract visitors and store large amounts of carbon (Donato et al., 2011; Hilmi et al., 2025).

This paper addresses that gap using secondary data. It asks three questions:

1. What blue tourism assets does Bangladesh have, and how are they used and managed today?
2. What are the economic values and the environmental and social impacts of current blue tourism?
3. Which policies would allow tourism revenue to support conservation, including of blue carbon ecosystems, rather than erode it?

The paper contributes in three ways. It provides a consolidated, source-referenced profile of blue tourism in Bangladesh as of 2026. It quantifies the gap between what visitors spend and what the public sector captures for conservation. And it proposes a framework that connects carrying-capacity management, conservation fees and blue carbon finance. Section 2 reviews the literature and sets out the conceptual framework. Section 3 describes the data and methods. Sections 4–7 present the resource base, economic value, impacts and governance. Section 8 discusses pathways to a sustainable model, and Section 9 concludes with policy recommendations.

2. Literature review and conceptual framework

2.1 The blue economy and the place of tourism

The blue economy is usually defined as the sustainable use of ocean resources for economic growth, better livelihoods and jobs, while preserving the health of ocean ecosystems (World Bank & UN DESA, 2017). The OECD (2016) projected that ocean industries could double their value added between 2010 and 2030, with coastal and marine tourism the largest of them by employment. Two meanings of the term need separating. Pauli (2010) used "blue economy" for business models that mimic natural systems, while most policy documents, including those of Bangladesh, use it to mean the ocean economy (Patil et al., 2018). This paper uses the second meaning.

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In Bangladesh, the blue economy literature has focused on fisheries, aquaculture, shipping, ports and offshore minerals. Sarker et al. (2018) list tourism among the sectors with the highest growth potential but give it little detailed analysis. The World Bank's ocean economy accounts were the first to measure tourism's weight, at about 25% of ocean gross value added in 2015 (Patil et al., 2018). M. W. Islam and Sarker (2021) then made the most direct case for coastal and maritime tourism as a blue economy avenue. They emphasise its labour intensity and its potential to diversify coastal livelihoods away from overfished waters.

2.2 Coastal, marine and "blue" tourism

Hall (2001) distinguished coastal tourism, the activities centred on the shore and the near-shore zone, from ocean or marine tourism, which takes place at sea. Orams (1999) defined marine tourism as recreational activities that involve travel away from home and focus on the marine environment. M. W. Islam and Sarker (2021) adapt these definitions to Bangladesh. Coastal tourism covers beach recreation, island stays and mangrove visits; maritime tourism covers cruises, boat tours and water sports. "Blue tourism" is used here as an umbrella for both, following its use in recent policy writing (Northrop et al., 2022; Uddin & Hassan, 2023). The term also signals that the activity is expected to fit within the limits of a sustainable ocean economy.

Globally, the economic weight of nature-based coastal tourism is large and measurable. Spalding et al. (2017) valued coral reef tourism at about US$36 billion a year. Spalding and Parrett (2019) identified 3,945 mangrove recreation sites in 93 countries and showed that mangrove visitors tend to be domestic and local. That finding matters for Bangladesh, where international visitors are few.

2.3 Sustainability, carrying capacity and limits

A long line of tourism research warns that destinations can grow past the point at which their natural and social systems cope. Butler's (1980) tourism area life cycle describes how unmanaged growth leads to stagnation and decline as the resource base deteriorates. The concept of carrying capacity translates that warning into management. It sets physical, ecological or social limits on visitor numbers and behaviour, and it underlies zoning, visitor caps and seasonal closures in protected areas (Honey, 2008). In small-island and reef settings, exceeding carrying capacity shows up quickly as coral loss, groundwater depletion and waste accumulation (Rani et al., 2020; Biswas et al., 2025).

2.4 Ecotourism, communities and conservation finance

Ecotourism promises to make conservation pay by turning protected ecosystems into income for local people and for park agencies (Garrod & Wilson, 2003; Honey, 2008). The evidence is mixed. Benefits often leak to outside operators, and park fees are frequently set too low to cover management costs (Honey, 2008). In the Bangladesh Sundarbans, community-based tourism has been proposed as a way to reduce dependence on forest extraction (M. W. Islam et al., 2013), and ecotourism features in plans for blue

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growth on the south-eastern coast (M. M. Islam et al., 2020). The question this paper takes up is how much of visitor spending reaches conservation at all.

2.5 Blue carbon as a link between tourism and conservation

Mangroves, seagrass meadows and salt marshes store carbon at far higher densities than most terrestrial forests. Indo-Pacific mangroves hold on average about 1,023 Mg of carbon per hectare, most of it in their soils (Donato et al., 2011). The Bangladesh Sundarbans holds an estimated 56–91 Tg of carbon and sequesters about 4.7–6.5 Mg of carbon per hectare each year (Hilmi et al., 2025). Estimates for the Sundarbans vary widely with method and with how much soil carbon is included, so these figures are indicative. Blue carbon finance, which pays for protecting or restoring these ecosystems through carbon credits or results-based payments, is growing but remains small (International Finance Corporation [IFC], 2023). Blue tourism and blue carbon depend on the same ecosystems, and each can fund the protection the other needs. The links between them have received little attention in research on Bangladesh.

2.6 Conceptual framework

Figure 1 brings these strands together. Ecosystem assets attract visitor demand, which produces economic value. The same demand also creates pressures that degrade the assets. Left unmanaged, this balancing loop caps growth and drives the decline stage in Butler's (1980) life cycle. A sustainable model requires a second, reinforcing loop. In that loop a share of the value is captured through fees, levies and blue carbon credits, and it is reinvested in limits, restoration and community benefit-sharing. The rest of the paper uses this framework to organise the evidence.

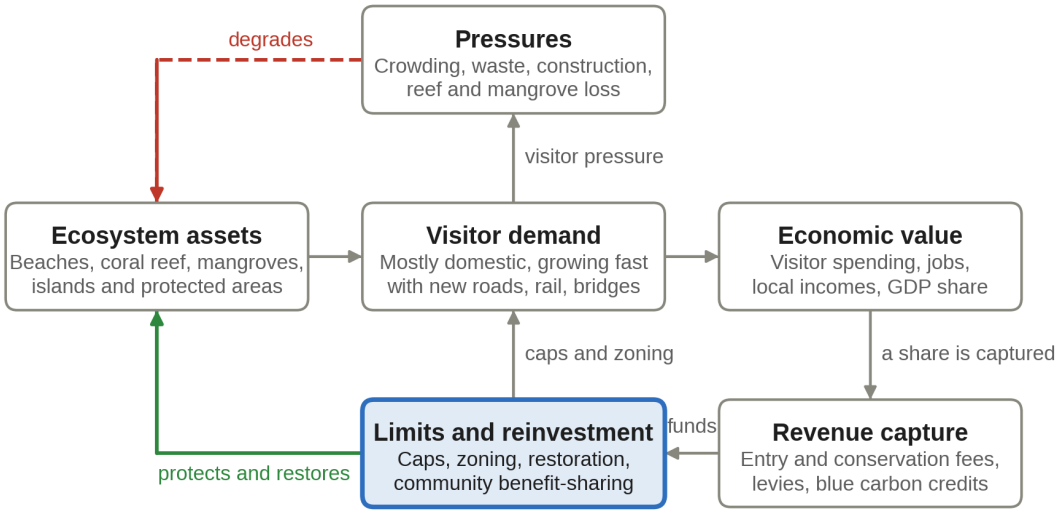

Figure 1. Conceptual framework of the study: blue tourism, the pressures it creates and the reinvestment loop that can sustain it. Source: Author's construction, drawing on Hall (2001), Butler (1980) and Spalding and Parrett (2019).

