

Prospects for Port Led Regional Maritime Connectivity in Bay of Bengal: Way Ahead

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Abstract

Ports are important medium of trade, connectivity and economic development. Bangladesh being at apex of Bay of Bengal is truly a maritime nation having 700 kilometres long coastline and an array of rivers and water bodies. Our trade, export and import largely depend on Maritime Connectivity. Thus, a well-developed ports and shipping sector will surely give rich dividend in the overall economic matrix of our country. Presently there are a number of challenges in our overall Port sector like lack of adequate draft, hinterland connectivity, port infrastructure and modern equipment etc. However, like many other developing countries, Bangladesh is also giving emphasis on port led economic development and has embarked on mega projects like Matarbari deep seaport and other port related infrastructure development. There are existing regional cooperation arrangements in south Asia with the Bay of Bengal littoral countries like BBIN and BIMSTEC that should deal with mutual trade and connectivity. This paper explores the existing maritime initiatives in the Bay of Bengal region and outlines the need for port led maritime infrastructure development of Bangladesh in achieving greater regional connectivity with the BIMSTEC nations.

Keywords: Blue economy, Infrastructure development, Maritime connectivity, Regional Cooperation.

1. Introduction

International shipping and ports provide crucial linkages in global supply chains and are essential to gain access to global markets serving as highways for seaborne international trade. Bangladesh being at the apex of the Bay of Bengal, is truly a maritime nation which is strategically placed at the heart of Indo-Pacific. Confronted by a 700 km long indented coastline and being blessed by one of the largest deltas of the world, its innumerable sinuating rivers, waterbodies, and floodplains regularly support the lives, livelihoods, and economy of Bangladesh. The country is criss-crossed by around seven

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hundred rivers of which fifty-seven are trans boundary with India and Myanmar (Ahmed, 2012). As such Bangladesh has all the ingredients for seamless regional trade and connectivity.

2. Bangladesh on a Road to Prosperity and Economic Development

In the last decade before the pandemic COVID-19, Bangladesh has been treading along a path of progress and sustainable development when she embarked upon important infrastructural developments and innumerable mega projects while maintaining a steadily rising economic growth. According to the International Monetary Fund (IMF), the real GDP growth of Bangladesh remained consistent within 7-8% in last 5 years. Even during the Covid pandemic Bangladesh has been able to maintain a growth level of 5.47% in the 2020-21 session with clear signs of economic recovery. Mentionable that the latest IMF report indicates a rebound close to 7% growth in next 2-3 years (BSS, 2021).

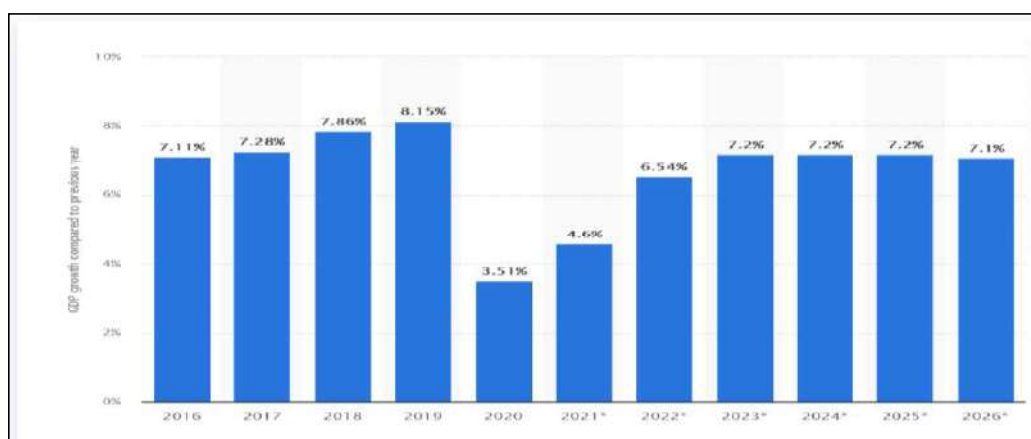


Figure 1: Projection of GDP Growth of Bangladesh (Source: <https://www.statista.com>)

