







Scope of Dovetailing Inland and Coastal Waterways between India and Bangladesh



Joining Dots • Connecting People • Shared Prosperity

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India and Bangladesh are connected through both rivers and coastal waterways. They have also signed several agreements to enhance waterborne trade, which is more energy efficient, cheaper and environment friendly than other modes of transport. But, still, waterborne trade is minuscule compared to other modes.

Therefore, this Briefing Paper analyses the scope and benefits of dovetailing riverine and coastal waterway transportation between India and Bangladesh to facilitate the diversion of traffic from other modes to waterways.

Introduction

India and Bangladesh have 1,116 km of riverine boundary and share 54 transboundary rivers. Therefore, the waterway connectivity between India and Bangladesh and their coastal routes offer the potential to develop integrated waterway routes for cargo movements.

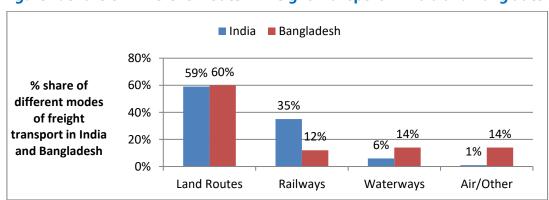


Figure 1: Share of Different Modes in Freight Transport in India and Bangladesh

Source: Adapted from CUTS 2019

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Several agreements have been signed between India and Bangladesh to facilitate waterborne trade between the two countries. These include the Protocol on Inland Water Transit and Trade (PIWTT) signed in 1972 to facilitate trade and transit through transboundary rivers; the Agreement on Coastal Shipping signed in 2015 to promote trade between India and Bangladesh through coastal/sea ports and allow direct movement of ships between the two countries; Agreement on the usage of Chittagong and Mongla port in Bangladesh by India for movement of goods to and from India using waterways, rail, road or multi-modal transport within Bangladesh signed in 2018. Moreover, in 2020, India and Bangladesh agreed to introduce trade between Chilmari (Bangladesh) and Dhubri (India) through shallow draft mechanised vessels².

Bangladesh is India's biggest trade partner in South Asia. India's export to Bangladesh in FY 2020-21 stood at US\$14bn and imports were estimated at US\$1.7bn (ITC Trademap, 2021). This trade primarily takes place through roadways. The use of roadways often leads to significant congestion and detention along the trade corridors and at the border checks points and results in an increase in transportation and trade costs; pressure on road infrastructure; and carbon emission (CUTS, 2019).

On the other hand, waterborne transports are energy-efficient, environment-friendly, relatively inexpensive, and much safer than other transport modes, particularly roadways. Developing water transport corridors also have a much lower land requirement and physical displacement of habitations. This makes the initial investment requirements and the life cycle cost much lower than other transport modes like road and rail.

Given the huge potential arising from the existence of several waterways reinforced by bilateral agreement and the advantage of water transportation in terms of cost and its environment-friendly nature, the paper tries to analyse the scope and benefits of dovetailing riverine and coastal waterway transportation between India and Bangladesh.

What is Inland-coastal Transportation?

It can be termed river-sea sailing when a vessel sails partially in coastal water and the river. Here we are referring to it as inland-coastal transportation. Vessels intended for inland waterway navigation and are also suitable for restricted navigation at sea and are called river-sea vessels. The compliance with suitable rules and regulations of that country should prove suitability for limited navigation at sea.

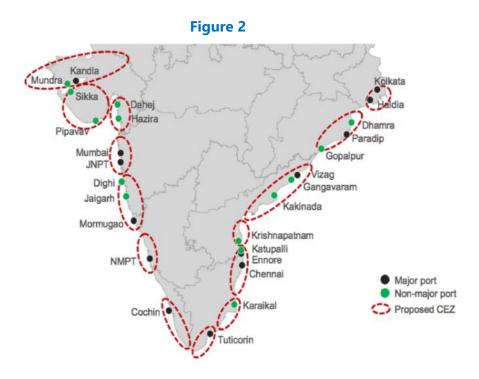
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Provided these are registered under Inland Shipping Ordinance 1976 of Bangladesh or Inland Vessels Act, 1917 of India as per provisions of Article 1.3 of the Protocol and conform to safety requirements

River-Sea trading is very common in European countries, Russia and Ukraine. In European Union and Russia, almost 64 and 25 million tonnes of goods are transported via river-sea transport, respectively (CCNR, 2020).