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The strength of the reinvestment loop depends on how much revenue is captured and where it goes. Section 5 measures that capture, and Section 8 discusses how to strengthen it.

3. Methodology

3.1 Research design

The study uses a secondary-data design that combines document analysis with descriptive quantitative analysis. No primary data were collected. This suits the research questions for two reasons. First, the evidence on blue tourism in Bangladesh is scattered across agencies, donors, journals and the press, and has never been brought together. Second, the period of interest (2015–2026) includes rapid policy change, and much of the most recent information exists only in official notices and news reports.

The analysis is organised around four destinations that together account for most of the country's coastal tourism and represent its main ecosystem types. Cox's Bazar is a mass-market beach, Saint Martin's Island a coral island, the Sundarbans a mangrove forest and Kuakata an emerging beach destination. Planned tourism zones and marine protected areas are treated as secondary cases.

3.2 Data sources and selection

Sources were identified through searches of Scopus, Google Scholar and publisher databases, the websites of government agencies and development partners, and the English-language archives of seven national news outlets. Search terms combined "Bangladesh" with "blue economy", "coastal tourism", "marine tourism", "ecotourism", "Cox's Bazar", "Saint Martin", "Sundarbans", "Kuakata" and "blue carbon". Documents were included if they were published between 2015 and September 2026 (or were foundational works), reported data or policy decisions on coastal tourism in Bangladesh, and could be traced to an identifiable author or institution. Table 1 summarises the source base.

Table 1: Secondary data sources used in the study

Source type	Main sources	Information drawn	Items cited
Official statistics	Bangladesh Bureau of Statistics Tourism Satellite Account 2020; Bangladesh Tourism Board arrival counts; Forest Department visitor and revenue records, as published in national newspapers	Tourism share of GDP and jobs, international arrivals, Sundarbans visits and revenue	3 datasets

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Source type	Main sources	Information drawn	Items cited
International and donor reports	World Bank (Patil et al., 2018); World Bank & UN DESA (2017); OECD (2016); United Nations (2022, 2024); Ocean Panel (Northrop et al., 2022); IFC (2023); ADBI working papers (Bhuiyan et al., 2020; M. W. Islam & Sarker, 2021); UNDP (Uddin & Hassan, 2023); United Nations High Commissioner for Refugees [UNHCR] (n.d.); BD Policy Lab (2026)	Ocean economy accounts, global benchmarks, blue carbon finance, protected areas	12
Government decisions and rules	Saint Martin's Island visitor rules; marine protected area notification; tourism parks of the Bangladesh Economic Zones Authority; National Tourism Policy 2010; Environment Conservation Act 1995; national tourism plans of 2026	Visitor caps, closures, protected areas, investment zones, growth targets	8 instruments
Peer-reviewed studies	Journal articles on valuation, remote sensing, pollution, blue carbon, community tourism and tourism theory	Coral and land-use change, microplastics, carbon stocks, ecosystem values, life-cycle and carrying-capacity concepts	15
Books	Orams (1999); Garrod & Wilson (2003); Honey (2008); Pauli (2010); Shoeb-Ur-Rahman & Hassan (2020)	Definitions, ecotourism principles, tourism policy history	5
Press reports	The Daily Star, The Business Standard, The Financial Express, Prothom Alo, Dhaka Tribune, United News of Bangladesh, The Bangladesh Today	Recent visitor counts, turnover, policy announcements, local impacts	19

3.3 Analytical procedures

The analysis followed five steps.

1. **Asset inventory.** Each destination was profiled by ecosystem type, latest visitor data, protection status and links to blue carbon (Section 4).
2. **Economic value.** National and sectoral values were taken from published accounts. Visitor expenditure at Cox's Bazar was estimated as the product of visits and spending per visit, using ranges because neither is officially measured. Public revenue capture was measured as the visitor-fee revenue earned per visitor by the agency that manages the site, and compared with the price visitors pay private operators (Section 5). General taxes such as VAT are excluded, because they do not reach the managing agency.

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3. **Impact assessment.** Environmental, socio-cultural and economic impacts were coded from the literature and press into an impact matrix, with each entry tied to a site and a source (Section 6).
4. **Policy review.** Laws, rules and plans were reviewed for their objectives, instruments and implementation record (Section 7).
5. **Synthesis.** Findings were combined in a SWOT analysis and used to test illustrative conservation-fee scenarios (Section 8).

The expenditure and capture measures are defined as follows, where E is annual visitor expenditure, V the number of visits, s the average spending per visit, R the public revenue per visitor, P the total public revenue from visitor fees and p a reference price paid to private operators:

$$E = V \times s \quad (1)$$

$$R = \frac{P}{V} \quad (2)$$

$$c = \frac{R}{p} \quad (3)$$

The capture ratio c shows how much of a visitor's outlay reaches the public body that manages the ecosystem. Money values are reported in Bangladeshi taka (Tk) and converted to US dollars at Tk 122 per US$1, an approximate 2025–26 rate. One crore equals 10 million and one lakh equals 100,000. Bangladesh's fiscal year runs from July to June.

3.4 Limitations

The main limitation is the quality of visitor data. Bangladesh has no official count of visitors to its beaches. Figures for Cox's Bazar and Kuakata come from hotel associations and local officials and are best treated as orders of magnitude. Press reports were used for recent events only where they cited an identifiable official or organisation, and were cross-checked against a second source where possible. The economic estimates are indicative. They are not a substitute for a coastal tourism satellite account, which Section 9 recommends.

4. The blue tourism resource base of Bangladesh

Bangladesh's blue tourism rests on four ecosystem types: sandy beaches, a small coral island, the mangrove forests of the Ganges–Brahmaputra delta and the open waters of the Bay of Bengal. Visitor activity is concentrated at a few sites, and the best-documented ones are now being managed for limits rather than growth. Table 2 profiles the main destinations.

