

Inland Waterway Transport: An Enormous Potential in Bangladesh

Commander Mohammad Mahmudul Hasan Khan, (H2), psc, BN



Preamble

Bangladesh being a riverine deltaic plain, historically her transportation relied on waterways. Gradually with the advent of technology other modes of transportation like railway, road and air became popular. However, the development of Inland Waterway Transport (IWT) gradually became marginalized. Bangladesh has made tremendous strides in recent times and has been one of the fastest-growing economies globally in the last decade. Moreover, the SDG target 3.6 refers to halving the number of road accidents while SDG target 11.2 refers to ensuring safe, affordable, accessible and sustainable transport systems by 2030. As such, Bangladesh needs to focus on Inland Waterway Transport (IWT) for sustain her economic growth as well as to achieve SDG targets.

Potential of Inland Waterway Transport

There is no alternative other than to focus on waterways transport being a riverine country. Bangladesh has a better connectivity

through IWT to the main sea ports at Chittagong, Payra and Mongla. More than 50% of the economic activities of the country are located within 10 km away from navigable waterways. About 25% of the rural households have access to IWT. Particularly for the people living in the coastal areas amounting to 12.5% of rural population, where no alternative mode of transportation is available, IWT is the only means of transportation. Besides these, dynamic activities of private sector contributing to national economic growth like ship construction, cargo transportation etc. are dependent on IWT.

Inland Waterway Transport System in Bangladesh

Bangladesh being a country with many rivers, IWT is a major mode for the transport of goods and people. IWT is the cheapest mode of transport compared to road or rail. However, the sector needs more attention from the Government of Bangladesh since limited resources allocated to its development.

In addition, these resources were mostly used to develop the main routes (the ones most used by large mechanized vessels) while secondary rivers and transport using country boats (mainly rural and until recently non-mechanized vessels constructed in traditional design) were given second priority.

The total length of rivers in Bangladesh is estimated to be in the range of some 24,000 kilometers, providing a very high degree of penetration. Out of this total, 6,000 kilometers are accessible for movement of modern mechanized vessels during the monsoon season, and out of this, some 3,800 kilometers are navigable around the year. Country boats, in the number of several hundred thousands, are traditional vessels which have been plying inland and coastal waters for hundreds of years and which play a key role as a rural mode of transport of goods and people. Inland ports and other facilities include 44 inland ports, 133 launch stations and more than 1,000 minor landing points located in rural areas. The network also connects Chattogram, Mongla and Payra ports. The waterway network through which the cargo vessels move is classified into four categories, based on the depth of rivers.

Class	Indicated Draft (m)	Length (km)	% of Route	Classification Criteria
I	3.6	683	11	These routes are major transport corridors Where LAD of 3.6m is required to maintained round the year
II	2.1	1,000	17	These routes link major inland ports or places of economic importance to Class-I routes
III	1.5	1,885	32	Being seasonal in nature, it is not feasible to maintain higher LAD throughout the year
IV	<1.5	2,400	40	These are seasonal routes where maintenance of LAD of 1.5m or more in dry season is not feasible
Total		5,968	100	

Table 1: IWT Network Classification

From the perspective of freight transportation by IWT and considering the position of the major river ports, Bangladesh can be divided into five regions. Some of the regions and areas of IWT are:

Dhaka Region. It includes Dhaka, Narayanganj, Musnshiganj, Narshingdi, and Gazipur districts. The premier ports of this region include Dhaka and Narayanganj. Besides, there are handling facilities at Gabtoli, Aliganj, Pagla, Fatullah, and Kanchpur. In addition, Pangaon container terminal caters to container freight.

Northwest Region. The premier port of this region are Bagharbari and Nagarbari, the latter being the northmost port servicing the region along Jamuna. Shallow draft north of the port does not allow heavy cargo vessel movement.

Southwest Region. The premier ports of this region are situated in Faridpur and Noapara. In addition, private jetties in Khulna service this region.

Southeast Region. There are ports at Barishal and Daudkandi, and private jetties in Chattagram handle IWT cargo in this region.

Northeast Region. The Ashuganj-Bhairab and Chattak ports cater to the freight demand in this region.

