



Understanding Logistics Ecosystem in Bihar and its Scope for Improvement

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Logistics is a network of services that support the physical movement of goods, trade across borders, and commerce within borders. It is a vital, enabling service for domestic and international trade and also significantly contributes to society's and businesses' inclusive growth. Two major initiatives taken by the Government of India to improve the logistics ecosystem in India are the National Logistic Policy launched in September 2022 and PM Gati Shakti Master Plan launched in October 2021. These two initiatives are expected to reshape India's logistics landscape and lower logistics costs from its current 14 per cent GDP to less than 10 per cent in the coming years. States in India, including Bihar, have a crucial role in this.

This Briefing Paper examines Bihar's connectivity and logistics scenario regarding the availability of transport infrastructure and ease of movement of freight and people. The paper also identifies bottlenecks to logistics efficiency and explores the scope and opportunities that could emerge from the improved logistics performance of the State.

Introduction

Logistics, a network of services that support the physical movement of goods, trade across borders, and commerce within borders, is a vital, enabling service for domestic and international trade. Efficiencies in logistics enhance the overall competitiveness of various sectors of the economy and ensure inclusive development of all sections of society and businesses, including the micro, small and medium enterprises (MSMEs).

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One good source of understanding the state of logistics efficiency is the World Bank's Logistics Performance Index (LPI),² published every two years since 2007. The LPI is an interactive benchmarking tool created by the World Bank to help countries identify the challenges and opportunities they face in their performance on trade logistics and what they can do to improve their performance.

It analyses six components related to trade and logistics to arrive at the LPI score and index. These include customs, infrastructure, ease of arranging shipments, quality of logistics services, tracking and tracing, and timeliness. It shows how efficiently countries can move physical goods across and within borders. A country's performance in these components determines its score and index and reflects how it participates in international markets.

India has improved its Logistic Performance Index (LPI) rank over time. The country registered a significant jump of 19 places in 2016, from 54 in 2014 to 35 in 2016 among 160 countries. In the following edition, 2018, India slipped to 44th rank. This implies that India has considerable scope for improvement in its logistics performance. This can be achieved by improving border procedures (i.e., speed, simplicity and predictability of formalities), reducing clearance time, and improving the quality of infrastructure (e.g., improving roads, rail and ports, developing intermodal hubs, digitisation and technological advancements).

The Government of India's recent initiatives and introduction of the National Logistics Policy (NLP) in 2022 and PM Gati Shakti's National Master Plan for Multi-modal transport Connectivity launched in 2021 are two major steps towards improving India's logistics ecosystem. The National Logistic Policy outlines national priorities for the logistics sector; provides a unified policy environment, and seeks to serve as a key policy instrument to deliver the vision of 'Atmanirbhar Bharat.'³

The 'PM Gati Shakti National Master Plan for Multi-modal Connectivity' has been launched to build 'holistic infrastructure' in India by increasing coordination among Centre and state agencies. This Master Plan is essentially a digital platform to bring together 16 Ministries, including Railways and Roadways, for integrated planning and coordinated implementation of infrastructure connectivity projects.⁴

The Plan seeks to provide integrated and seamless connectivity for the movement of people, goods and services from one mode of transport to another. It also encompasses more than 1,200 industrial clusters, electricity transmission networks, railway cargo handling capacity, the cargo capacity at ports and set-up mega food parks and electronics

² The World Bank, <https://lpi.worldbank.org/>

³ AatmaNirbhar Bharat is a mission launched by the Government of India in May 2020 with Rs. 20 lakh crore economic package for making India a self-reliant nation.

⁴ Government of India, <https://www.india.gov.in/spotlight/pm-gati-shakti-national-master-plan-multi-modal-connectivity>

manufacturing clusters. It will also facilitate the last-mile connectivity of infrastructure and reduce travel time for people.

