



EXPLORING INLAND WATERWAYS TRANSPORT (IWT) IN BENGAL THROUGH RORO SERVICE

A Research-based Recommendation Paper By
BCC&I

29th May, 2026

CONTENT

1. EXECUTIVE SUMMARY

2. PROPOSED RORO POINTS ACROSS THE STATE WITH JUSTIFICATION

- 2.1 RoRo Service for Haldia & Kharagpur Industrial Zone
- 2.2 RoRo Service for Kharagpur Industrial Zone
- 2.3 RoRo Service for Durgapur – Asansol Industrial Zone
- 2.4 RoRo Service for Howrah Industrial Zone
- 2.5 RoRo Service for Hooghly and Burdwan Agri Production Zone

3. CONCLUSION

1. EXECUTIVE SUMMARY

West Bengal's stretch of navigable waterways is 2,293 km in length (which includes 560 km of already developed stretch of NW1), primarily flowing from north to south, hence distributing the state's hinterland from east to west. Given its inherent demographics, the

Government of West Bengal may leverage the waterways for freight movement and, in turn, reduce the logistics cost of businesses considerably.

The new Government may harness the State's water transport potential by promoting Roll-on Roll-off (RoRo) vessel operations for freight movement.

A modal shift from road to waterways is required to enable efficient transportation. Important benefits that promote this modal shift are the decrease in congestion on road networks and less pollution.

A study by Niti Aayog in 2018 shows that in India, road transportation on average costs Rs. 2.9 per ton-km, railway transport costs Rs. 1.0 per ton-km, and water transport costs Rs. 0.25 to Rs. 0.30 per ton-km.

BCC&I has been trying to scale up RoRo services in West Bengal since 2017. The Chamber has worked with the then Transport Department since 2017. Based on the research papers that BCC&I prepared, the World Bank has also sanctioned a loan of USD 105 million for a pilot project.

The western bank of the Hooghly is mainly the production zone; the eastern bank is consumption. Based on that, the Origin-Destination Study of the RoRo Service is done

While conducting the study, BCC&I has identified that West Bengal can be broadly classified into 5 production zones, and interestingly, all 5 zones are located on the west bank of the River Hooghly, while the eastern bank of the Hooghly River is mainly the consumption zone of the state. This is an advantage for introducing RoRo movement and identifying the locations for. Based on that, BCC&I analyzed the **Origin – Destination Study**.

The study commenced with identifying the main production zones and then the route to the consumption zone via waterways. The report explains the chosen areas for RoRo service

What is RoRo?

RoRo is a service on waterways wherein the truck or container carrying cargo is loaded or 'rolled on' the vessel at the bank of the waterways and is transported to the other side where it is unloaded or 'rolled off' the vessel. It can be considered as an alternative to a bridge or even as a vessel capable of carrying bulk/heavy cargo

explicitly. Distance reduction and reduction in logistics cost of business are shown with a map for each case.

2. PROPOSED RORO POINTS ACROSS THE STATE WITH JUSTIFICATION

This study begins with a thorough analysis of the State's main production zones. We focused



mainly on production areas where freight moves primarily by road, as well as have the locational advantage to shift from roadways to waterways. We identified the following 5 production areas of the State where RoRo service would boost the industrial infrastructure significantly.

2.1 RoRo Service for Haldia Industrial Zone

A huge amount of freight moves between the Haldia-Kharagpur Region to South 24 Pgs. Currently, these consignments move via Mumbai Road, and the journey time is more than 5 hours. On top of that, trucks face time restrictions in entering Kolkata. While the RoRo service will not take more than 1 ½ hours. Kukrahati can also be made part of the Haldia Multimodal Terminal System. The following map will help in understanding the reduction in distance and reduction of logistics cost of business

