

Moutusi Islam

TOWARDS A SUSTAINABLE BAY OF BENGAL BLUE ECONOMY: ROLE OF BIMSTEC

Abstract

This paper examines the current trends in blue economy policies among BIMSTEC member states, by analysing national initiatives through four prevailing narratives: oceans as natural capital, oceans as livelihoods, oceans as good business, and oceans as innovation, as identified by Michelle Voyer et al. The analysis reveals a diverse yet interconnected landscape, with each country's blue economy policy shaped by unique socio-economic and environmental contexts. While BIMSTEC countries share common concerns such as sustainability, marine pollution, livelihoods and marine spatial planning, they diverge in areas such as business-oriented growth, security priorities, ecosystem management and valuation studies. Key challenges to blue economy implementation in the region include inconsistent policies, overlapping regional frameworks, maritime security issues, inadequate funding, limited infrastructure, and political tensions. To address these obstacles, the paper offers policy recommendations such as formulating a consistent definition of blue economy, developing an accounting framework, harmonising policies, enhancing capacity building and technical assistance, fostering maritime security cooperation, aligning with other regional blue economy initiatives and creating a comprehensive BIMSTEC Blue Economy Plan of Action.

Keywords: Blue Economy, BIMSTEC, Sustainable Development, Maritime Security, Policy Harmonisation

1. Introduction

The oceans and seas are regarded as the primary food sources and drivers of global economic growth in the 21st century. Since ancient times, humanity has relied on marine resources for economic gain, establishing the ocean economy as a distinct area of economics. However, with growing environmental concerns over the unrestrained exploitation of natural resources, the concept of the blue economy emerged.¹ The blue economy emphasises on economic growth, social inclusion, and improved livelihoods, all while ensuring environmental sustainability.² Although the concept lacks a universal definition, it has gained prominence due to its potential to

Moutusi Islam is Research Fellow, Bangladesh Institute of International and Strategic Studies (BISS). Her e-mail address is: moutusi@biiss.org

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¹ Somnath Hazra and Anindya Bhukta, *The Blue Economy: An Asian Perspective* (Switzerland: Springer, 2022), 3.

² Robert C. Brears, *Developing the Blue Economy* (Switzerland: Palgrave Macmillan, 2021), 34.

establish interconnected frameworks. Its adaptability enables the development of integrated strategies and actions for ocean management, with the flexibility to evolve in response to emerging opportunities and challenges.

The Bay of Bengal (BoB), covering approximately 2.17 million square kilometres (sq. km), holds immense potential for promoting a sustainable blue economy.³ It is home to eight per cent of the world's mangroves and 12 per cent of its coral reefs.⁴ The nutrient-rich waters, fed by the Ganges and Brahmaputra rivers, support abundant fish populations.⁵ The marine and coastal resources of the BoB provide food, livelihood, and security for more than 400 million people in the littoral countries, either directly or indirectly.⁶ The annual fish production is nearly 6 million metric tonnes, valued at US\$ 4 billion.⁷ With some of the largest oil and gas deposits in the world, along with other bottom minerals, the Bay is also full of unexplored natural resources. Additionally, it is home to significant Sea Lines of Communication (SLOC) and acts as a transit area between the Indian and Pacific Oceans. Blue economy sectors account for 3.2, 4.1, 3.5, 1.3 and 22.6 per cent of the Gross Domestic Product (GDP) of Bangladesh, India, Myanmar, Sri Lanka, and Thailand, respectively.⁸ Therefore, the blue economy contributes significantly to the economic growth of the littoral countries.

However, the BoB faces numerous challenges, including overexploitation of fisheries, marine pollution, the adverse impacts of climate change, etc. Illegal, Unreported, and Unregulated (IUU) fishing in the BoB continues to be a significant problem, costing the region between US\$ 3 billion and US\$ 10 billion annually.⁹ Furthermore, the Bay faces significant difficulties preserving the marine ecosystem from pollution because of land and sea-based sources. Moreover, the coastal regions of the BoB are extremely vulnerable to natural calamities, and the region is likely to be severely impacted by the global effects of climate change, such as increasing sea

³ "Bay of Bengal," Encyclopedia Britannica, accessed January 15, 2025, <https://www.britannica.com/place/Bay-of-Bengal>.

⁴ "Strategic Action Programme, the Bay of Bengal Large Marine Ecosystem (BOBLME)," BOBLME, accessed January 15, 2025, <http://www.boblme.org/documentRepository/BOBLME%20SAP-Final.pdf>.

⁵ Uttam Kumar, Md. Sohel Parvez, Jewel Das, Chowdhury Mohammad Nizamuddowla and Satya Ranjan Tarafdar, "Capture Fisheries Scenario of the Bay of Bengal, Bangladesh in the Last Two Decades Through Industrial Freezer Trawler," *Research in Agriculture, Livestock and Fisheries* 3, no. 1 (2016): 217.

⁶ Susana V. Siar et al., *Sustainable Management of the Bay of Bengal Large Marine Ecosystem (BOBLME) Programme* (Bangkok: Food and Agriculture Organisation, 2018).

⁷ Siar et al., *Sustainable Management of the BOBLME*.

⁸ Mani Juneja, Christina De Souza, Asha L Gririyam and Swati Ganeshan, *Contextualising Blue Economy in Asia-Pacific Region* (Hong Kong SAR: Konrad-Adenauer-Stiftung e.V., 2021), <https://www.teriin.org/sites/default/files/2021-03/blue-economy.pdf>.

⁹ V. Hoon, M. Saleem and P. Townsley, *Key Considerations for a Regional SocMon Strategy for the Bay of Bengal Large Marine Ecosystem Countries in South Asia* (Thailand: Bay of Bengal Large Marine Ecosystem Project (BOBLME), 2015), <http://hdl.handle.net/1834/34626>.

levels, warmer ocean temperatures and ocean acidification. These challenges and opportunities require concerted and sustained blue economy cooperation efforts among the littorals of the BoB.

The enthusiasm for blue economy cooperation has been largely palpable in the Indian Ocean Region and the Indian Ocean Rim Association (IORA) has made the blue economy as one of its key priorities. In the Dhaka Declaration on Blue Economy, attendees of the Third Ministerial Conference of the IORA in 2019 unanimously urged for the blue economy to be used sustainably.¹⁰ In order to guarantee a balanced approach between conservation and development, the Dhaka Declaration incorporated the concepts, tenets, and standards of blue economy. Additionally, creating blue economy goals as a major driver of inclusive economic growth, job creation and education through a phased strategy with short, medium, and long-term targets is another aspect of the IORA Action Plan.¹¹ Besides, the Association of Southeast Asian Nations (ASEAN) has adopted the ASEAN Leaders' Declaration on Blue Economy in 2021 and the ASEAN Blue Economy Framework in September 2023 for promoting sustainable economic growth in this region.¹²

Similarly, the Bay of Bengal Initiative for Multi-Sectoral and Economic Collaboration (BIMSTEC)¹³ has recognised blue economy collaboration as a priority in the BoB. A major mention of the blue economy was made in the October 2016 Goa outcome document.¹⁴ The region's leaders emphasised the importance of the blue economy and agreed to work together in this area for the region's sustainable development during the 4th BIMSTEC Summit, which took place in Kathmandu on 01 September 2018.¹⁵ The directive for ministers, officials, and the secretariat to guarantee the "prompt implementation" of its mandates, especially those pertaining to the blue economy, was strongly reiterated at the 5th Summit, held in Colombo in

¹⁰ "Dhaka Declaration on Blue Economy," IORA, 2019, accessed January 16, 2025, https://iora-saeon.ac.za/wp-content/uploads/2022/06/Dhaka-Declaration_Sept-2019.pdf.

¹¹ Indian Ocean Rim Association (IORA), *Second IORA Action Plan 2022-2027* (Indian Ocean Rim Association Secretariat, 2022), 7.

¹² "The ASEAN Blue Economy Framework," ASEAN, 2023, accessed January 05, 2025, <https://asean.org/wp-content/uploads/2023/09/ASEAN-Blue-Economy-Framework.pdf>.

¹³ The Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC) is a regional organisation of seven South Asian and Southeast Asian nations namely Bangladesh, Bhutan, India, Myanmar, Nepal, Sri Lanka, and Thailand which was established in 1997.

¹⁴ "BIMSTEC Leaders' Retreat Outcome Document and 16-Point Agenda of Action, Goa, India, October 16, 2016," BIMSTEC, accessed January 15, 2025, https://bimstec.org/images/content_page_pdf/1696678009_BIMSTEC%20Leaders%20Retreat%202016%20Outcome%20Document%20and%2016-Point%20Agenda%20of%20Action.pdf.

¹⁵ "Fourth BIMSTEC Summit Declaration, Kathmandu, Nepal, August 30-31, 2018," BIMSTEC, accessed January 19, 2025, https://bimstec.org/images/content_page_pdf/1696677849_Fourth%20BIMSTEC%20Summit%20Declaration_30082018.pdf.

2022.¹⁶ The inclusion of the blue economy as a sub-sector of the “Trade, Investment, and Development Sector of BIMSTEC,” headed by Bangladesh, was approved at the 19th BIMSTEC Ministerial Meeting on 09 March 2023.¹⁷ Member states were urged to select delegates for the Inter-Governmental Expert Committee that Bangladesh proposed to establish to develop an Action Plan on the Blue Economy.¹⁸ On the occasion of the 10th Anniversary of the establishment of the BIMSTEC Secretariat, Md Touhid Hossain, Foreign Adviser of Bangladesh, emphasised Bangladesh’s commitment to BIMSTEC and its leadership in the blue economy, expressing confidence in the timely implementation of a plan of action for regional growth.¹⁹

There is an increasing number of studies highlighting the significance of BIMSTEC in implementing the BoB’s blue economy. Sakhuja and Banerjee²⁰, Saran,²¹ Mohan²² and Xavier²³ argued that BIMSTEC has the potential to grow into a dynamic organisation and the blue economy policy initiative among others, is the most effective way to unite the BoB community. Ganeshan²⁴ in this regard, emphasised how the BIMSTEC Blue Economy Agenda has become a priority topic and highlighted on the potential sustainable development elements that the agenda might focus on over the next ten years. According to Bhatia²⁵, BIMSTEC must maintain the momentum of earlier initiatives to strengthen economic cooperation while simultaneously being creative to realise its promise in more recent fields such

¹⁶ “Fifth BIMSTEC Summit Declaration, Colombo, Sri Lanka, 30 March 2022,” BIMSTEC, accessed January 18, 2025, [https://bimstec.org/images/content_page_pdf/169667722_Fifth%20BIMSTEC%20Summit%20Declaration%20\(1\).pdf](https://bimstec.org/images/content_page_pdf/169667722_Fifth%20BIMSTEC%20Summit%20Declaration%20(1).pdf).