Complementary Initiatives in India and Bangladesh

The Governments of India and Bangladesh have launched various projects and schemes and introduced various policies to promote trade through waterways. In the case of India, these include the Sargarmala project, Eastern Waterway Grid, and Scheme for Incentivising Modal Shift, among others.



Source: Bhaskar, 2017

Sagarmala project was launched on March 25, 2015, to augment the country's logistics sector through port-led development and unlock the full potential of India's coastline and waterways. It seeks to reduce logistics costs for domestic and EXIM cargo with optimised infrastructure investment. As a part of the programme, a National Perspective Plan (NPP) for the comprehensive development of India's 7,500 km coastline, 14,500 km of potentially navigable waterways, and the maritime sector was prepared on April 14, 2016 (SagarMala - Coastal Shipping & Inland Waterways Ministry of Shipping, GOI, Government of India, n.d.).

The programme intends to establish 14 Coastal Economic Zones (CEZs) in eight Indian states. The ports of the Sagarmala project are JNPT, Kandla, Paradip, Ennore, Haldia, Chennai, Mumbai, Goa, Kolkata, VOC, NMPT, Cochin and Vizag. Other newly added ports are Enayam, Sirkazhi, and Kanyakumari of Tamil Nadu, Tajpur and Sagar Island of West Bengal, Paradip Outer Harbour of Odisha, Belekeri of Karnataka and Vadhavan of Maharashtra (Jain, 2021).

Box 1: Incentives under the Sagarmala Project to Promote Coastal Shipping

- Relaxation in licensing for foreign flag vessels to transport fertilisers, agricultural products and EXIM containers for trans-shipment in India on coastal routes under the Merchant Shipping Act
- Licensing Relaxation for special vessels such as RO-RO, RO-pax, and ODC has been extended till 2020.
- Priority berthing policy for coastal vessels has been notified to reduce turnaround time for coastal vessels and improve their utilisation
- Major ports offer a minimum 40 per cent discount on the vessel and cargorelated charges to vessels carrying coastal cargo. For the case of RO-RO car carriers, this discount is extended to the tune of 80 per cent.
- GST Reduced on Bunker Fuel from 18 per cent to 5 per cent
- Grant-in-aid assistance to develop berths and associated infrastructure, including dredging, Break-water creation, and mechanisation under the coastal berth scheme, has been extended till 2020
- Coastal Berth Scheme has been implemented for financial assistance to develop infrastructure for coastal cargo movement at ports
- Customs & excise duty exemption on bunker fuel for coastal container vessels
- Abatement of service tax on coastal shipping
- Green channel clearance for coastal cargo
- Exemption on lighthouse dues for coastal ships

Source: (SagarMala - What Measures Have Been Taken Under the Sagarmala Program to Increase the Volume of Coastal Shipping Ministry of Shipping, GOI, Government of India, 2018)

The Scheme for Incentivising Modal Shift of Cargo (SIMSC) was launched to encourage and incentivise the modal shift of domestic cargo transportation from existing modes such as road and rail to coastal and inland waterway transport. The scheme includes monetary incentives for the transportation of vehicles through RO-RO vessels; transportation of commodities in containers with Full Container Load (FCL) (incentive of Rs 3,000/- per TEU); and transportation of bulk or break–bulk cargo about seven commodities like fertilisers, food grains, marbles, tiles, sugar, edible salt and over-dimensional cargo (incentive of Re 1 per tonne per nautical mile up to a maximum of 1,500 nautical miles in each trip) through inland waterways or coastal routes via vessels with Indian flag (PIB, 2016). However, the scheme has not been sanctioned yet.

Both India and Bangladesh are advancing policies and investments in developing potential waterways, both for sub-national as well as transnational transit. The two countries have proposed the concept of 'Eastern Waterways' to consolidate several individual investments/ developments by individual countries into a comprehensive system of multi-modally interconnected waterways and coastal routes.

Eastern Waterways Connectivity Transport Grid (EWaCTG) project aims to provide seamless connectivity between National Waterway-1 (NW-1) and NW-2 through the Indo-Bangladesh Protocol (IBP) routes and develop an economic corridor of 4,200 km of waterways and coastal shipping for Uttar Pradesh, Bihar, Jharkhand, West Bengal and the northeastern states (Stankevich et al., 2021) ("Eastern Waterways Connectivity Transport Grid," 2021).

India and Bangladesh are also developing infrastructures to support multi-modal connectivity with select inland ports, undertaking dredging activities in PIWTT routes to maintain the Least Available Depth (LAD) of two-three metres and 45m wide channels, promoting manufacturing of especially low draft vessels, setting up freight villages, initiated roll-on roll-out (RO-RO) services to promote transportation through inland waterways.

