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Sustainable coastal and maritime tourism: A potential blue economy avenue for Bangladesh

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ADBI Working Paper Series

SUSTAINABLE COASTAL AND MARITIME TOURISM: A POTENTIAL BLUE ECONOMY AVENUE FOR BANGLADESH

Md Wasiul Islam and Tapan Sarker

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Md Wasiul Islam is a professor at the Forestry and Wood Technology Discipline of Khulna University, Bangladesh. Tapan Sarker is a professor at the School of Business of the University of Southern Queensland, Australia.

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Please contact the authors for information about this paper.

Email: wasiulislam7@yahoo.com

Asian Development Bank Institute Kasumigaseki Building, 8th Floor 3-2-5 Kasumigaseki, Chiyoda-ku Tokyo 100-6008, Japan

Tel: +81-3-3593-5500 Fax: +81-3-3593-5571 URL: www.adbi.org E-mail: info@adbi.org

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Abstract

The geographic and strategic location of Bangladesh besides the Bay of Bengal has opened up multidimensional opportunities for the development of coastal and maritime tourism (CMT). Though various legal documents and researchers have already detected opportunities for CMT from the perspective of Bangladesh, there is scant evidence of any systematic research on the institutional arrangements influencing the prospect of the development and promotion of CMT in Bangladesh. The status of the socio-cultural, economic, environmental, and institutional perspectives on the coastal and marine zones of Bangladesh warrants an in-depth study focusing on the institutional arrangements that can support sustainable CMT in Bandladesh. Therefore, this study examines the institutional arrangements to identify the prospects and challenges involved in developing sustainable CMT in Bangladesh. In particular, the study appraises the existing institutions supporting sustainable CMT and suggests policy guidelines to develop sustainable CMT policy and practice in Bangladesh. Moreover, this qualitative study considers how sustainable CMT can potentially influence the blue economy, which can enhance poverty reduction through new iob creation, biodiversity conservation, environmental pollution control, and the promotion of the sustainable use of coastal and marine natural resources. The study aims to draw some useful policy guidelines for policy makers to intensify their emphasis on sustainable CMT as an avenue to promote the blue economy and facilitate a better living standard for coastal zone communities.

Keywords: Coastal and maritime tourism, blue economy, sustainable development, institutions, natural resources, Bangladesh

JEL Classification: L83, Z32, Z39

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1. INTRODUCTION

Coastal and maritime tourism (CMT) is very popular in various corners of the world. It is arguably the largest component of the tourism industry as well as one of the largest wedges of the maritime economy sector (Tegar and Gurning 2018). Research has considered both coastal and maritime tourism to be among the oldest and largest segments of the tourism industry (Hall 2001; Ecorys 2013). Coastal tourism and marine tourism are interconnected as both rely on the marine environment (Vierros and De Fontaubert 2017; Tegar and Gurning 2018). These coastal and marine zones are well known for providing specific habitats for diverse and unique biodiversity along with picturesque scenic beauty that attracts many tourists, offering the potential for CMT. This is part of blue tourism, along with some other types of sectoral development, including the exploration of offshore hydrocarbons and other natural resource extraction (Islam and Mostaque 2018; Alam 2019).

Coastal tourism takes place in a coastal environment, which refers to both beach-based and non-beach-focused land-based recreational and tourism activities depending on the vicinity of the sea and includes the suppliers and various manufacturing industries with connections to these activities. Examples of beach-based activities are swimming, sunbathing, surfing, and various other sports and activities. Conversely, examples of non-beach-focused activities are coastal walks, wildlife watching, accommodation, food and drink, and so on in that specific coastal environment. In contrast, marine or maritime tourism takes place at sea and consists of mainly water-based (rather than land-based) activities, like cruising, sailing, boating, yachting, and various nautical sports. However, it includes the operation of land-based facilities and services and the manufacturing of the equipment necessary for such recreational and tourism activities (Ecorys 2013).

The blue economy is an economic development paradigm based on ecosystem principles that conceptualize oceans as "development spaces" where spatial planning integrates conservation, sustainable use, oil and mineral wealth extraction, bioprospecting, sustainable energy production, and marine transport (United Nations Development Programme (UNDP) 2018). CMT comprises a crucial segment of the blue economy (Tegar and Gurning 2018), which represents 5% of the world GDP. Being a human-resource-intensive sub-sector, CMT is increasingly involving local communities in its value chain, which can facilitate the development of the local economy and the reduction of poverty (UNDP 2018; Tonazzini et al. 2019).

CMT can claim to be even more important for many developing countries for boosting their domestic economy and significantly contributing to the tourism sector, enabling it to become the top export category. CMT is highly dependent on the quality of natural ecosystems to attract visitors but at the same time contributes strongly to their depletion and fragilization, hence putting its own sustainability at risk (Tonazzini et al. 2019). Consequently, research has identified CMT in many cases as a controversial issue, which strongly warrants consideration of the concept of sustainable development (Islam et al. 2013; Hossain et al. 2014; Islam and Shamsuddoha 2018; Hassan and Alam 2019; Hussain, Failler, and Sarker 2019; Patil, Failler, and Alam 2019). Therefore, the issues of developing and promoting CMT demand critical analysis to maximize the positive impacts and to reduce the negative impacts and ensure sustainable CMT. Consequently, sustainable CMT requires various institutional instruments and governance mechanisms to regulate its various functions and activities as well as to boost the blue economy sector.

Bangladesh—a south Asian country—is a floodplain delta, where thousands of rivers and canals spread all over the land. The country leans gently from the north to the south, meeting the Bay of Bengal at its southern end. The entire coast runs parallel to the Bay of Bengal, forming a coastline 710 km long (Ministry of Water Resources 2005a). Considering the nature of these coastal areas, they are known as zones of both vulnerability and opportunities. According to the Bangladesh Maritime Zones Act 2019, the country will be able to exercise its sovereign rights on its sea territory, including the inland waters and water column suprajacent to the seabed, extend contiguous zones and exclusive economic zones up to 200 nautical miles and on the continental shelf beyond 200 nautical miles, and explore the sea resources on the continent for up to 354 nautical miles (Maritime Affairs 2019). These areas are crucial for the political, economic, and security interests of Bangladesh (Alam 2019; Iqbal 2019).

The discussions on the blue economy of Bangladesh received special momentum just after the settlement of the maritime boundary delimitation dispute with neighboring countries. This momentum started after the declaration of a verdict by the International Tribunal for the Law of the Sea (ITLOS) in Germany on 14 March 2012. Similarly, the verdict with India declared on 7 July 2014 permitted the sovereignty rights of Bangladesh to all the living and mineral resources of the continental shelf of the Bay of Bengal. Consequently, Bangladesh has become an important maritime state with a long coastline and sea lanes of communication. Currently, it covers 118,813 sq. km of the territorial sea due to these two historical verdicts. Therefore, Bangladesh has rights over a maritime zone that is almost the size of the country itself (147,570 sq. km). These two landmark verdicts have widened many existing and new opportunities, including CMT, in Bangladesh.

Due to the geographical situation and territorial resources, the islands are a top destination for CMT for millions of tourists every year. Islands constitute economic, social, cultural, and strategic heritage that supports 20% of the global biodiversity (International Union for Conservation of Nature (IUCN) 2020). Some policies and acts, along with other legal documents (see Table 1 in the appendix), have created "windows of opportunity" for Bangladesh, allowing and recommending tourism development in the coastal and marine environment for the greater interest of the country on which it can base socio-cultural, economic, environmental, and institutional development (Islam 2010; Islam, Iftekhar, and Islam 2011; Islam et al. 2013; Hossain et al. 2014; Islam and Shamsuddoha 2018; Hassan and Alam 2019; Hussain, Failler, and Sarker 2019; Patil, Failler, and Alam 2019).

Bangladesh is blessed with extraordinary natural beauty mixed with green slashes of forests, mountains, a variety of cultivation systems, and various water bodies, including ponds, *haors*, *baors*, canals, rivers, and the sea, along with diversified cultural wealth and a wide range of archaeological and historical attractions that can easily entice tourists to visit. Though nature-based tourism, particularly relating to forests, mountains, and rivers, has been popular in Bangladesh, CMT has not yet flourished significantly except for beach and mangrove tourism (mainly focusing on the Sundarbans) at some spots of the Bay of Bengal. The tourism facilities that the country has developed at these CMT destinations so far are very popular, particularly among domestic tourists. However, there is still huge untapped potential for CMT, especially considering maritime tourism resources. Judging by the existing and potential resources of CMT, especially after winning the two international cases against neighboring countries, environmental issues in these destinations, particularly due to the excessive number of tourists at some beaches, the ongoing COVID-19 pandemic,

recent priorities of the government for CMT development, and so on have differentiated this sub-sector from others.

The Bangladesh Government has identified CMT as one of the tools to develop the blue economy, and it is in the process of taking various initiatives in this regard (Alam 2019; Mukit 2019). Research has indicated that a marine tourism-based blue economy may attract both domestic and international tourists (domestic and inbound tourism), which may contribute significantly to the economy of Bangladesh. However, it has suggested sustainable marine tourism to ensure the balanced development of this untapped sub-sector of tourism. This therefore warrants a scientific study to explore how to develop sustainable CMT in Bangladesh. Against this backdrop, this study examines the institutional arrangements to study the prospects and challenges of developing sustainable CMT in Bangladesh. It investigates the existing institutions supporting CMT and suggests policy guidelines to develop sustainable CMT practice in Bangladesh.