¹⁷ “Joint Statement of the Nineteenth BIMSTEC Ministerial Meeting, Bangkok, Thailand, March 09, 2023,” BIMSTEC, accessed January 11, 2025, [https://bimstec.org/images/content_page_pdf/1697873497_Joint%20Statement%20of%20the%2019th%20BIMSTEC%20Ministerial%20Meeting_09032023%20\(1\).pdf](https://bimstec.org/images/content_page_pdf/1697873497_Joint%20Statement%20of%20the%2019th%20BIMSTEC%20Ministerial%20Meeting_09032023%20(1).pdf).

¹⁸ “Trade, Investment and Development,” BIMSTEC, accessed January 21, 2025, <https://bimstec.org/trade-investment-and-development>.

¹⁹ “Remarks by the Chief Guest, H E Mr Md Touhid Hossain, Hon’ble Adviser, Ministry of Foreign Affairs, Interim Government of Bangladesh, September 13, 2024,” accessed January 15, 2025, https://drive.google.com/file/d/1AFw-TYcgH8_VnFT6MGpr8XtHG71mt8CJ/view.

²⁰ Vijay Sakhuja and Somen Banerjee, *Sea of Collective Destiny: Bay of Bengal and BIMSTEC* (New Delhi: Pentagon Press, 2020).

²¹ Samir Saran, “BIMSTEC and Global Governance,” in *BIMSTEC and the Road Ahead* (New Delhi: RIS, 2016), 32.

²² N Chandra Mohan, “BIMSTEC: An Idea Whose Time has Come,” ORF Issue Brief, no. 164 (2016), accessed January 15, 2025, <https://www.orfonline.org/wp-content/uploads/2016/11/ORF-Issue-brief-164-Bimstec.pdf>.

²³ Constantino Xavier, “Bridging the Bay of Bengal: Towards a Stronger BIMSTEC,” Carnegie Endowment for International Peace, 2018, accessed January 07, 2025, https://carnegie-production-assets.s3.amazonaws.com/static/files/CP_325_Xavier_Bay_of_Bengal_Brief.pdf.

²⁴ Swati Ganeshan, “Role of Sustainable Development in BIMSTEC Maritime Security and Blue Economy Framework,” in *New Futures for BIMSTEC: Connectivity, Commerce and Security*, eds. Adluri Subramanyam Raju and Anasua Basu Ray Chaudhury (New Delhi: Routledge, 2021).

²⁵ Rajiv Bhatia, “Incorporating the Blue Economy into BIMSTEC Agenda,” India Foundation, accessed January 17, 2025, <https://indiafoundation.in/articles-and-commentaries/incorporating-the-blue-economy-into-bimstec-agenda/>.

as blue economy. Gupta and Banerjee²⁶ discussed how BIMSTEC can be used as a framework for the implementation of blue economy in the BoB.

Despite increasing recognition of the importance of sustainable blue economy initiatives in the BoB region, there remains a notable research gap concerning the specific role of BIMSTEC in advancing such efforts. The existing literature has predominantly focused on strategies and sector-specific challenges of the individual member states. Nevertheless, extensive research is lacking that specifically examines the variations and parallels that one finds in the blue economy policies of BIMSTEC member countries. Also, there exists a significant research gap exists especially on examining the analysis of current trends of the blue economy, BIMSTEC's limitations, and its potential in promoting a sustainable blue economy in the BoB. There is a necessity to provide concrete suggestions on how BIMSTEC can attain a sustainable BoB blue economy. Hence, the paper attempts to fill these knowledge gaps. Additionally, Bangladesh as the upcoming Chairman and lead nation of the Blue Economy sub-sector in the BIMSTEC, there is a need to explore the role of BIMSTEC in advancing toward a sustainable blue economy in the BoB region from Bangladesh's perspective. In light of this, the study poses the following research questions: What are the prevailing trends of blue economy in the BIMSTEC member countries? What obstacles must BIMSTEC overcome to achieve a sustainable blue economy in the BoB? How can BIMSTEC play a role in attaining a sustainable BoB blue economy?

The methodology for analysing the blue economy policies of BIMSTEC member countries combined qualitative content analysis with key informant interviews (KIIs) and secondary data. Initially, specific blue economy government policy documents and acts (see Annex 1) from each member country were collected and imported into NVIVO11 software for word frequency analysis, identifying prevalent themes and terms. Additionally, a text search function was used to locate specific themes and terms (see Annex 2). Besides, country-specific initiatives were analysed through the lens of four dominant discourses—oceans as natural capital, livelihoods, good business, and a driver of innovations—developed by Michelle Voyer et al (see Table 1). Annex 3 provides a table summarising the related blue economy regulations and policies of BIMSTEC member countries, categorised by key sectors. In addition, KIIs with policymakers and academics from BIMSTEC member countries provided qualitative insights, enriching the understanding of the NVIVO analysis. The methodology also incorporated secondary data sources, such as reports, academic

²⁶ Arvind Gupta and Somen Banerjee, "Securitisation of BIMSTEC can Protect the Blue Economy of Bay of Bengal," Vivekananda International Foundation (VIF), April 15, 2018, <https://www.vifindia.org/article/2018/april/15/securitization-of-bimstec-can-protect-the-blue-economy-of-bay-of-bengal>.

articles, and government publications, to complement the analysis and provide additional context for understanding blue economy initiatives across BIMSTEC member countries. The limitations of the study include the reliance on available policy documents, which may not fully capture recent or informal blue economy initiatives of BIMSTEC member countries. Additionally, in the NVIVO11 analysis policy documents from Nepal and Bhutan were excluded, as neither country has a specific blue economy government policy. To address this gap, the study examined alternative policy frameworks in Nepal and Bhutan that pertain to water resource management, environmental protection, and sustainable development.

The paper is divided into seven sections. After the introduction, section two offers a conceptual understanding of the blue economy, discussing various lenses that inform its definition and implications for policy formulation. Section three examines current trends in blue economy policies among BIMSTEC member states by analysing national initiatives through the four prevailing narratives identified by Michelle Voyer et al.: oceans as natural capital, livelihoods, good business, and innovation. Section four explores the shared themes and divergences in policy emphasis across member countries, by identifying common goals while highlighting differing priorities. In section five, key obstacles to achieving a sustainable blue economy within BIMSTEC are identified. Section six presents policy options to address these challenges, offering recommendations for enhanced blue economy cooperation. Finally, section seven concludes the paper.

2. Conceptual Understanding

The term “blue economy” is viewed as ambiguous and subject to several interpretations. The concept of blue economy emerged from the 1992 Rio Earth Summit’s focus on a “green economy” and gained widespread attention following the 2012 UN Conference on Sustainable Development (Rio+20).²⁷ In response to a worldwide push for a “green economy,” the Small Island Developing States (SIDS) began to promote the concept of blue economy and emphasise the importance of the ocean and marine industries. Since then, blue economy has attracted attention from all across the world, although a consensus definition has not yet been reached. At the initial stage, however, this new phrase was frequently employed in an ambiguous manner to refer interchangeably to the “ocean economy” or the “marine economy.” Despite the fact that the phrases “blue economy” and “ocean economy” are frequently

²⁷ United Nations Environment Programme (UNEP), *Towards a Green Economy: Pathways to Sustainable Development and Poverty Eradication* (Nairobi: UNEP, 2011), 16, https://sustainabledevelopment.un.org/content/documents/126GER_synthesis_en.pdf.

used interchangeably, they are distinct and differ significantly. While the blue economy concentrates on sustainable ocean economies, the term—ocean economy—is viewed as an economic activity that employs the ocean as an input.²⁸

In 2014, the United Nations (UN) developed a comprehensive definition of the term blue economy. The UN defines the as “a marine-based economic development that leads to the improvement of human well-being and social equity, while significantly reducing environmental risks and ecological scarcities”.²⁹ According to the World Bank, “blue economy seeks to promote economic growth, social inclusion, and the preservation or improvement of livelihoods while at the same time ensuring environmental sustainability of the oceans and coastal areas.”³⁰ The Economist, in a Report titled ‘The Blue Economy: Growth, Opportunity and a Sustainable Ocean Economy’, states “A sustainable ocean economy emerges when economic activity is in balance with the long-term capacity of ocean ecosystems to support this activity and remain resilient and healthy.”³¹ According to the European Union (EU), “The blue economy includes all sectoral and cross-sectoral economic activities based on or related to the oceans, seas, and coasts.”³²

Therefore, the blue economy can be summed up as economic activity that is centred around the ocean which promotes social inclusion, economic growth, and environmental sustainability. The fundamental idea of the approach is the separation of environmental degradation from socioeconomic progress. Creating wealth from ocean-related industries while preserving and bolstering marine ecosystems has come to be associated with it.

2.1 *Blue Economy Lenses*

Regarding the blue economy debate, four lenses are found in the existing literature.³³ It includes oceans as natural capital, oceans as livelihoods, oceans as good

²⁸ Michelle Voyer et al., *The Blue Economy in Australia* (Canberra, Australia: Sea Power Centre, 2017), 12–13.

²⁹ United Nations Conference on Trade and Development (UNCTAD), *The Oceans Economy: Opportunities and Challenges for Small Island Developing States* (New York and Geneva: United Nations, 2014), 2.

³⁰ World Bank, *The Potential of the Blue Economy: Increasing Long-term Benefits of the Sustainable Use of Marine Resources for Small Island Developing States and Coastal Least Developed Countries* (Washington DC: World Bank, 2017), 6.

³¹ “The Blue Economy: Growth, Opportunity and a Sustainable Ocean Economy,” The Economist Intelligence Unit, accessed January 11, 2025, <https://www.greenpolicyplatform.org/research/blue-economy-growth-opportunity-and-sustainable-ocean-economy>.

