



Role of West Bengal in Shaping India's Logistics Performance

Joining Dots • Connecting People • Shared Prosperity

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Logistics is a key service for the conduct of trade and major contributor to the inclusive growth of all sections of society and business. The Union Government has notified the National Logistics Policy, 2022 to drive the country's economic growth and business competitiveness. This is a step ahead in providing a unified policy environment for logistics in India as sought by the 'PM Gati Shakti Master Plan', where Indian states and union territories play a central role.

This Briefing Paper examines the connectivity and logistics scenario in West Bengal to the latter's potential in terms of trade (both domestic and international). It attempts to identify bottlenecks towards improving logistical landscapes, discusses the initiatives in improving the logistic ecosystem and identifies the scope and opportunities to improve the logistic performance in West Bengal. The paper prescribes suggestions for improving this state's connectivity and logistical situation.

Background and Introduction

Logistics is a vital, enabling service for both domestic and international trade. Efficiencies in logistics enhance the overall competitiveness of various sectors of the economy and ensure inclusive growth of all sections of society and business, including the micro, small and medium enterprises (MSMEs), and farmers, among others. Therefore, the Government of India has notified the National Logistics Policy (NLP), 2022, which outlines national priorities for the logistics sector, provides a unified policy environment, and will serve as a key policy instrument to deliver the vision of 'Atmanirbhar Bharat'.

Earlier, in October 2021, the 'PM Gati Shakti Master Plan' was launched to build holistic infrastructure' in India by increasing coordination among various infrastructural agencies. Together, the NLP, 2022 and PM Gati Shakti Master Plan seek to provide a comprehensive agenda for developing the country's logistic ecosystem.

The states in India play a crucial role in integrating the small-haul corridors. Therefore, to achieve the goals laid down in the National Logistics Policy, 2022 and PM Gati Shakti Master Plan, it is important that states, especially those situated in strategic locations,

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align their logistic plans as per the national and international logistic demands. And by improving their logistic ecosystem, states can attract more investment, improve their trade potential and generate employment.

Given this background, it is important to understand the connectivity and logistic situation in the particular state, its potential in terms of trade (either domestic or international), bottlenecks towards improving its logistic landscapes, initiatives to improve the logistic ecosystem and identify the scope and opportunities to improve the logistic performance in those states.

This Briefing Paper reviews and discusses the status of connectivity and the logistic situation in West Bengal and provides recommendations on how the situation could be further improved.

Overview of Connectivity and Logistics

West Bengal is strategically located in the eastern part of India and shares its border with various states (Jharkhand, Bihar, Odisha, Sikkim, and Assam) and countries (Bangladesh, Bhutan, and Nepal). The state plays a crucial role in facilitating domestic and international trade for India and transit trade for neighbouring Nepal, Bangladesh and Bhutan. Furthermore, it is also a strategic entry point for markets in Southeast Asia and is located closer to several nations that are part of international treaties.

It also serves as a gateway to nations which are part of the regional initiatives to which India is also a signatory, including the Bangladesh, India, Nepal (BIN) MVA (erstwhile proposed BBIN), Bangladesh-China-India-Myanmar (BCIM) Corridor, The Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC) and the Asian Trilateral Highway.

The state has the third-largest road network in the country (Logistics, 2022). It is leading in the country in terms of spread, density and reach of National Inland Waterways.

The market size of the West Bengal Logistics sector is pegged at US\$20bn in 2020 (KPMG, 2019). The megapolis of Calcutta is also India's third-largest warehousing and logistics market (Saha, 2019). West

Bengal has the country's second-highest cold storage capacity, with a share of 16.1 per cent, and the third-highest air cargo capacity, with a 10.36 per cent share.

West Bengal is among India's top states regarding infrastructure development spending (Logistics, 2022). West Bengal has increased its spending on infrastructure in the state by almost five times, with ₹1,758 crore in 2011 going up to ₹9,553 crore in 2019. The state offers ready infrastructure as it has 148 industrial parks, growth centres and, industrial parks, estates, and growth centres covering around 27,000 acres (KPMG, 2019).