This paper is structured in six sections. This introductory section is the first. Section 2 presents the methodology of the study. Next, section 3 discusses the status of CMT in Bangladesh. Sections 4 and 5 contain a literature review examining the current status and context of the development of national, regional, and global institutional arrangements for CMT in Bangladesh. Section 6 presents the challenges of developing CMT in Bangladesh. Section 7 follows, which briefly describes the prospects for CMT in Bangladesh. Finally, the conclusion in section 8 discusses the implications for further research and provides some policy directions.

2. METHODOLOGY

This qualitative study performed a systematic literature review and meta-analysis to examine various existing policies, acts, rules, regulations, and other institutional and governance arrangements to assess their suitability for addressing and accommodating sustainable CMT development in the context of Bangladesh. The search for these national institutional instruments and governance mechanisms (national) used various keywords, like "tourism policy/acts/rules/regulations/strategies/programs" in the context of "Bangladesh." Similarly, the authors searched for regional and international (global) institutional instruments and governance mechanisms using different keywords, like "international agreements/treaties/conventions/protocols/collaboration/associations/SDG/MoU on tourism" in the context of "Bangladesh."

The keyword search used online search engines, like Google and Google Scholar. These search engines led to various websites and archives relating to these institutional instruments and governance mechanisms. The authors visited websites from the list of links to judge whether they were relevant to the issues in focus. Furthermore, they deliberately visited the websites of different ministries of the Bangladesh Government and other organizations for the same purpose, as well as consulting various online books, journals, reports, blogs, and newspapers. After reading these sources, they sorted, organized, and analyzed relevant data to fulfill the objective of the study. They made special attempts to find specific information concerning CMT. The authors prepared a chart (see Table 1 in the appendix) to list all these relevant institutional instruments and governance mechanisms (national) that could directly or indirectly regulate and influence CMT, categorizing them into different themes, like the constitution, acts and orders, rules, visions, plans, strategies and action plans, and programs/schemes. Moreover, they categorized relevant institutional instruments and governance mechanisms (regional and global) into treaties,

conventions, agreements, protocols, frameworks, sustainable development goals, MoUs, and so on.

Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) aims to assist researchers in developing the reporting of systematic reviews and meta-analyses. Moreover, it may provide a framework for a critical assessment of published systematic reviews. However, this study did not treat PRISMA as a quality assessment instrument to assess the quality of a systematic review (PRISMA 2015), following the PRISMA framework that Moher et al. (2009) prescribed.

3. STATUS OF COASTAL AND MARITIME TOURISM IN BANGLADESH

Globally, CMT represents 5% of the world GDP. The expectation is that it will generate job opportunities for approximately 8.5 million people by 2030 (7 million employed in 2010) through CMT. The share of CMT in the total maritime industry value added is likely to reach 26% by 2030, making it the largest contributor to the blue economy (Tonazzini et al. 2019). The growth of the overall international tourist arrivals (ITAs) is overwhelming and likely to increase to 65% in 2030 in comparison with 2010, with an expected 1.8 billion tourists per year, and to be even higher in developing economies than in developed economies. Nevertheless, COVID-19 reduced the ITAs by 84% between March and December 2020 (74% in 2020) compared with the previous year. However, such ITAs fell even more (80–90% in 2020) in many developing economies. A similar trend emerged at the beginning of 2021, with an average global ITA decline of 88%. Estimates have indicated that the economic losses could be US\$1.7–2.4 trillion, with the potential loss of 100–120 million direct tourism jobs in 2021 (UNCTAD 2021; United Nations World Tourism Organization (UNWTO) 2021). There is an expectation that effective tourism recovery policies will help to recover the loss within a few years.

The current blue economy of Bangladesh focuses mainly on tourism and recreation (25%), followed by marine capture fisheries and aquaculture (22%), transportation (22%), offshore gas and oil extraction (19%), ship and boat building/breaking (9%), and minerals (3%) (Figure 1). Around 30 million people (including both employees and their household dependents) rely on the blue economy. Forecasts have indicated that the investment in the CMT sector will grow to more than 9% annually (Patil et al. 2018). Micro, small, and medium-sized enterprises (MSMEs), especially restaurants, region-based hotels, tour operators, and recreational activities, are strong drivers of Bangladesh's tourism industry (Uddin 2019).+

Bangladesh's tourism sector generated revenue of US\$1,567.43 million from the blue economy in 2014–15. The tourism satellite account for Bangladesh was not available in that period. Therefore, the researchers used aggregate data for the whole country and assumed that 16% of this gross value added came from CMT (Patil et al. 2018). The blue economy of Bangladesh contributes around US\$6.0 billion annually to the national GDP (4.3% of the GDP in 2016). The gross value added (GVA) of the blue economy was US\$6.2 billion in 2015 (Business Standard 2020). The contributions of tourism and recreation to the national GDP amounted to over US\$10 billion in 2016, and they created more than 2 million direct and indirect jobs. This sector of Bangladesh bases its activity on domestic travel and tourism, which account for 98% of the total (World Travel and Tourism Council (WTTC) 2017). The recent report on Voluntary National Reviews (VNRs) of Bangladesh 2020 (focusing on the achievement of SDG 2030) published the achievements of various sectors, including tourism (Government of

Bangladesh (GOB) 2020). According to the report, the tourism industry currently supports 1.3 million direct employees, while 2.4 million jobs are indirect.

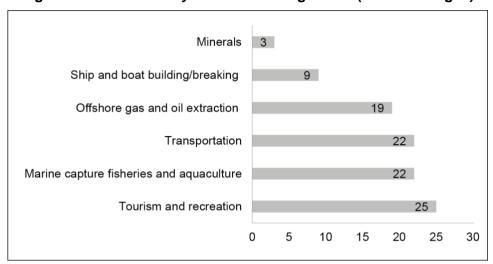


Figure 1: Blue Economy Sectors of Bangladesh (as Percentages)

Coastal tourism in Bangladesh mostly takes place on the world's longest (120 km) unbroken and natural sea beach, Cox's Bazar, which is one of the most popular tourist destinations in Bangladesh. Gradually, the sub-sector has flourished due to the development of many other sea beaches, like Patenga; Himchari, Inani, and its adjacent areas, representing a marine drive; Kuakata; St. Martin; Char Kukri-Mukri; and several beaches at the Sundarbans, like Jamtala, Kochikhali, Dublar Char, Trikona Char, Bangobondhu Char, Mandarbaria, and so on. Nowadays, coastal tourism is one of the most popular forms of tourism in Bangladesh. However, maritime tourism is still popular. The government and the tourism-based private sector are taking various initiatives to develop and promote maritime tourism in Bangladesh.

CMT mainly focuses on beaches, where people like to take part in different activities, such as walking, running, playing, swimming, sunbathing, enjoying the beach environment, relaxing on sun loungers with beach umbrellas, shopping, eating, photography, horse riding, surfing, riding on beach riders, and so on. Different places of accommodation, restaurants, shopping centers, and amusement facilities are available, particularly in the Cox's Bazar and Chottogram districts, which support the national economy significantly by contributing to the GDP as well as generating diversified employment opportunities. Currently, coastal tourism is flourishing in Bangladesh. However, there are ongoing debates about the implementation and management of these activities (mainly construction and tourism-related activities). Many researchers have found that these activities are not sustainable, hampering the overall coastal and marine environment (e.g., Vierros and De Fontaubert 2017; Tegar and Gurning 2018; Tonazzini et al. 2019) and warranting sustainable CMT practices. Sustainable CMT practices have the potential to strengthen the blue economy (Tegar and Gurning 2018; Alam 2019).

4. NATIONAL INSTITUTIONAL ARRANGEMENTS FOR DEVELOPING CMT IN BANGLADESH

The Constitution of Bangladesh (GoB 1972b) established recreation and tourismrelated basic necessities for citizens [15(c)]. This section of the constitution formed the foundation of tourism development in Bangladesh (GoB 1972b). This study provides a list of 41 institutional and governance arrangements, like policies, acts, orders, rules, visions, plans, strategies, and guidelines, which it identified through a systematic content analysis as being somehow linked to the development and flourishing of the overall tourism sector of Bangladesh (see Table 1 in the Appendix). However, very few such arrangements have focused specifically on CMT. Two policies, the National Tourism Policy, 2010, and the National Industrial Policy, 2016, specifically and directly recognized and recommended various forms of tourism, including CMT. Besides these, six policies, which various ministries formulated, have addressed tourism, which can also accommodate CMT. Moreover, various ministries of the Bangladesh Government have formulated 11 acts and orders, three rules, three visions, four plans, seven strategies and action plans, and three programs/schemes as supporting institutional instruments and governance mechanisms to develop and promote tourism, which may also address CMT. The current Government of Bangladesh has tried (especially after resolving its conflicts with neighboring countries) to emphasize this specific sub-sector of tourism as a crucial part of the blue economy. As a result, it has attempted to formulate various legal institutional arrangements to promote CMT, especially during the last decade.