³² European Commission, *The E.U. Blue Economy Report* (Luxembourg: European Union, 2020), https://ec.europa.eu/maritimeaffairs/sites/maritimeaffairs/files/2020_06_blueconomy-2020-ld_final.pdf.

³³ Jennifer J. Silver, Noella Gray, Lisa Campbell, Luke Fairbanks and Rebecca Gruby, “Blue Economy and Competing Discourses in International Oceans Governance,” *Journal of Environment & Development* 24, no. 2 (2015): 135–160; M. Voyer, G. Quirk, A. McIlgorm and K. Azmi, “Shades of Blue: What Do Competing Interpretations of the Blue Economy Mean for Ocean Governance?” *Journal of Environmental Policy and Planning* 20, no. 5 (2018): 595–616.

business, and oceans as drivers of innovation (see Table 1). NGOs and conservation organisations prioritise ecosystem-based management and Marine Protected Areas (MPA). Furthermore, the development of the blue economy places a strong emphasis on carbon-intensive industries. Oceans are therefore viewed as natural capital, and conservation is the main concern in this regard.

Table 1: Different Lenses of Blue Economy³⁴

	Oceans as Natural Capital	Oceans as Livelihoods	Oceans as Good Business	Oceans as a Driver of Innovation
Primary Objectives	Ecosystem protection and restoration	Poverty alleviation and food security	Economic growth and employment	Technological or technical advances
Actors	Conservation agencies/ NGOs	Development agencies, SIDS	Industry, larger global economies	Academic institutes and governments
Sectors	Oil and gas are examples of carbon-intensive industries that are not included. It emphasises the financial gains from conservation (such as ecotourism, ecological service payments, blue carbon, etc.).	Provide special attention to small-scale fisheries (SSF), and ecotourism with diversification goals.	All industries are covered, although the main emphasis is on big, multinational companies and industries (such as shipping, oil and gas, renewables, etc.).	All areas, especially growing ones such as renewable energy, biotechnology, and deep-sea mining

³⁴ Adapted from Voyer et al., *The Blue Economy in Australia*, 20.

Tools	Marine Protected Areas (MPA), ecosystem-based management (EBM), valuation of ecosystem services, biodiversity conservation	Community manages fisheries, Marine Spatial Planning (MSP), Ecosystem-based management (EBM), valuation of ecosystem services	MSP, economic valuation studies, targeted investment and growth strategies	Innovation hubs/ research institutes, investment/ financing strategies.
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According to the “oceans as livelihood” perspective, development organisations and developing nations endorse the notion that the blue economy plays a significant role in the livelihoods of coastal inhabitants. It places attaining human well-being and subsistence at the forefront of the blue economy, with a focus on poverty alleviation. In this regard, the blue economy provides developing countries (particularly SIDS) with a framework to diversify their economies into new and expanding sectors and bolster their resilience to external shocks. As a result, SIDS in the Caribbean, Indian, and Pacific oceans have led the way in interpreting the blue economy. According to this perspective, the UN Sustainable Development Goals (SDGs) and the blue economy are closely related.

However, larger economies, organisations (including the EU and Organisation for Economic Co-operation and Development (OECD)), industries, and business associations favour a growth-centric view of the blue economy, which is highlighted by the “oceans as good business” viewpoint. According to this interpretation, the main objective is to utilise the blue economy to generate employment and economic growth. In order to pursue this, high-value, international industries such as shipping, large-scale fishing, and oil and gas are essential. Lastly, innovation is the main element of the “oceans as drivers of innovation” perspective. Collaborations, investments, and innovation between the public and private sectors are believed to be the main forces behind this lens.

2.2 Sustainability and the Blue Economy

The terms—Blue economy and sustainable development—are closely intertwined concepts. The existing studies identify that sustainability within the

context of blue economy relates to various dimensions.³⁵ It focuses on harnessing the potential of ocean resources to achieve economic growth, social inclusion, and environmental sustainability. The blue economy encompasses various economic activities linked to the ocean, such as biotechnology, shipping, tourism, aquaculture, renewable energy, and fisheries. Sustainable development aims to promote economic growth that is inclusive, equitable, and environmentally sustainable. By adopting sustainable practices in blue economy sectors, countries can stimulate economic growth while preserving ocean resources for future generations.

Sustainable development also emphasises the significance of social inclusion, ensuring that economic benefits are shared equitably among all segments of society, including the marginalised and vulnerable groups. This entails providing chances for small-scale fishermen, indigenous peoples, and coastal communities to engage in and make a profit from ocean-related activities while upholding their rights and traditional knowledge within the framework of the blue economy. Furthermore, environmental sustainability is central to both concepts of blue economy and sustainable development, which entails maintaining the health, resilience, and productivity of marine ecosystems. Sustainable development seeks to balance economic growth with the conservation of natural resources and the protection of biodiversity. In the context of blue economy, this involves promoting sustainable fisheries and aquaculture practices, minimising pollution and habitat degradation, and mitigating the impacts of climate change on marine ecosystems.

3. Current Trends and Developments: Blue Economy Policies in BIMSTEC Member States

It is observed that several BIMSTEC member states are allocating significant financial, technological, and human resources to cultivate the blue economy, recognising the substantial economic opportunities presented by oceans and seas. This section analyses the national blue economy initiatives considering the four prevailing narratives that Michelle Voyer et al. developed: (i) the oceans as natural capital, (ii) the oceans as livelihoods, (iii) the oceans as good business, and (iv) the oceans as innovation.

³⁵ Smith-Godfrey, “Defining the Blue Economy,” *Maritime Affairs* 12, no. 1 (2016): 58–64, doi:10.1080/09733159.2016.1175131; M. R. Keen, A. Schwarz and L. Wini-Simeon, “Towards Defining the Blue Economy: Practical lessons from Pacific Ocean Governance,” *Marine Policy* 88, (2018): 333–341, doi:10.1016/j.marpol.2017.03.002; Emmanuel Owusu-Sekyere, “Achieving Sustainability in the Context of the Blue Economy,” in *The Blue Economy Handbook of the Indian Ocean Region*, eds. Vishva Nath Attri and Narnia Bohler-Muller (Pretoria: African Institute of South Africa, 2018), 81–97; Nathan J. Bennett et al., “Towards a Sustainable and Equitable Blue Economy,” *Nature Sustainability* 2, no.11 (2019): 991–93.

3.1 Bangladesh

The blue economy in Bangladesh revolves around its immense marine and coastal resources and their sustainable utilisation. The maritime domain of Bangladesh covers around 118,813 sq. km, which includes rich biodiversity, fisheries, and potential energy resources.³⁶ Three sectors make up the majority of its blue economy: marine fisheries and aquaculture (22%), maritime transportation (22%), and tourism and recreation (25%).³⁷ However, the blue economy covers a wide range of sectors such as renewable energy, shipbuilding, ship breaking, marine biotechnology and others that contributes to the economy. These sectors provide significant opportunities for poverty alleviation, and job creation, particularly in coastal regions. An estimated 30 million people in Bangladesh are dependent on the ocean economy, with 17 million working in fisheries and aquaculture and the ocean economy's gross value added to Bangladesh in 2014–15 was US\$ 6,192.98 million, or roughly 3.33 per cent of the country's economy.³⁸

Bangladesh's blue economy policy framework focuses primarily on enhancing marine resource management, promoting marine-based industries, and building capacity for ocean governance. Nine distinct sectors—marine fisheries, mariculture, commercial shipping, marine tourism, offshore energy, renewable energy and biotechnologies, mangrove ecosystem services, shipbuilding and recycling industry, marine pollution, and MSP—are identified in the “Blue Economy Development Workplan” (2019), along with a future action plan to implement those by 2030.³⁹ The Bangladesh Delta Plan 2100 integrates blue economy principles, aiming to address climate change and disaster resilience while utilising marine resources.⁴⁰ One notable measure is the Territorial Waters and Maritime Zones Amendment Act (2021), which plays a crucial role in defining the governance of the country's maritime jurisdiction.⁴¹ There are also efforts to expand coastal and marine tourism, recognising its potential for creating jobs and boosting the economy.

³⁶ Rear Admiral Md. Khurshed Alam, “Keynote Address” (Keynote Speech delivered at International Workshop on the Blue Economy, Dhaka, September 01, 2014).

³⁷ Pawan G Patil, John Virdin, Charles S. Colgan, M. G. Hussain, Pierre Failler and Tibor Vegh, *Toward a blue economy: a pathway for Bangladesh's sustainable growth* (Washington, D.C.: The World Bank Group, 2018), 45.

³⁸ Patil et al., *Toward a Blue Economy*, 48.

³⁹ Maritime Affairs Unit Bangladesh, *Blue Economy Development Work Plan, 2019* (Dhaka: MoFA, 2019), <https://mofa.gov.bd/site/page/ab254318-8f4a-423c-a3ef-733b80f28014/Blue-Economy-Development-Work-Plan>.

⁴⁰ General Economics Division, Bangladesh Planning Commission, *Bangladesh Delta Plan 2100: Bangladesh in the 21st Century* (Dhaka: Government of the People's Republic of Bangladesh, 2018).

⁴¹ Government of Bangladesh, *The Territorial Waters and Maritime Zones Amendment Act, 2021* (Dhaka: Government of the Peoples' Republic of Bangladesh, 2021).

