

# Ocean Governance for Sustainable Maritime Development in the Bay of Bengal

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## **Abstract**

*The human civilisation is indebted to the oceans for serving mankind as a major source of food, minerals and energy linking economies around the world. The oceans serve as an engine for global economic growth and highways for seaborne international trade giving access to global markets. But there has been a growing appreciation that the world's oceans require more caring attention and integrated response. There is a progressive degradation of ocean health caused by IUU fishing, marine pollution and unplanned coastal development. However, in recent years, few developing countries have looked to the ocean as a new economic frontier and developed growth policies based on the concept of the Blue Economy. It is aimed at enhancing livelihoods for the poor, creating employment opportunities and reducing poverty.*

*A Blue Economy roadmap is essential to provide an integrated approach to ocean-based sustainable development, which brings together economy, environment and society being closely linked with the UN Sustainable Development Goals 2030 (SDGs). Making the transition to a Blue Economy would entail fundamental and systemic changes in the policy-regulatory-management-governance framework using the tools of an ecosystem-based Marine Spatial Planning (MSP).*

*Today the littoral countries of the Bay of Bengal are showing huge trends of economic development due to their increasing importance on the ocean-based economy. But our development patterns are often undermined and diminished due to lack of appropriate ocean governance measures whereas various policies are either poorly implemented or lacks supervision. So, a regionally integrated management and governance system is the demand of the day in order to ensure sustainable maritime development in the Bay of Bengal region.*

*In this context, the paper endeavours to analyse how the Bay of Bengal region is responding to the challenges of ocean governance and harvest Blue Economy benefits from the ocean. In fact, the challenges are many, but a properly planned Blue Economy and Ocean Policy can bring to the developing countries of this region substantial benefits of economic and social development in the years ahead.*

**Keywords:** Ocean Governance, Marine Spatial Planning, Blue Economy

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## **Introduction**

The oceans are the most important sources of many invaluable resources and they have big contributions to maintain the climate and biodiversity. The oceans are also engines for global economic growth and key sources of food security. Oceans contribute to poverty eradication by creating sustainable livelihoods, provide food and minerals and continue to support all life today by recycling nutrients and regulating global climate and weather patterns. International shipping and ports provide crucial linkages to global supply chains and are essential to gain access to global markets serving as highways for seaborne international trade.

But there has been a growing appreciation that the world's oceans require more caring attention and coordinated action. The progressive degradation of ocean health is caused by several human drivers like Illegal, Unregistered and Unregulated (IUU) Fishing, land-based and ship-borne marine pollution and unplanned coastal development. It is frequently observed that ocean resources are excessively overexploited. The nation should also be careful about the fact that all the marine-related issues are inter-connected because they may share a common space. Ocean governance is the integrated conduct of the policy, actions and affairs regarding the world's oceans for sustainable use of coastal and marine resources reducing the risk of irreversible damage to our marine eco-systems. However, in recent years, few developing countries have started formulating economic growth policies based on the concept of the Blue Economy. But making the transition to a Blue Economy would entail fundamental and systemic changes in their policy-regulatory-management-governance framework.

It is time for the developing countries of the Bay of Bengal to draft an Ocean Policy vision by charting a course towards a blue horizon and formulate a framework for achieving sustainable development.

## **Strategic Importance of the Bay of Bengal (BoB)**

The vast maritime-littoral space of the Indian Ocean is of immense geopolitical, geoeconomic and geostrategic significance, where economics and security have always influenced the historical and contemporary discourse in the region. About two-thirds of the world's seaborne trade in oil, 50 per cent of world's seaborne container traffic, one-third of bulk cargo and the world's highest tonnage in the seaborne transportation of goods, reportedly involving some 100,000 ships per year, transit through the Indian Ocean and its adjacent waterways. Historically, the Bay of Bengal region has played a pivotal role as a maritime highway to the greater Indian Ocean where trade, commerce and cultures were intertwined for centuries. Today, due to geostrategic and geoeconomic factors, it emerges as one of the most significant regions in the Indo-Pacific region. The BoB is an important bridge connecting the Pacific and Indian Oceans. This enables South Asia to be connected with South East and East Asia. The Bay of Bengal also forms crucial entry points to India's North-East and Nepal, Bhutan and Kunming of China. The Bay of Bengal is also confronted with common maritime security issues like human and drug trafficking and other cross-boundary issues, whereas its vicinity to the so-called maritime silk route squarely puts a further strategic focus on this region.

## Challenges of Blue Economy

The oceans, with a current estimated asset value of USD 24 trillion and annual value addition of USD 2.5 trillion, would continue to offer significant economic benefits for the coastal states. But the developing countries have to overcome challenges like unsustainable extraction marine resources, destruction of marine and coastal habitats, climate change, sea-level rise and marine pollution.

**IUU Fishing.** A major challenge is unsustainable fisheries due to IUU fishing. Statistics show that the proportion of marine fish stocks estimated to be underexploited or moderately exploited declined from 40% in the mid-1970s to 15% in 2008, and the proportion of overexploited, depleted or recovering stocks, increased from 10% in 1974 to 32% in 2008.