Several government ministries, like the Ministry of Civil Aviation and Tourism (Bangladesh Tourism Board and Bangladesh Parjatan Corporation); Ministry of Foreign Affairs; Ministry of Shipping; Ministry of Home Affairs; Ministry of Environment, Forests, and Climate Change; Ministry of Cultural Affairs; Ministry of Finance; Ministry of Local Government, Rural Development, and Co-operatives; Ministry of Law, Justice, and Parliamentary Affairs; Ministry of Chittagong Hill Tracts Affairs; Ministry of Land; and so on, are involved in endeavors to promote CMT in Bangladesh. The Energy and Mineral Resources Division of the Ministry of Power, Energy, and Mineral Resources formed an administrative cell titled the "Blue Economy Cell" (BEC) in 2017 to look after various issues of the blue economy. Moreover, some autonomous, private, and non-governmental organizations are cooperating with these ministries in their efforts to advance this sub-sector of tourism. However, ensuring good collaborative relationships and functional networks among these ministries, departments, and other bodies is a major challenge. Therefore, Bangladesh needs to formulate integrated planning to develop and promote CMT.

Various higher education and research organizations focus on coastal and marine resources, such as the Bangabandhu Sheikh Mujibur Rahman Maritime University, some other universities with programs in Oceanography/Marine Biology/Marine Resources Technology (like Dhaka University, Chottogram University, and Khulna University), the National Maritime Institute, the Marine Academy, the Bangladesh Oceanographic Research Institute (BORI), the Institute of Water Modelling (IWM), the Center for Environmental and Geographic Information Services (CEGIS), the Bangladesh Institute of Maritime Research and Development (BIMRAD), and so on. Moreover, there are some training institutes, like the Bangladesh Parjatan Corporation (BPC), Maritime Training Institutes, and other private training institutes. The Bangladesh Forest Department, Coast Guard, Water Resources Planning Organization (WARPO), Bangladesh Inland Water Transport Authority (BIWTA), different Chambers

of Commerce, some NGOs, and private organizations are also playing a role in developing and facilitating CMT in Bangladesh.

Currently, the Bangladesh Tourism Board (BTB), under the Ministry of Civil Aviation and Tourism (MoCAT), is playing an important part in creating a competitive tourism industry, including ecotourism and CMT. It is attempting to improve the existing tourism facilities as well as create new tourism facilities in various tourism destinations in Bangladesh, including coastal and maritime tourist destinations. Moreover, they are promoting these destinations to domestic and international tourists. They have started to prepare a "Tourism Master Plan" for Bangladesh, which will also include CMT development and promotion.

Recently, the Ministry of Shipping has engaged in short-, medium-, and long-term strategic planning for the development of the blue economy, including CMT development and promotion issues, considering domestic, inbound, and outbound tourism. Some of the short-term initiatives (with an implementation period of not more than 2 years) include steps toward Bangladesh-India sea cruise/coastal tourism; a feasibility analysis to develop coastal tourism with the Maldives and Sri Lanka; a project for designing and purchasing cruise ships and involving private entrepreneurs in introducing cruise tourism between Bangladesh, India, the Maldives, and Sri Lanka; the establishment of river ports at Cox's Bazar, Teknaf, Saint Martin's island, and Moju Chowdhury Hat (Laxmipur) to facilitate coastal tourism; the introduction of coastal passenger services for the Cox's Bazar-Saint Martin's and Cox's Bazar-Moheshkhali routes; the introduction of passenger service through internal river routes for the Dhaka-Chottogram-Cox's Bazar route: the introduction of a Master's course in maritime education; and the establishment of the National Maritime Institute, Madaripur branch project. Some of the medium-term initiatives (with an implementation period of 2-5 years) include the conservation of sea and sea resources and their sustainable use and post-graduate courses (Master's and PhD) in coastal and maritime affairs.

Besides these endeavors, other ministries and departments have relevant initiatives to facilitate CMT's development in Bangladesh. Examples include a notable initiative from the Bangladesh Economic Zones Authority (BEZA) (under the Prime Minister's Office) to establish the "Sabrang Tourism Park" (an ongoing project with an area of 1027 acres) as the first tourism-based Special Economic Zone (SEZ) and the first exclusive tourism zone in Bangladesh. The park's location is in amazing hill and sea beach territory with a multifaceted and diverse landscape and culture in Teknaf sub-district in the Cox's Bazar district. According to the master plan, this park will become a hub of tourism destinations around Cox's Bazar and its neighboring areas. Moreover, the BEZA has prepared the master plan of the Sonadia Ecotourism Park (8967 acres) and the Naf Tourism Park (271 acres) in the Cox's Bazar district to attract domestic and international tourists.

5. REGIONAL AND INTERNATIONAL (GLOBAL) INSTITUTIONAL ARRANGEMENTS FOR DEVELOPING CMT IN BANGLADESH

Bangladesh is a signatory/ratified country of various international treaties, conventions, and agreements. Some of these arrangements directly and indirectly concern different issues of CMT as well as the above-mentioned national institutional arrangements. Among these international institutional arrangements are the Convention on Biological Diversity (CBD), Aichi Biodiversity Targets, Sustainable Development Goals (SDG

2030), Kyoto Protocol to the United Nations Framework Convention on Climate Change, Paris Agreement, World Conservation Strategy, International Convention for the Prevention of Pollution of the Sea by Oil, International Convention Relating to Intervention on the High Seas in Cases of Oil Pollution Casualties, Convention on Wetlands of International Importance Especially as Waterfowl Habitat (Ramsar Convention), Convention Concerning the Protection of the World Cultural and Natural Heritage (World Heritage Convention), Nagoya Protocol, Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES Convention), United Nations Convention on the Law of the Sea, Agreement on the Network of Aquaculture Centres in Asia and the Pacific, International Convention on Oil Pollution Preparedness, Response and Cooperation, United Nations Framework Convention on Climate Change (UNFCC), Cartagena Protocol, and Convention on Persistent Organic Pollutants.

Moreover, the Bangladesh Government and other countries and organizations have signed other institutional arrangements, like bilateral or multilateral agreements and MoUs, to facilitate the development of CMT. Focusing on regional institutional arrangements, countries have recognized the significant role of tourism since the establishment of the South Asian Association for Regional Cooperation (SAARC) in 1985. Some initiatives were taken to strengthen tourism in the SAARC region when the leaders met during the Second Summit in Bangalore, India, in 1986, and successive summits reiterated the significance of various forms of tourism, including CMT (South Asian Association for Regional Cooperation (SAARC) 2018). The second meeting of tourism ministers embraced the "SAARC Action Plan on Promotion of Tourism," which included a joint proactive marketing campaign of the SAARC landmass as a composite destination in the international market. The plan incorporated the roles of private sectors in this region in promoting and developing tourism both intra-regionally and internationally.

The Bay of Bengal Initiative for Multi-sectoral Technical and Economic Cooperation (BIMSTEC) (established in 1997) is another platform for intra-regional cooperation among seven (Bangladesh, Bhutan, India, Myanmar, Nepal, Sri Lanka, and Thailand) south and southeast Asian countries. It covers 3.7% of the global area and a market of around 1.7 billion people (i.e., 22.2% of the global population). Tourism has been one of the 14 sectors of cooperation since the inception of this platform. A seminar on "Tourism Connectivity in BIMSTEC Region" took place in Dhaka on 28 September 2019 in collaboration with the 8th Asian Tourism Fair 2019. The seminar took various steps to promote regional tourism in the Bay of Bengal and emphasized the necessity of more intense cooperation among government agencies and private sector tour operators as well as hospitality industry entrepreneurs. It also formulated the "Plan of Action for Tourism Development and Promotion for the BIMSTEC Region" (Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC) 2019).

Five maritime countries (Bangladesh, India, the Maldives, Pakistan, and Sri Lanka) established another maritime regional platform, the South Asian Seas Programme (SASP), under the Regional Seas Program and South Asian Seas Action Plan (SASAP) (adopted in 1995). It recognized recreation and tourism as a vital sector to contribute to the member states and the region considering its economic, social, and cultural importance. The Asian Development Bank prepared the "South Asia Subregional Economic Cooperation Tourism Development Plan" (SASEC Tourism Plan), which represents the profiles of existing tourism status, patterns, and future tourism development agendas of Bangladesh, Bhutan, the eastern states of India, Nepal, and Sri Lanka. Moreover, it recommends core strategic directions for the

Technical Working Group (Asian Development Bank (ADB) 2004). In addition, Bangladesh has an active association with various global organizations, like the United Nations World Tourism Organization (UNWTO), World Travel and Tourism Council (WTTC), Pacific Asia Travel Association (PATA), and so on, which guide and facilitate the development and promotion of the tourism sector and CMT-related issues.

6. CHALLENGES OF CMT IN BANGLADESH

6.1 Lack of a Dedicated CMT Policy and Coordination

Despite the increasing global interest, Bangladesh has not yet produced a well-coordinated blue economy policy or plan to strengthen the sector (Uddin 2019). It is clear (see the appendix) that, though several legal institutional frameworks from different ministries have directly and indirectly touched on coastal and marine tourism, there is still no integrated and dedicated policy/act/plan focusing on this specific form of tourism. Moreover, there is a clear coordination gap among the concerned ministries regarding the implementation of the existing institutional instruments and governance mechanisms. Additionally, there is a low level of participation of local stakeholders in planning and implementing these institutional instruments and governance mechanisms. Currently, the tourism sector of Bangladesh enjoys no economic support, like cash incentives, tax holidays, and value-added tax (VAT) exemption on imports, from the government (Uddin 2019).