Bangladesh implemented "National Integrated Multimodal Transport Policy" (2013) to facilitate integration within and between different modes of transport by adopting strategies for integrated transport policy. A few specific steps taken/or to be taken under this policy to boost the inland water sector are:

- increasing government allocation for dredging;
- investing in existing river ports to improve cargo and passenger handling; improving interchange between water transport and other modes by investing in existing river ports;
- investing in new ports to better serve increasing passenger and bulk cargo needs;
- constructing inland container depots to facilitate freight movement through waterways from seaports;
- enhancing efficiency and safety of country boats by modernising engine-driven country boats and by using reversible gear-fitted country boats;
- improving navigational aids and vessel tracking;
- rationalising regulatory agencies and updating regulations in the sector;
- strengthening research into more fuel-efficient vessels;
- introducing digital techniques to ensure better service in water transport; and
- updating protocol for transit and trade to increase trade and modernise inland water transport.

Moreover, to facilite freight traffic of both inter-country trade and transit trade under the provisions of PIWTT, Bangladesh has undertaken a development strategy to improve navigability along all IBP routes within the country to the standard of Class-I that is, perennial navigability up to 3.60 m (Ministry of Water Resources et al., 2017). But in the stretches between Sirajganj and Daikhawa (192 km along Brahmaputra River) and between Zakiganj

and Ashuganj (295 km along Borak-Kushiara Rovers) perennial navigability of 2.50m will be maintained due to hydro-morphological processes higher draught is not sustainable.³

In addition to fairway improvement along IBP Routes, the Government of Bangladesh has undertaken projects to develop all Ports of Call and extend Port of Calls in Bangladesh designated under PIWTT. The projects involve establishing and upgradation of berthing, and loading-unloading infrastructure, among others. (8th Five Year Plan – July 2020-June 2025, 2020; Bangladesh Delta Plan [(BDP), 2100, 2022]

Benefits of Alignment of Inland and Coastal Transportation

The alignment of inland navigation with coastal shipping will promote trade between India and Bangladesh, northeast India and the rest of India, and among Bangladesh, Bhutan, India Nepal (BBIN) countries. This will facilitate the diversion of cargo traffic from roadways to waterways among these countries and provide better hinterland connectivity through waterways.



Figure 3: Connectivity between Coastal and Riverine Routes

Source: Adapted from Sharma, 2021

These stretches are part of PIWTT routes and primality cater to India's transit traffic therefore, these are maintained under India-Bangladesh joint initiative

The same can be observed using Figure 3. The linking of river routes with coastal waterways will provide accessibility of seaports in Bangladesh to Nepal. The goods from Nepal can be transported from Nepal to Chittagong or other maritime ports in Bangladesh through National Waterways 1 (marked with blue line) and coastal waterways (marked through dotted black lines).

As the Dhulian-Rajshani route (circled with red colour) had further been extended up to Daulatdia (about 200 km) where the Brahmaputra and the Padma have met, an opportunity has been created to establish IWT connectivity between north India and Bangladesh and north India and northeast India. But this route has not been operationalised due to the defunct Jangipur lock. The proposed route will be convenient and time-saving for transporting cargo from Nepal and north India to Bangladesh/ northeast India and vice versa. The existing alternative riverine route (Figure 4) is through Sunderbans when night navigation is not allowed and sailing from each stoppage is dependent on favourable tides, so sailing time is high.

Additionally, multiple stoppages are involved due to repeated customs checks. For instance, a vessel loaded with a cargo of inter-country trade has to face customs at four stations, while a vessel loaded with transit cargo faces customs at six stations. For example, in the Haldia to Pangao route through the IBP route, vessels have to complete export-related customs formalities at Haldia, India (loading point). Then these have to undergo customs check at both Hemnagar (exit point from India) and Shekberia (entry point in Bangladesh), and finally complete import-related customs formalities in Pangao, Bangladesh (destination port of call).

These factors increase overall transit time and cost. The vessel takes a minimum of 12 days and the turnaround time of a vessel on average is 45 days to complete a voyage between Haldia to Pangao (630 km). Therefore, integrating inland and coastal routes is expected to reduce transit time and make waterways transportation more favourable (attractive) to stakeholders.

The integration is also expected to improve connectivity between Bhutan and sea ports in Bangladesh by integrating National Waterways 2, Inland waterways in Bangladesh (from Chilmari to Narayanganj) and Coastal waterways from Narayanganj to Chittagong.