An analysis of key blue economy documents, such as the “Blue Economy Development Workplan (2019)” and the “Territorial Waters and Maritime Zones Amendment Act (2021)”, reveals recurring themes of sustainability, MSP, and environmental protection. Terms such as “sustainability” (22) and “marine pollution” (26) show a strong emphasis largely on protecting marine ecosystems. Bangladesh has adopted several key policies and regulations to promote the sustainable use of its marine resources, addressing both maritime security and blue economy concerns. To strengthen the legal foundation for maritime administration, the Territorial Waters and Maritime Zones Amendment Act (2021), for example, designates marine pollution, piracy, armed robbery and maritime terrorism as crimes.⁴² Complementing these efforts, the Marine Fisheries Act (2020)⁴³ regulates fishing practices to preserve marine biodiversity while the National Plan of Action for IUU Fishing (2019) combats illegal fishing activities.⁴⁴ The Ship Recycle Act (2018) has also been amended to ensure environmentally safe and secure ship recycling processes.⁴⁵

The focus on MSP (12) and MPA (12) highlights Bangladesh’s efforts to balance economic benefits with ecological conservation. Bangladesh is prioritising biodiversity conservation through initiatives such as the creation of protected areas. Currently, MPA encompasses 8.8 per cent of Bangladesh’s Exclusive Economic Zone (EEZ), contributing to marine conservation efforts.⁴⁶ Additionally, Bangladesh is developing MSP to sustainably manage its marine resources and balance economic development with environmental conservation. In addition, the Marine Fisheries Policy (2022) supports sustainable aquaculture and marine fisheries, reflecting the prioritisation of biodiversity conservation and sustainable resource use.⁴⁷ Although certain terms such as “growth” and “business” appear less frequently (each mentioned

⁴² Articles 22 and 23 stipulate that offenses related to marine pollution, including failure to prevent pollution or causing environmental harm, may lead to imprisonment of up to five years, fines ranging from BDT 2-10 crore, or both, depending on the nature of the violation. Besides, according to Article 24 of the Territorial Waters and Maritime Zones Amendment Act (2021), punishment for piracy, armed robbery, and maritime terrorism includes life imprisonment for piracy and maritime terrorism, up to 14 years for aiding or abetting, and up to 10 years for armed robbery, with additional fines or forfeiture of property.

⁴³ Government of Bangladesh, *Marine Fisheries Act, 2020* (Dhaka: Government of Bangladesh, 2020), <http://bdlaws.minlaw.gov.bd/act-print-1347.html>.

⁴⁴ Department of Fisheries, Bangladesh, *National Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated (IUU) Fishing in Bangladesh 2019* (Dhaka: Department of Fisheries, Bangladesh, 2019), <https://faolex.fao.org/docs/pdf/bgd214075.pdf>.

⁴⁵ Government of the People’s Republic of Bangladesh, *Bangladesh Ship Recycling Act 2018* (Dhaka: Ministry of Law, Justice and Parliamentary Affairs, 2018), <http://www.ilo.org/dyn/natlex/docs/ELECTRONIC/106422/130547/F1140529959/BGD106422%20Bgd.pdf>

⁴⁶ “Bangladesh reaffirms commitment to achieve SDG-14 at UN Ocean Conference,” Ministry of Foreign Affairs, Bangladesh, accessed January 12, 2025, https://mofa.portal.gov.bd/site/press_release/fbae85d1-ae94-4261-afa5-0318c92dfde8.

⁴⁷ Government of Bangladesh, *Marine Fisheries Extraction Policy* (Dhaka: Ministry of Fisheries, 2022), https://fisheries.gov.bd/sites/default/files/files/fisheries.portal.gov.bd/law/d8fe1c24_edaf_404f_b71a_19daf82934c1/2022-11-27-05-51-3a0de8cc22ab4b6f9039657a4b1f38ff.pdf.

only once), the documents prioritise job creation (“employment,” 3 mentions) and livelihood support (9 mentions), underscoring the socio-economic dimensions of the blue economy. Regarding ecosystem services valuation, policy documents have highlighted the importance of mangroves, prioritised their ecosystem services while acknowledging the complexities and costs of valuation.⁴⁸ Overall, Bangladesh’s dual focus on “oceans as livelihood” and “oceans as natural capital” highlights the commitment to leveraging marine resources for economic growth while preserving ecological integrity, ensuring long-term resilience and sustainability.

3.2 India

India, with a coastline stretching 7,500 km and an EEZ covering approximately 2.37 million sq. km, has significant potential for developing its blue economy.⁴⁹ Key sectors include fisheries, aquaculture, maritime transport, shipbuilding, coastal tourism, offshore energy, and marine biotechnology. India’s blue economy is estimated to account for about 4 per cent of the nation’s GDP.⁵⁰ India has demonstrated a significant growth agenda in regard to the blue economy. The Sagarmala Project, which was started in 2015 by the Ministry of Shipping and centres on port-led development, is the main component of India’s blue economy strategy. The project’s four main pillars are coastal community development, port-led industrialisation, port connectivity, and port modernisation and capacity augmentation.⁵¹ Furthermore, the Government of India’s “Vision of New India by 2030,” articulated in February 2019, emphasised the blue economy as one of the ten fundamental aspects of economic development.⁵²

Nonetheless, a pivotal advancement in the development of India’s blue economy policy occurred with the publication of India’s Blue Economy: The Draft Policy Framework by the Economic Advisory Council to the Prime Minister (EAC-PM) in September 2020 which defines blue economy as “an emerging concept comprising the entire ecosystem of ocean resources, including marine, maritime, and onshore

⁴⁸ Maritime Affairs Unit Bangladesh, *Blue Economy Development Work Plan, 2019* (Dhaka: Ministry of Foreign Affairs, 2019), <https://mofa.gov.bd/site/page/ab254318-8f4a-423c-a3ef-733b80f28014/Blue-Economy-Development-Work-Plan>.

⁴⁹ Rajeev Rajan Chaturvedy, “Mapping India’s Blue Economy in the Bay of Bengal: Opportunities and Constraints,” *Journal of the Indian Ocean Region* 18, issue. 2 (2022): 99–115, <https://doi.org/10.1080/19480881.2022.2118196>.

⁵⁰ Swati Ganeshan, *Blue Economy: India’s Pathway to Sustainable, Secure and Resilient Economy* (New Delhi: The Energy and Resources Institute, 2022), 4.

⁵¹ Ministry of Ports, Shipping and Waterways, Government of India, *Final Report for Sagarmala (Vol. I)* (New Delhi: Ministry of Shipping, Indian Ports Association, 2016), https://sagarmala.gov.in/sites/default/files/20161222_Sagarmala_final%20report_volume%2001_0.pdf.

⁵² “Government Unveils Vision for the Next Decade,” February 01, 2019, Press Information Bureau, Government of India, Ministry of Finance, accessed January 17, 2025, <https://pib.gov.in/newsite/PrintRelease.aspx?relid=187925>.

coastal economic sub-systems within India's legal jurisdiction, with close linkages to economic growth, environmental sustainability, and national security.”⁵³ To build a strong blue economy, the policy framework identifies seven priority areas subsequently: the national accounting framework for blue economy; coastal MSP and tourism; marine fisheries, aquaculture, and fish processing; manufacturing, emerging industries, trade, technology, services, and skill development; logistics, infrastructure, and shipping (including transshipments); coastal and deep-sea mining and offshore energy and finally, security, strategic engagement, and international cooperation.⁵⁴

India's blue economy strategy places a significant emphasis on port-led economic development, as indicated by the high frequency of terms such as “growth” (75) and “business” (18), reflecting its focus on economic expansion and trade through coastal industries such as shipbuilding, logistics, and fisheries. This economic drive is further supported by a robust infrastructural strategy that includes port modernisation, enhancing connectivity, and promoting regional trade hubs, all central to India's blue economy narrative. Besides, the high frequency of “security” (94) and “technology” (43) underscores India's strategic focus on strengthening maritime infrastructure, ensuring national security, and enhancing naval capabilities in the Indian Ocean region. Indian strategic thinkers have emphasised the critical nexus between maritime power and the blue economy, positing that the two concepts are not only interconnected but also mutually reinforcing.⁵⁵ This is evident through initiatives like the development of advanced maritime surveillance systems, deployment of Coastal Radar Networks, and commissioning of naval assets.

However, the emphasis on economic growth contrasts with the relatively limited attention given to environmental sustainability, as reflected by the lower frequency of terms such as “environment protection” (9) and “marine pollution” (6). Although India's coastal development policies acknowledge the importance of pollution control, there is a lack of large-scale and concerted efforts to address critical environmental issues such as marine plastic waste or industrial runoff.⁵⁶

Furthermore, the absence of terms such as “MPA” (0) and the minimal reference to “ecosystem” (2) highlight the limited focus on marine conservation within the blue

⁵³ Economic Advisory Council to the Prime Minister, Government of India, *India's Blue Economy: A Draft Policy Framework* (New Delhi: Economic Advisory Council to the Prime Minister Government of India, 2020), 12-13, https://incois.gov.in/documents/Blue_Economy_policy.pdf.

⁵⁴ Economic Advisory Council, *India's Blue Economy*, 13.

⁵⁵ Somen Banerjee, *Maritime Power through Blue Economy in the Indian Context* (New Delhi: Vivekananda International Foundation, 2018).

⁵⁶ Purunjai Tewari, “Marine Pollution in India and Its Laws,” Legal Service India, accessed January 09, 2025, <https://www.legalserviceindia.com/legal/article-3982-marine-pollution-in-india-and-its-laws.html>.

economy framework. While India has 130 MPAs in its territorial waters, none are located within its EEZ,⁵⁷ marking a significant gap in marine conservation efforts. Besides, for blue economy tools, MSP (12) and Valuation studies (6) are highlighted, reflecting efforts to introduce structured planning mechanisms and economic valuation of marine resources. For instance, India's blue economy valuation studies are supported by initiatives like the Ministry of External Affairs-backed Research and Information System for Developing Countries (RIS) research programme (2015) and the Federation of Indian Chambers of Commerce & Industry (FICCI)'s "Blue Economy Vision 2025" document, focusing on measuring and implementing the concept while harnessing business potential domestically and internationally.⁵⁸ Thus, India's blue economy primarily appears to prioritise economic growth over ecological sustainability, aligning more with the perspective of "oceans as good business" rather than integrating robust conservation strategies.

3.3 *Myanmar*

Myanmar's blue economy holds significant potential due to its extensive coastline of approximately 3000 km along the Andaman Sea and the BoB.⁵⁹ Key sectors contributing to Myanmar's blue economy include fisheries, aquaculture, marine transportation, coastal tourism, and offshore energy. Myanmar's blue economy is estimated to contribute approximately 3.5 per cent to the nation's GDP.⁶⁰ Myanmar's approach to blue economy has its foundation in its prior dedication to fulfilling the SDGs by 2030, especially through the Myanmar Sustainable Development Plan (2018–2030), which integrates blue economy objectives by balancing resource use with economic growth, environmental protection, and social equity.⁶¹

Myanmar's approach to the blue economy can be analysed through the dual lenses of "ocean as livelihood" and "ocean as natural capital," focusing mainly on

⁵⁷ Eklavya Tiwary and Dr Pushp Bajaj, "Decoding Marine Protected Areas in India Part I: Understanding the Legal and Policy Frameworks," National Maritime Foundation, accessed January 05, 2025, https://maritimeindia.org/decoding-marine-protected-areas-in-india-part-i-understanding-the-legal-and-policy-frameworks/#_ftn21.