6.2 Anthropogenic Pressure

The development and promotion of CMT face various challenges in Bangladesh, most of which are anthropogenic in nature. CMT is a complex phenomenon that has both positive and negative impacts on coastal and marine environments due to various tourism activities (Marafa 2008; Rahman et al. 2020). On the one hand, a healthy natural environment is a great asset for CMT, but, on the other hand, tourism exerts considerable pressure on the local environment and ecosystems, such as greater use of water, other resources, and energy, increased waste generation, and accumulated emissions from various sources, like air, road, and sea transport, particularly in peak seasons.

The rapid growth of the unplanned and uncontrolled domestic tourism industry has harmful impacts on the marine environment, particularly on St. Martin's Island and in Cox's Bazar and the Sundarbans. These include harmful activities such as the collection of shells, corals, and eggs of various animals as well as damage to coastal vegetation through trampling. Such an uncontrolled influx of tourists and their rampant abandonment of solid waste (such as plastic bags, cans, wrappers, water bottles, and other non-biodegradable substances) are becoming major threats to these sensitive ecosystems, causing various types of significant environmental pollution. Moreover, noise pollution from uncontrolled mechanized vehicles is triggering problems for the ecosystems, specifically the wildlife of coastal forests. Therefore, the Department of Environment (DoE) (2006, 2010a, 2015) has identified coastal tourism as one of the 15 major sources of coastal and marine pollution. Moreover, conflict in coastal land use presents another challenge in addressing the sustainable development of the area (General Economics Division (GED) 2013). All these issues are responsible for the deteriorating coastal biodiversity of our country (TBS Report 2020).

6.3 Climate Change

The coastal area of Bangladesh is especially vulnerable to the effects of climate change. According to the influential Intergovernmental Panel on Climate Change (IPCC), a 1 m sea-level rise would flood 17% of Bangladesh and create 20 million refugees by 2050 (Sarwar 2005; Szczepanski, Sedlar, and Shalant 2018). Consequently, such a situation would adversely affect the entire coastal zone of Bangladesh and CMT.

6.4 Domestic Tourism and COVID-19

Domestic tourism is the main source (97%) of earnings in tourism, indicating that Bangladesh is not a popular destination among foreign tourists (World Travel and Tourism Council 2020a). The COVID-19 pandemic situation will aggravate the situation for inbound tourism in Bangladesh. There will be more pressure on domestic tourists in the coastal and marine destinations, which will create more of the above-mentioned anthropogenic challenges.

6.5 Other Challenges

Insufficiently trained and competent manpower, lacking innovative and creative thinking abilities; the knowledge gap; inadequate infrastructure for tourism facilities; the lack of CMT branding; insufficient coordination and partnerships among the concerned ministries, departments, and private sectors; poor promotional activities; the lack of certification guidelines for tourism products and services; the lack of a best practice-sharing culture; the poor tourism budget; and insufficient research and links between research and development as well as policy formulation are some of the other challenges that warrant attention in developing and promoting CMT in Bangladesh.

7. PROSPECTS OF CMT IN BANGLADESH

7.1 Institutional Arrangements and CMT

Despite the absence of any specific and dedicated policy/act/plan, the national, regional, and global institutional arrangements that relate directly and indirectly to CMT are somehow supportive of the development and promotion of this specific form of tourism in Bangladesh (see section 3 for the details). The current government has already made special considerations to promote the blue economy of Bangladesh, emphasizing CMT as one of the crucial sub-sectors. The Ministry of Foreign Affairs established a "Blue Economy Cell" in 2017 with the authorization to synchronize blue economy initiatives across different sectoral ministries. The Seventh Five Year Plan (7FYP) of Bangladesh declared a competitive tourism industry, including ecotourism and marine cruises, as one of the 12 activities to create and maintain a prosperous and sustainable blue economy. The ongoing Eighth Five Year Plan (8FYP) also emphasizes coastal tourism under the blue economy, which includes several activities aiming to develop the sector.

The CMT sector depends strongly on maintaining the marine ecosystems (Roy and Roy 2015). Considering the sensitivity of the ecosystems, the Government of Bangladesh has already declared Saint Martin's Island (a coral island), Cox's Bazar–Teknaf sea beach, and the Sundarbans as ecologically critical areas (ECAs) to protect their biodiversity. These ECAs, along with other coastal and marine areas, are

also potential CMT destinations for the greater welfare of the local community as well as the environment. Scuba diving, recreational fishing, water skiing, windsurfing, cruise tourism, and tours to marine protected areas are some examples of potential activities under CMT. However, various tourism activities exert significant negative impacts, causing coastal and marine pollution, as different studies have reported (like Department of Environment (DoE) 2006; *Business Standard* 2020).

The natural resources below sea level (particularly biodiversity) and the beauty of Bangladesh remain unexplored as a new horizon for maritime tourism. There are two marine protected areas (MPAs) in Bangladesh. The first MPA is the Swatch of No Ground (consisting of an area of 1,738 km²) and Nijhum Dwip Marine Reserve/Marine Protected Area (an area of 3,188 km²) in the South Bay of Bengal. There is an intention to propose another 1,743 km² area adjacent to St. Martin's Island as an MPA to conserve its extraordinary biodiversity. All these MPAs offer substantial potential for maritime tourism. Tourists have the unique opportunity to enjoy endangered marine dolphins, whales, and sharks and facilitate their conservation through awareness creation and fund generation. Various actions are undergoing implementation there to foster the conservation of marine biodiversity, including dolphins and turtles.

7.2 Cruise Ships and CMT

Recently, the maritime tourism history of Bangladesh has reached some new milestones. International luxury cruise ships started to travel to Bangladesh in 2017, and the number increased in 2019. Moreover, the introduction of the first domestic luxury cruise ship (MV Bay-One) in Bangladesh took place in December 2020, with the capacity to accommodate more than 2000 guests. The ship started its operation on the Cox's Bazar–Saint Martin's–Cox's Bazar route. Very recently, it has introduced a new route (Chattogram–Cox's Bazar–Saint Martin), and other routes to adjacent islands are likely to commence in the near future to develop CMT further in Bangladesh. Nonetheless, the ongoing COVID-19 pandemic has caused the cancellation or delay of many such endeavors. Therefore, CMT has good prospects for developing and promoting all types (domestic, inbound, and outbound) of tourism in Bangladesh.

7.3 Natural Attractions and CMT

The culture, tradition, and trades of Bangladesh are intimately concomitant with the Bay of Bengal—part of the Indian Ocean. The Bay of Bengal and the entire coastal zone (47,201 km², i.e., 32% of the country under 19 coastal districts) of Bangladesh are rich in natural resources, which play crucial roles in the national economy; contribute profoundly to protecting against natural disasters through the natural green belt, particularly the Sundarbans; conserve important biodiversity of the coastal and marine environment; and protect the special culture of the region, among others. The potential for the development of CMT in Bangladesh is unique due to the presence of many glorious natural resources, including the world's longest unbroken sandy sea beach (Cox's Bazar), the largest single tract of mangrove forest (the Sundarbans), the magnificent Teknaf peninsula, the marvelous St. Martin, and long coastal and maritime areas and their unique forest and aquatic biodiversity. Though Bangladesh is a small country, it contains some amazing and alluring islands. Most of these islands lie in the Bay of Bengal, although some of them are in the Padma River (Travel Mate 2019). Travel Mate (2019) identified the 15 most beautiful islands in Bangladesh and suggested that tourists visit these islands to experience their pristine nature, biodiversity, unique culture, and traditions. Since 2007, 29 new islands (with a total area of 507 km²) have emerged in the Bay of Bengal, and these are potential tourism destinations, particularly for adventure travel tourists (France-Presse 2017). However, very few studies have been conducted on such tourism potential on these islands.

7.4 CMT to Contribute to the National GDP

Despite the small contributions of the tourism sector to the national GDP of Bangladesh, various studies have reported that Bangladesh is a prospective country for tourism development (Islam 2010; Islam et al. 2011; Uddin 2019; Arif 2020), particularly for CMT (Department of Environment (DoE) 2015; Nobi and Majumder 2019; Business Standard 2020). The international visitor impact is still very low in Bangladesh (spent US\$333.5 million), accounting for only 0.7% of the total exports in 2019. International visitors contribute only 4% of the total spending on travel and tourism. However, this is likely to grow by 7.1% per year or 4.7% of the country's GDP by 2027 (World Travel and Tourism Council 2020b). The strong backward and forward linkages of ecotourism are its strength in supporting the local and national economy of Bangladesh through its significant contributions to the livelihood and well-being of the destinations (Department of Environment (DoE) 2015). Considering the current status of the territory that Bangladesh owns, it is possible to earn as much as US\$250 million every year from oil—gas exploration, fishing, and the expansion of seaport facilities and CMT (Rana 2019).