The 4th annual Logistics Ease Across Different States (LEADS) 2022 survey report released by the Union Ministry of Commerce and Industry graded West Bengal as an 'Aspirer'.¹ This was after West Bengal had improved its position to 15th in the LEADS 2021 survey from the previous edition (2019) by one point among the 20 states featured in the latter report. Andhra Pradesh, Assam and Gujarat were among the 15 states and union territories that were 'Achiever' in the survey.

Snapshot of Connectivity

West Bengal has access to multiple connectivity modes: rail, road, air, inland waterways and sea.

1. Roadways: West Bengal has 316,730 km of total road length, 3,664 km of national and 4,505 km of state highways. The road density of the state, 3,553 km per 1,000 sq km of area, is much higher than the national average of 1,206 km per 1,000 sq km. Additionally, construction of the roads in other stretches is also proposed under different schemes and programmes, such as three stretches of the road of length 39.39 km planned under the Bharatmala Pariyojana, 46,000 new rural roads under the Pathasree scheme, expressways between Varanasi and Kolkata, a corridor between Gorakhpur and Siliguri, and four-laning of the 67 km of the NH-34, which on completion, will boost the North-South intra-state road network and enable easy movement of cargo (IBEF, 2022) (Export-Import Bank of India, 2016).

The Central Government is also investing ₹1.5 lakh crores through 2025 on road projects (Khanna, 2022).

Major Border Crossings

West Bengal-Bangladesh	Petrapole, Ghojadanga, Changrabadha, Phulbari, Mahedipur and Hilli
West Bengal-Bhutan	Jaigaon
West Bengal-Nepal	Panitanki

West Bengal's overall international border length is 2,509.7 km, of which the majority is shared with Bangladesh (2,216.7 km), followed by Bhutan (197 km) and Nepal (96 km). Also, two of the South Asian Corridors pass through West Bengal. The routes of the corridors are Kakarvitta (Nepal)-Panitanki-Siliguri-Pulbari (India)-Banglabandha (Bangladesh); and Thimphu-Phuentsholing (Bhutan)-Jaigon-Siliguri-Changrabandha (India).

2. Railways: The length of the rail route in West Bengal (as of March 2019) was 4,135 km. Moreover, the 1,409 km (electrified double track) of the 1,839 km Eastern Dedicated Freight Corridor (EDFC), which the Ministry of Indian Railways is developing, falls between Dankuni in West Bengal and Khurja, in Uttar Pradesh. Besides the EDFC, West Bengal will also be part of the East-West (Bhusawal-Dankuni, Rajkharsawan-Andal) corridor and the East Coast Dedicated Freight Corridor (Kharagpur-Vijayawada) (Saluja, 2020).²

Moreover, there are five operational rail links connecting West Bengal with Bangladesh, namely, Petrapole (India)-Benapole (Bangladesh), Gede (India)-Darshana (Bangladesh), Singhabad (India)-Rohanpur (Bangladesh), Radhikapur (India)-Birol (Bangladesh) and Haldibari (India)-Chilahati (Bangladesh).

Transport of goods to and from West Bengal via Rail, Water and Air in 2020-21 (in tonnes)

Mode of Transport	West Bengal to other states	Other states to West Bengal
Railways	352,28,220.8	946,71,119.2
Waterways	200,700	67000
Airways	42120	42260

Source: Directorate General of Commercial Intelligence and Statistics

3. Airways: West Bengal has two international airports – one in Kolkata and another in Bagdogra. The state also has a private sector greenfield airport operational at Andal in Paschim Bardhaman district.

4. Waterways: West Bengal, with a coastline of 158 km, has two major river ports – Kolkata and Haldia. A deep sea port has also been proposed at Tajpur (Millennium Post, 2022). At present, Nepal and Bhutan also use Kolkata and Haldia ports for third-country trade.

The river Ganga passes through the state and the 560-km Haldia-Farakka stretch of the National Waterway (NW)-1 (Allahabad to Kolkata) has been developed as part of the multi-modal system for intra-state cargo movement. Moreover, West Bengal connects Northeast India via Bangladesh through inland waterways.