It is mentioned that the Gati Shakti Scheme incorporates the infrastructure schemes of various ministries and state governments. These include UDAN, Bharatmala, Sagarmala, inland waterways, dry/land ports and economic zone clusters, textile clusters, pharmaceutical clusters and defence corridors. The scheme also leverages technology extensively, including spatial planning tools with the Indian Space Research Organisation (ISRO) and imagery developed by Bhaskaracharya National Institute for Space Applications and Geoinformatics (BISAG-N).⁵

These two initiatives are expected to help India lower its logistics cost from 13-14 per cent to a single-digit level by 2030 and help India rank in the top 25 countries.

Given this context and the potential of India's developing logistics ecosystem, it is critical to comprehend the state-level logistics ecosystems and the room for improvement in terms of trade (domestic and international), obstacles to improving its logistics landscapes, initiatives to improve the ecosystem, and opportunities that may arise from better state-level logistics performance.

This Briefing Paper attempts to understand the logistics ecosystem and the potential of Bihar, the third-most-populous State with a population of 125 million and the twelfth-largest territory. The paper also identifies bottlenecks to logistics efficiency and explores the scope and opportunities that could emerge from the improved logistics performance of the State.

Overview of Connectivity and Logistics in Bihar

Status of Connectivity and Logistics

Bihar is located in the eastern part of the country, and it is an entirely landlocked state, although the outlet to the sea through the port of Kolkata is not too far away. The State is bounded by West Bengal in the East, Uttar Pradesh in the West, Jharkhand in the South, and Nepal in the North.

Over the last few years, the State has taken several steps to improve connectivity and transportation in the State. For instance, Bihar recorded the highest growth in the country (14.4 per cent) in the transport, storage and communication sector during the last decade (2011-20). It is an outcome of high public investment in roads and bridges in the last 15 years. These initiatives have helped Bihar rank third in the country regarding road density of 3086 km per 1000 sq. km area, after Kerala (6617 km) and West Bengal (3708 km). The rural road network has expanded from 57,388 km in 2015 to 1,02,306 km in 2021. The State has

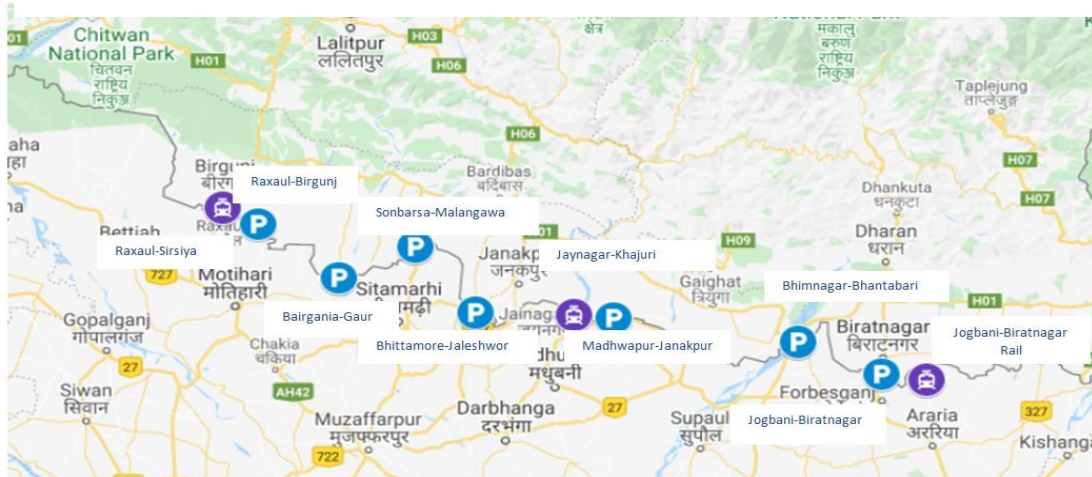
⁵ M launches Gati Shakti- National Master Plan for infrastructure development, <https://pib.gov.in/PressReleaselframePage.aspx?PRID=1763638>

also strengthened its position by rapidly developing the Information and Communication Technology infrastructure.⁶

Initiatives taken by the Government of Bihar, supported by the Central Government, have helped the State develop a network of different modes of transportation- road, rail and inland waterways. It has more than 5,412 km of national highways, 3,739 km of State, and 13,457 km of major district roads.