However, the ports, shipping and logistics are directly linked to the wheel of economy and as such can only be neglected at our own peril. As such at this critical time of the pandemic, an uninterrupted emphasis on the port and shipping sector will give rich dividend in the overall economic matrix of a developing country like Bangladesh. To sustain the growth trajectory, the country like Bangladesh is likely to invest more on industrialization, infrastructure development, build a strong manufacturing base and target new emerging RMG markets leading to increase in export/import. Hence, a port led economic development may be a better choice for Bangladesh.

3. Emerging Prospects of Blue Economy

This is a very important time for Bangladesh when we are witnessing remarkable development in social and economic indicators with substantial investment in regional connectivity, deep seaports, special economic zones, coastal and offshore energy clusters, industrial growth belt and other coastal industries. As a major Blue Economy initiative, Bangladesh Delta Plan 2100 for the next century to protect the future generation has been implemented by the government which would focus on sustainable delta management, integrated water resources management and adaptation to climate change. Meanwhile Vision 2041 a long-term perspective plan for a developed Bangladesh has identified Blue Economy including the ports and shipping sector as one of the essential drivers for development.

4. Status of Existing Ports and Future Projection

The two functional ports of Bangladesh are the Chittagong port and the Mongla port. While Chittagong port has truly become the country's wheel of economy, the earlier fledgling Mongla port has made remarkable turn-around in the recent years. The Chittagong port is the prime nodal point of Bangladesh's international trade. Almost 97% of whole seaborne cargo and 92% of the container throughput of the country flows through the Chittagong Port. According to the Chittagong Port Authority (CPA) data, some 3,097,236 TEUs of containers were handled through the country's prime seaport during the FY21, up from 2,797,190 TEUs in the fiscal 2019-20 (BSS, 2021). Mentionable that for the first time 6 TEUs container were handled in this port in 1977 from the vessel named S.S. Tenacity. By the course of time container handling grew tremendously and Chittagong Port handled 1 million TEUs of container in 2008, 2 million TEUs of container in 2015 and 3 million TEUs by 2019 (JOC, 2021).



Figure 2: Growth of Container Handling in Chittagong Port (Source: <http://cpa.portal.gov.bd>)

In the Lloyds list, Chittagong port ranked 58th overall in 2019, jumped 40 ranks in 10 years. Besides, cargo handling has been around 113.7 million tons in the outgoing fiscal year (Hussain, 2020).



Figure 3: Ranking of Chittagong Port (Source: <https://lloydlist.maritimeintelligence.informa.com>)

Table 1: Chittagong Port Cargo Handling

| Year | Cargo limit (million metric tons) |
|---------|-----------------------------------|
| 2016-17 | 73 |
| 2017-18 | 79.9 |
| 2018-19 | 94.89 |
| 2019-20 | 94.87 |
| 2020-21 | 113.7 |

Source: CPA Yearbook 2017-2021

The container handling projection of up to 2043 as per strategic master plan made by the consultant Hamburg Port Consulting (HPC) for Chittagong Port is shown in the figure below:

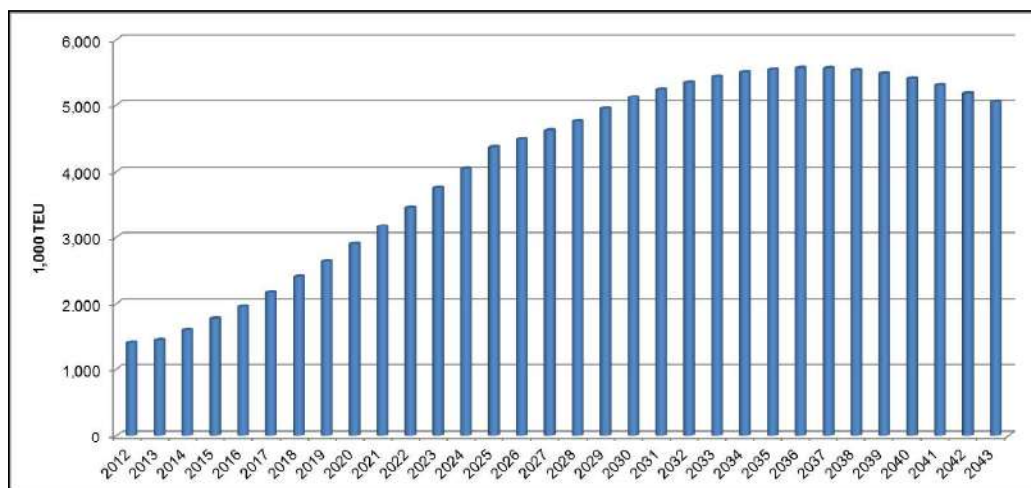


Figure 4: Chittagong Port Container Handling Potentials (Source: CPA Strategic Master Plan)

5. Challenges of Port Sector

In the past, the growth of Bangladesh's port and maritime sector was constrained due to some development, procedural and governance related challenges as follows:

- a. Need for better infrastructure for evacuation from ports leading to sub-optimal transport modal mix: Moreover, limited hinterland linkage also increases the cost of transportation and cargo movement. Underleveraging of domestic waterways and merging of city traffic with port traffic are few other problems to solve.
- b. Lack of deep draft harbour: Mentionable that the maximum permissible draft in Chittagong port is 9.50 m with length restriction of vessels being 190 mt which allows only feedermax vessels with 3000 TEU capacity to berth. It causes lengthy and costly transfer operations by feeder ships from hub ports Singapore, Colombo or PTP.
- c. Need for competitiveness through privatization of jetty and terminal operation and customs procedure: We are aware of the various concessionary arrangements existing on PPP model or landlord concept in collaboration with international terminal operators. However, the ports in Bangladesh are yet to adopt a complete landlord concept.
- d. Need for capacity building, improved efficiency, and productivity.

6. Conceptualizing Port led Development

Like many other countries, we interpret the Port led development concept as a port led model of economic development ensuring synergy and integration among ports, special

economic zones (SEZs), industrial clusters, economic corridors, and efficient evacuation systems through multimodal connectivity with the hinterland. The vision of port-led development is to reduce time and cost of doing business resulting in Ports becoming the drivers of regional economic activity.

7. Key Development Initiatives

Some of the key development initiatives undertaken by the government are as follows:

- a. In the 8th Five-year Plan, the government has placed adequate importance on the cross-border trade and regional connectivity with the neighbouring countries through development of intermodal transport network. Moreover, the maritime and blue economy have been recognized as thrust sectors.
- b. To ensure secured, transparent, and business friendly investment climate, all governance, transactions, purchase, banking sectors etc have been fully digitized based on the nationwide project called 'Digital Bangladesh'.
- c. Public Private Partnership Act 2015 has been enacted by the government to encourage the private sectors and foreign investment in government projects.
- d. To facilitate the ease of doing business, One Stop Service has been developed by all ports and associated sectors while bringing them under National Single Window.
- e. The Government has planned to establish 100 SEZs out of which 10 have already been developed including 4 in PPP mode and remaining 6 by private companies (Mazid, 2019).
- f. To ensure energy sufficiency in the country, many coastal power plants, energy clusters and FSRUs are being developed.
- g. All the ports have adopted completely 24/7 port operation including transaction, customs procedure, appraisal, banking, channel navigation and jetty head operation.
- h. Significant initiatives in national multiple lane highways and dual gauge railway throughout the country, massive river dredging, and upgradation of inland riverine infrastructures have been undertaken. Moreover, several Inland Container Depots (ICD) and Inland Container Terminals (ICT) have been built to facilitate evacuation and distribution of export/import cargo to the hinterland. While the existing 4.8 km Bangabandhu bridge over the River Jamuna serves as the main conduit for north bound cargo, the under construction 6.15 km Padma bridge will connect the entire low-lying southern Bangladesh with Dhaka and adjoining areas. The tunnel under the River Karnaphuli will ensure an excellent connection along Dhaka-Chittagong-Cox'sbazar Economic Corridor. These upgradations will accelerate our domestic growth and regional connectivity with the neighbouring countries.