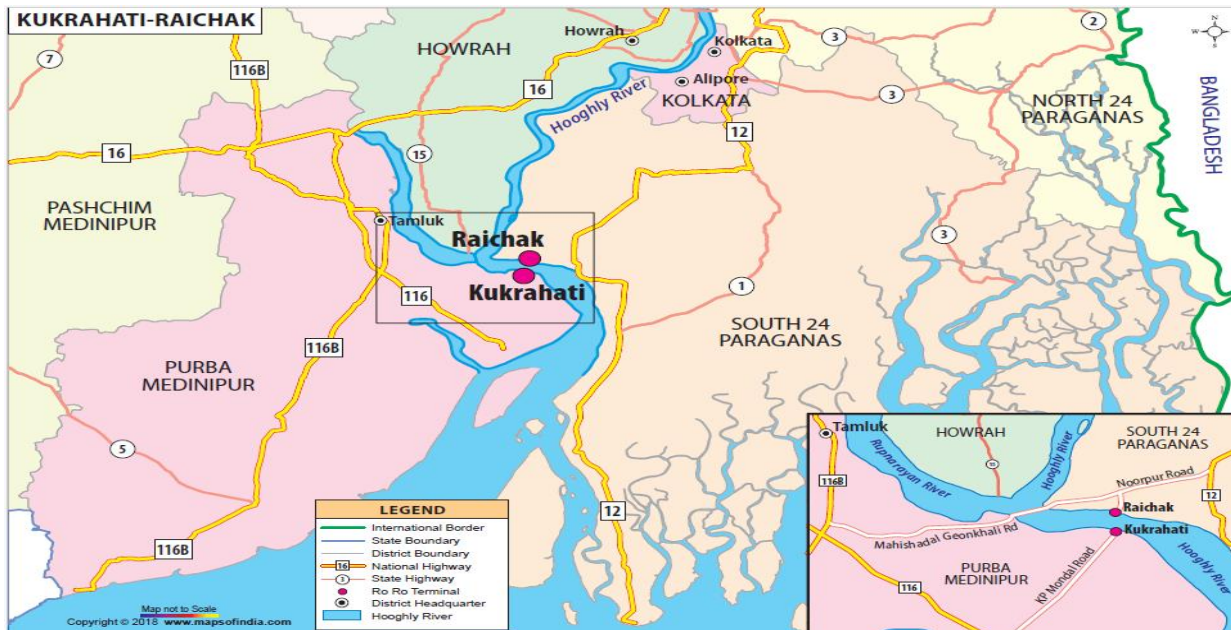
Haldia Industrial Zone

Kukrahati-Raichak RoRo Service

Haldia and Kharagpur are two very crucial industrial zones in Bengal as these two zones house a good number of large and medium-scale manufacturing industries compared to other areas in the State. These two zones require modern logistics and infrastructure, which would enable them to reduce logistics costs for businesses. Modern full-fledged RoRo freight service would also rejuvenate the area towards attracting more investment.

Analyzing our field study report, inputs from industries, and consultation with logistics experts, BCC&I recommends **RoRo Service between Kukrahati and Raichak**, which would serve the entire Haldia and Kharagpur Industrial Zone.