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Table 2: Main blue tourism destinations and assets in Bangladesh

Destination	Ecosystem and tourism type	Latest visitor data	Protection and management	Blue carbon or conservation link
Cox's Bazar	Sandy beach of about 120 km; mass domestic beach tourism	About 6–7 million domestic visits a year (The Business Standard, 2023); about 1.6 million visitors and Tk 1,600 crore turnover in 15 days of December 2024 (The Business Standard, 2024b)	Part of the Cox's Bazar–Teknaf Ecologically Critical Area (20,373 ha; United Nations, 2022); hub of the national tourism plan announced in July 2026 (The Business Standard, 2026b)	Beach, dune and creek habitats; turtle nesting on southern beaches
Saint Martin's Island	Coral-bearing island of about 8 km²; day and overnight trips	30,000+ visitors in 15 days of December 2024 (The Business Standard, 2024b); now capped at 2,000 a day	Marine protected area of 1,743 km² since 2022; ecologically critical area; closed 1 February to 1 November 2026 (The Daily Star, 2026)	Bangladesh's only coral communities; seagrass and turtle habitats (Rani et al., 2020)
Sundarbans	Mangrove forest of 6,017 km² in Bangladesh; boat-based ecotourism	211,057 visitors in FY2023–24, of whom 2,622 were foreign (The Financial Express, 2024)	UNESCO World Heritage Site; reserve forest; 10 km ecologically critical buffer (292,926 ha; United Nations, 2022)	Largest carbon store on the coast: 56–91 Tg C (Hilmi et al., 2025)
Kuakata	Sandy beach of about 18 km; domestic beach tourism	25,000–30,000 overnight visitors a day at peak after the Padma Bridge opened (Prothom Alo, 2022)	Largely unplanned growth since 2022; no visitor management	Adjoins mangrove belts and coastal plantations
Sonadia Island	Barrier island with mangroves and mudflats; planned ecotourism park	No regular tourism	Ecologically critical area; tourism park cancelled to protect biodiversity (The Business Standard, 2025)	Mangroves, turtle nesting and migratory shorebirds (M. M. Islam et al., 2020)

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Destination	Ecosystem and tourism type	Latest visitor data	Protection and management	Blue carbon or conservation link
Marine protected areas	Offshore waters; potential wildlife and dolphin watching	Little or no tourism	Four MPAs totalling 7,367 km², about 8.8% of the EEZ: Swatch of No Ground, Nijhum Dwip, Saint Martin's, and Middle Ground and South Patches (United Nations, 2022)	Cetaceans, sea turtles and whale sharks

4.1 Cox's Bazar: the mass-market beach

Cox's Bazar dominates the sector. No official visitor count exists, but estimates have risen from about 1.5 million visitors in 2015, 95% of them domestic (Bhuiyan et al., 2020), to 6–7 million domestic visits a year by 2023 (The Business Standard, 2023). The town's growth has followed its transport links: the Marine Drive along the coast to Teknaf, the railway from Dohazari opened in November 2023, and an airport being upgraded for international flights. Peaks are extreme. Hotel owners reported 350,000 visitors in the three days after Eid-ul-Fitr in March 2026 (The Business Standard, 2026a), and 1.6 million over 15 days in December 2024 (The Business Standard, 2024b). The product is almost entirely sun, sand and sightseeing, with little differentiation by price or season.

4.2 Saint Martin's Island: the coral island

Saint Martin's Island, about 9 km off the Teknaf peninsula, supports about 66 species of scleractinian coral as well as 234 fish species, sea turtles and marine mammals (Rani et al., 2020). Species counts differ between surveys and methods, and press reports of other surveys give higher historical figures (Prothom Alo, 2020). It became a popular destination in the 2000s. Annual visits rose from under 200 in the mid-1990s to about 50,000 by 2020, and the number of hotels rose from 17 in 2012 to 48 in 2018 (Prothom Alo, 2020). About 10,000 people live on the island, and about 70% depend directly on tourism (The Financial Express, 2025). The island is now the country's main test of limits-based tourism management (Section 7).

4.3 The Sundarbans: mangrove ecotourism

The Bangladesh Sundarbans covers 6,017 km², about 62% of the transboundary forest (Hilmi et al., 2025). Tourism is boat-based, operating mainly from Khulna and Mongla, with day trips to sites such as Karamjal and multi-day cruises to the forest's southern edge. In 2025, 65 launches were registered with the operators' association in Khulna, and about 200 guides had been trained (The Daily Star, 2025c). Visitor numbers grew from 128,175 in FY2015–16 to 216,143 in FY2022–23. Domestic visits rose by about 45% after the Padma Bridge opened (The Daily Star, 2025c). Foreign visitors remain about 1% of the total.

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4.4 Kuakata and the western coast

Kuakata, on the Patuakhali coast, was a remote destination until the Padma Bridge opened in June 2022. In the following weeks, hotel owners reported 25,000–30,000 overnight visitors a day, against roughly 130 hotels and motels (Prothom Alo, 2022). Kuakata adjoins mangrove belts and the coastal greenbelt plantations, and it is a base for boat trips to nearby mangrove islands. Growth has been fast and largely unplanned, and the beach suffers from erosion.

4.5 Emerging segments

Several segments remain undeveloped. They include dolphin and whale watching in the Swatch of No Ground submarine canyon; island and char tourism at Nijhum Dwip, Maheshkhali and the 75 or so islands identified by Uddin and Hassan (2023); coastal cruising, following the Bangladesh–India passenger cruise launched in 2019 (Uddin & Hassan, 2023); and community-based homestays in fishing villages. Their common constraint is access and safety at sea rather than demand. Three exclusive tourism parks planned by the Bangladesh Economic Zones Authority were meant to bring international-standard resorts. The 967-acre Sabrang park had only partial infrastructure after nine years, the 271-acre Naf park on Jaliar Dwip attracted no developers, and the 9,467-acre Sonadia park was cancelled to protect the island's biodiversity (The Business Standard, 2025).

5. Economic value and prospects

Blue tourism is already one of Bangladesh's most valuable ocean activities, but most of its value is private, domestic and unmeasured, and very little of it reaches the bodies that manage the ecosystems. Table 3 brings together the documented values.