Three of the five India-Bangladesh protocol routes originate in this state, namely Kolkata/Kolaghat/Haldia-Narayanganj-Aricha-Dhubri-Silghat; Tribeni (Bandel)-Kolkata/Kolaghat/Haldia-Mongla-Kaukhali-Narayanganj-Ashuganj-Karimganj-Badarpur; and Aricha-Rajshahi-Dhulian. Furthermore, Kolkata and Haldia ports are part of the India-Bangladesh Coastal Shipping Agreement.

The Government of West Bengal has implemented the "Logistics Park Development and Promotion Policy of West Bengal, 2018" to create last-mile connectivity, foster technology adoption and build logistics skill sets (Financial Express, 2020).

Moreover, a separate policy for logistics is under preparation. Furthermore, the state has initiated an institutional setup for logistics (appointed a nodal officer for logistics and constituted a state logistics cell); formulated a Logistics Master Plan and promoted logistics park development in Dankuni, Siliguri, Malda, Tajpur and Durgapur (Ernst & Young LLP, 2021).

The Comprehensive Logistics Action Plan (CLAP) of the Union Government, which is also responsible for implementing the National Logistics Policy, 2022, highlights the problem of the lack of a system for continuous measurement of state-level logistics performance (Department for Promotion of Industry and Internal Trade, 2022). It pledges support for the development of state or city-level

Snapshot of Logistics Initiatives

No. of ICDs	1
No. of Container Freight Stations	13
No. of ICPs	1
WDRA registered warehouse capacity (in Metric Tonnes)	4,04,356
Cold storage capacity (in Metric tonnes)	59,47,311

Source: Logistics Ease Across Different States Report LEADS 2021

logistics plans, sets up an institutional framework to take action at the city or state level, measure and monitor action by states and rank them.

The CLAP further calls for the state governments to pursue development of state and city logistics plans or policies which may provide a roadmap for development of intermodal infrastructure, improving efficiency of logistics services, processes and regulatory regimes.

Moreover, it entrusts the Union government's Logistics Division, Department for Promotion of Industry and Internal Trade (DPIIT), to conduct the annual process of performance assessment of states through Logistics Ease Across Different States

(LEADS) index (Department for Promotion of Industry and Internal Trade, 2022).

To promote transport through inland waterways, the Inland Waterways Authority of India (IWAI) is constructing a multi-modal terminal, especially for inland vessels in Haldia, with over 61 acres. It will also create jetties in Kolaghat, which has recently been declared a port of call (for trade between India and Bangladesh).

Additionally, the Union, the state government, and the World Bank have signed a US\$105mn project to improve waterways in West Bengal (Ministry of Finance, 2021). The project, known as West Bengal Inland Water Transport, Logistics and Spatial Development Project, will facilitate passenger and freight movement across the Hooghly River. It will undertake spatial planning to improve accessibility in the Kolkata Metropolitan Area; enhance the quality of life of its residents; and contribute to the growth of the state's logistics sector (Ministry of Finance, 2021).

Trade and Investment Potential

The state's favourable agro-climatic zones have made it one of India's leading producers of numerous food products. In 2019-20, West Bengal produced 18.26 million tonnes of food grains and was the largest producer of rice, jute and mesta.

Snapshot of Industrial Profile

Major Industries	Petroleum and petrochemicals, leather, iron and steel, mineral resources, automobile and auto components, fisheries, jute products, IT and textiles
No. of industrial parks/ estates/growth-centres	148
No. of SEZ	21 ³
No. of Food parks	3 (Sudharas Food Park (Phase – III); Malda Food Park; Jangipur Bengal Mega Food Park)
Merchandise export	US\$9.49bn
Major Exports	Iron and steel, Gold and other Precious Metal Jewellery, Petroleum products, Leather goods, Marine products, Products of Iron and Steel, Rice (other than basmati), Plastic Raw Materials, Tea, Organic Chemicals.
Export Market	Nepal, Bangladesh, UAE, USA, Singapore, Vietnam Germany, Japan, Indonesia, Turkey, Malaysia, Korea, Iran, Russia, Italy, China, Canada, Colombia, Benin, Kazakhstan (National Investment Promotion and Facilitation Agency, n.d.). ⁴

Source: IBEF, 2021(B); Directorate of Food Processing Industries, n.d.