The contribution of the travel and tourism sector to Bangladesh's GDP was 3% in 2019 (6.8% growth over 2018), and it generated 2.9% of the total employment. Moreover, there is an expectation that the number of international visitors will increase by 6.1% per year with growth in the total tourism GDP of 6.2% per year and employment growth of 1.8% per year (World Travel and Tourism Council 2020b). All these statistics indicate that there are immense opportunities for inbound tourism growth in Bangladesh, which will increase the overall impacts of CMT in Bangladesh.

7.5 Tourism Growth Potential and CMT

Bangladesh is among the top 25 countries in the world for tourism growth. Estimations have indicated that the overall tourism sector will grow at an annual rate of 6.1% from 2017 to 2027. Though not all the activities are part of the blue economy (WTTC 2017), CMT is likely to play an important role in such growth considering its current contributions and potential.

According to a World Bank study, the population growth rate of Bangladesh will approach zero after 2050. This population growth pattern will affect the future of the blue economy, including increased CMT tourism demands (Patil et al. 2018). The OECD (2016) projected the global growth of CMT in the future, which also applies to Bangladesh, where the growth of investment in the tourism sector is likely to be 9.3% per year from 2018 to 2027. Additionally, urban areas will experience considerable growth during this period, which will ultimately lead to CMT development on various beaches, like Patenga, Cox's Bazar, Himchori, Inani, St. Martin, Moheshkhai, the Sundarbans, Kuakata, Bhola, and Monpura (Hussain, Failler, Karim, and Alam 2017).

7.6 Application of Different Forms of Tourism in CMT

Different forms of tourism may have potential in the context of the coastal environment of Bangladesh. Considering the above-mentioned natural attractions and CMT, the principles of ecotourism (The International Ecotourism Society (TIES) 2019) and sustainable tourism (United Nations World Tourism Organization (UNWTO) 2020b) are

crucial to consider when selecting a specific form of CMT. Consequently, community-based ecotourism, pro-poor tourism-based rural tourism, beach/sand tourism, cultural and heritage tourism and tribal/ethnic tourism are some of the possible forms to adopt in such a coastal environment.

The Government of Bangladesh has prescribed controlled ecotourism as a protective form of tourism, especially for the key biodiversity areas and protected areas, including the coastal and maritime areas. Consequently, various formal documents have recognized controlled/managed ecotourism, including several legal documents (e.g., the National Tourism Policy, 2010; Coastal Development Strategy, 2006; Vision 2041; Seventh and Eighth Five Year Plans; National Forestry Policy, 1994 and 2016 (draft); National Biodiversity Strategy and Action Plan of Bangladesh, 2016–2021, and so on). Ecotourism with a controlled entry of tourists is permissible anywhere that the government has declared as a protected area and restricted for general uses. It has suggested following successful sustainable models of ecotourism from countries in the Asia and the Pacific region (Ministry of Environment and Forests (MoEF) 2012).

Tourism scholars posit that competent human resource development and good management of such forms of tourism to generate positive socio-cultural, economic, environmental, and institutional impacts and control various negative impacts to facilitate sustainable CMT practice. Moreover, the feasibility analysis, demand, and supply of these forms of tourism will help to identify a specific form of CMT. The theme of "tourism and rural development" of "World Tourism Day 2020" needs exploration in this regard to strengthen the selection of a specific form of tourism.

7.7 Sustainable CMT to Promote Sustainable Development

Sustainable CMT is one of the ways to foster sustainable development, which is still an unexplored sector in Bangladesh. Sustainable CMT has the potential to contribute to natural resource conservation and management and natural disaster risk reduction. It can also offer better living standards by improving people's livelihoods (i.e., sustainable livelihoods) and is capable of earning millions in foreign exchanges and preserving the culture and traditions. Generally, the people of Bangladesh are not environmentally aware and educated. Sustainable CMT practice can improve environmental awareness and education, which can control the various forms of environmental pollution that constitute one of the important challenges facing Bangladesh.

7.8 CMT and SDGs

As mentioned earlier, the forecasted investment in the CMT sector will grow to more than 9% annually (Patil et al. 2018). Therefore, the expansion of various forms of the CMT industry is likely to facilitate the blue economy in achieving the SDG 2030 by creating more opportunities, especially for women, including tribal and other minorities, reducing poverty through new livelihoods and job creation, enhancing environmental awareness and education, promoting biodiversity conservation both in water and on land, improving governance, promoting the sustainable use of coastal and maritime natural resources and social and cultural sustainability, and so on. The expectation is that the implementation of the Tourism Master Plan (SDG 8) will create more than 6 million jobs by 2030 once ADB has financed the "South Asia Tourism Infrastructure Development Project (Bangladesh Portion)," aiming to improve culture-based tourism and to strengthen linkages between tourism and local people by building the capacity of communities to obtain greater benefits from the tourism sector (SDG 11).

Addressing sustainable consumption (SDG 12), the government has considered sustainable tourism. The Ministry of Civil Aviation and Tourism (MoCAT) is responsible for developing and implementing tools to monitor the impacts of tourism related to the socio-cultural, economic, and environmental perspectives. MoCAT has prepared shortterm, medium-term, and long-term action plans to achieve the objectives of sustainable tourism through which it will promote sustainable development. In 2013, the Government of Bangladesh established the Bangabandhu Sheikh Mujibur Rahman Maritime University, which is the third maritime university in South Asia and the twelfth maritime university in the world. This university focuses particularly on SDG 14 and plans to conduct both undergraduate and postgraduate academic and research courses in various coastal and maritime fields, including CMT. Currently, the Ministry of Foreign Affairs (MoFA) is formulating the legal framework according to the instruments of UNCLOS to ensure the protection and conservation of the coastal and maritime environment and its biodiversity. Tourism development needs an integrated plan to conserve and preserve the life below the water of such sensitive coastal and marine ecosystems, which will also accelerate the blue economy.

The Bangladesh Government is taking various initiatives to address the effects of climate change. It is also investing in clean energy sectors, which can contribute to reducing greenhouse gases (SDG 13). However, it has not yet included tourism extensively in such interventions. The recently formed Global Centre on Adaptation (GCA) for South Asia established a regional office in Dhaka. The expectation is that this will function as a "Centre of Excellence" for climate change adaptation measures in the region.

CMT can directly influence life below water (SDG 14) due to its operational nature. It can promote the conservation of coastal and marine biodiversity by controlling environmental pollution, which it will achieve by providing environmental education and awareness, creating new jobs and livelihoods, and improving governance and multi-stakeholder collaboration. According to Mojibul et al. (2018); Hussain, Failler, and Sarker (2019); and Bhuiyan, Darda, and Habib (2020), coastal and marine fisheries activities, including recreational fishing, are one of the attractions of CMT that can generate considerable economic benefits, employment opportunities, and livelihoods for the local coastal communities of Bangladesh. Various stakeholders have perceived CMT as a facilitator of the coastal and marine fishery sub-sector. Furthermore, CMT has a strong impact on the generation of various livelihoods for coastal communities by introducing different service-oriented economic activities, like providing diversified accommodation, restaurant facilities, handicraft manufacturing and marketing, transportation services, tour guiding, and amusement facilities, among others. However, there is a specific research gap on the impacts of CMT on the fishery sector as well as other livelihood-generating sectors in Bangladesh. Moreover, terrestrial ecosystems and their biodiversity are important tourist attractions. Such attractions can generate sustainable revenue and create alternative livelihoods for the local people, which can eventually promote the conservation of life on land (SDG 15) as well as the cultural heritage of the destinations.

7.9 Upcoming Institutional Development and CMT

The Bangladesh Tourism Board (BTB) is currently preparing a tourism master plan, and the Bangladesh Investment Development Authority (BIDA) has identified tourism as a potential sector for the overall development of Bangladesh. Moreover, the development of the Bangladesh Tour Operators and Tour Guides (Registration and Operation) Act 2021, the Community-Based Tourism Policy, and the Ecotourism Policy,

the upgrading of the National Tourism Policy 2010, and the review of the master plan for airports are among the significant examples of ongoing activities to promote sustainable tourism in Bangladesh, which will also enhance the sustainability of CMT. MoCAT has also taken initiatives to construct a "Marine Aquarium" in Cox's Bazar from 2017–18 to 2020–21. In a nutshell, considering the existing situation, there is a substantial opportunity for developing and promoting CMT in Bangladesh, which can facilitate the country's achievement of "developed country" status by 2041.

7.10 Impacts of COVID-19 and CMT

Tourism is one of the economic sectors that the COVID-19 pandemic has strongly affected, and it might face a decline of 58% to 78% in international tourist arrivals during 2020, putting 100 to 120 million direct tourism jobs at risk (United Nations World Tourism Organization 2020a). There are many additional impacts that are still difficult to quantify, such as threats to the conservation of species and biodiversity, all with a direct link to tourism. Moreover, the pandemic has hit coastal communities the hardest, with an estimated \$7.4 billion fall in GDP across small island developing states (SIDS) due to the decline in tourism (Northrop et al. 2020).