2.2 RoRo Service for Kharagpur Industrial Zone



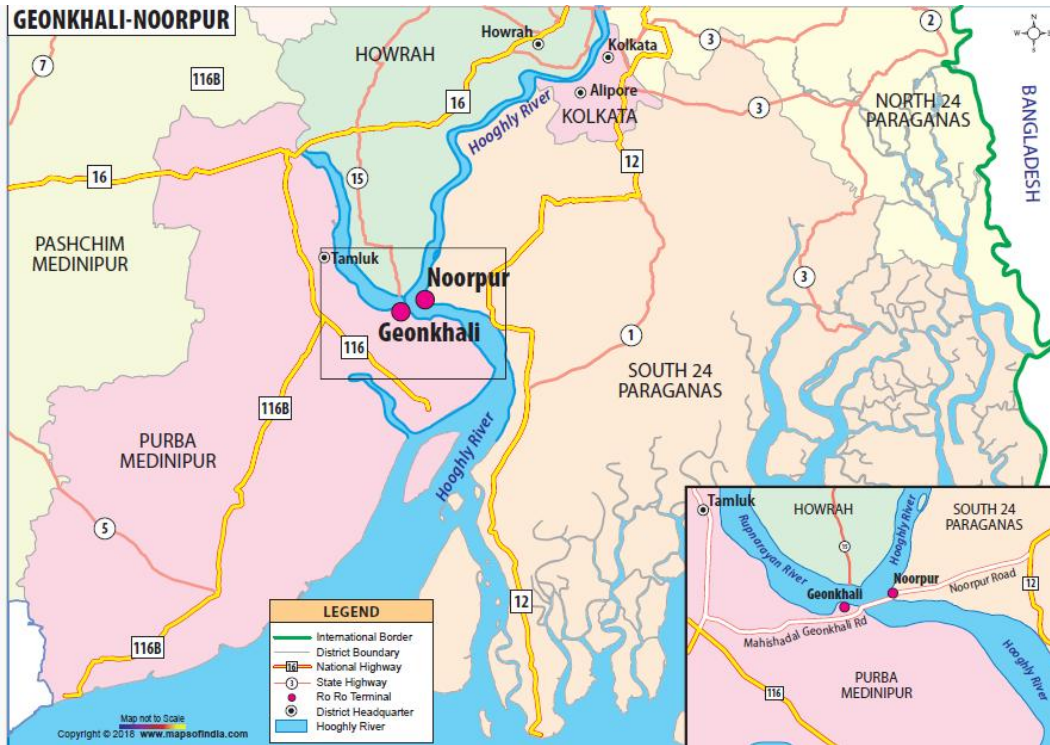
Kharagpur Industrial Zone

Geonkhali-Noorpur RoRo Service

Kharagpur Industrial Zone has relatively good freight movement situation, especially Indian Railways operates heavy-haul "Anaconda" freight trains (combining multiple rakes) along the Kharagpur-Bhadrak section. There is also scope for RoRo Development.

Geonkhali-Noorpur RoRo

Geonkhali is located in Purba Medinipur, and the opposite side is Noorpur in South 24 Paraganas. Passenger ferry services are operational at this point. The approach road to Geonkhali Ferry point is about 2.5m wide but with scope for further expansion. The area is sparsely populated, leaving ample development opportunities. Cargo from Kharagpur and Medinipur could use this route to reach South 24 Paraganas, avoiding the Kolkata city traffic. This would also reduce pressure on Vidyasagar Setu and decongest Kolkata streets. The following map will help in understanding the reduction in distance and reduction of logistics cost of business



2.3 RoRo Service for Durgapur – Asansol Industrial Zone



The traditional industrial base of the Durgapur – Asansol region was chiefly supported by coal, iron and steel. The principal industries are steel, cement making machinery, boilers, and pressure vessels. Mining & Allied Machinery Corporation, coal mining, bulk handling equipment, and other heavy machinery are among the major industries of the Asansol & Durgapur areas.

Durgapur-Asansol zone, as a production hub, primarily caters to Nadia and part of North 24 Parganas and then to Bangladesh. The RoRo services can be developed at Guptipara-Shantipur.

Guptipara is located in the Hooghly under Balagarh Block. The opposite side is Medgachhi under Shantipur Municipality in Nadia district. Guptipara is 3.5 km from SH 6. Currently, the freight movement from Durgapur-Asansol to Nadia via Kolkata is 268 km. The RORO service from Guptipara to Shantipur is a brief crossing over the waterways. Therefore, using RORO services, the distance between Durgapur-Asansol and Nadia is 140 km. Hence, the distance reduction of nearly 128 km. The following map will help in understanding the reduction in distance and reduction of logistics cost of

business.