**Ocean Acidification.** A newly emerging issue like Ocean Acidification resulted in a 26% increase in the acidity of the Ocean affecting carbon accretion in coral reefs causing net decreases in global coral reef coverage and associated species.

**Blue Carbon.** Several key coastal habitats such as mangroves, salt marshes and seagrass meadows, also known as Blue Carbon, fix carbon at a much higher rate per unit area than terrestrial forest ecosystems. But mangroves have been reduced to 30-50% of their historical cover and 29% of seagrass habitats are estimated to have been lost in the last 150 years.

## Blue Economy and Sustainable Maritime Development

The Blue Economy is a developing world initiative relevant to all coastal states and countries with an interest in sustainable maritime development. It is aimed at enhancing livelihoods for the poor, creating employment opportunities and reducing poverty. Blue Economy was first prominently addressed during the Rio+20 UN Sustainable Development Conference in 2012. The National Maritime Foundation, an active Indian think tank, has adopted the following definition of the Blue Economy: “Marine-based economic development that leads to improved human wellbeing and social equity, while significantly reducing environmental risks and ecological scarcities”. However, a global definition devised by the Economist Intelligence Unit (2015) is “A sustainable ocean economy emerges when economic activity is in balance with the long-term capacity of ocean ecosystems and remain resilient and healthy”. However, the difference between “ocean economy” and “Blue Economy” is that the former provides no measure or indication of sustainability. But the Blue Economy concept promotes the sustainable development of the ocean economy.

## Prospects and Potentials of Blue Economy

A brief overview of the state of various maritime sectors and industries would give us a clear indication of the enormous prospects and potentials of the Blue Economy:

- a. **Marine Fisheries.** The volume of fish traded by developing countries is estimated at USD 25 billion making it their largest trading item whereas 1 billion people in

developing countries depend on seafood for their primary source of protein. There are about 475 species of fish found in EEZ of Bangladesh compared to 250 sweet water species.

**b. Aquaculture.** Integrated multi-tropic offshore aquaculture is the fastest-growing global food sector, now providing 47% of the fish for human consumption.

**c. Marine Biotechnology.** One of the fastest emerging high-technology sectors in Blue Economy is marine biotechnology with a market of an estimated USD 4.6 billion by 2017. It has wide-ranging applications in industrial sectors including pharmaceuticals, cosmetics, nutritional supplements, enzymes and agro-chemicals.

**d. Offshore Energy and Deep-Sea Mining.** The largest chunk of developing countries' ocean economy can be sourced from offshore energy exploration and mining. The seabed currently provides 32% of the global supply of hydrocarbons, up from 20% in 1980.

**e. Marine Tourism and Leisure.** Globally, coastal and marine tourism represents 5% of world GDP. The increasing involvement of local communities in the value chain can contribute to the development of local economies and poverty reduction.

**f. Shipping, Port and Maritime Logistics.** About 80% of global trade by volume and over 70% by value, is carried by sea and handled by ports worldwide. Smart and deep-water ports, efficient shipping and logistics industries will be instrumental for the development of the Blue Economy.

**g. Shipbuilding, Marine Manufacturing and Ship Recycling.** Marine manufacturing consists of construction, repair and maintenance of boats, ships, fishing vessels, yachts, floating structures and other marine technology which is an important sector of the Blue Economy. Shipbreaking or ship recycling is also another growing industry in developing countries.

**h. Marine Renewable Energy.** Renewable energy enjoys almost 22% share of the global energy mix. There are various forms of marine renewable energy: (1) offshore solar energy, (2) offshore wind energy, (3) wave energy, (4) tidal energy, (5) ocean thermal energy, (6) salinity gradient, (7) ocean current energy, and (8) energy from marine biomass.

## **Ocean Governance in the Bay of Bengal**

As discussed earlier, the Bay of Bengal has tremendous economic and strategic significance. Additionally, the importance of ensuring maritime security is increasingly recognised by all the states in the Bay of Bengal to deal with both traditional and non-traditional threats. The Hon'ble Prime Minister of Bangladesh Sheikh Hasina has expressed that a peaceful and prosperous ocean realm of the Bay of Bengal through the integrated and cooperative partnership would determine the future development and economic growth of Bangladesh.

## **Steps Taken by Bangladesh for Sustainable Maritime Development**

This is a very important time for Bangladesh when we are witnessing unprecedented economic growth and remarkable development in social and economic indicators with substantial investment in regional connectivity, seaports, special economic zones, coastal industries, energy clusters and offshore oil and gas exploration. As a major Blue Economy initiative, Bangladesh Delta Plan 2100 for the next century has been prepared by the govt which would focus on sustainable delta management, integrated water resources management, long term land reclamation and adaptation to climate change etc. Besides, Vision 2041, a long-term perspective plan for a developed Bangladesh, has identified Blue Economy as one of the essential drivers for sustainable development. Moreover, the goals of SDG 2030, especially SDG Target 14 i.e. Life Below Water is being implemented with various maritime development agenda in Bangladesh.