Considering the post-COVID-19 situation, people in Bangladesh are likely to visit its CMT destinations. A good number of people already started to visit these destinations just after the lifting of tourism restrictions in some CMT destinations after the first wave of the COVID-19 pandemic. The government has already taken the decision to open tourism at the Sundarbans from 1 November 2020. However, currently, there are restrictions on visits to all these destinations due to the second wave of the COVID-19 pandemic (until July 2021). According to newspapers, social media, and personal communications, it is evident that the demand for these destinations will be high in the coming few months as people will require refreshment after the long and unprecedented lockdown. This tourism demand will create numerous benefits along with its negative impacts.

8. CONCLUSIONS AND POLICY RECOMMENDATIONS

The study clearly shows that CMT has immense potential in the blue economy, which may be one of the biggest sources of revenue (including foreign exchange) in Bangladesh's tourism sector. Thus, it may contribute significantly to improving the socio-cultural, economic, environmental, and institutional dimensions of the concerned areas.

Bangladesh ranked seventh in the "top 10 best value" travel destinations for 2019 according to Lonely Planet, a global leader in publishing travel guidebooks (Uddin 2019). Therefore, Bangladesh is gradually gaining popularity among international tourists, for whom CMT occupies a significant position. Therefore, the development and promotion of CMT warrant a critical analysis to maximize its positive impacts and to reduce its negative impacts. This study aimed to focus on determining how sustainable CMT can influence the blue economy, reduce poverty through new job creation, conserve biodiversity, control environmental pollution, promote the sustainable use of coastal and marine natural resources, promote good governance, provide recreation facilities, and promote responsible (eco-friendly) tourism or ecotourism. It identified the challenges of CMT development in Bangladesh. It will be possible to resolve or at least reduce many of these challenges through the proper and judicious application of existing legal institutions, like various national acts and rules, as well as international institutional arrangements (see Figure 2) to turn those challenges into CMT potentials.

Tourism and recreation (25%) are the main activity of the current blue economy of Bangladesh (Patil et al. 2018). CMT can contribute positively to the sustainable blue economy through the socio-cultural, economic, and environmental development of the country, with particular reference to sustainable CMT development. However, special attention is necessary to avoid negative impacts of CMT development, which may also lead to the deterioration and pollution of the coastal and marine environment, including its biodiversity. The infrastructural development needs to consider the ecosystem and tourists' expectations by following the existing national institutional arrangements. Despite their substantial potential, CMT activities need to gain greater popularity and undergo promotion in Bangladesh through the application of various marketing tools (printed and online) and strategies.

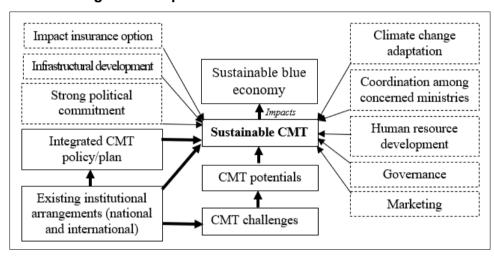


Figure 2: Proposed Sustainable CMT Framework

Source: Authors' depiction.

Considering the nature and characteristics of CMT, it has a complex, multi-stakeholder, multi-sectoral, and multi-layered structure (Tonazzini et al. 2019). Tourism businesses are multi-scaled, from small enterprises to multi-national companies. Moreover, national, regional, and international organizations from both government and non-government as well as private organizations are involved in the governance framework of CMT, which requires strong coordination among the various concerned ministries and stakeholders. Moreover, strong political commitment and governance are necessary for establishing such inter-and intra-ministerial as well as multi-stakeholder coordination through their proactive leadership roles (Figure 2), which are also essential for compliance with the existing institutional arrangements (both national and international) related to CMT.

Sustainable CMT policies must acknowledge the impacts of tourism activities on the coastal territories, the vulnerability and complexity of the coastal and maritime ecosystems, and their interactions with the different sub-components of CMT (Tonazzini et al. 2019). Therefore, this type of tourism should be consistent with the existing tourism-related institutional arrangements of Bangladesh to ensure its legal basis as well as to develop and promote sustainable CMT.

The existing institutional instruments and governance mechanisms of Bangladesh might be enough to control most of the challenges that this paper has mentioned. However, reality indicates that the enforcement of most of these legal bindings is insufficient to overcome these challenges, which require stronger political

commitments, massive public participation, regular and integrated monitoring and performance assessment, and good governance to act inclusively. Otherwise, the mere formulation of new institutions will not produce any significant positive change in this regard. Addressing these challenges and their proper management is likely to increase the untapped potential of CMT significantly and to make the coastal and marine areas more popular tourism destinations.

Research has analyzed the prospects of CMT in Bangladesh from various perspectives, including the relationships with the blue economy and its sustainable development, Moreover, several legal and policy documents of Bangladesh have recognized the existing contributions and potential of the tourism service sector. These documents have suggested that the contributions of tourism and recreation services. ecotourism, and community-based tourism support CMT. The potentially enormous impacts of these service industries on CMT are evident from the existing literature. These services can be good sources of solutions to many problems in CMT destinations and their surroundings by creating new job opportunities for local people, including youths, women, tribal, and other minorities; educational support; education and awareness-building facilities on the environment, pollution, and other local challenges; own cultural values and respect; empowerment; better networks; good governance; and so on. Considering these impacts, policy and decision makers should prepare an integrated and sustainable CMT policy/plan for Bangladesh to facilitate the sustainable development of coastal and marine areas that should address the prospects, challenges, and impacts of CMT activities on the overall coastal and maritime ecosystems. This CMT policy/plan should consider the local community and local government as key stakeholders of such sustainable development, as Tonazzini et al. (2019) and Bhuiyan, Darda, and Habib (2020) also indicated. The government should consider the implementation of such a CMT policy/plan as one of the avenues to promote the blue economy and facilitate the well-being of both the coastal communities and all these service industries within the blue economy framework.

The development of a multi-stakeholder participatory approach, like participatory planning, implementation, monitoring, and evaluation process and shared governance mechanisms for each of the CMT destinations, is advisable for their comprehensive CMT management. The application of various participatory tools (such as citizen science) may be useful for data collection at a very low cost with the involvement of various stakeholders, including the local communities, to educate tourists and influence the value chain (following Tonazzini et al. 2019).

It is evident that climate change and the tourism sector can affect each other (Simpson et al. 2008; Kaján and Saarinen 2013). Therefore, climate change adaptation is an important factor for a sustainable CMT development framework. On the one hand, CMT should restrict greenhouse gas emissions from its transportation, accommodation, and recreational activities. On the other hand, the CMT development plan should contain climate change mitigation and adaptation strategies to address various climate change effects, like natural disasters (e.g., cyclones, floods, drought, and infectious diseases like COVID-19). Consequently, relevant policies, competent manpower, and other supportive instruments are warranted. Research has suggested a community-based climate change adaptation strategy through CMT (Hussain, Failler, and Sarker 2019; Bhuiyan, Darda, and Habib 2020). Therefore, an integrated and coordinated approach is necessary to integrate a coastal zone management plan (CZMP) that can attract tourists and take into consideration the fragile ecosystem of the coastal and marine environment (Marafa 2008). Consequently, skilled and competent human resource development needs to be one of the key factors in developing sustainable CMT that can deal with all these sorts of policy and technical issues.

The Nature Conservancy, in a recent report, suggested that an impact insurance option could be useful for providing a cost-effective option to protect and restore mangrove habitat (Beck et al. 2020). In the context of the Caribbean, the report further highlighted the use of insurance as one of the best market-based mechanisms to safeguard assets and infrastructure in the mangroves and along the coastlines.

It is always recommendable to follow success stories to improve practice. Bangladesh can learn some good lessons from Malaysia, as it is one of the 12 mega-biodiversity countries in the world that have significantly progressed in CMT development. There are various specific national policies, plans, and strategies (e.g., National Biological Diversity Policy 2016–2025, National Ecotourism Plan 2015–2025, National Physical Plan for Coastal Zones, and so on) to develop and promote CMT in Malaysia. It has established several marine parks, where the number of tourists and the amount of earned revenue is increasing, and at the same time expanded its conservation efforts, which are contributing positively to conserving its marine biodiversity, including reef diversity. It has also created various recreational and educational services for tourists, considering safety and security measures (Department of Marine Park Malaysia 2017).

According to Vision 2041 (GED 2020b), it is possible to promote CMT through a number of actions, including effective and regular promotional campaigns for both domestic and international tourists; coordination for establishing joint CMT initiatives with neighboring countries (intercountry and interregional partnerships and networks); all-season tourism boat fleet development; the promotion of dolphin-, sea whale-, and shark-watching tour packages; the provision of incentives for performance achievers to popularize CMT; the promotion of ecotourism principles as part of sustainable tourism to implement CMT to foster the sustainable development of the coastal areas; the development of capacity-building programs for professional tour guides and other required personnel, and so on (General Economics Division (GED) 2020b).