Other crops primarily grown in this state are wheat, gram, lentil, moong, rapeseed & mustard, sesamum and potato (Directorate of Economics & Statistics, 2020). It is also the second-largest producer of tea in India and a major producer of fish [IBEF, 2021 (A)].

West Bengal produces a significant percentage of India's rice production, while other major crops grown in the state include sugarcane, jute and oilseeds (Chatterjee, 2020). Jute is primarily produced along its border with Bangladesh. North Bengal remains pre-eminent for high-quality tea production, floriculture, and allied activities.

The production base in West Bengal is concentrated across value-chains, like, basic metals, coke and refined petroleum, chemicals, textiles and leather, food products, rubber and plastic and their derivatives. The state also has the second highest number of MSMEs in India (accounting for 14 per cent) (National Investment Promotion and Facilitation Agency, n.d.).

Additionally, the Government of India is developing Amritsar-Kolkata Industrial Corridor (AKIC). Under this, 2,483 acres will be acquired in West Bengal to develop Industrial Manufacturing Clusters (WBIDC, n.d.; Department for Promotion of Industry and Internal Trade, n.d.).

Some of the policy initiatives taken by the state to promote industrial development and trade directly or indirectly are WB Special Economic Zone Policy; WB Investment & Industrial Policy 2013; WB Information Technology & Electronics Policy 2018; WB MSME Policy 2013-2018; WB Startup Policy 2016-2021; WB Export Promotion Policy 2018, WB Textile Policy 2013-18 and WB Design Policy; etc India Investment Grid (n.d.).

The state government since 2015 has also hosted the Bengal Global Business (BGB) Summit, an annual flagship industrial event to attract investments to West Bengal. The forum's main objective is to offer free-flowing and seamless interactions for the stakeholders to explore investment possibilities and potential in the state.

The sixth edition of BGB Summit 2022 saw proposals from top industries to invest in the state. Amongst the notable investments announced in West Bengal's flagship industry event was by Adani Group, which

committed an investment of ₹10,000 crores in West Bengal over the next decade across business verticals including port infrastructure, data centre and undersea cable, centres of excellence in digital innovation, fulfilment centres, warehousing and logistics park and the expansion of Adani Wilmar Fortune products (Ghosh, 2020).

Apart from Adani, the other big attendees at the summit included Sajjan Jindal and Niranjana Hiranandani. A total of 4,300 delegates, including 500 from 42 countries, participated in the state's flagship industrial event.

During the two days (April 21-22) of the BGB Summit 2022, 137 MoUs were signed and the state received proposals of ₹3,42,375 crores for investment (Mondal, 2022).

Recent Private Sector Investments in Logistical Facilities

Optimising the benefits from trade and investment opportunities and initiatives requires the availability and efficiency of logistics in the state. E-commerce giants such as Amazon India, Flipkart, logistics major Logos, alternative investment company Xander Group Inc and real estate conglomerate Hiranandani Group have invested in the state.

Amazon India has set up its logistics facility at Uluberia Industrial Park of West Bengal Industrial Development Corporation (WBIDC). This is Amazon's largest investment in West Bengal with a storage capacity of 7.2 lakh sq ft employing over 3,000 people directly and is established with over ₹500 crore investments. The company has invested over ₹1,500 crore in the state spreading across four fulfilment centres.⁵

Another e-commerce major, Instakart Services Pvt. Ltd., a subsidiary of Flipkart, has set up an Automated Storage & Retrieval System (ASRS) fulfilment centre at Haringhata Industrial Park of West Bengal Industrial Development Corporation (WBIDC) over 104 acres. This is the e-commerce company's largest such facility in the eastern region, with a built-up space of 15 lakh sq.ft. and an investment of ₹1,350 crore.

In addition, the company has invested over ₹150 crores in WBIDC Uluberia Industrial Park to acquire 6.50 lakh sq.ft. In total, Flipkart has seven logistics and warehousing projects running successfully in the state.

In 2021, the Singapore-based investment company Xander Group Inc. acquired a 31-acre logistics park at Bagnan in the Howrah district of the state and leased 50 per cent of the area to Flipkart (Nandy, 2021).