Table 3: Documented and estimated economic values of blue tourism in Bangladesh

Level or site	Indicator	Value	Source
Ocean economy	Tourism and recreation share of ocean gross value added, 2015	25% of US$6.2 billion, about US$1.55 billion	Patil et al. (2018)
National tourism	Direct contribution, FY2018–19	3.02% of GDP (Tk 76,691 crore) and 8.07% of employment	Tourism Satellite Account 2020, via The Daily Star (2021)
National tourism	Spending by type, FY2018–19	Domestic Tk 74,959 crore; inbound Tk 23,780 crore	The Daily Star (2021)
National tourism	International arrivals	655,451 in 2023; 633,094 in 2024; 585,145 in 2025	The Business Standard (2026c)
Cox's Bazar	Turnover in 15 days of December 2024	Tk 1,600 crore (US$131 million) from about 1.6 million visitors, or about Tk 10,000 (US$82) per visit	The Business Standard (2024b)

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Level or site	Indicator	Value	Source
Cox's Bazar	Annual visitor expenditure (estimate)	Tk 4,200–7,000 crore (US$344–574 million)	Author's estimate (Section 5.2)
Saint Martin's Island	Tourism revenue to the local economy	US$19.4 million a year, within a total ecosystem service contribution of US$33.6 million	Rani et al. (2020)
Saint Martin's Island	Potential entrance-fee revenue	About US$1 million a year	Rani et al. (2020)
Sundarbans	Forest Department revenue, FY2023–24	Tk 3.61 crore (US$0.30 million) from 211,057 visitors	The Financial Express (2024)
Sundarbans	Private boat-tour prices, 2025	Tk 4,500–22,000 (US$37–180) a person	The Daily Star (2025c)

5.1 National value: a domestic industry

The ocean economy accounts give the only national estimate of blue tourism's weight: about US$1.55 billion of gross value added in 2015, a quarter of the ocean economy (Patil et al., 2018). Tourism as a whole contributed 3.02% of GDP and 8.07% of employment in FY2018–19, according to the first Tourism Satellite Account (The Daily Star, 2021). The World Travel & Tourism Council put tourism at about 2.2% of GDP and 2.18 million jobs in 2024, though its method differs from the satellite account's (WTTC figures as summarised by BD Policy Lab, 2026).

The defining feature is the dominance of domestic demand. Domestic tourists spent about three times as much as inbound visitors in FY2018–19, and 80% of "international" arrivals that year were non-resident Bangladeshis (The Daily Star, 2021). Foreign arrivals have since fallen, from 655,451 in 2023 to 585,145 in 2025. Most of the drop came from India, whose visitors fell by 26% in 2025 (The Business Standard, 2026c). For blue tourism this means that the realistic market for the next decade is Bangladesh's own urban middle class. Spalding and Parrett (2019) found the same domestic bias in mangrove tourism worldwide.

5.2 Destination value: the scale of Cox's Bazar

Cox's Bazar shows the scale of what is at stake. Hotel and restaurant owners estimated a turnover of Tk 1,600 crore over 15 days in December 2024, from about 1.6 million visitors (The Business Standard, 2024b). That implies average spending of about Tk 10,000 (US$82) per visit during the peak. Officials estimate 6–7 million domestic visits a year (The Business Standard, 2023). Applying the expenditure formula in Section 3.3, with spending of Tk 7,000–10,000 a visit (the lower figure allows for day-trippers and off-season discounts), gives annual visitor expenditure of Tk 4,200–7,000 crore, or about US$344–574 million. This is equivalent to 6–9% of all domestic tourism spending recorded

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nationally in FY2018–19, before adjusting for inflation. The estimate is indicative, because both visits and spending rest on trade estimates.

At Saint Martin's Island, Rani et al. (2020) estimated tourism revenue to the local economy at US$19.4 million a year. Together with fisheries and coastal protection, they put the island's ecosystem service contribution at US$33.6 million a year, and its net present value over 25 years at about US$545 million. The Sundarbans tourism economy is smaller but diversified. It includes 65 registered tour launches in Khulna and a growing ring of eco-resorts, each of which costs Tk 1.5–2.5 crore to build (The Daily Star, 2025c).

5.3 Public revenue capture: the missing link

The sharpest finding concerns how little of this value reaches public conservation bodies. The Sundarbans is the only site with a published series of visitor revenue (Figure 2).

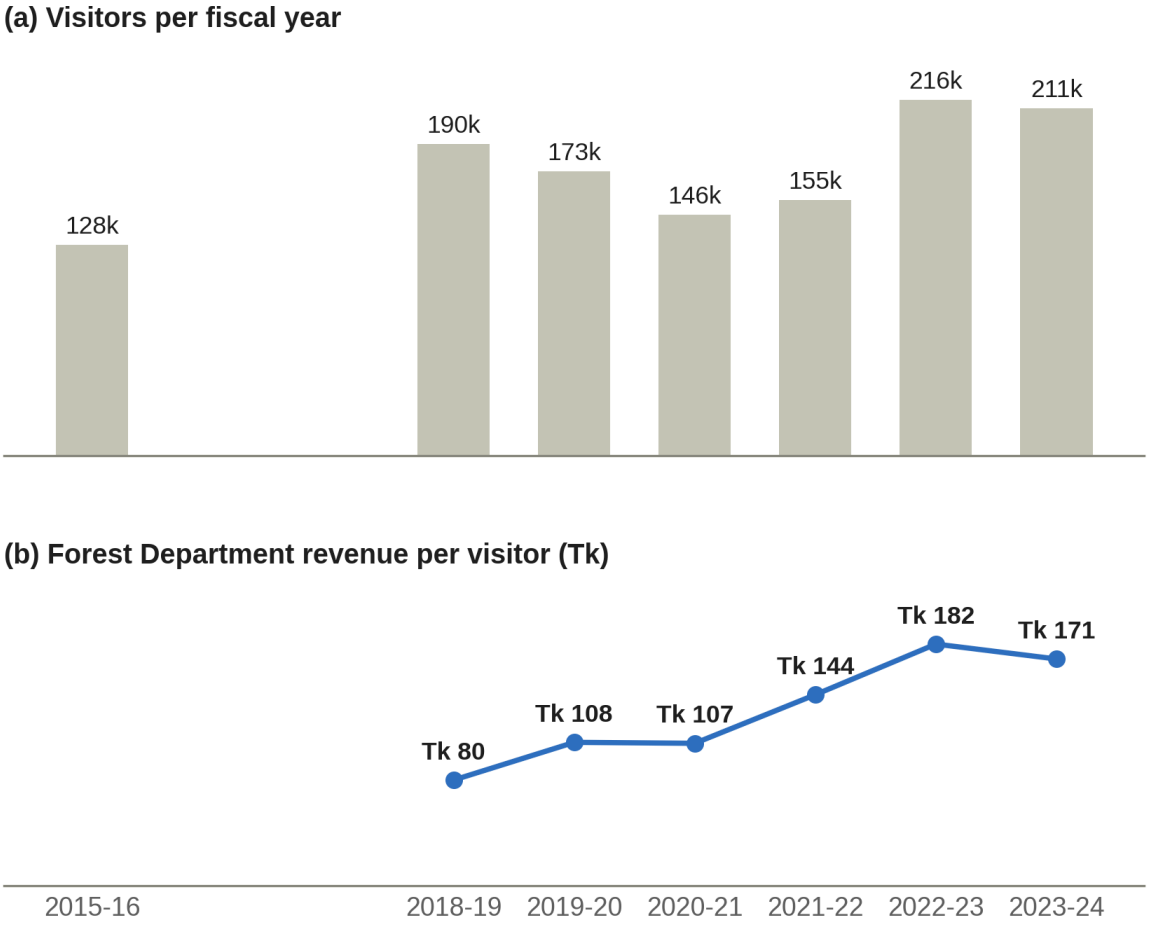

Figure 2. Sundarbans visitors (a) and Forest Department revenue per visitor (b), FY2015–16 to FY2023–24. Sources: The Business Standard (2024a); The Daily Star (2025c); The Financial Express (2024). Revenue per visitor calculated by the author.