The government provides practically no economic support, like cash incentives, tax holidays, and value-added tax (VAT) exemption on imports, for the tourism sector of Bangladesh (Uddin 2019). Therefore, considering the great potential of tourism services, the provision of more investment and tax incentives for tour operators/facilitators would help to establish and improve tourism services in Bangladesh (General Economics Division (GED) 2015, 2020a, 2020b). The tourism sector has received similar types of tax and fiscal incentives to create more job opportunities and develop the domestic tourism industry in several developing countries, like Brazil (Garsous, Corderi, and Velasco 2015), Thailand (Volodarsky 2021), India (IMRB International 2014), Nepal (Shrestha 2020), and Viet Nam (Falak 2020). Many developing countries (including Bangladesh) have also announced some economic incentives for the tourism sector as a recovery strategy from the ongoing COVID-19 pandemic. However, currently, more economic support from governments is warranted for the tourism sector to manage the post-pandemic crisis.

Moreover, undertaking the following tasks (also considered as future research directions) might promote CMT in Bangladesh: fixing environmental taxes (for entering and staying overnight in ecologically critical areas) to protect coastal biodiversity and generate revenues; emphasizing coastal and maritime tourism in various tourism initiatives of Bangladesh where appropriate, including promotional and communication campaigns; dialogue between the Bangladesh Government and other governments (India, the Maldives, Myanmar, Sri Lanka, Singapore, Malaysia, Indonesia, Thailand, and so on), international cruise operators, ports, and other CMT stakeholders to promote CMT; encouraging innovative management schemes through the application of ICT and other technologies; developing preventive strategies to control various forms of environmental pollution to promote sustainable CMT; diversifying and

integrating CMT and inland tourism attractions, like natural, cultural, religious, and archeological routes; establishing the required tourism and other coastal infrastructure considering the sensitive ecosystems and sea-level rise; learning various lessons from successful CMT in other countries; studying the behavior of tourists and host communities; and conducting various studies on CMT development and promotion, particularly focusing on new CMT products and service interventions to improve remote destinations' connectivity and innovative designs for tourism strategies. To recover the seasonality of visits to coastal destinations, there should be innovative and attractive offers for potential tourists that may entice them to visit these destinations during the low season to make the business sustainable.

APPENDIX

Table 1: Related Supporting Institutions (National) to Develop and Promote CMT in Bangladesh

SI. #	Title	Brief Description
A. Co	nstitution	
1.	Bangladesh's Constitution, 1972 ^a	 Section 15(c) recognized the right to have reasonable rest, recreation, and leisure as basic necessities of the citizens. As per 18A [amended as Constitution (Fifteenth Amendment) Act, 2011], the State will be responsible for protecting and improving the environment and for preserving and safeguarding natural resources, biodiversity, wetlands, forests, and wildlife for the present and future citizens.
B. Pol	icies	
2.	National Tourism Policy, 2010 ^b	 Overall guidelines for tourism development and promotion in various destinations, including coastal and marine destinations. Recommended various forms of tourism, including CMT. Especially recognized coastal destinations as "ideal holiday-making destinations" through the development of various eco-friendly and nature-based tourism facilities. Emphasized the Sundarbans and other mangrove/coastal forests for developing eco-tourism. Highlighted the need for inter-ministerial coordination to develop various tourism facilities.
3.	National Environment Policy, 2018 ^c	 Suggested ecotourism in the popular coastal and marine ecosystem-based tourism destinations through the development of the Conservation Management Plan. Conservation of coastal and marine biodiversity in pursuit of ecotourism development considering the carrying capacity for a specific destination. Restricted harmful activities on sea beaches to ensure biodiversity conservation. Emphasized the conservation and development of coastal and marine ecosystems (including mangrove forests, World Heritage sites, and other tourism destinations) using ecosystem-based approaches through the Integrated Coastal Zone Management Plan, selecting ecotourism as a tool in this regard. Protection from various ongoing threats, both natural and anthropogenic. Highlighted the need to ensure more education, research, and development related to coastal and marine ecosystem conservation and development. Advocated the introduction of micro-finance incentives for poor people living in the coastal zone to protect the overall environment. Encouraged the involvement of the local community in ecotourism.
4.	National Coastal Zone Policy, 2005 ^d	 Recognized the use of the coastal zone for the development of the tourism industry and its link to poverty alleviation. Defined some coastal zones/islands/forests as a "Special Zone for Tourism," encouraging private investment.
5.	National Water Policy, 1999°	 Recognized and allowed tourism development in various water bodies, including coastal and marine destinations, for recreational purposes. Development of various environment-friendly tourism facilities.

Table 1 continued

SI.#	Title	Brief Description
6.	National Forest Policy, 2016 (Draft) ^f	 Development and promotion of low-impact, controlled, forest-friendly ecotourism in all forest areas as a mainstream conservation activity. Creation of a supportive environment for ecotourism. Provision of incentives to involve private entrepreneurs in ecotourism. Provision of a benefit-sharing mechanism with local communities.
7.	National Industrial Policy, 2016 ^g	 Recognized tourism as a service-oriented prioritized industry. Tourism has gained widespread recognition as a "thrust sector." Identified various industries related to tourism. Recognized CMT-related tourism industries.
8.	National Land Use Policy, 2001 ^h	 Provisions for land use in alignment with other policies, like the Forest Policy and Environment Policy, to improve the forest and environmental condition.
9.	National Shipping Policy, 2000 ⁱ	Environmental conservation through the control of pollution.
C. Act	s/Orders	
10.	Bangladesh Maritime Zones Act, 2019 ^j	 Control measures for the pollution of the coastal environment through tourism.
11.	Bangladesh Parjatan Board Act, 2010 ^k	 The Bangladesh Tourism Board (BTB) is responsible for the overall development, creation, and promotion of the tourism industry and services in Bangladesh. Responsible for facilitating responsible tourism, including in coastal areas. Coordination among different national and international stakeholders to achieve the above points. National tourism organization.
12.	The Bangladesh Parjatan Corporation Order, 1972 ^l	 The pioneer in developing and promoting tourism as an industry and market in Bangladesh. Responsible for the creation and operation of various tourism facilities. Developing a trained tourism workforce through capacity-building programs.
13.	Bangladesh Tourist Reservation Area and Special Tourism Zone Act, 2010 ^m	 Declaration of reserved special zones for overall development, improvement, and management of the tourism industry and services in Bangladesh. In this regard, it controls and restricts unplanned activities and infrastructural constructions at potential tourism destinations.
14.	Bangladesh Economic Zones Act, 2010 ⁿ	 Encourages the establishment of an economic zone in underdeveloped areas to improve the socio-economic status of that local area as well as the nation. Based on the public-private partnership (PPP) approach with the involvement of national and international donors.
15.	Wildlife (Conservation and Security) Act, 2012°	 Recognized "ecotourism or nature tourism" in natural areas. Stated the conservation of these natural areas (including biodiversity), the preservation of cultural heritage, and the enhancement of the socio-economic well-being of local people.
16.	The Bangladesh Environment Conservation (Amendment) Act, 2010 ^p	 Regulations of industry establishment and other development activities for the conservation of the environment. Determined the standards of air, water, sound, soil, and other components of the environment. Defined the procedures for the protection of the environment and ecosystem along with measures against environmental degradation or pollution. Declaration of ecologically critical areas and their regulations.
17.	The Environment Court Act, 2000 ^q	 Established for the trial of offences relating to environmental pollution.

Table 1 continued

SI. #	Title	Brief Description
18.	Mobile Court Act (Amendment), 2009 ^r	Established for the enforcement of the concerned Act/Law/Rule.
19.	Bangladesh Biodiversity Act, 2017 ^s	 Addressed the "Convention on Biological Diversity" (CBD) as one of the reflections of its enactment. Ensured overall guidelines for the sustainable use, management, and conservation of biodiversity. Provided a framework for inter-ministerial and interadministrative-level coordination to conserve biodiversity.
20.	Bangladesh Tour Operators and Tour Guides (Registration and Operation) Act, 2021 (Draft) ^t	 Designed mandatory registration rules for tour operators and tour guides for their tourism operation. Prepared to bring tour operators and tour guides into a legal framework to ensure the desired services. Aimed to boost the tourism sector.
D. Rul	es	
21.	Protected Area Management Rules, 2017 ^u	 Addressed "sustainable nature tourism" in protected areas and their adjacent areas with the help of co-management organizations. Recognized revenue generation from ecotourism to promote biodiversity conservation and to improve the health of protected areas and the socio-economic well-being of local people living in and around these areas.
22.	Environmental Conservation Rules, 1997 ^v	Details about the guideline related to ecologically critical areas.
23.	Ecologically Critical Areas Management Rules, 2016 ^w	 Linked to the Bangladesh Environment Conservation (Amendment) Act, 2010 to protect ecologically critical areas. Prescribed guidelines for different committees for different levels of administration from the village to the national level.
E. Visi	ions/Plans	or administration from the vinage to the national level.
24.	Tourism Vision 2020 ^x	 Promoted coastal tourism. Spelled out the overall target and expectations for tourism development (in terms of inbound and domestic tourism) in Bangladesh by 2020. Worked toward achieving Vision 2020 for different tourism products and services by identifying various steps, plans, and programs. Forecast 0.9 million international visitors in 2020, an increase from 0.24 million in 2003. Recognized the importance of domestic tourism and targeted a 4–5% contribution to the GDP.
25.	Perspective Plan of Bangladesh 2010–2021 (Vision 2021) ^y	 Recognized tourism as a potential sector for developing the nation. Aimed to make Bangladesh an ecologically attractive exotic tourism destination in Asia. Promotion of environment-friendly tourism. Planned to increase tourism's contribution to the GDP to 5% by 2021.
26.	Perspective Plan of Bangladesh 2021–2041 (Vision 2041) ²	 Increased service exports from the tourism sector. Emphasized inter-regional river connectivity to facilitate tourism. Aimed to promote coastal tourism through a number of actions. Recognized the multiplier effects of tourism on GDP growth and employment. Recognized ecotourism as one of the main instruments for boosting private financing for the environment.