Logistics major Logos is setting up a logistics park with real estate developer Sriram Properties to acquire a 90-acre land parcel in its integrated township project Sriram Grand City at Uttarpara in Hooghly District of West Bengal (Babar, 2022).⁶

For this project, the Asia-Pacific logistics specialist firm will invest US\$100mn in developing a warehousing and logistics park spread over a total 2.2 million sq.ft (Babar, 2022). This warehousing park is expected to generate 50,000 jobs in West Bengal.

Mumbai-based real estate conglomerate Hiranandani Group has signed an agreement with Hindustan Motors to acquire a 100-acre land at Uttarpara to set up an integrated logistics and hyper-scale data centre park with investment above ₹10,000 crore (Money Control, 2021).

Indian transport, storage and communications major, SFA Logistics Park Pvt. Ltd. (SFALPPL) is constructing a state-of-the-art Private Railway Freight Terminal on 36 acres of land parcel at Dankuni in West Bengal. The Private Freight Railway Terminal's location is close to the landing station of the Eastern Dedicated Rail Freight Corridor (EDFC) at Dankuni, which will provide an additional advantage.

Challenges

West Bengal has a vast network of connectivity, ample logistic initiatives and the potential to become an export hub in the eastern part of the country. But unfortunately, due to various infrastructural, regulatory and political challenges, the state cannot realise its full potential.

As rightly singled out by a paper on the socio-economic revival of West Bengal, the state is also faced with low investment by the public sector in physical and other economic infrastructure and institutional failures to contain various socio-economic incidences that happened in the state (Chatterjee, 2020).

As per the Logistics Ease Across Different States Report (2022), it scored lowest (apart from Goa) among coastal states cluster. West Bengal fared



particularly low in 'Overall quality of logistics infrastructure' and warehousing and terminal infrastructure needs major improvements to cater to the trade demands (Ernst and Young LLP, 2022).

West Bengal has been rated low on all sub-indicators of logistics services, particularly 'Quality of services at terminals, Timeliness and Track & Trace' (Ernst & Young LLP, 2022).

One of the key challenges that add to the delay and cost of logistics operations are problems in last mile road connectivity and key logistical and industrial infrastructure such as ports, airports, land ports, inland water terminals, logistics parks, special economic zones, power plants, refineries or industrial clusters (Banerjee, 2020).

The state can boast of a strong rail network, but the major arteries connecting it to the rest of the country and within the state have gotten extremely congested over the years due to high-volume passenger traffic (Banerjee, 2020). A few other specific challenges the state is facing are:

- ◆ Lack of coordination among government agencies is hampering the efforts to develop ICPs at border points, especially, Jaigaon and Panitanki- connecting Bhutan and Nepal. However, the other sides of these borders are already equipped with better infrastructure to facilitate the movement of goods and people (Chatterjee, 2021).
- ◆ Land acquisition and legal issues have hindered road widening work on several sections of the NH-34, including 17 km in Barasat, 4 km between Barajaguli and Krishnanagar, 10 km between Berhampore and Farakka and 6 km between Raiganj and Dalkhola Bypass (Projects Today, 2020). Similar land acquisition issues are prevalent across the state and must be addressed for smooth infrastructure and logistics operations.
- ◆ Siliguri is a critical node for trade between BBIN and also for connecting Northeast India to other parts of India. Therefore, constant traffic congestion in Siliguri is a major concern for exporters and importers as it escalates the cost of trading among these countries. Although the Siliguri & Jalpaiguri Development Authority (SJDA) have road expansion plans, land availability issues persist.
- ◆ In West Bengal, unscheduled stoppages of trucks by RTOs for collecting informal payments are common. These activities are primarily common in areas such as Barasat and Asansol. These stoppages not only increase logistic costs but also create road congestion.
- ◆ The lack of required infrastructure has hindered the implementation of paperless trade in many border-crossing points in West Bengal (e.g. Jaigaon LCS lack the necessary infrastructure facilities for remote EDI System). Additionally, poor internet connection in border areas has handicapped the initiative of digital operations initiated by Indian customs.
- ◆ Cargoes from India to Bangladesh via railways through Gede-Darshana and Petrapole-Benapole port are loaded into rakes at Ranaghat Station. But the station lacks a dedicated platform, warehouse, adequate office space, stable internet connectivity and electricity. The lack of a dedicated warehouse and appropriate security provisions disincentivise exporters from using railways (especially in the case of high-value items).
- ◆ West Bengal has a single window mechanism for obtaining approvals for investment. Still, as per the LEADS 2022 survey the state needs to particularly focus on ease of obtaining approvals and ease of entry to and from neighbouring states where multiple issues have been highlighted (Ernst & Young LLP, 2022).
- ◆ Most of the inland waterway terminals in West Bengal has only basic amenities. For example, Tribeni is an essential and operational port of call in the India-Bangladesh Protocol on Inland Water, Transit and Trade. However, other than the IWAJ jetties, no other infrastructure is available to facilitate trade. Basic requirements, such as approach road between the main road and the jetties; customs office and proper sitting arrangement for the exporters/ importers are also lacking at this port of call.
- ◆ The Netaji Subhash Dock (NSD) has all the required amenities to handle various cargo, but the approach road's condition is dilapidated and very congested. Similarly, the approach road to Haldia port is patchy and congested. The delays due to congestion increase the cost of multi-modal transport's first mile/last mile connectivity.