8. Prospects of Regional Cooperation

Let us now examine the existing regional cooperation arrangements in the Bay of Bengal region:

- a. **Protocol Route with India.** The Protocol for Inland Water Trade and Transit (PIWT&T) between India and Bangladesh were first signed in 1972 to provide inland waterways connectivity between the two countries and improving the waterways with the Indian Northeast.
- b. **Coastal Shipping Agreement.** India and Bangladesh signed Coastal shipping agreement in 2015 to allow direct shipping by River Sea Vessels (RSV) up to 6000 GT in between several Indian and Bangladeshi coastal and riverine ports. Earlier there was no direct shipping between India and Bangladesh which used to take place through hub ports like Singapore or Colombo. The Coastal Shipping has cut transshipment costs and reduced travel time.
- c. **BBIN.** The BBIN is a sub-regional architecture among Bangladesh, Bhutan, India, and Nepal which was first originated in 1996 as ‘South Asian Growth Quadrangle’. Later in 2015, BBIN Motor Vehicle Agreement was signed which is a framework agreement that allows movement of personnel, passengers, and cargo vehicles by road among the four countries (Kanuka, 2021). It will be a huge opportunity for the BBIN countries for seamless cross-border movement of passengers and goods for overall economic development of the region.
- d. **BIMSTEC.** The BIMSTEC i.e., Bangladesh, India, Myanmar, Srilanka and Thailand Economic Cooperation has now become the lynchpin for the social, economic and people to people integration among the countries around the Bay of Bengal. There are ongoing regional connectivity initiatives like BIMSTEC Free Trade Agreement, Coastal Shipping agreement, Motor vehicle Agreement and common maritime security architecture. Bangladesh having the BIMSTEC Headquarters at Dhaka, is ideally placed to take the lead for such maritime initiatives.
- e. **BIG-B.** The Bay of Bengal Industrial Growth Belt (Big-B) is another initiative between Japan and Bangladesh that has the potential to transform Bangladesh into a nodal point of regional growth. BIG-B consists of three pillars: developing economic infrastructure, improving investment climate and fostering connectivity. Several mega projects like Matarbari Energy Cluster, Matarbari Deep Sea Port, new airport terminal in Dhaka and Dhaka-Chittagong-Cox’sbazar Road and rail projects etc are ongoing.

9. Plan for Green Field Ports

Several green field ports and terminal are under development or planning stage.

- a. **Matarbari Deep Sea Port:** The Matarbari deep seaport along with the Karnaphuli Tunnel and associated roads and rail networks are likely to be a game changer in the context of regional connectivity. The port is likely to become fully operationalized in 2026. It will allow about 18-meter draft and 8000 TEUs post panamax vessels (Tareq et. Al., 2021). In fact, Matarbari deep seaport has the potential to operate as the regional hub for Bangladesh, Northeast India, India's East coast, land locked countries Nepal and Bhutan and other Bay of Bengal countries.



Figure 5: Infrastructure Development in the Coastal Region (Source: Preparatory Survey on the Matarbari Port Development at www.jica.go.jp)

- b. **Payra Port:** Payra Sea Port located on the bank of Rabnabad Channel under district of Patuakali has already started functioning at limited scale. The capital dredging, energy hubs, multipurpose jetty and railroad networks are under construction as a priority project.



Figure 6: Payra Port (Source: <https://www.maritimegateway.com/deep-seaport-offing>)

- c. **Bay Terminal:** While the old Chittagong Port is inside the Karnaphuli river having draft and length restriction, a new green field terminal called Bay Terminal is being planned with a length of 6.15 kilometers outside the Karnaphuli river facing the Bay of Bengal which will have a number of container and multipurpose terminals (Mannan et. Al., 2021).