Joghighopa Dhubri PANDU India Chilmari Sirajganj Bangladesh Dhaka India Narayanganj India Chandpur Mongla Kolkata Kolkata Shekberia Hemnagar HALDIA

Figure 4: Route Connecting Haldia/Kolkata to Dhaka and North East India through Inland Waterways

Source: Adani, 2020

Scope of Inland-Coastal Transportations between India and Bangladesh

The Coastal Shipping Agreement between India and Bangladesh allows the movement of vessels from Chennai, Krishnaptnam, Kakinada, Visakhapatnam, Paradip, Haldia and Kolkata ports in India to Chittagong, Mongla, Khulna, Paira, Naraynganj, Pangaon and Ashuganj in Bangladesh through coastal waterways. The protocol routes are mentioned in Annexure 1.

The PIWTT allows the movement of vessels between Silghat, Dhubri, Tribeni (Bandel), Badarpur, Jogighopa, Sonamura, Kolaghat, Maia, Dhulian, Rajshahi, Aricha, Pandu, Karimganj, Haldia, Kolkata ports in India to Ghorasal, Mukhtarpur, Bahadurabad, Daudkandi, Chilamri, Sultanganj, Rajshahi, Pangaon, Ashuganj, Sirajganj, Mongla, Khulna, Naranganj port in Bangladesh through inland waterways in India and Bangladesh. The protocol routes are mentioned in Annexure 2.

Let's compare the allowed port of call under these two agreements. We will observe that few ports of call are the same under both agreements, such as Haldia and Kolkata ports in India and Mongla, Khulna, Naraynganj, Pangao and Ashuganj ports in Bangladesh, as these are riverine ports. However, the routes are different under each agreement (one is through inland waterways and another is through coastal routes); accordingly, different types of vessels are required to ply through them.

The Inland vessels (registered under Inland Vessel Act in India and Bangladesh) are allowed to ply through IBP routes and Indian River Sea Vessels (RSV) IV⁴ ply through coastal waterways routes. But, due to the absence of vessels categorised as River Sea Vessels in Bangladesh, a coastal vessel with equivalent standards (as notified by the Department of Shipping, Government of the People's Republic of Bangladesh) are used on these Indo-Bangladesh coastal routes (CUTS, 2020).

The dimensions and construction of the vessels at present plying through IBP routes (inland waterways) and coastal routes are different. Therefore, integration of inland and coastal transportation between India and Bangladesh is possible, provided vessels adapt themselves to navigate through inland waterways and coastal waterways. Alternatively, trans-shipment can occur at maritime ports where coastal waterways meet inland waterways. Moreover, suitable infrastructure along the routes and port of call will also be required to facilitate the movement of both River Sea and Inland vessels.

It is to be noted that there are provisions in domestic regulation of India and Bangladesh where inland vessels are allowed to ply in coastal waters. As per the provisions of the Inshore Maritime Traffic Corridor (IMTC) of India, coastal navigation within five nautical miles from the baseline by inland vessels is allowed during favourable weather.⁵ On the other hand, in Bangladesh, 100 inland vessels with strong construct, higher dimensions and good engine power have been awarded bay crossing certificates by the Department of Shipping.

One more scheme in India allows inland vessels certified for Zone-I in coastal water within five nautical miles from the baseline during fair weather; it is termed Intercoastal Maritime Traffic Corridor (IMTC)" as administered by DG Shipping. Hence, if both governments accept the same, the inland vessels of both countries with proper upgradation certified by the authorised agencies may facilitate coastal shipping more economically. The notification and SOP issued by DG Shipping GoI are mentioned in the references.

Challenges in the Integration of Inland and Coastal Transportation

Regulatory Differences

All regulations related to coastal vessels and coastal movements, such as standards, specifications, licenses, and certificates in Bangladesh, are governed by the Bangladesh Merchant Shipping Act 2020 (Bangladesh Merchant Shipping Act, 2020, 2020). At the same time, regulations related to inland vessels, such as guidelines related to survey, registration, and insurance in Bangladesh, are governed by *The Inland Shipping Ordinance*, 1976.