⁵⁸ Federation of Indian Chambers of Commerce and Industry (FICCI), *Blue Economy Vision 2025: Harnessing Business Potential for India Inc and International Partners* (New Delhi, India: FICCI, 2017); "IORA Blue Economy Dialogue: Goa Declaration," August 17-18, 2015, Ministry of External Affairs, Government of India and Research and Information System for developing countries (RIS), accessed January 05, 2025, <https://www.ris.org.in/sites/default/files/Publication/Goa%20Declaration.pdf>.

⁵⁹ Zaw Oo and Ngu Wah Win, "Blue Economy in Myanmar," Policy Brief, No. 2023-14, January 2024, Economic Research Institute for ASEAN and East Asia (ERIA), accessed January 11, 2025, <https://www.eria.org/uploads/Blue-Economy-in-Myanmar.pdf>.

⁶⁰ Juneja, Souza, Gririyam and Ganeshan, *Contextualising Blue Economy*, 19.

⁶¹ Government of Myanmar, *Myanmar Sustainable Development Plan (MSDP), 2018–2030* (Naypyidaw: Myanmar National Gazette, 2018).

leveraging marine resources for poverty alleviation while addressing environmental sustainability challenges. The word frequency analysis of Myanmar's key blue economy policy documents reveals a strong focus on sustainability, with the term mentioned 49 times, indicating the country's strong focus on balancing economic development with environmental conservation. Notable policy efforts include the 2016 "Myanmar's National Action Plan for Agriculture (NAPA) Working Paper 6: Coastal Resources Management", which outlined strategies for the sustainable management and conservation of coastal and marine resources to support agricultural development and environmental protection.⁶² Key recommendations include establishing an Integrated Coastal Management Authority, restoring degraded mangroves through Ecological Mangrove Restoration and promoting community fisheries management. Additionally, the plan underscores the need for conducting natural resource mapping and economic valuation of marine ecosystems with active participation from local communities.⁶³

Furthering these efforts, the Coastal Resources Management Central Committee, established in 2016, plays a critical role in managing and conserving marine resources.⁶⁴ Among its initiatives are the drafting of an Integrated Coastal Management (ICM) framework, designated no-fishing zones in biodiversity hotspots and organising awareness campaigns to combat coastal pollution.⁶⁵ In 2021, the State Administration Council established national and working committees to develop a national strategy and action plan for the blue economy.⁶⁶ The prominence of the term "livelihood" appears 20 times, underscoring the critical role ocean resources play in supporting coastal communities. Besides, economic terms such as "business" (13) and "employment" (11) are also present, reflecting Myanmar's efforts to create jobs and manage its marine resources effectively. However, the absence of terms such as "growth" (0) and "technology" (0) suggests a limited emphasis on technological innovation or rapid economic expansion. Additionally, the focus on MSP (12) and MPA (7) underscores Myanmar's commitment to conserving marine ecosystems while ensuring sustainable livelihoods for its coastal populations.

⁶² Ministry of Agriculture, Livestock and Irrigation, Myanmar, *National Action Plan for Agriculture (NAPA) Working Paper 6: Coastal Resources Management* (Yangon: Ministry of Agriculture, Livestock and Irrigation, 2016).

⁶³ Ministry of Agriculture, Livestock and Irrigation, Myanmar, *National Action Plan*.

⁶⁴ Interview with a senior official from the Myanmar Coast Guard, May 2024.

⁶⁵ "Coastal Resources Management Central Committee holds 5th meeting," The Global New Light of Myanmar, June 25, 2024, <https://www.gnlm.com.mm/coastal-resources-management-central-committee-holds-5th-meeting/>.

⁶⁶ Government of Myanmar, *Coastal Resources Management Central Committee* (Naypyidaw: Myanmar National Gazette, 2021).

3.4 Sri Lanka

Sri Lanka's blue economy is shaped by its key position in the Indian Ocean and its reliance on ocean resources for both economic growth and environmental sustainability. Principal sectors contributing to the blue economy encompass fisheries, marine transportation, tourism, and emerging industries like marine biotechnology and offshore energy. Although the country does not have specific blue economy policies, however, it has developed several regulations and policies that aim to harness its marine resources while promoting sustainable development. A prominent example is the Sri Lanka Coastal Zone and Coastal Resource Management Plan⁶⁷, which plays a central role in preserving marine ecosystems and promoting sustainable coastal livelihoods. This plan focuses predominantly on managing resources, mitigating marine pollution, and improving coastal resilience, particularly in light of climate change impacts.

Word frequency analysis of Sri Lanka's blue economy documents, particularly the Sri Lanka Coastal Zone and Coastal Resource Management Plan, reveals key areas of focus. "conservation" (206), "eco-system" (153) and "sustainability" (75) are dominant keywords, underscoring the emphasis on balancing development with ecological preservation. "livelihood" (28) and "marine pollution" (39) show a significant focus on addressing both economic reliance on the ocean and the growing threats to marine environments. The Marine Pollution Prevention Act (2008)⁶⁸, Marine Environment Protection (Waste Reception Facilities) Regulations (2016),⁶⁹ and Offshore Exploration for and Exploitation of Natural Resources including Petroleum (Marine Environment Protection) Regulation No. 1 of 2011⁷⁰ are foundational regulations that guide the sustainable use of marine resources. These policies aim to support the livelihoods of coastal communities while ensuring that ecosystems remain resilient. Moreover, Sri Lanka's National Fisheries Policy⁷¹ and

⁶⁷ Sri Lanka Coast Conservation and Coastal Resource Management Department, *Sri Lanka Coastal Zone and Coastal Resource Management Plan 2024-2029* (Colombo: Sri Lanka Coast Conservation and Coastal Resource Management Department, 2024), https://www.coastal.gov.lk/images/pdf/CZMP_24-29/CZCRMP_2024_PC_ENG.pdf.

⁶⁸ Government of Sri Lanka, *Marine Pollution Prevention Act* (Colombo: Government of Sri Lanka, 2008), <https://www.fao.org/faolex/results/details/en/c/LEX-FAOC161921>.

⁶⁹ Government of Sri Lanka, *Marine Environment Protection (Waste Reception Facilities) Regulations* (Colombo: Government of Sri Lanka, 2016), <https://faolex.fao.org/docs/pdf/srl161922.pdf>.

⁷⁰ Government of Sri Lanka, *Offshore Exploration for and Exploitation of Natural Resources including Petroleum (Marine Environment Protection) Regulation No. 1* (Colombo: Government of Sri Lanka, 2011), <https://faolex.fao.org/docs/pdf/srl133812.pdf>.

⁷¹ Ministry of Fisheries and Aquatic Resource Development Sri Lanka, *The National Fisheries Policy* (Colombo: Ministry of Fisheries and Aquatic Resource Development, 2018), https://www.fisheries.gov.lk/web/images/downloads/pdfs/fisheries_policy_e.pdf.

Fisheries and Aquatic Resources Act (2023)⁷², seeks to balance the exploitation of marine resources with long-term sustainability, encouraging responsible fishing practices and marine biodiversity conservation. However, despite these policies, challenges remain in the enforcement and monitoring of regulations, particularly concerning IUU fishing.⁷³

In contrast, specific terms such as “growth” (16) and “technology” (10) suggest, while economic expansion and innovation are acknowledged, they are not as prioritised as sustainability efforts in Sri Lanka’s blue economy framework. For instance, economic initiatives focus more on small-scale fisheries rather than large-scale industrial activities.⁷⁴ The relatively low frequency of the terms “business” (6) and “employment” (3) reflects a cautious approach to economic activities, prioritising sustainability over aggressive economic exploitation. However, the absence of mentions for MSP (0) and Valuation Studies (0) indicates gaps in strategic planning for efficient resource allocation and economic valuation of marine ecosystems. This absence limits the formal integration of ecosystem services, such as mangrove conservation or coral reef protection, into the national economic framework. Thus, Sri Lanka’s blue economy approach aligns predominantly with the “ocean as natural capital” lens, focusing on conserving marine ecosystems while harnessing their potential through sustainable practices like community-based aquaculture and marine biodiversity reserves, ensuring long-term ecological and economic benefits.

3.5 Thailand

Thailand’s blue economy is vital to its national development, given its extensive coastline along the Andaman Sea and the Gulf of Thailand, totalling around 3,219 km. Its EEZ spans over 300,000 sq. km, with significant marine biodiversity and abundant natural resources. Thailand’s blue economy contributes approximately 30 per cent to the country’s GDP and employs 25 per cent of the workforce in traditional sectors such as marine fishing and coastal tourism.⁷⁵ The blue economy in Thailand is built on four key pillars: equitable economic development, healthy ecosystem

⁷² Government of Sri Lanka, *Fisheries and Aquatic Resources Act 1996* (Colombo: Government of Sri Lanka, 1996), <https://www.fao.org/faolex/results/details/en/c/LEX-FAOC004092>.

⁷³ Interview with a senior official from the Marine Environment Protection Authority, Sri Lanka, May 2024.

⁷⁴ Fazeeha Azmi Ibrahim, “Between the Sea and the Land: Small-scale Fishers and Multiple Vulnerabilities in Sri Lanka,” *Sri Lanka Journal of Social Sciences* 43, no. 1 (2020): 5–20, <https://doi.org/10.4038/sljss.v43i1.7641>.