However, in the past, certain maritime activities were not coordinated and thereby suffered from duplication of efforts whereas some maritime sectors were totally ignored. Various maritime industries were neither controlled nor their performance was supervised. However, in the recent years under the leadership of our Hon'ble PM Sheikh Hasina, Bangladesh has peacefully resolved the long-standing maritime boundary disputes with neighbours: India and Myanmar gaining a huge sea area of 1,18,813 sq km.

The government has formed an independent Blue Economy Cell to ensure proper coordination of Blue Economy activities among all govt and private sector maritime stake holders in the country. Moreover, Bangladesh Ocean Research Institute has been established whereas Bangabandhu Sheikh Mujibur Rahman Maritime University with specialised Maritime Faculties has been set up in 2013 for maritime higher education and research.

However, the researcher like to reiterate on the three voluntary commitments made by Bangladesh during UN Ocean Conference in June 2017 in New York. First one is to declare 5% of marine areas as Marine Protected Area (MPA) of about 7,500 sq km by 2020 (Target 14.2). Mentionable that the Sundarbans which is one of the largest mangrove ecosystems in the world is a declared World Heritage Site. Next is to effectively regulate IUU fishing and destructive fishing practices in marine areas (Target 14.4). The third commitment is to prevent and significantly reduce marine pollution of all kinds, particularly from land-based pollution (Target 14.1).

## **Port-led Development**

In the present economic context of the globe, a port is not only a corridor for export and import rather it can lead to the overall development of a nation. Therefore, the vision of port-led economic development is followed by many to reduce logistics cost and contribute to economic growth by establishing economic corridors, Special Economic Zones (SEZs), port-based industries, deep seaports, Energy Clusters, FSRU (Floating Storage Regasification Unit) etc. However, following the examples of Shenzhen Port of China and Sagarmala Project of India, the logistics-intensive industries, efficient port, seamless connectivity and requisite skill base would be necessary.

## Maritime Crime and Security Management

We also believe that sustainable Blue Economy is not possible without ensuring maritime security, preventing piracy, human trafficking, smuggling and all kinds of terrorism in the maritime areas. Given the current global and regional security environment, a comprehensive maritime security structure needs to be formed recognising the Bay of Bengal as a common security space.

## Ocean Policy for Sustainable Maritime Development

The approach for an Ocean Policy has to be inter-disciplinary with historians, lawyers, economists and political scientists working with engineers, biologists, chemists and physicists on common ocean interests. In case of Bangladesh, the overall vision of the Ocean Policy should be to ensure a healthy sustainable ocean; nurtured, understood and harnessed wisely for the benefit of all to achieve vision 2021, vision 2041 and the Delta plan 2100. The main elements of Ocean Policy would be as follows:

- a. Conservation of Marine Biological Diversity
- b. Regional Marine Planning
- c. Maintenance of Ecosystem Integrity
- d. Multiple Ocean Use
- e. Marine Protected Areas

## Way Ahead

The way forward for the regional countries would be to chart a roadmap at the national and regional level through proper policy formulation and implementation. Some suggested options are as follows:

- a. **Develop Ocean Account and Monitor Progress.** Develop systems to measure and monitor the performance of the ocean economy, work out the statistics of the ocean's natural capital, develop an "ocean account" and identify the country's ocean economy industries.
- b. **Coordinated Policy Directives.** A coordinated policy planning process with common objectives and information sharing will be essential for all relevant public agencies under a Ministerial level watchdog for better coordination.
- c. **Capacity Building.** Capacity-building needs to be planned in regard to governance and institutional framework, academic and research institutions, managerial–technical–technological capabilities and qualified skills.
- d. **Priority Sectors.** Each country should weigh the relative importance of various sectors of the Blue Economy and prioritise sectors based on its domestic needs and demands of the global market.

- e. Marine Spatial Planning.** Marine Spatial Planning process can be developed to provide a judicious response for resolving conflicts and multiple ocean uses.
- f. Ocean Policy.** It has become imperative to put in place a comprehensive Ocean Policy based on a shared regional vision for integrated ocean planning and management.
- g. Collaboration and Partnership.** The Blue Economy makes its strongest gains when it adopts a holistic strategy anchored in partnership integrating regional policy and governance frameworks.
- h. Public-Private Partnership.** The private sector must play a key role in the Blue Economy as a way to enhance capacity building.
- j. Maritime Education and Skill.** The promotion of higher maritime education at the university level is important to create maritime experts in the country.
- k. Support of the International Community.** The ocean is universal and needs regional collaboration for technical assistance, technology transfer and capacity building.

### Concluding Remarks

To conclude, the challenges to implementing Blue Economy are many, but it stands to bring the people of developing countries substantial benefits of development and general wellbeing in the years ahead. Now is the time to marshal the data, political will and financial resources to put the developing countries on the blue path and design global and regional partnership towards the achievement of ocean governance and sustainable maritime development.

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