Figure 7: Location of Bay Terminal (Source: Admiralty Chart No. 84 - Approaches to Chittagong)

- d. **Mirsarai SEZ:** The largest SEZ of Bangladesh called Bangabandhu Sheikh Mujib Industrial City is being developed at Mirsarai, 60 km north of Chittagong at an area of 137 sq km. Sitakunda Industrial Hub is also situated very close to that area (Mannan, 2021). In order to support this industrial belt along Dhaka-Chittagong Economic Corridor, a medium sized port is being planned there which will also be able to support Indian State of Tripura, since the River Feni is very near where Feni bridge is under construction by India.



Figure 8: Mirsarai SEZ (Source: Pre-Feasibility Report at <https://www.beza.gov.bd>)

10. **Way Ahead.** Therefore, it is very much apparent that Bangladesh has all the ingredients to contribute to the concept of port led regional maritime connectivity for the BIMSTEC nations. The way ahead is:
- a. **Port Modernization, Efficiency and Productivity:** We need to implement the Plans for Green Field Ports specially Matarbari. The existing ports should be technologically modernized for capacity building and increasing the productivity. Some Business Process Reengineering and utilization of National Single Window will surely enhance port efficiency, vessel turnaround time and container dwelling time.
 - b. **IT enabled Multimodal Logistics Plan:** Port automation and IT enabled multi-modal logistics system is vital to increase the efficiency of port and logistics operations.
 - c. **Smart and Energy Efficient Port:** Application of Information and Communications Technologies (ICT) to enhance port productivity and particularly data and information sharing among regional ports is essential. The concept of 'Smart Port' is even more important today because ships are getting bigger, and the goods are moving faster.
 - d. **Congestion free Hinterland Connectivity:** The congestion free hinterland connectivity is necessary to increase the efficiency of transportation and logistics facilities to ensure that the goods and commodities reach the manufacturers, exporters and importers with minimum cost of time and money.
 - e. **Better Cross Border Trade and Regional Connectivity:** Bangladesh sees connectivity as a national and regional priority. We may consider the BIMSTEC Coastal Shipping Agreement, Free Trade Agreement and Motor Vehicle Agreement as essential in the BIMSTEC region.
 - f. **Towards Gradual Port Privatization:** The trend of PPP model and landlord system will surely generate better efficiency and port productivity. That may gradually take us to the uncharted territory of private port models.
 - g. **Port Centric Industrialization:** Port-led industrialisation combines the growth potential of specific industries that have port linkage with the competitive location for each industry. Ports can be grouped with various maritime industrial clusters like energy clusters (Coal, LNG, PoL etc.), Bulk Clusters (Steel, Cement) RMG, Food Processing, etc.
 - h. **BIMSTEC Regional Port Alliance:** We may consider the concept of BIMSTEC Regional Port Alliance in the Bay of Bengal with better connectivity, resource and information sharing, direct shipping agreements and transshipment agreements.

- i. **Developing Regional Maritime Centre of Excellence:** In the post-COVID 19 global scenario, the competition in the port logistics & shipping business and other maritime industries will be intense where skill, knowledge and experience in the marine science and business will be instrumental. As such, collaboration among the Maritime Universities and forming a Regional Maritime Centre of Excellence may be a good idea for the overall vision of maritime connectivity.

11. Concluding Remarks

To conclude, the port led regional connectivity is a timely and important concept specially in the developing countries. South Asia largely lacks behind in terms of connectivity and cross border logistics. It is therefore necessary to strengthen cooperation in the arena of port led maritime development. In fact, there are several existing agreements which if functionalized could change the economic landscape of the South Asian region. Finally, challenges are many but there are existing structures which should be operationalized and made functional to pursue port led regional maritime connectivity in the BIMSTEC region.

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