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In FY2023–24, the Forest Department earned Tk 3.61 crore from 211,057 visitors, or Tk 171 (about US$1.40) a visitor. Revenue per visitor has more than doubled, from Tk 80 in FY2018–19, but it remains small beside what visitors pay operators. Against the price of a budget boat package (Tk 4,500), the capture ratio c is 3.8%. Against a mainstream package (Tk 10,000) it is 1.7%, and against a luxury cruise (Tk 22,000) it is 0.8%. Published fees for multi-day trips are higher than this average, which suggests that most visitors make short day trips near Mongla and Khulna. At the other sites capture is lower still. Neither Cox's Bazar nor Saint Martin's Island levies a conservation fee, although Rani et al. (2020) estimated that an entrance fee at the island alone could raise about US$1 million a year.

The gap is also stark per unit of area. Tourism revenue across the 6,017 km² Sundarbans amounts to about Tk 60 (US$0.49) per hectare a year. By comparison, the forest sequesters an estimated 4.7–6.5 Mg of carbon per hectare a year (Hilmi et al., 2025), equivalent to 17–24 tonnes of CO_2. At carbon prices of US$5–15 per tonne, this has a theoretical value of US$86–357 per hectare a year. Not all of this could be credited. Carbon standards reward only additional climate benefits, such as avoided degradation or new planting, not the sequestration of an intact forest that is already protected (IFC, 2023). The comparison nonetheless shows that the climate value of the mangroves visitors come to see is two orders of magnitude larger than the revenue their visits currently generate for the forest.

5.4 Prospects

Demand will keep rising. The government's master plan, under preparation in 2026, covers 1,498 attractions and aims to raise tourism from 2–3% to 8–9% of GDP (The Bangladesh Today, 2026). A plan announced in parliament in July 2026 places Cox's Bazar at the centre of national tourism development, with new hotels on state land and public–private partnerships (The Business Standard, 2026b). New rail and road links are shifting demand from day trips to longer stays, and from Cox's Bazar towards Kuakata, the Sundarbans and the islands. The segments with the most room to grow are those that sell intact ecosystems: mangrove and island ecotourism, marine wildlife watching in the protected areas, and community-based stays. These are the segments in which revenue capture and limits matter most.

6. Impacts of blue tourism

The evidence shows a sector whose economic benefits are real but whose environmental costs fall on the very assets it sells. Those costs are best documented at Saint Martin's Island and Cox's Bazar. Table 4 summarises the impacts identified in the secondary literature.

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Table 4: Impact matrix of blue tourism in Bangladesh

Impact	Site	Evidence	Direction	Source
Coral loss	Saint Martin's Island	Coral area fell from 1.32 km² (1980) to 0.39 km² (2018); recorded species from 141 to 40	Negative	Gazi et al. (2020); Prothom Alo (2020)
Reef degradation alongside visitor growth	Saint Martin's Island	About 25% coral degradation between 2015 and 2022	Negative	Biswas et al. (2025)
Built-up expansion and surface heating	Saint Martin's Island	Built-up area and land-surface temperature rose with tourism; hotels grew from 17 (2012) to 48 (2018)	Negative	Ara et al. (2021); Prothom Alo (2020)
Microplastic pollution	Cox's Bazar	200–379 items per kg of beach sediment; fibres 53% of particles	Negative	Hossain et al. (2021)
Waste from hotels and restaurants	Cox's Bazar	Hospitality identified among the main polluters of the coastal ecosystem	Negative	Miah et al. (2023)
Disturbance in mangroves	Sundarbans	Plastic waste and unregulated crab collection along tour routes	Negative	The Daily Star (2025c)
Habitat risk from development	Sonadia Island	Traffic and construction threaten turtle nesting and bird habitats; tourism park cancelled	Negative, now averted	M. M. Islam et al. (2020); The Business Standard (2025)
Crowding and service quality	Cox's Bazar	350,000 visitors in three days after Eid 2026; complaints about vendors, noise and prices	Negative	The Business Standard (2026a); Dhaka Tribune (2026)
Jobs and income	All sites	Tourism 8.07% of national employment; about 70% of Saint Martin's residents depend on tourism	Positive	The Daily Star (2021); The Financial Express (2025)
Livelihood shock from restrictions	Saint Martin's Island	At least 200 families left the island after the restrictions began	Negative	The Financial Express (2025)
Low public revenue capture	Sundarbans, Saint Martin's	Tk 171 public revenue per Sundarbans visitor; no conservation fee at Saint Martin's	Negative	Section 5.3

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6.1 Environmental impacts

The clearest case is Saint Martin's Island. Using satellite imagery, Gazi et al. (2020) estimated that the island's coral area shrank by about 70% between 1980 and 2018. Biswas et al. (2025) report about 25% coral degradation between 2015 and 2022, a period of rapid tourism growth. Ara et al. (2021) show that built-up land and land-surface temperature on the island rose with the number of visitors. Gazi et al. (2020) attribute most of the loss to human activity, chiefly tourism and the extraction of coral by fishers. With about 10,000 residents and, before 2025, thousands of daily visitors in peak season, an island of about 8 km² was poorly placed to absorb these pressures.

At Cox's Bazar, the pressures are diffuse but large. Hossain et al. (2021) found between 200 and 379 microplastic particles per kilogram of intertidal sediment, the first such baseline for the world's longest natural beach. Miah et al. (2023) identify hotels and restaurants as major polluters of the fragile coastal ecosystem and link the town's growth to the conversion of natural land. Coastal construction along the Marine Drive and in the Sabrang tourism zone has exposed new infrastructure to erosion (The Business Standard, 2025). In the Sundarbans, the impacts are smaller but growing: plastic waste and unregulated crab collection on tour routes, and noise from a fleet of launches that has expanded with demand (The Daily Star, 2025c).