⁴ However, vessels classified as per RSV III equivalent standards or above may operate between Bangladesh and Kolkata/ Haldia (India) ports

⁵ DG Shipping Order No. 08 of 2018, Ministry of Shipping, Government of India

Bangladesh Inland Water Transport Authority (BIWTA) is responsible for developing, maintaining, and controlling inland water transport and inland waterways in Bangladesh. While Department of Shipping, under the Ministry of Shipping, Government of People's Republic of Bangladesh, is responsible for inland ship safety administration, including providing registration and survey certificates to inland ships and competency certificates to masters and engine drivers. This Department is also responsible for formulating and implementing policies and guidelines ensuring safety of life and ships at sea, developing the shipping industry in the country, maritime education and certification, and employment and welfare of seafarers.

In India, the Directorate General of Shipping, Ministry of Ports, Shipping and Waterways, deals with the implementation of shipping policy and legislation to ensure the safety of life and ships, prevention of marine pollution, promotion of maritime education and training in coordination with the International Maritime Organisation, development of coastal shipping and augmentation of shipping tonnage.

On the other hand, the Inland Waterways Authority of India (IWAI) is the statutory authority in charge of maintaining the inland waterways system and transportation through inland waterways in India. The IWAI is also responsible for giving voyage permission to inland vessels. In river-sea vessels' case, voyage permission is accorded by DG Shipping. The Inland Vessel Act, 2021, guide all regulations related to construction and operations of inland vessels in India. Regulations related to the operation and construction of the River Sea Vessel in India are guided by River Sea vessel Notification 2013 (Ministry of Shipping, 2013).

This indicates that separate agencies in India and Bangladesh govern coastal and inland water movement regulations. Therefore, required permissions are provided by different agencies, creating ambiguity for stakeholders involved with river-sea transportation. Moreover, as mentioned earlier, India has an RSV category of vessels and regulations related to it, but Bangladesh does not have this category of vessels at this stage.

The customs obligations and formalities are also different when cross-border trade occurs through riverine and coastal routes. The customs regulations and formalities in case of trade through riverine routes are as per Land Customs, whereas the customs regulations and formalities in case of trade through coastal routes are as per Sea Customs.

Economic Viability

Generally, the breakeven carrying capacity of an RSV is significantly higher compared to inland vessels. The available draft in the operational inland waterways route is 2m. Therefore, the RSV will be able to carry a maximum of 2000 tonnes. Thus, it will not be economical for the RSV to ply in both inland and coastal waterways. Considering that, under the Coastal

Shipping Pact between India and Bangladesh, RSV is permitted to carry up to 6,000 gross tonnage (GT), it is often observed that using these small low-capacity boats is not cost-effective for longer stretches such as from Chennai to Chittagong. If we propose a volume reduction, this will further reduce the economic viability.

Bangladesh does not have an RSV class of vessels; therefore, they use foreign-going vessels (near coastal ships) ⁶. These vessels are of higher technical and manning standards, which are not cost-effective for the coastal voyage between the two countries, let alone voyages on inland-coastal routes.

Moreover, the vessel service through the coastal route is available between Kolkata/Haldia and Chittagong but not between Kolkata/ Haldia and Mongla/Pangao due to the inadequate availability of return cargo (CUTS, 2020).

Technical Factors

The existing inland vessels cannot be used in coastal waterways as they lack the required safety features given their construction. The barges between India and Bangladesh are generally not built strongly, therefore lacking efficiency to ply against rough water and most vessels do not even have night plying certificates. On the other hand, given the construct of the RSV, they require significant draught to ply. The unavailability of adequate draught for the movement of inland vessels is a concern in most of the IBP routes; therefore, it will be a major constraint for the movement of RSV through most of the inland waterway routes. Given the LAD in northeast India, inland vessels can hardly carry 500-600 tonnes, depending on the vessel's design.

Political Economy Factors

Integration of river-sea transport might result in diverting some cargo traffic from pure inland waterways to river-sea routes. Given the existing inland vessels, especially those in Bangladesh, are not fit to ply in coastal waterways given their construction, there might be a revolt from inland vessel owners and operators. Apprehensions might be higher from Bangladesh as primarily Bangladeshi vessels ply in India-Bangladesh Protocol (IBP) routes and the vessel market is more organised than in India.

Conclusion

It emerges from the above discussion that there are both scope and potential benefits for integrating riverine and coastal transportation between India and Bangladesh. However, to promote river-sea sailing between India and Bangladesh, the abovementioned challenges must be addressed. A few recommendations to facilitate river-sea sailing are as follows.

In Bangladesh there are two categories of vessels those are allowed to ply in any coastal water. One is coastal Ship another is Near Coastal Ship (international). Coastal ship does not exceed 1,500 GRT and is engaged in trading coastwise within Bangladesh. While, near coastal ship does not exceed 3,000 GRT and is engaged in trading both within Bangladesh and in countries in the coast line of the Bay of Bengal.