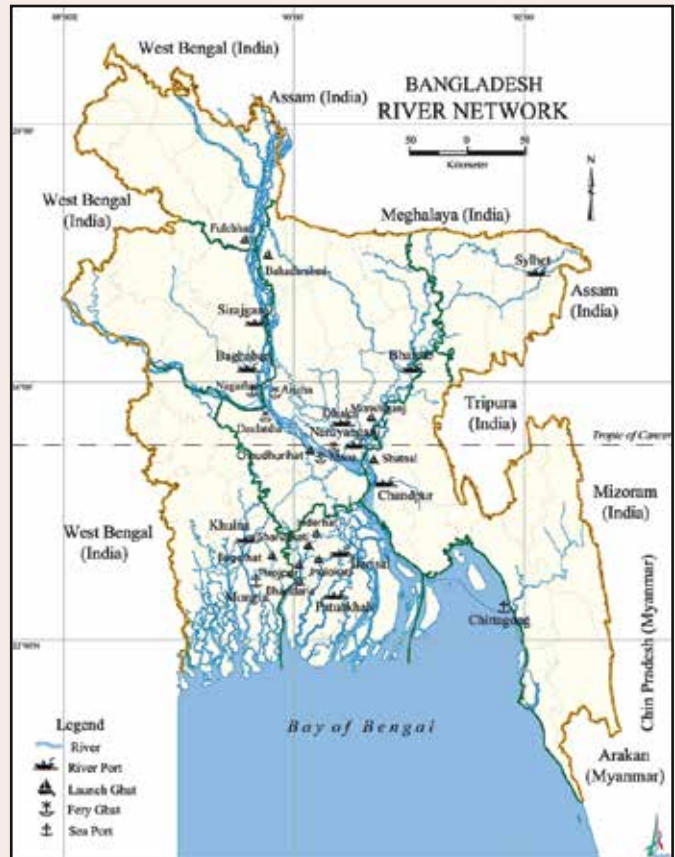


Figure 1: Bangladesh River Network (Source: <https://biwta.portal.gov.bd/>)

Some of the Important IWT Routes are appended below:

Dhaka/Narayanganj Inland Port to Chittagong Seaport IWT Route. This route is classified as Class-I and is of prime national importance. The route has adequate draft in most or its length except few spots where sedimentation deposits. The route also requires specially built vessel as it passes through an open coastal waterways of the Bay of Bengal and subject to facing rough seas.

Dhaka/Narayanganj Inland Port to Khulna IWT Route. This route is also classified as Class-I and is of national importance. The route has adequate draft round the year connecting Dhaukhandi and Narayanganj inland liver ports with Mongla seaport.

Chittagong Seaport to Baghabari Inland Port IWT Route. This route falls under Class-II and Class-III waterways but requires much of hydrographic survey. The route is of national importance because much needed fue land fertilizer are carried to the northwestern part of Bangladesh through Baghabari inland port.

Inland Waterways Route to Northern Part of Bangladesh. For communication to Chatak and Sylhet the inland waterways route to the northern part of the country is classified as Class-I upto Bhairab Bazar and thereafter the depth reduces to 2.1m to 1.5m.

Chittagong-Ashuganj Route (900 km). Bangladesh Regional Waterway Transport Project-1 (Dredging in Chittagong-Dhaka- Ashuganj IWT Corridor along with associated linked routes and construction of terminal with allied infrastructure).

Mongla-Rooppur Route (460 km). Maintenance dredging is ongoing to facilitate Ruppur Project.

Class-IV Classified Routes. Class-IV classified routes are supposed to support vessel traffic of less than 1.5m draft. However, approximately 1,000 km of classified waterways belonging to Class-IV classification becomes unusable in winter even for vessels of <1.5m draft.

Inland Container Terminal and Container Shipping Services

Coastal shipping for containers is developed mainly for imports from Chattogram Port (NCT) to the river ports near Dhaka. The number of containers carried by coastal shipping is approx. 26,000 TEUs yearly, which is only 1 % in 2.67 million TEUs of the total throughput of Chattogram Port. Currently 2 river ports are in operation; Pangaon ICT with 116,000 TEU capacity per annum and Ashugonj Riverport/ICT with a capacity of 4,00,000 TEUs (on completion of full construction). There is a private River Port/ICT also operating i.e. Summit Alliance (SAPL) with 100,000 TEU capacity per annum. In addition, 2 river ports are under construction; Rupayan Port & Logistic Services Ltd. (300,000 TEU capacity) and AK Khan Container Terminal (250,000 TEU). 2 more river ports are planned to be constructed; Kumudini Container Terminal (150,000 TEU capacity), and Ananda Container Port (400,000 TEU capacity).

Potentials of Regional Trade and Commerce through IWT

Bangladesh has a vast river network with neighboring country India. To ease the import-export with India, Bangladesh signed

Indo-Bangla protocol on Inland Water Trade and Transit. The integration of transportation including all the activities in supply chain will lead towards to achieve competitive cost and delivery output efficiently. Though transportation system infrastructure is developing, lack of integration is the reason to achieve competitiveness in term of transportation yet.

Constraints in IWT System

The inland waterway system is not used to its full potential due to inadequate dredging and shortage of berthing facilities. The private sector is more efficient in dredging and offers a better capacity than the capacity of the BIWTA and at lower cost. Improved waterways have the potential to reduce transport costs for bulk cargo and provide better access to areas, such as in the North-West of Bangladesh, where road access is limited. The infrastructure problems on the inland waterways system are significant. There is high rate of siltation and bank erosion, and as a result it is difficult for the vessels to navigate along these waterways. Extensive dredging is required to maintain these waterways but unfortunately funds are not available for this work.

Conclusion

IWT is the cheapest mode of transport compared to road or rail. As such, due budget may be allocated to IWT as well as proper integration of logistics hub with the IWT system may get priority. Infrastructural development should cover sea ports and seamless hinterland connectivity with emphasis on IWT terminals and hubs. Therefore, Mainstreaming IWT into the national logistics network is the need of the time.

Writer: Commander Mohammad Mahmudul Hasan Khan, (H2), psc, BN is the Chief Hydrographer of Payra Port Authority.

Email: chief.hydrographer@ppa.gov.bd