Climate change compounds these pressures. Beaches at Kuakata and along the Teknaf peninsula are eroding. Cyclones and storm surges periodically damage coastal infrastructure. Rising sea levels and warmer waters threaten the reef communities around Saint Martin's (Gazi et al., 2020). The same ecosystems that tourism degrades are the coast's first line of defence. Rani et al. (2020) valued the shoreline protection provided by Saint Martin's reefs at about US$180,000 a year, and mangroves along the delta play a similar role at a far larger scale.

6.2 Socio-cultural impacts

The social effects of blue tourism are less documented, but three patterns stand out. The first is crowding. Peak-season densities at Cox's Bazar, with more than 100,000 people bathing daily during holidays, lower the quality of the visitor experience and raise safety risks (The Business Standard, 2026a). Residents and visitors complain of aggressive vending, noise and rising prices (Dhaka Tribune, 2026). The second is dependence. On Saint Martin's Island, about 70% of residents rely directly on tourism, and fishing households have become tied to tourist demand for seafood. When the government restricted access in 2025, at least 200 families left the island (The Financial Express, 2025). The third is uneven benefit. No published data show who owns coastal hotels and tour operators, so the share of income that stays in coastal communities cannot be measured. Community-based models that would retain more value locally remain small (M. W. Islam et al., 2013; M. W. Islam & Sarker, 2021).

The Rohingya refugee influx since 2017 has also reshaped the Cox's Bazar district. Nearly one million refugees live in camps at Ukhiya and Teknaf (UNHCR, n.d.). This has

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added pressure on land, forests and water, and placed a humanitarian operation beside the country's main tourist destination.

6.3 Economic impacts

The positive economic impacts are substantial: employment, income for coastal households that lack alternatives, and investment in transport that benefits the wider economy (M. W. Islam & Sarker, 2021). The negative impacts are of a different kind. They are distributional and fiscal rather than aggregate. There are three. Benefits are likely to leak out of the coastal districts through outside ownership, although this has not been measured. Seasonality concentrates income into a few weeks. And, as Section 5.3 showed, the public sector captures very little of the value created by the ecosystems it is responsible for. This last point links the economic and environmental impacts: a resource that earns its manager almost nothing is likely to be under-protected.

7. Governance and policy landscape

Blue tourism in Bangladesh is governed by many agencies. None of them treats it as a single system, and they rely almost entirely on regulation rather than economic instruments. Table 5 lists the main instruments, newest first.

Table 5: Main policy instruments affecting blue tourism in Bangladesh

Year	Instrument	Lead agency	Type	Assessment
2026	National Tourism Master Plan, in preparation: 1,498 attractions; target of 8–9% of GDP (The Bangladesh Today, 2026)	Ministry of Civil Aviation and Tourism	Strategic plan	Ambitious growth target; carrying capacity and conservation finance not yet visible
2026	Tourism development plan for Cox's Bazar, Sylhet and Khulna announced in parliament (The Business Standard, 2026b)	Prime Minister's Office; Bangladesh Parjatan Corporation	Investment plan	Hotels on state land through public–private partnerships; growth-led
2024–26	Saint Martin's Island visitor rules: 2,000 visitors a day, online travel pass, ban on single-use plastics, closure from February to October (The Daily Star, 2025a, 2025b, 2026)	Ministry of Environment, Forest and Climate Change	Regulatory limit	Hard visitor cap at a major destination; no fee or compensation component
2022	Saint Martin's Island Marine Protected Area, 1,743 km² (United Nations, 2022)	Ministry of Environment, Forest and Climate Change	Protected area	Raised MPA coverage to about 8.8% of the EEZ; management plan and enforcement capacity limited

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Year	Instrument	Lead agency	Type	Assessment
2017	Blue Economy Cell (United News of Bangladesh [UNB], 2021)	Energy and Mineral Resources Division	Coordination body	Reported in 2021 as under-staffed and without progress; tourism not a focus
c. 2016	Exclusive tourism parks at Sabrang, Naf and Sonadia (The Business Standard, 2025)	Bangladesh Economic Zones Authority	Investment zones	Stalled or cancelled; Sonadia dropped to protect biodiversity
2010	National Tourism Policy 2010 (Shoeb-Ur-Rahman & Hassan, 2020)	Ministry of Civil Aviation and Tourism	Sector policy	Promotes coastal tourism; weak on carrying capacity and community benefit
1995	Bangladesh Environment Conservation Act 1995, Section 5, allowing ecologically critical areas	Ministry of Environment, Forest and Climate Change	Legal framework	Basis for the ecologically critical areas at Cox's Bazar–Teknaf, Sonadia, Saint Martin's and the Sundarbans; enforcement weak

7.1 Fragmented responsibility

Ten public bodies hold part of the responsibility for blue tourism. These are the Ministry of Civil Aviation and Tourism and its two agencies, the Bangladesh Tourism Board and the Bangladesh Parjatan Corporation; the Ministry of Environment, Forest and Climate Change, with the Department of Environment and the Forest Department; the Bangladesh Economic Zones Authority; the Cox's Bazar Development Authority; district administrations; and the Blue Economy Cell. The tourism bodies promote growth. The environment and forest bodies manage protected areas and ecologically critical areas. The economic zones authority develops investment sites. None is responsible for the tourism system of the coast as a whole. The Blue Economy Cell, created in 2017 to coordinate ocean policy, was reported in 2021 to have made no progress in four years for lack of staff and funds (UNB, 2021). This fragmentation helps explain why growth targets and conservation rules are set in separate processes and sometimes collide, as at Sonadia (The Business Standard, 2025).

7.2 Regulation without economic instruments

Nearly all of the instruments in Table 5 are regulatory or investment-led. Bangladesh has used bans, caps, closures and protected-area designations, but it has made little use of the economic instruments that the ecotourism literature recommends. These include differentiated entry fees, conservation levies, concession fees, performance bonds for coastal developers and earmarked trust funds (Honey, 2008; IFC, 2023). The Sundarbans entry fee is the only established revenue instrument, and Section 5.3 showed

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how little it yields per visitor. As a result, the agencies responsible for the ecosystems have no revenue that grows with visitor numbers. Their budgets do not rise in step with visitor numbers, so growth adds to their costs faster than to their revenue.