⁷⁵ A. McIlgorm, “Ocean Economy Valuation Studies in the Asia-Pacific Region: Lessons for the Future International Use of National Accounts in the Blue Economy,” *Journal of Ocean and Coastal Economics* 2, issue. 2 (2016), <http://dx.doi.org/10.15351/2373-8456.1046>.

services, integrated approaches, and science-based innovations.⁷⁶ The Thirteenth National Economic and Social Development Plan (2023–2027) identifies blue economy under its ‘eco-friendly growth’ objective, outlining six development guidelines: promoting green growth and sustainable development; fostering sustainable maritime economic growth; advancing climate-friendly societal development; ensuring sustainable growth in urban, rural, agricultural, and industrial sectors; creating security in eco-friendly water, energy, and agriculture; and improving the framework for determining the nation’s future.⁷⁷ In 2015, the Promotion of Marine and Coastal Resources Management Act was enacted to establish institutions for managing coastal resources at both national and local levels, encouraging community participation in coastal governance.⁷⁸

Thailand’s key blue economy policy documents demonstrate that it is primarily driven by a strong focus on sustainability, as evidenced by the high frequency of the term “sustainability” (152), reflecting its commitment to balancing economic growth with environmental conservation. The 2015 Promotion of Marine and Coastal Resources Management Act includes provisions for designating marine and coastal protected areas, such as mangrove conservation areas, significant marine and coastal resource zones, regions needing protective measures against erosion, and specific areas requiring protection to maintain ecosystem integrity.⁷⁹ Similarly, the Royal Ordinance on Fisheries came into effect in 2015, aiming to protect fisheries resources through national and provincial fisheries committees while promoting the involvement of fishing communities in fisheries management.⁸⁰ These laws promote the involvement of local fishing communities in fisheries management, addressing issues like IUU fishing, and ensuring the sustainable use of marine resources. The Act on Offences Relating to Offshore Petroleum Production Places (1987) further strengthens Thailand’s regulatory framework by addressing safety and environmental protection in offshore petroleum production, ensuring responsible exploitation of marine resources.⁸¹

⁷⁶ Intan Murnira Ramli and Tomy Waskitho eds., *Blue Economy Initiatives in South-East Asia: Challenges and Opportunities* (Indonesia: Economic Research Institute for ASEAN and East Asia, 2023), <https://www.eria.org/publications/blue-economy-initiatives-in-south-east-asia-challenges-and-opportunities>.

⁷⁷ Office of the National Economic and Social Development Council (NESDC), *The Thirteenth National Economic and Social Development Plan (2023–2027)* (Bangkok: NESDC, 2023).

⁷⁸ “Act on the Promotion of Marine and Coastal Resource Management,” Office of the Council of State, accessed December 29, 2024, <https://faolex.fao.org/docs/pdf/tha170599.pdf>.

⁷⁹ “Act on the Promotion of Marine,” Office of the Council of State.

⁸⁰ Government of Thailand, *Royal Ordinance on Fisheries* (Thailand: Government of Thailand, 2015), <https://faolex.fao.org/docs/pdf/tha159730.pdf>.

⁸¹ “Act on Offences Relating to Offshore Petroleum Production Places,” Thailaws.com, accessed December 26, 2024, <https://faolex.fao.org/docs/pdf/tha155182.pdf>.

Key economic aspects such as “growth” (29), “business” (33), and “employment” (52) highlight Thailand’s efforts to harness ocean resources for job creation and economic development. The emphasis on “livelihood” (26) and “food security” (20) demonstrates the importance of the ocean in supporting coastal communities and ensuring food supply. Strategy 5 of the National Maritime Security Plan (2023-27) specifically deals with blue economy which states that “Development of the blue economy with an emphasis on sustainable management of marine and coastal resources and improvement of logistical connectivity which contribute to economic growth in marine sectors (e.g. transportation, tourism, fishery).”⁸² Besides, in the current Maritime Security Plan (2023-27), there are some ongoing efforts to improve national platforms for knowledge-driven sustainable governance of marine spaces and resources with inclusive engagement of cross-sectored stakeholders.⁸³ In addition, introduced in 2019, the National Marine Interest Act aims to unify governance issues under a clearer institutional framework, guided by three core principles—governance, management, and MSP—while organising blue economy governance through two strategies: protected areas and integrated coastal management.⁸⁴ The emphasis on Marine Protected Areas (18) suggests that environmental concerns are recognised. Currently, 15.7 per cent of Thailand’s EEZ, covering approximately 50,700 sq. km, is managed using ecosystem-based approaches.⁸⁵ However, the absence of “poverty alleviation” (0) and the relatively low focus on Valuation Studies (0) highlight potential gaps in integrating the blue economy into broader social and environmental frameworks. Thailand’s approach aligns with the “ocean as livelihood” lens, focusing on economic growth while striving for sustainability.

3.6 Nepal and Bhutan

Although Nepal and Bhutan are landlocked countries with no direct access to the ocean, their economies are closely tied to sustainable resource management, environmental conservation, and regional cooperation in sectors such as hydropower, riverine ecosystems, and transboundary water resource management. The concept of blue economy for these nations focuses on inland waterways, sustainable water resource management, and regional cooperation in areas like energy, trade, and

⁸² Maritime Security Division, National Security Council, Thailand, *National Maritime Security Plan of Thailand (2023-27)* (Thailand: Maritime Security Division, 2023), <https://faolex.fao.org/docs/pdf/tha220782.pdf>.

⁸³ Interview with Security policy and plan analyst of Thailand, May 2024.

⁸⁴ Government of Thailand, *Maritime Interest Protection Act, 2019* (Bangkok: Thai Maritime Enforcement, Command Center, 2019), <https://www.soc.go.th/wp-content/uploads/2022/09/soc270965.pdf>.

⁸⁵ “Thailand: Towards Sustainable Management of Marine and Coastal Habitats,” United Nations, accessed January 07, 2025, <https://sdgs.un.org/partnerships/thailand-towards-sustainable-management-marine-and-coastal-habitats>.

environmental sustainability. Both countries emphasise ecosystem conservation, community-based water management, and resilience-building against climate change.

Nepal and Bhutan have not developed specific blue economy frameworks due to their lack of direct access to marine resources. However, both countries have comprehensive policies addressing water resource management, environmental protection, and sustainable development. For Nepal, the Water Resources Act (1992)⁸⁶ and the National Water Plan (2005)⁸⁷ focus on sustainable water management, river ecosystems, and hydropower development. Bhutan's Water Act of Bhutan (2011)⁸⁸ and the National Environment Protection Act (2007)⁸⁹ aim to regulate water use and preserve the integrity of river systems, which are crucial to its economy and environmental conservation efforts.

While neither country has specific blue economy policies, there are parallels in their national strategies for managing water resources that align with blue economy principles. In Nepal, the Hydropower Development Policy, 2001 promotes sustainable energy generation from rivers, which could be viewed as a form of blue economy, emphasising renewable resources.⁹⁰ Bhutan's emphasis on hydropower generation, which contributes significantly to its GDP and export earnings, also aligns with sustainable development principles. Furthermore, both nations focus on transboundary water management with neighbouring countries, which is critical for regional cooperation on water resources and disaster management.

Both Nepal and Bhutan's approach to the blue economy can mainly be perceived through the "oceans as natural capital" lens, emphasising the sustainable management and preservation of inland water resources and river ecosystems. Although both countries are landlocked, they recognise the intrinsic value of their freshwater ecosystems in supporting biodiversity, community livelihoods, and economic growth, particularly through sustainable hydropower development. This perspective emphasises the importance of protecting water resources and ecosystems while promoting regional cooperation for the responsible use of shared water bodies. By prioritising environmental sustainability and resilience against climate change, both

⁸⁶ Government of Nepal, *Water Resource Act 1992* (Kathmandu: Ministry of Energy, Water Resources and Irrigation, 1992), <https://faolex.fao.org/docs/pdf/nep1367.pdf>.

⁸⁷ Government of Nepal, *National Water Plan 2005* (Kathmandu: Ministry of Energy, Water Resources and Irrigation, 2005), <https://moewri.gov.np/storage/listies/May2020/national-water-plan.pdf>.

⁸⁸ Parliament of Bhutan, *The Water Act of Bhutan 2011* (Thimphu: Parliament of Bhutan, 2011), <https://oag.gov.bt/wp-content/uploads/2010/05/Water-Act-of-Bhutan-2011-English-and-Dzongkha.pdf>.

⁸⁹ "National Environment Protection Act, 2007," Asia Pacific Energy Portal, accessed December 20, 2024, <https://policy.asiapacificenergy.org/sites/default/files/National%20Environment%20Protection%20Act%20f%20Bhutan%2C%202007%20%28EN%29.pdf>.

⁹⁰ Ministry of Water Resources of Nepal, *Hydropower Development Policy 2001* (Singhdurbar: Ministry of Water Resources, His Majesty's Government, 2001), <https://faolex.fao.org/docs/pdf/nep134957.pdf>.

countries aim to harness their river systems as vital economic assets while safeguarding their ecological integrity.

4. Blue Economy Policies of BIMSTEC Member Countries: Commonalities and Differences

The blue economy policies of BIMSTEC member countries exhibit both shared approaches and divergences, reflecting their distinct national contexts, priorities, and maritime resources. While all member states recognise the importance of sustainable ocean governance and economic growth through the utilisation of marine resources, the specific approaches and frameworks they adopt vary considerably. Based on the quantitative analysis shown in Table 2, this section examines the shared themes that unify BIMSTEC members in their blue economy pursuits while highlighting the divergences in policy emphasis. Understanding these commonalities and differences is crucial for identifying potential areas for collaboration and addressing the unique challenges faced by individual countries within the region.