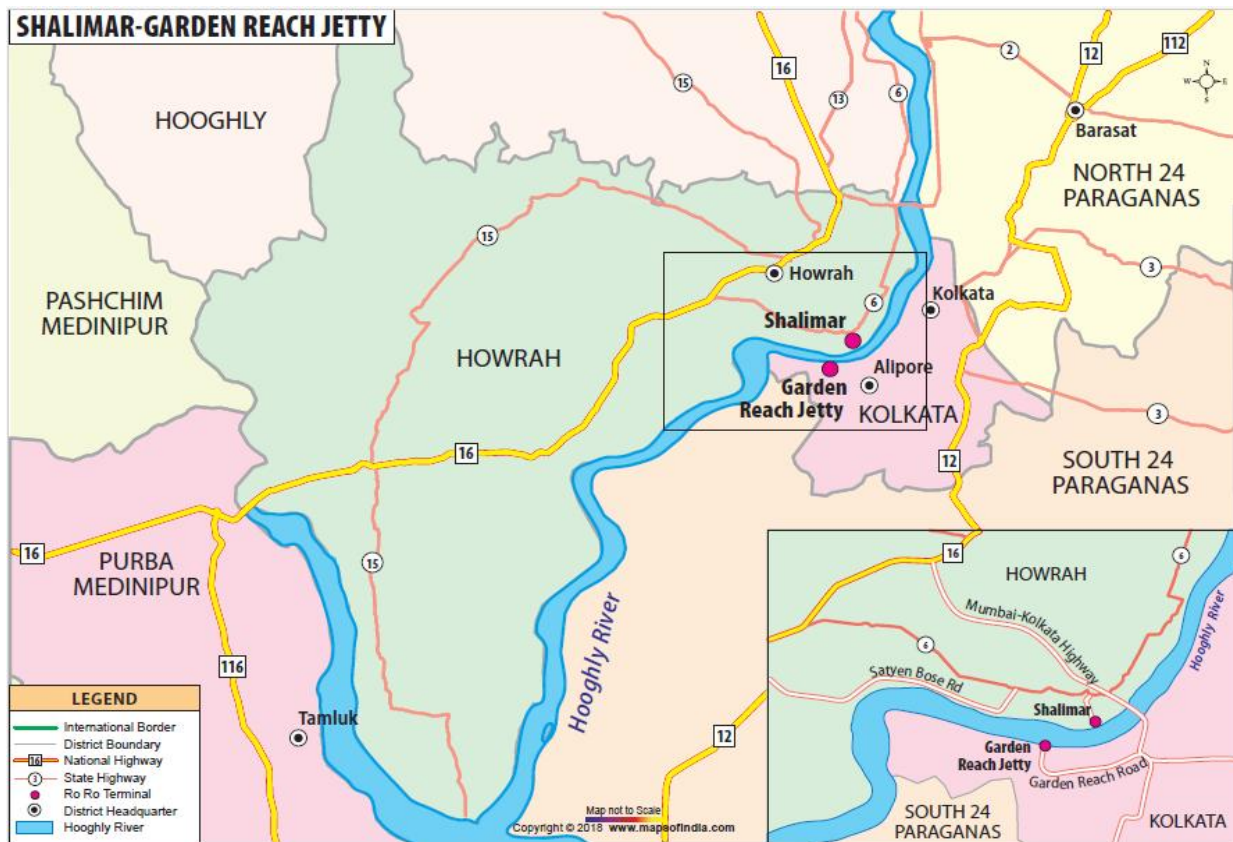
2.4 .RoRo Service for Howrah Industrial Zone

Howrah Industrial Zone

Shalimar - Garden Reach RoRo



Shalimar is well-connected by roads and has rail connectivity. Ample land is available of the Indian Railways and is well-suited for RORO services. Truck parking area exists, and further expansion can be made along with the project development. This area is suitable to be developed for RORO services given its huge space for creating RORO infrastructure and is well-connected by road and rail. This is an Inland Container Depot (ICD), and crisscrossing over to G.R. Jetty, cargo could move into Kolkata port directly, avoiding city traffic. The following map will help in understanding the reduction in distance and reduction of logistics cost of business.



2.5 RoRo Service for Hooghly and Burdwan Agri Production Zone



Tribeni is located in Hooghly district in West Bengal. The opposite side Majherchar in Kalyani, Nadia district.

There are 3 possible RoRo points in Tribeni:

- o WBDCL Thermal Power Station area
- o Ganges Jute Mills
- o Single Women Refugee Camp under Land Reform Department

The approach road is wide to handle movement of trucks and is connected to State Highway 13. It is also well-connected to Burdwan and Hooghly agricultural production zones. Iswar Gupta Setu (bridge) connects Hooghly with Nadia district. In other words, it provides a link between Tribeni (Hooghly), and Kalyani (Nadia). In the case of RORO, Nivedita Setu congestion, travel time, and costs would be significantly lowered, and direct cross-over movement will occur, avoiding Nivedita Setu and B.T. Road. . The following map will help in understanding the reduction in distance and reduction of logistics cost of businesses.



3. CONCLUSION

The BCC&I team has prepared this recommendation report in consultation with its industry stakeholders. The main objective is to present its understanding of the crucial requirements for the resurgence of industry in Bengal before the newly elected Government. The Chamber would be honoured to have the opportunity to work with the new Government towards its endeavour for a Rejuvenated Bengal.