Table 1 continued

SI. #	Title	Brief Description
F. Plar	ns	
27.	Tourism Master Plan (2021– 2041) ^{aa}	 The government's plan for tourism development for the next 20 years.
		 Targeted the travel and leisure sector as the third-largest economic engine of Bangladesh after garments and remittances. Targeted a distinctive brand image for Bangladesh as a popular tourist destination in the world to achieve the "Vision 2041" of Bangladesh and to become a developed nation. The plan framed short-term (3-year), mid-term (5-year), and long-term (15-year) initiatives.
28.	Bangladesh Delta Plan 2100bb	 Exploring the blue economy through different forms of coastal tourism.
		 Recommended forest-based, wetland-based, charland-based, and riverine ecotourism.
		 Tourism as a tool for alternative income generation (livelihoods), biodiversity conservation, and ecosystem services.
	TI 0 4 F: V B	Use of multi-purpose land and water bodies through tourism.
29.	The Seventh Five Year Plan (7FYP) [∞]	 Chose the creation of competitive tourism industry, including ecotourism and marine cruises, as one of 12 activities to create and maintain a prosperous and sustainable blue economy.
		 Selected tourism as one of the non-factor service export industries.
		 Encouraged ecotourism and community-based tourism as a means of income generation for local people.
		 Public-private partnership (PPP) arrangements for tourism development.
30.	The Eighth Five Year Plan (8FYP) ^{dd}	 Emphasized coastal tourism under the blue economy. Development of eco-nature integrated resorts near the Sundarbans and the Riviera strait linking Teknaf to the Sundarbans.
		Massive tourism marketing strategy and capacity building in the tourism sector. The sector is a sector in the sector is a sector in the sector is a sector in the sector. The sector is a sector in the sector is a sector in the sector is a sector in the sector in the sector is a sector in the sector in the sector in the sector is a sector in the secto
		 Involved local government institutions in tourism interventions. Addressed the impacts of COVID-19 on the recreation and tourism sector.
		 Recognized the large potential of tourism services for exports, multiplier effects, and forward and backward linkages and as a major source of growth and employment.
		 Massive infrastructure developments, including increasing national and international airport facilities.
		 Identification of potential tourism destinations and the development of various tourism facilities.
	ategy and Action Plans	
31.	National Biodiversity Strategy and Action Plan of Bangladesh,	 Necessity of integrating the tourism plan with the conservation and sustainable use of biodiversity.
	2016–2021 ^{ee}	A guiding document for ensuring the conservation and sustainable use of biodiversity. Payelanad in the light of CRP etratagic planning 2011, 2020.
20	Investment and Circuit	Developed in the light of CBD strategic planning 2011–2020 (Aichi Biodiversity Targets). And the stiff of the strategic planning 2011–2020 (Aichi Biodiversity Targets).
32.	Investment and Financing Strategy for Coastal Zone Development in Bangladesh ^{ff}	 Identified tourism development as a sub-sector with potential for generating employment and income as well as foreign exchange. Private sector investment in tourism must align with regulatory measures of environment and forest conservation issues with reference to the coastal and marine environment.
		 Suggested ecotourism for coastal sites. The government has a major role in supporting private sector investment in coastal tourism.
		Integration of terrestrial and marine environments considering ecosystems, landscapes, human activities, and their interaction.

Table 1 continued

SI. #	Title	Brief Description
33.	Coastal Development Strategy, 2006 ⁹⁹	 Recognized tourism as one of the opportunities for the coastal zone. Highlighted tourism as a priority area for the improvement of livelihoods and poverty reduction. Various capacity-building initiatives. Regional tourism infrastructure development in cooperation with Myanmar at Teknaf, offering day trips to Myanmar. Proposed island tourism and ecotourism.
34.	Teknaf Peninsula Community- Based Ecotourism Strategy ^{hh}	 Developed a detailed Ecotourism Management Plan was for the Teknaf Peninsula. Developed an action plan.
35.	Bangladesh National Conservation Strategy, 2013 ⁱⁱ	 Key government document for the guideline for conserving its natural resources. Focus on maintaining resource utilization and economic development by ensuring the conservation objective.
36.	National 3R Strategy for Waste Management, 2010 ^{jj}	 Developed a national waste management strategy through reduce, reuse, and recycle (3R) to lessen the negative impacts of environmental pollution. Aimed to facilitate a clean and green environment.
37.	Blue economy activities, resource extraction from the sea, and related short-, medium, and long-term strategic planning (Ministry of Shipping) ^{kk}	 Economic development through coastal tourism. Short-term and medium-term strategies to develop and promote CMT. Distributed responsibilities among various concerned ministries and departments.
H. Pro	grams/Schemes	
38.	Blue economy development of sea resources for Bangladesh (Ministry of Foreign Affairs) ^{II}	Recognized CMT as a potential contributor to the blue economy.
39.	Bangladesh National Programme of Action for Protection of the Coastal and Marine Environment from Land- Based Activities ^{mm}	 Recognized the great potentials of CMT in Bangladesh. Recognized coastal tourism as one of the major sources of coastal and marine pollution.
40.	Voluntary National Review (VNR) ⁿⁿ	 Recognized CMT, particularly ecotourism (an indication of Bangladesh's intention to achieve the SDGs). Proposed CMT is one of the key issues to consider when formulating marine policy, laws, and regulations.

- ^a Government of Bangladesh (GoB) (1972b).
- ^b Ministry of Civil Aviation and Tourism (MoCAT) (2010c).
- ^c Government of Bangladesh (GoB) (2018).
- ^d Ministry of Water Resources (2005b).
- ^e Ministry of Water Resources (1999).
- ^f Bangladesh Forest Department (BFD) (2016).
- ^g Ministry of Industry (2016).
- ^h Ministry of Land (MoL) (2001).
- ^j Ministry of Shipping (2000).
- ^j Ministry of Foreign Affairs (MoFA) (2019).
- ^k Ministry of Civil Aviation and Tourism (MoCAT) (2010a).
- Government of Bangladesh (GoB) (1972a).
- ^m Ministry of Civil Aviation and Tourism (MoCAT) (2010b).
- ⁿ Government of Bangladesh (GoB) (2010a).
- ° Government of Bangladesh (GoB) (2012).
- ^p Government of Bangladesh (GoB) (2010b).
- ^q Government of Bangladesh (GoB) (2010c).
- Government of Bangladesh (GoB) (2009).
- ^s Government of Bangladesh (GoB) (2017).
- ^t Government of Bangladesh (GoB) (2021).

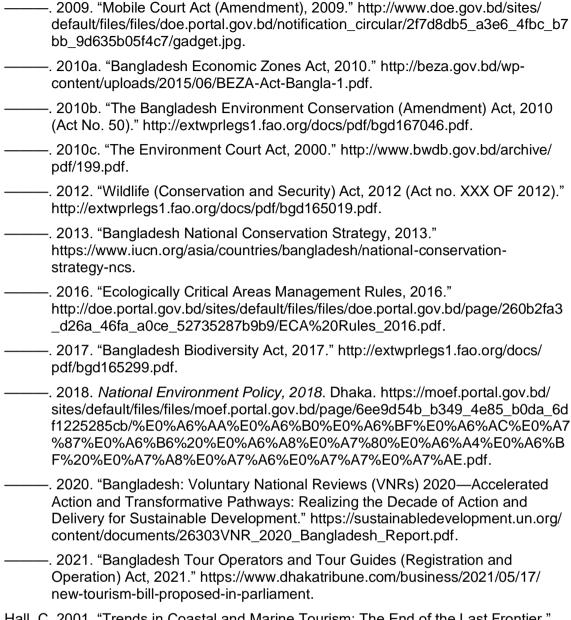
- ^u Ministry of Environment and Forest (MoEF) (2017).
- ^v Ministry of Environment and Forest (MoEF) (1997).
- w Government of Bangladesh (GoB) (2016).
- x Morshed (2004).
- ^y General Economics Division (GED) (2012).
- ^z General Economics Division (GED) (2020b).
- ^{aa} Hoque (2020).
- bb General Economics Division (GED) (2017).
- [∞] General Economics Division (GED) (2015).
- ^{dd} General Economics Division (GED) (2020a).
- ee Department of Environment (DoE) (2016).
- ff Rahman and Chowdhury (2005).
- ⁹⁹ Water Resources Planning Organization (WARPO) (2006).
- hh EplerWood International (2009).
- ii Government of Bangladesh (GoB) (2013).
- ^{jj} Department of Environment (DoE) (2010b).
- kk Ministry of Shipping (n.d.).
- Ministry of Foreign Affairs (MoFA) (2020).
- mm Department of Environment (DoE) (2006).
- ⁿⁿ Tonazzini et al. (2019).

Source: Authors' compilation.

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