It is observed that there are several commonalities in the blue economy policies of BIMSTEC member countries. First, sustainability is a key element in the blue economy policies of all BIMSTEC member countries. This emphasis is the strongest in Thailand (152) and Sri Lanka (75), reflecting a regional understanding of the need to balance economic growth with environmental conservation. Myanmar (49) and India (31) also reflect a strong commitment, while Bangladesh (22) shows growing attention to sustainable practices. Second, addressing marine pollution is a notable trend across the countries, with Sri Lanka (39) and Bangladesh (26) being the most focused. Thailand (19), India (6), and Myanmar (2) also acknowledge the issue, though India and Myanmar show relatively lower mentions of marine pollution. Third, livelihood is a critical aspect of blue economy discussions, especially in Sri Lanka (28), Myanmar (20), and Thailand (26). Bangladesh (9) and India (16) also highlight livelihoods, though to a lesser degree. Employment is a focus across most countries, with Thailand (52) standing out, indicating a high prioritisation of job creation within the blue economy. Fourth, Fisheries remain a major blue economy sector among all the member states. Thailand (203) leads in mentions, followed by Sri Lanka (174), India (107), Myanmar (86) and Bangladesh (64). Finally, MSP appears across countries, reflecting a shared commitment to organising ocean space for sustainable use. Bangladesh, India, and Myanmar (12) each mention MSP, indicating a growing focus on structured marine governance

Table 2: Result of Word Frequency of Specific Themes and Terms⁹¹

Country	Economic Themes			Environmental Themes			Social Themes		Innovation		Governance Tools			
	Growth	Business	Employment	Livelihood	Sustainability	Protection	Marine Pollution	Food Security	Poverty Alleviation	Technology	Security	MSP	Accounting	MPA
Bangladesh	1	1	3	9	22	8	26	13	1	1	11	12	1	12
India	75	18	10	16	31	9	6	1	0	43	94	12	6	0
Myanmar	0	13	11	20	49	7	2	7	7	0	8	3	0	7
Sri Lanka	16	6	3	28	75	3	39	1	1	10	11	0	0	4
Thailand	29	33	52	26	152	7	19	20	0	32	13	3	0	18

 91 Author's creation based on word frequency analysis result.

The blue economy policies of BIMSTEC member countries also exhibit several key differences (as shown in Table 2). First, India (75) leads in discussions on “economic growth”, far surpassing other nations. Thailand (29) and Sri Lanka (16) follow, while Myanmar (0) shows no emphasis on “growth”. Business-related terms are also more prevalent in Thailand (33) and India (18), compared to other countries such as Myanmar (13) and Sri Lanka (6). Second, “security” is a major theme in India (94), reflecting its focus on maritime security as part of its blue economy strategy. Bangladesh (11), Sri Lanka (11), and Myanmar (8) mention security less frequently, while Thailand (13) addresses the term moderately. Third, ecosystem services are highly discussed in Sri Lanka (153), Bangladesh (24), and Myanmar (42) showing strong attention to the ecological dimension of the blue economy. In contrast, it is absent in India (0). Again, MPA is notably absent in India (0) while Thailand (18) and Bangladesh (12) show more commitment to conservation through MPAs. Fourth, there is a lack of focus on the economic valuation of coastal and marine ecosystems across the region, with most countries recording very few or no mentions except India (6) while Bangladesh (1), Myanmar (0), Sri Lanka (0), and Thailand (0) demonstrate minimal efforts. Finally, “food security” is relatively underrepresented in all countries except Thailand (20) and Bangladesh (13). The term, “poverty alleviation” is rarely mentioned, with Myanmar (7) addressing it more than other countries, while India (0) and Thailand (0) lack focus in this area.

In brief, BIMSTEC member countries demonstrate commonalities in prioritising sustainability, addressing marine pollution, and integrating MSP into their policies. However, there are clear differences in their focus areas: India emphasises growth, business, and security, while Myanmar and Bangladesh highlight community-based livelihoods. Thailand leads in employment focus and sustainability, while Sri Lanka stands out in livelihood discussions but lags in technology and security aspects.

5. Obstacles to Overcome

There are several key challenges BIMSTEC needs to overcome to effectively implement the blue economy. One of the key challenges in implementing the blue economy within BIMSTEC is the diversity in blue economy policies and priorities among member states, as discussed earlier. Each country in the region has different economic structures, levels of development, and national interests, leading to varied approaches toward marine resource management, conservation, and sustainable development. This misalignment complicates the formulation of cohesive regional strategies and can create obstacles in harmonising regulations, policies, and investments. Additionally, disparities in institutional capacities and legal frameworks

hinder effective coordination, impeding collaborative efforts crucial for realising a sustainable blue economy across the BOB.

The second challenge pertains to the presence of multiple regional blue economy policies. As mentioned earlier, frameworks such as the IORA Action Plan⁹² and the ASEAN Blue Economy Framework⁹³ are already in place. Hence, overlapping priorities and differing policy approaches can create fragmentation and hinder cohesive efforts. This can lead to duplication of initiatives, conflicting objectives, and competition for resources among regional organisations. For BIMSTEC, aligning its blue economy policies with these existing frameworks while maintaining its unique regional focus is essential to avoid policy disconnects and ensure the effective implementation of blue economy strategies that benefit all member states. Moreover, the lack of a unified approach can also complicate cross-border collaboration and hinder the efficient allocation of resources, ultimately reducing the effectiveness of regional blue economy initiatives.

The third challenge to the implementation of the blue economy in BIMSTEC member countries is the presence of maritime security issues, including IUU fishing, human trafficking, smuggling, piracy, armed robbery, and petty theft. The existing literature emphasises the robust connection between the blue economy and marine security, underscoring that sustainable economic growth in ocean-based sectors rely on a secure maritime environment, free from illegal activities and environmental degradation.⁹⁴ Climate change impacts, such as rising sea levels and ocean acidification, further intensify these challenges. These security threats not only jeopardise the livelihoods of coastal communities but also deter investment and technological development essential for blue economy initiatives. The absence of a coordinated regional maritime security framework within BIMSTEC exacerbates these issues, hindering the potential for sustainable development of the blue economy in the region.

The fourth challenge is the lack of adequate funding and investment. Many BIMSTEC nations, particularly the least developed ones, struggle to secure the financial resources needed to develop key blue economy sectors such as fisheries, maritime transport, and renewable marine energy. Moreover, the BIMSTEC

⁹² Indian Ocean Rim Association (IORA), *Second IORA Action Plan*, 7.

⁹³ ASEAN, *The ASEAN Blue Economy Framework* (Indonesia: ASEAN, 2023), <https://asean.org/wp-content/uploads/2023/09/ASEAN-Blue-Economy-Framework.pdf>.

⁹⁴ Christian Bueger, “‘We Are All Islanders Now’ – Michel’s Blue Economy Kaleidoscope and the Missing Link to Maritime Security,” *Journal of the Indian Ocean Region* 14, issue. 1 (2017): 117–19; Michelle Voyer et al., “Maritime Security and the Blue Economy: Intersections and Interdependencies in the Indian Ocean,” *Journal of the Indian Ocean Region* 14, no. 1 (2018): 1–21.

secretariat allocates the majority of its funds primarily for salaries and other operational expenses.⁹⁵ This funding shortfall affects the operation of the secretariat and impedes the organisation's ability to foster collaboration, conduct research, and provide technical assistance to its members. Consequently, the region's potential for advancing the blue economy and other initiatives under BIMSTEC remains constrained.

Another important challenge is limited infrastructure and technology. Many nations in the region, particularly the less developed ones, lack the necessary maritime infrastructure such as ports, shipping facilities, and marine research institutions, which are essential for supporting sustainable blue economy activities like fisheries, tourism, and renewable energy. Additionally, there is a significant technology gap, with insufficient access to advanced tools for ocean exploration, monitoring, and resource management. Differences in technological capabilities and institutional capacities among member states result in inconsistent data collection practices, making it difficult to monitor ocean health, marine resources, and economic activities effectively.

Finally, political tensions among key BIMSTEC member states pose significant challenges to the successful implementation of blue economy initiatives. Recent geopolitical shifts in the region have raised concerns about the future of BIMSTEC, casting doubt on its ability to advance blue economy cooperation. Analysts highlight the persistent trust deficit between member states, particularly in terms of sharing critical blue economy data, as a major obstacle to collaboration.⁹⁶ Moreover, political instability in Myanmar has further strained regional efforts to foster cooperation on environmental and maritime projects. Consequently, these tensions undermine the region's capacity to fully realise the potential of its blue economy.

6. The Path Ahead for BIMSTEC

A consistent definition of the blue economy is crucial for advancing its implementation within BIMSTEC member countries. Currently, differing interpretations of the blue economy among member states lead to misaligned priorities and fragmented approaches to sustainable marine resource management. A unified definition would establish a shared vision and common goals, facilitating better coordination and collaboration across sectors such as fisheries, marine tourism, renewable energy, and conservation. BIMSTEC can facilitate the development of a

⁹⁵ Xavier, "Bridging the Bay of Bengal".

⁹⁶ Interview with an Indian Think Tank, May 2024.

consistent definition of the blue economy by fostering dialogue among member states, harmonising diverse perspectives, and promoting shared principles.

It is necessary to develop an appropriate accounting system for calculating the contribution of blue economy to the total economies of BIMSTEC countries. In several countries where the blue economy is significant, like the United States (US), China, South Korea, the EU, and Australia, considerable advancements have been achieved. Experts indicate that the assessment of a sustainable blue economy relies equally, if not more, on developing the capacity to do such measurements as it does on addressing theoretical, empirical, and practical challenges.⁹⁷ Consequently, a suitable institutional framework may be developed at the regional level to assess and analyse the magnitude of the blue economy in various member states. BIMSTEC can facilitate the development of a blue economy accounting system by harmonising regional initiatives to standardise data collecting and reporting procedures across many sectors.

BIMSTEC can significantly contribute to the alignment of policies. Moreover, the establishment of a regional framework for the sustainable management of marine resources is needed for establishing common standards across critical sectors including fisheries management, marine pollution control, and conservation efforts. For example, the organisation could promote the advancement of a regional fisheries management framework similar to the Indian Ocean Tuna Commission (IOTC), which helps coordinate sustainable fishing practices across its member states. Additionally, BIMSTEC could promote MPAs to enhance conservation efforts across its member nations. Besides, through coordinated efforts, BIMSTEC can help integrate environmental, economic, and social considerations into spatial planning, promoting sustainable use of the BoB's marine ecosystems.

BIMSTEC can support capacity-building programmes and provide technical assistance to member countries, enhancing their abilities to manage and develop blue economy sectors sustainably. This includes training, workshops, and collaborative research initiatives. The organisation can facilitate the creation of a regional database and promote data sharing and transparency among member states. In addition, it can play a role in raising awareness about the importance of a sustainable blue economy and advocating for the integration of sustainability principles in national and regional policies. However, resource constraints within BIMSTEC could pose challenges in this regard, necessitating securing of sustainable funding through enhanced

⁹⁷ Charles S. Colgan, "Measurement of the Ocean Economy from National Income Accounts to the Sustainable Blue Economy," *Journal of Ocean and Coastal Economics* 2, no. 2 (2016), doi: <https://doi.org/10.15351/2373-8456.1061>.

contributions from member states, external partnerships, and engagement with multilateral financial institutions. Therefore, the proposed MoUs between BIMSTEC with IORA, ASEAN, the United Nations Office on Drugs and Crime (UNODC) and the World Bank is a welcoming step in this aspect.