Besides, the State has also been benefiting from multiple cross-border connectivities with Nepal. As Bihar shares a 729 km long border with Nepal, there are 11 border crossings established between Bihar and Nepal. Two major border crossings along the Bihar-Nepal border are Jogbani, Bihar-Biratnagar, Nepal and Raxaul, Bihar-Birgunj, Nepal. The other small border crossings Bihar shares with Nepal are Bhimnagar, Bihar-Bhantabari, Sunsari, Nepal; Madhwapur, Bihar-Janakpur, Nepal; Bhitamre, Bihar- Jaleshor, Nepal; Sonbarsa, Bihar-Malangwa, Sarlahi, Nepal; and Bairgania, Bihar-Gaur, Rautahat, Nepal (Figure 1).

Figure 1: Border Crossing Points between Bihar (India) and Nepal



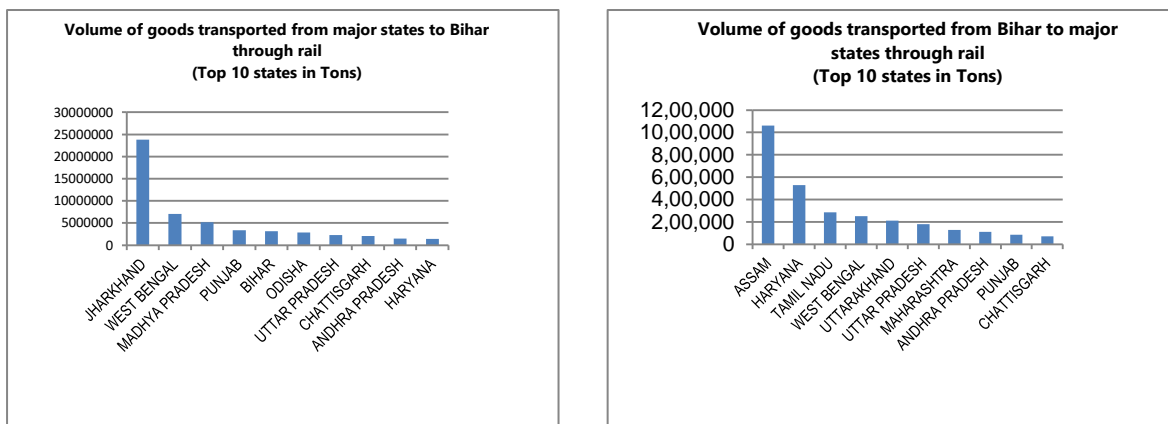
Source: Prepared by the author

Moreover, one South Asian Corridor by the Asian Development Bank passes through Bihar. The route of the corridor is Kathmandu-Birgunj (Nepal)-Raxaul-Kolkata/Haldia (India) (CUTS International, 2019). This corridor could potentially be a part of the transport routes under the Bangladesh-Bhutan-India-Nepal Motor Vehicles Agreement (BBIN MVA)⁷ corridor. The State is also connected to the Asian Highway 1, which passes through Mohania, a community development block located in the Kaimur district of Bihar.

⁶ Bihar Economic Survey 2021-22 Press Release, [https://state.bihar.gov.in/finance/cache/12/01-Mar-22/SHOW_DOCS/Press%20Release%20\(English\).pdf](https://state.bihar.gov.in/finance/cache/12/01-Mar-22/SHOW_DOCS/Press%20Release%20(English).pdf)

⁷ BBIN MVA was signed by four countries, namely Bangladesh, Bhutan, India and Nepal in June 2015, but it continues to be under negotiation, and yet to be implemented.

Figure 2: Volume of goods Transported between Bihar and Other States through Rail



Source: The Directorate General of Commercial Intelligence and Statistics (DGCIS), 2018-2019

The State is well-connected to other states and up to Nepal's border through railway networks. The length of the rail route in Bihar is 3714 km. Moreover, the Eastern Dedicated Freight Corridor (EDFC), which Indian Railways is developing, passes through four districts (Kaimur, Rohtas, Aurangabad and Gaya) of Bihar. About 60 per cent of the stretch has been completed in the Kaimur and Aurangabad districts (Government of Bihar, 2019). Generally, for Bihar, railways are a major mode of transport for inter-state freight movement. In 2018-2019, through railways, 6.3 million tonnes of goods were transported from Bihar to other states and 5.6 tonnes from other states to Bihar.