7.3 Saint Martin's Island as a test case

The rules for Saint Martin's Island, introduced in 2024 and tightened in 2025, are the most significant policy experiment in Bangladeshi blue tourism. They cap visitors at 2,000 a day, require an online travel pass, ban single-use plastics and close the island for nine months, from 1 February to 1 November 2026 (The Daily Star, 2025a, 2025b, 2026). In ecological terms they respond to well-documented reef decline (Gazi et al., 2020; Biswas et al., 2025). Their weaknesses are also clear. The rules were introduced quickly and without an income transition for the roughly 70% of residents who depend on tourism. They collect no fee that could pay for reef monitoring or restoration. And the short season, combined with a six- to seven-hour boat journey each way from Cox's Bazar, has made day trips in November almost unviable (The Financial Express, 2025). The case shows that limits are necessary but not sufficient. Without revenue capture and benefit-sharing, a cap protects the reef at the expense of residents and builds pressure to relax the rules.

7.4 Data and monitoring

Governance is also weakened by the absence of basic data. There is no official visitor count for any beach, no published revenue series except for the Sundarbans, and the Tourism Satellite Account does not separate coastal from inland tourism (The Daily Star, 2021). Reef and mangrove monitoring depends largely on academic remote-sensing studies rather than on routine government surveys. Without these data, carrying capacity cannot be set on evidence, fees cannot be calibrated, and the effects of policy cannot be evaluated.

8. Discussion: pathways to a sustainable blue tourism model

8.1 Destinations at different stages

The evidence places Bangladesh's coastal destinations at different points of Butler's (1980) tourism area life cycle (Figure 3). This matters because each stage calls for a different policy mix.

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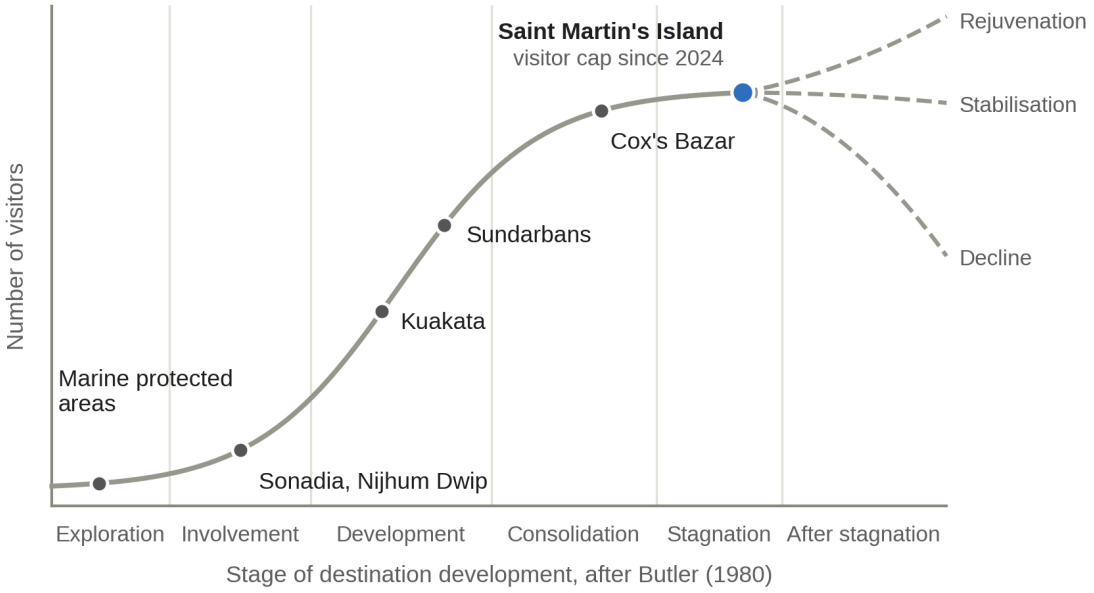

Figure 3. Bangladesh's blue tourism destinations on Butler's (1980) tourism area life cycle. Source: Author's assessment based on the evidence in Sections 4–7.

The marine protected areas and the outer islands are at the exploration or involvement stage, with few visitors and little infrastructure. Kuakata and the Sundarbans are in the development stage, with growth driven largely by the Padma Bridge. Cox's Bazar has consolidated into a mass-market destination whose growth now depends on new transport and hotels rather than on its natural assets. Saint Martin's Island reached stagnation, with visible damage to the resource that attracted visitors (Gazi et al., 2020; Biswas et al., 2025). The cap introduced in 2024 is an attempt to steer it towards stabilisation rather than decline.

The practical lesson is that Bangladesh can still choose a different path for its developing and emerging sites. Saint Martin's shows the cost of letting a fragile site reach stagnation before limits are set. Kuakata, the Sundarbans and the islands can be given carrying-capacity rules, zoning and revenue instruments now, while visitor numbers are still manageable. This is consistent with the global evidence that mangrove and reef tourism depend for their value on the condition of the ecosystems (Spalding et al., 2017; Spalding & Parrett, 2019).

8.2 Strengths, weaknesses, opportunities and threats

Table 6 synthesises the findings in a SWOT matrix.

Table 6: SWOT analysis of blue tourism in Bangladesh

Strengths	Weaknesses
Unique assets: the longest natural sea beach, the largest mangrove forest and the only coral island in the country	No official visitor counts; data limited to the Sundarbans

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Strengths	Weaknesses
Large and growing domestic market; about 6–7 million visits a year to Cox's Bazar alone	Responsibility fragmented across at least eight agencies
Improved access by bridge, rail and road since 2022	Almost no economic instruments; public revenue capture under 4% of a budget tour price in the Sundarbans
Protected-area framework: four MPAs (8.8% of the EEZ) and coastal ecologically critical areas	Weak enforcement; pollution and unplanned construction at the main sites
Opportunities	**Threats**
National master plan and new investment plans in 2026	Reef and beach degradation that lowers the value of the product
Conservation fees and levies that could raise about US$5 million a year (Table 7)	Climate change: erosion, cyclones, sea-level rise and coral bleaching
Blue carbon finance for mangrove protection and restoration	Growth-led plans that override carrying capacity
New segments: mangrove ecotourism, wildlife watching, community stays	Social conflict when limits are imposed without income alternatives

8.3 Making visitors pay for the ecosystems they use

The central policy gap identified in this study is revenue capture. Table 7 shows what modest conservation charges could raise at the three main sites. The fee levels are illustrative. They are set low relative to visitor spending: the Cox's Bazar levy is under 1% of average spending per visit.