- ◆ There are often overlaps in jurisdiction between land and sea customs, as river ports are under the jurisdiction of land customs, and seaports are under sea customs. This often makes things complicated and results in duplication of work.
For example, to ship cargo through inland waterways from Haldia port, a few documentations need to be completed in Haldia port (given it is the loading point). In contrast, some documentation needs to be completed at T.T. Shed in Garden Reach in Kolkata.
- ◆ West Bengal has two Customs Commissionerate - Commissionerate port and Commissionerate preventive. Inland waterway routes come under Commissionerate preventive. All the Container Freight Stations (CFSs) in Kolkata fall under the Commissionerate port; therefore, stuffing the containers in CFS for movement through inland waterways becomes difficult. This makes diverting road cargo from south, southeast and southwest India to waterways challenging. It would be economically efficient for traffic originating in these locations to do the stuffing at CFS near Haldia Dock Complex (HDC) and then load those containers on barges at HDC.
- ◆ Haldia is a congested port as vessels/barges can only enter the dock through the lock gates. The lock gates are opened based on tide timings; in a

- day, they could be opened twice (at the time of the tide). Therefore, per day maximum of three vessels can move in and out of the dock through these navigational locks even though they have berths available to allocate to the vessel waiting at Sandhead or Sagar.
- ◆ Earlier, Nepal-bound cargoes from third countries were routed through Kolkata/Haldia port, but presently most of them are routed through Vizag port. This is because of low draft (7-8 metres) availability in both Haldia and Kolkata ports, making it unviable for the movement of loaded mother vessels.⁷

Even though the distance between Kolkata port and Nepal is half that of the distance between Vizag port and Nepal, exporters prefer Vizag route for two reasons: firstly it is because of the subsidy provided by Container Corporation of India Ltd. (CONCOR) to exporters and importers for using the Vizag route, (which is in turn compensated by big shipping lines); and secondly, the port tariffs at Vizag ports are lower than Kolkata port as the land rate/ Km for storage in Haldia port is 3 times higher than Vizag port. Moreover, given their soil type, more goods could be stacked per km in Vizag port than at Haldia.

Conclusion

West Bengal has a significant potential to emerge as the logistics hub of India, given its strategic location and domestic and international connectivity. By creating proposed logistics policies, end-to-end logistics parks, and freight towns, the state can overcome obstacles. The state places a strong emphasis on the implementation of technological solutions in logistics in addition to connecting them with the industrial corridors.

Recommendations

To improve the logistics performance of the state, the following set of interventions are recommended:

- ◆ Road improvement at the West Bengal-Bihar and West Bengal-Northeast India stretches need to be undertaken. Fast track widening of the Kolkata-New Delhi stretch of NH2 also needs to be undertaken to facilitate large-scale cargo movement.
- ◆ West Bengal is the largest recipient of Inland Water Transport (IWT) development. Even though the Union government is funding the expansion of NW1 and cooperating bilaterally with Bangladesh on the protocol routes, maximising the advantages of IWT connectivity will necessitate a targeted approach at the state level. Trade through roads between West Bengal and Nepal, Bhutan and Bangladesh are quite prevalent and it will increase further with the ratification of BBIN MVA. Therefore, it is even more important that infrastructure — both physical and digital — at the land ports be improved.
- ◆ Proper implementation and monitoring of the Single Window mechanism (Silpa Saathi) need to be undertaken to make approval obtainment hassle free and fast, thereby aiding the movement of goods. With corridor projects, smoother and faster approvals will become extremely important in logistics. Also, grievance redressal through the single window should be improved.
- ◆ With emerging technologies applied across all sectors, it becomes imperative for the state's logistics sector to incorporate blockchain technology. Through the issuance of smart contracts, blockchain can enable agreements to be automatically validated, signed and enforced, thereby eliminating the need for intermediaries and saving time and money.
- ◆ West Bengal can utilise the Secured Logistics Document Exchange (SLDE) platform, launched by

GOI on similar lines, to replace human intervention in the generation, exchange and compliance of logistics documents with a digitised, secure, and seamless document exchange system. The blockchain-based security protocols can provide a trail of document transfer, thereby ensuring the authenticity of documents and reducing frauds in the state's logistics chain.

- ◆ Implementing IT infrastructure for surveillance of incidents related to unnecessary stoppage and harassment by RTO/Police officials and adopting digital initiatives such as the smart enforcement application on highways are recommended to reduce delays, bribery and the associated trade costs.
- ◆ West Bengal can also leverage Gati Shakti to improve its logistic services in the following ways:
 - Information transparency through the Gati Shakti portal will enable West Bengal to plan its economic zones and carry out infrastructure gap audits.
 - Gati Shakti aims to reduce silos in the functioning of individual ministries and departments. With greater coordination among the Government of West Bengal and the Central Ministries, the state can boost efficiency, achieving timely execution of their projects. For example, proper cooperation between the Central and the West Bengal state government is needed to develop the ICPs at border points — Jaigaon and Panitanki; for effective implementation of national and international initiatives like BBIN MVA.
 - Aligning the East Coast corridor or Amritsar Kolkata Freight Corridor in PM Gati Shakti and coordination among agencies in these corridors will iron out the glitches in the supply chain, thereby having a multiplier effect on West Bengal's overall trade.

The National Logistics Policy, 2022 can prove to be a game-changer for West Bengal, like other states; as it pledges support for the development of state or city-level logistics plans, sets up institutional framework to take action at city/state level, measures and monitor action by states and rank them (Department for Promotion of Industry and Internal Trade, 2022).

Through the policy, not only can it benefit from the hand-holding of the Centre in the development of its logistics ecosystems but it also present an opportunity to learn about successful initiatives in other states.

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Endnotes

- 1 According to the LEADS 2022 Survey, 'Achievers' are states which have shown exemplary logistics ecosystems with exceptional infrastructure and transparent regulatory processes. 'Fast Movers' are states who are moving towards becoming Achievers by notifying progressive policy and legislatives initiatives along with new infrastructure projects. Finally, 'Aspirers' are states which have initiated their journey towards logistics ease and excellence by adopting national best practices to further improve their contribution towards India's emerging position as a global manufacturing and logistics hub.
- 2 The East Coast Economic Corridor (ECEC) has already come up through ADB (Asian Development Bank) assistance and the project has fructified from Chennai to Vishakhapatnam. ADB is now studying the feasibility through Deloitte for extension of the Corridor from Vishakhapatnam to Kolkata.
- 3 Out of these, as of October 2020, seven were operational, five were notified, seven were formally approved and two had in-principle approval.
- 4 The data is for year 2017-18.
- 5 A fulfilment centre is a part of the supply chain and serves as the hub for all logistics processes needed to get a product from the seller to the customer. It handles the entire order fulfillment process, ranging from order picking and processing to packaging and shipping.
- 6 Haldia port for bulk and break bulk cargo and Kolkata port for containerised cargo.
- 7 Vessels reach Haldia port after lighterage at Vizag or Dhamra port. Presently, few large vessels get anchored at Sandhead (128 Km from Haldia) where draft is much higher compared to Haldia and goods are transhipped to lighter vessels. These lighter vessels ply between Haldia and Sandheads.

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