- The initial stage of integration of the coastal route and inland route might require a ship-to-ship transhipment. Therefore, efficient ship carry-out transfer facilities at anchorage must be created at select locations.
- To align coastal routes and inland waterways routes, maintaining adequate draft in inland waterways routes for the movement of RSV or similar types of vessels is very important. The same can be done by dredging inland waterways routes at regular intervals.
- The existing RSV/similar type of vessels (near coastal ships in Bangladesh) need to carry more cargo than inland vessels to achieve breakeven cost. Still, given the drought in most of the stretches of inland waterways, it is not feasible. Therefore, designing vessels that will require lower draught compared to existing ones to carry higher cargo volume while plying through inland water, fit for both rough and tidal water, and have lower operational costs will help integrate inland-coastal water transportation.⁷ Therefore, research on the suitable design of the ships/vessels should be emphasised in both countries.
- Presently, different regulatory authorities govern regulations related to the operation and manufacturing of inland and coastal vessels. To address these concerns, an institute in India and Bangladesh that will govern and monitor Inland-Coastal water transportation should be established.
 - In India, regulations related to the operation and construction of the River Sea Vessel is guided by the River Sea vessel Notification 2013. But, in Bangladesh, there is no vessel termed as 'river-sea vessel' and there is no regulation to facilitate river-sea movement in Bangladesh. Therefore, Bangladesh to formulate regulations related to the facilitation of river-sea movement.
- The regulatory regime of both countries should be reformed to integrate shipping along with select coastal routes and certain PIWTT routes (core routes connecting maritime ports). The Competent Authorities responsible for regulating and facilitating vessel movement and trade between India and Bangladesh through these routes should be determined by both governments.
- In India, RSV I and RSV II type are eligible for operation on IBP routes (during fairweather and monsoon seasons from ports of call like Kolkata and Haldia) and coastal waters of eastern India and Bangladesh. Therefore, on a trial basis, both governments can allow the movement of these vessels between the coastal and IBP route. However, for the transfer of goods from the southern part of India to Bangladesh, trans-shipment will be needed at Sandhead or Paradip.
- An agreement needs to be signed between Bangladesh and India to allow the movement of vessels through integrated coastal and riverine routes between these two countries.

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For example, a coastal vessel can be developed in such a way that a vessel with 4.5 m draught can load minimum 2,500 tons still negotiate safely both in riverine and coastal waterways.

Annexure 1: Protocol Routes under Coastal Agreement

- Chennai-Krishnaptnam-Kakinada-Visakhapatnam-Paradip-Haldia-Kolkata-Mongla-Paira-Chittagong
- 2. Chennai-Krishnaptnam-Kakinada-Visakhapatnam-Paradip-Haldia-Kolkata-Mongla-Khulna
- 3. Chennai-Krishnaptnam-Kakinada-Visakhapatnam-Paradip-Haldia-Kolkata-Paira
- 4. Chennai-Krishnaptnam-Kakinada-Visakhapatnam-Paradip-Haldia-Kolkata-Pangaon-Narayanganj-Ashuganj

Annexure 2:

Protocol Routes between India and Bangladesh through Inland Waterways (PIB, 2020)

- Kolkata-Kolaghat-Haldia-Raimongal-Chalna-Khulna-Mongla-Kawkhali-Barisal-Hizla-Chandpur-Narayanganj-Pangaon-Aricha-Sirajganj-Bahadurabad-Chilmari-Dhubri-Jogigopha-Pandu-Shilghat
- 2. Tribeni-Kolkata-Kolaghat-Haldia-Raimongal-Mongla-Kawkhali-Barisal-Hizla-Chandpur-Narayanganj-Pangaon-Ghorasal-Bhairab Bazar-Ashuganj-Ajmiriganj-Markuli-Sherpur-Fenchuganj-Zakiganj-Karimhanj-Badarpur
- 3. Aricha-Rajshahi-Godagari-Sultanganj-Maia-Dhulian
- 4. Badarpur-Karimganj-Zakiganj-Fenchuganj-Sherpur-Markuli-Ajmiriganj-Ashuganj-Bhairab Bazar-Ghorasal-Narayanganj-Pangaon-Chandpur-Aricha-Sirajganj-Bahadurabad-Chilmari-Dhubri-Jogiqopha-Pandu-Shilghat
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