Table 7: Illustrative annual revenue from conservation charges (author's calculation)

Site	Visitor base	Charge per visit	Annual revenue	US$ equivalent
Saint Martin's Island	Up to 184,000 visits (the cap of 2,000 a day over 92 open days)	Tk 1,000 conservation fee	Tk 18.4 crore	US$1.5 million
Sundarbans	211,057 visits (FY2023–24)	Tk 500 surcharge on the current fee	Tk 10.6 crore	US$0.9 million
Cox's Bazar	6–7 million visits	Tk 50 beach and environment levy	Tk 30–35 crore	US$2.5–2.9 million
Total			**Tk 59–64 crore**	**US$4.8–5.2 million**

These sums are small in macroeconomic terms but large relative to the tourism revenue that conservation agencies now receive. The Sundarbans surcharge alone would almost quadruple the Forest Department's tourism revenue, from Tk 3.61 crore to about Tk

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14 crore. The Saint Martin's figure is an upper bound, because it assumes the cap is reached on every open day. It is of the same order as the entrance-fee potential of about US$1 million a year estimated by Rani et al. (2020). Three design principles follow from the ecotourism literature (Honey, 2008; IFC, 2023):

1. Revenue should be earmarked in a dedicated fund rather than returned to the general budget, so that visitors can see what they pay for.
2. A share should go to local communities, both as compensation for restrictions and to build support for them.
3. Fees should be differentiated by season and by visitor type, which spreads demand and charges more to those who can pay more.

8.4 Linking blue tourism and blue carbon

The second policy opportunity is to connect tourism with blue carbon. Bangladesh's mangroves store an estimated 56–91 Tg of carbon in the Sundarbans alone (Hilmi et al., 2025). Bangladesh's coastal afforestation programme has also planted mangroves on newly accreted land over several decades, creating forests that both attract visitors and sequester carbon. There are three practical links.

- **Tourism revenue as co-finance for blue carbon projects.** Conservation fees can fund the monitoring, patrolling and community programmes that carbon projects need but that carbon revenue alone rarely covers in the early years.
- **Blue carbon projects as tourism products.** Restoration sites on the coastal greenbelt can host guided visits, volunteer planting and homestays. This spreads demand away from the most crowded sites and gives restoration projects a second income stream.
- **Visitor climate contributions.** A voluntary or bundled contribution to verified mangrove restoration, offered at booking, would let visitors offset part of their travel emissions within Bangladesh rather than abroad.

These links must respect the integrity requirements of carbon markets. Credits can be issued only for additional, measurable and permanent climate benefits, and tourism revenue must not be double-counted as both a carbon outcome and a conservation fee (IFC, 2023). The rights and benefit-sharing of forest-dependent communities need protection in both systems. Handled carefully, the combination addresses the weakness identified in Section 5.3. The climate value of the mangroves is far larger than their tourism revenue. Blue carbon finance for additional activities, such as restoration and avoided degradation, can help close part of that gap.

8.5 Implications for research

The study adds two points to the literature on blue tourism. First, assessments of the blue economy usually measure tourism's contribution to output and jobs (OECD, 2016; Patil et al., 2018) but not the share of that value that returns to the ecosystems. The capture ratio used here is a simple indicator that could be added to national ocean accounts. Second, the domestic character of demand is not a weakness to be overcome by courting

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international visitors. It is a feature of mangrove and coastal tourism in many developing countries (Spalding & Parrett, 2019), and it calls for pricing and management designed for domestic visitors.

9. Conclusions and policy recommendations

Blue tourism is already a significant part of Bangladesh's ocean economy. It is worth about a quarter of ocean gross value added, and Cox's Bazar alone probably generates several hundred million dollars of visitor spending a year. Its potential is still largely untapped. Mangrove ecotourism, island and wildlife tourism, and community-based stays are small, and the marine protected areas see almost no visitors. But the sector has grown in a way that undermines its own foundations. Saint Martin's Island has lost about 70% of its coral area, pollution is widespread at the main beach, and the public bodies that manage these ecosystems capture very little of the value they create. The government's response at Saint Martin's, a hard cap and a long seasonal closure, shows that limits can be imposed. It also shows that limits without revenue and benefit-sharing are socially costly and may not last.

The answer to the third research question is that tourism can support conservation in Bangladesh only if three things change together: the sector is measured, the ecosystems are priced, and part of the revenue is returned to the ecosystems and to the communities that live beside them. Blue carbon finance can strengthen this loop by adding climate revenue to tourism revenue for the same mangroves. The following ten actions would put this into practice.

1. **Count visitors.** Introduce systematic visitor counting at Cox's Bazar, Kuakata, Saint Martin's Island and the Sundarbans, using ticketing, transport and mobile-phone data.
2. **Build a coastal tourism account.** Extend the Tourism Satellite Account to separate coastal and marine tourism, as a component of national ocean accounts.
3. **Set carrying capacities on evidence.** Commission carrying-capacity studies for Kuakata, the Sundarbans tour routes and the emerging islands before their visitor numbers reach the levels that damaged Saint Martin's.
4. **Introduce conservation fees and levies.** Apply differentiated charges along the lines of Table 7, which could raise about US$5 million a year at three sites.
5. **Earmark the revenue.** Create a Blue Tourism Conservation Fund with transparent reporting, so that fee revenue pays for reef and mangrove monitoring, restoration and enforcement.
6. **Share the benefits.** Allocate a fixed share of fee revenue to local communities. On Saint Martin's Island, pair the visitor cap with income support and training for alternative livelihoods.
7. **Link tourism and blue carbon.** Pilot mangrove restoration projects on the coastal greenbelt that combine verified carbon credits with ecotourism, volunteer planting and homestays.

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8. **Integrate governance.** Give a single coastal tourism task force, linked to a strengthened Blue Economy Cell, the mandate to align tourism growth targets with protected-area and ecologically-critical-area rules.
9. **Write limits into the master plan.** Ensure that the National Tourism Master Plan includes carrying capacity, zoning and conservation finance for coastal sites, not only investment targets.
10. **Plan for climate risk.** Require climate-risk screening and setbacks for all new coastal tourism infrastructure, given erosion, cyclones and sea-level rise.

The study has limits. It relies on secondary data, several of the visitor figures are trade estimates, and the economic estimates are indicative. Three lines of future research would strengthen the evidence. The first is primary surveys of visitor spending and willingness to pay at each site. The second is a before-and-after assessment of reef condition at Saint Martin's Island under the new rules. The third is a feasibility study for a blue carbon and ecotourism project on Bangladesh's mangrove coast. The direction of policy is nonetheless clear. Bangladesh's blue tourism will remain valuable only if it pays for the ecosystems it sells.

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Data availability statement. All data used in this study come from published sources listed in the references. The calculations behind Tables 3 and 7 and Figure 2 are fully described in Sections 3.3, 5 and 8.3 and can be reproduced from those sources.

Ethics statement. The study used only published secondary data and involved no human participants, so ethical approval was not required.

Author contribution (CRediT). Partho Biswas: conceptualisation, methodology, data curation, formal analysis, visualisation, writing (original draft), and writing (review and editing).

Use of generative AI. The author used an AI assistant to help locate sources and to prepare the images, charts and tables. The author reviewed and verified the content and takes full responsibility for it.

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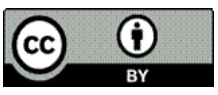

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