Maritime security issues need to be addressed as well within the framework of BIMSTEC. As mentioned earlier, in the existing literature, it is established that maritime security and blue economy are interlinked. Therefore, ensuring maritime security is essential for sustainable blue economy development. BIMSTEC can facilitate cooperation among member states to address common maritime security threats, such as illegal fishing, piracy, and maritime trafficking, thereby promoting a conducive environment for sustainable economic activities in the BoB. Strengthening maritime law enforcement capabilities, including surveillance, monitoring, and enforcement measures would be important as well to ensure the safety and security of maritime activities in the region.

To enhance regional collaboration and maximise the sustainable development of marine resources, BIMSTEC should align its Blue Economy Action Plan with other established frameworks, such as the IORA Action Plan and the ASEAN Blue Economy Framework. By harmonising its initiatives with these regional efforts, BIMSTEC can promote greater policy coherence, share best practices, and address common challenges like marine conservation, pollution, and climate resilience more effectively. This alignment would also facilitate collaborative projects, enhance economic opportunities, and ensure a unified approach to sustainable ocean governance in the wider Indian Ocean and Asia-Pacific regions.

Finally, developing a BIMSTEC Blue Economy Plan of Action is essential in aligning economic growth with environmental conservation. The Plan should emphasise capacity building, data sharing, and joint research initiatives among member states, particularly in fisheries, aquaculture, renewable energy, and maritime transport. Enhancing governance structure, creating public-private partnership, and promoting eco-friendly coastal tourism should be prioritised to ensure inclusive economic development. It is also crucial to address challenges such as marine pollution, climate change impacts, and disaster risk management by integrating resilience-building measures into the plan. Besides, a robust monitoring and evaluation framework should be incorporated to ensure adaptive management and effective implementation over time.⁹⁸ The Blue Economy Action Plan needs to set

⁹⁸ Interview with a member of the Eminent Persons' Group on the Future Directions of BIMSTEC (EPG), June 2024.

short, medium and long-term goals for ensuring a balanced progression toward holistic blue economy development.

7. Conclusion

BIMSTEC member countries exhibit a diverse yet interconnected landscape in their blue economy policies, reflecting a blend of commonalities and differences shaped by their unique socio-economic contexts. Commonalities include a strong emphasis on sustainability, fisheries, addressing marine pollution, enhancing livelihoods and employment opportunities, and incorporating MSP into their frameworks. However, significant divergences emerge in areas such as growth-oriented strategies, prioritisation of security and surveillance measures, management of ecosystems and MPAs and approach to valuation studies. Bangladesh adopts a balanced approach through the “oceans as livelihood” lens, emphasising economic growth and poverty reduction while addressing ecological conservation through the “oceans as natural capital” perspective. India primarily focuses on “oceans as good business,” prioritising port-led development and economic infrastructure but lacking a strong emphasis on environmental sustainability. Myanmar combines the “oceans as livelihood” and “oceans as natural capital” lenses, aiming to leverage marine resources for poverty alleviation while addressing environmental challenges. Sri Lanka predominantly aligns with the “oceans as natural capital,” focusing on conserving ocean ecosystems while fostering sustainable livelihoods. Thailand emphasises the “oceans as livelihood” approach, striving for economic growth and sustainability but needing further integration of conservation strategies. Lastly, both Nepal and Bhutan approach the blue economy through the “oceans as natural capital” lens, focusing on sustainable management of their inland water resources and river ecosystems to support biodiversity and economic growth, particularly through sustainable hydropower development. Collectively, these trends underscore the need for collaborative frameworks that harmonise these diverse policies to foster sustainable blue economy development across the region.

The implementation of the blue economy within BIMSTEC faces several critical challenges, notably the diversity in policies and priorities among member states, which complicates regional coordination and hinders cohesive strategies for sustainable development. The presence of multiple regional blue economy frameworks, such as those of IORA and ASEAN, adds to the complexity, as overlapping priorities and differing approaches can fragment efforts. Additionally, maritime security threats—such as IUU fishing, piracy and environmental degradation—further obstruct blue economy initiatives, with the absence of a

coordinated regional maritime security framework exacerbating these issues. Another significant obstacle is the lack of adequate funding and investment, which constrains the development of key sectors like fisheries, maritime transport, and renewable energy. This financial gap is particularly acute in less developed BIMSTEC member states, limiting their ability to invest in sustainable marine resource management. Furthermore, limited infrastructure and technological capabilities in many member countries hinder the efficient utilisation of marine resources. Finally, political tensions and trust deficits among key BIMSTEC member states hinder effective blue economy cooperation in the region. These challenges collectively impede BIMSTEC's progress toward realising the full potential of the blue economy.

To effectively develop the blue economy in the BIMSTEC region, it is essential to establish a consistent definition that encompasses its diverse activities and sectors. A comprehensive definition will facilitate joint actions to explore the region's blue economy potential, which remains subject to multiple interpretations. Moreover, a suitable accounting framework is needed to measure the blue economy's contribution to the overall economy, supported by regional institutional mechanisms that build on international best practices. BIMSTEC has the potential to contribute a pivotal role in harmonising policies and creating regional frameworks for sustainable marine resource management, including the adoption of consistent guidelines for fisheries and pollution control. Additionally, BIMSTEC must support capacity-building initiatives, enhance monitoring and data sharing, and advocate for sustainable practices. Addressing maritime security issues is vital, necessitating cooperation among member states to combat threats such as illegal fishing and piracy. Finally, aligning the BIMSTEC Blue Economy Action Plan with established frameworks like the ASEAN Blue Economy Framework and IORA Action Plan will strengthen regional cooperation and promote policy coherence for sustainable development.

Annex

Annex 1: Specific Blue Economy Government Documents of BIMSTEC Member Countries

Country	Year	Title	Document Type
Bangladesh	2019	Blue Economy Development Work Plan	Government Policy
	2021	Territorial Waters and Maritime Zones Amendment Act	Government Act
India	2020	India's Blue Economy: A Draft Policy Framework	Government Policy
	2016	Sagarmala: New Dimensions in Coastal Economy	Government Policy
Myanmar	2017	Myanmar Territorial Sea and Maritime Zones Law	Government Law
	2016	Coastal Resources Management Myanmar	Government Report
Sri Lanka	2024	Sri Lanka Coastal Zone and Coastal Resource Management Plan	Government Policy
Thailand	2015	The Promotion of Marine and Coastal Resources Management Act	Government Act
	2018	National State of Oceans and Coasts: Blue Economy Growth of Thailand	Government Report

Source: Compiled by Author.

Annex 2: Key Themes and Sub-themes in Blue Economy Lenses

Economic Themes	Environmental themes	Social Themes	Innovation and Technical Capacity	Governance Tools
<ul style="list-style-type: none"> • Economic Growth • Business • Employment • Livelihood 	<ul style="list-style-type: none"> • Sustainability • Environment Protection • Marine Pollution 	<ul style="list-style-type: none"> • Food Security • Poverty Alleviation 	<ul style="list-style-type: none"> • Innovation • Security and Surveillance 	<ul style="list-style-type: none"> • MSP • Accounting/valuation of Ocean Industries • Ecosystem Services Valuation or Payment • MPAs

Source: Adapted from Voyer et al., "Shades of Blue".

Annex 3: The Related Blue Economy Regulations and Policies of BIMSTEC Member Countries

Country	Living Resources (e.g., Fisheries, Aquaculture)	Non-Living Resources (e.g., Oil and Gas, Renewable Marine Energy)	Other Economic Activities (e.g., Shipping, Tourism, Ports, Shipbuilding)	Protection of Sea (e.g., Marine Surveillance, Waste Management, Ecosystem Services)
Bangladesh	Marine Fisheries Policy (2023) Marine Fisheries Act (2020)	Integrated Energy and Power Master Plan (2023)	Bangladesh Shipping Corporation Act, 2017 National Tourism Policy, 2009 Bangladesh Tourism Protected Areas and Special Tourism Zone Act, 2010	Territorial Water and Maritime Zone Amendment Act (2021) National Plan of Action (NPOA)-IUU (2021)
India	National Fisheries Policy (2020), The Maritime Zones of India (Regulation of Fishing by Foreign Vessels) (1981), Coastal Aquaculture Authority Rules (2024),	National Offshore Wind Energy Policy (2015) The Petroleum and Natural Gas Rules (2003)	The Major Port Authorities Act (2021), Merchant Shipping (Amendment) (2002),	Maritime Anti-Piracy Act (2022), The Marine Aids to Navigation Act (2021), The Admiralty (Jurisdiction and Settlement of Maritime Claims) Act (2017)
Myanmar	Marine Fisheries Law (Amendment) (1993)	Myanmar Energy Policy (2014)	Coastal and Maritime Transport (2015)	Myanmar Territorial Sea and Maritime Zones Law (2017) Myanmar Coastal Authority (2015)

Conservation of Biodiversity and Protected Areas (2018)				
Sri Lanka	Fisheries and Aquatic Resources (Amendment) Act (2023)	National Energy Policy and Strategies of Sri Lanka (2019)	Merchant Shipping (Amendment) Act (2019)	Marine Pollution Prevention Act (2008); Oil Spill Contingency Plan Regulations (2012) Marine Environmental Protection Regulations (2016) Offshore Exploration for and Exploitation of Natural Resources including Petroleum (Marine Environment Protection) Regulation No. 1 of 2011
Thailand	Royal Ordinance on Fisheries (2015) Royal Ordinance on Fisheries No.2 (2017)	The Energy Conservation Promotion Act (1992)	Merchant Marine Promotion Act (1978)	Act on the Promotion of Marine and Coastal Resources Management (2015) Marine National Interest Protection Act (2019) National Park Act (2019) Navigation in the Thai Waters Act (2022) Act on Offences Relating to Offshore Petroleum Production Places (1987)
Bhutan	Bhutan Fishing (Amendment) Rules (1992)	Not applicable (landlocked)	Not applicable (landlocked)	Water Act of Bhutan (2011) The National Environment Protection Act (2007)
Nepal	Aquatic Animal Protection Act (2017)	Not applicable (landlocked)	Not applicable (landlocked)	Environment Protection Act (2019) The Water Resources Act (1992) The National Water Resources Policy (2020)

Source: Compiled by author from various sources.