There are also two railway lines connecting Bihar up to Raxaul bordering Nepal. The line from Raxaul has now been extended up to Sirsiya (Inland Container Depot) in Nepal. The second line connects Jaynagar in Bihar to Janakpur in Nepal, and the line is further extended to Barbidas in Nepal. Moreover, Indian Public Sector Enterprise IRCON is building a railway line to connect Jogbani in Bihar, India, to the industrial area of Biratnagar in Nepal (Centre for Social and Economic Progress, 2021). The Raxaul rail link is well-connected to Kolkata/Haldia port to facilitate transporting Nepal's cargo to/from a third country through the Kolkata/Haldia port.

Bihar has two domestic airports, one in Patna and one in Darbhanga. Patna airport is primarily used for freight movement and the total freight handled at this airport was 7,224 MT in 2020-2021. There is also an international airport in Bodh Gaya and it is used for international connectivity with Bangkok (Thailand), Colombo (Sri Lanka), Yangon (Myanmar), Dhaka (Bangladesh), Paro (Bhutan) and Kuala Lumpur (Malaysia) (India Brand Equity Foundation, 2021).

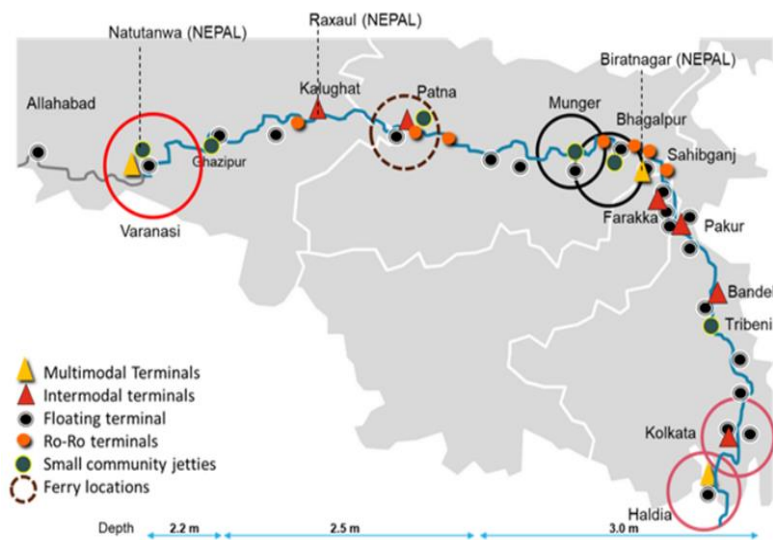
Bihar also has several waterways passing through the State. Among the 111 waterways, that have been declared as National Waterways (NWs) under the National Waterways Act, 2016, seven NWs (NW1, NW 37, NW 40, NW 54, NW 58, NW 81, and NW 94) have been planned in the State of Bihar. The NW1 stretching from Prayagraj in Uttar Pradesh to Haldia in West

Bengal is already operational. It is used to transport bulk cargo such as fly ash, crushed stone and coal from Bihar to other states and vice-versa (India Brand Equity Foundation, 2021).

The jetties in Bihar primarily used for the inter-state movement of cargo are Kahalgaon, Titanga, Manihari and Gaighat (DGCIS, 2019). There are also floating jetties in Bateswarsthan, Bhagalpur, Munger, Semaria and Buxar (Inland Waterways Authority of India). There is also a low-level but fixed terminal on the NW 1 for handling containers.

Under Jal Marg Vikas Project, the government has planned to establish a few ferry roll-on roll-off (RO-RO) services, and state-of-the-art terminals at Gaighat and Kalughat (India Brand Equity Foundation, 2021). The Kalughat terminal will also have access to a customs-notified area to facilitate international cargo transportation.

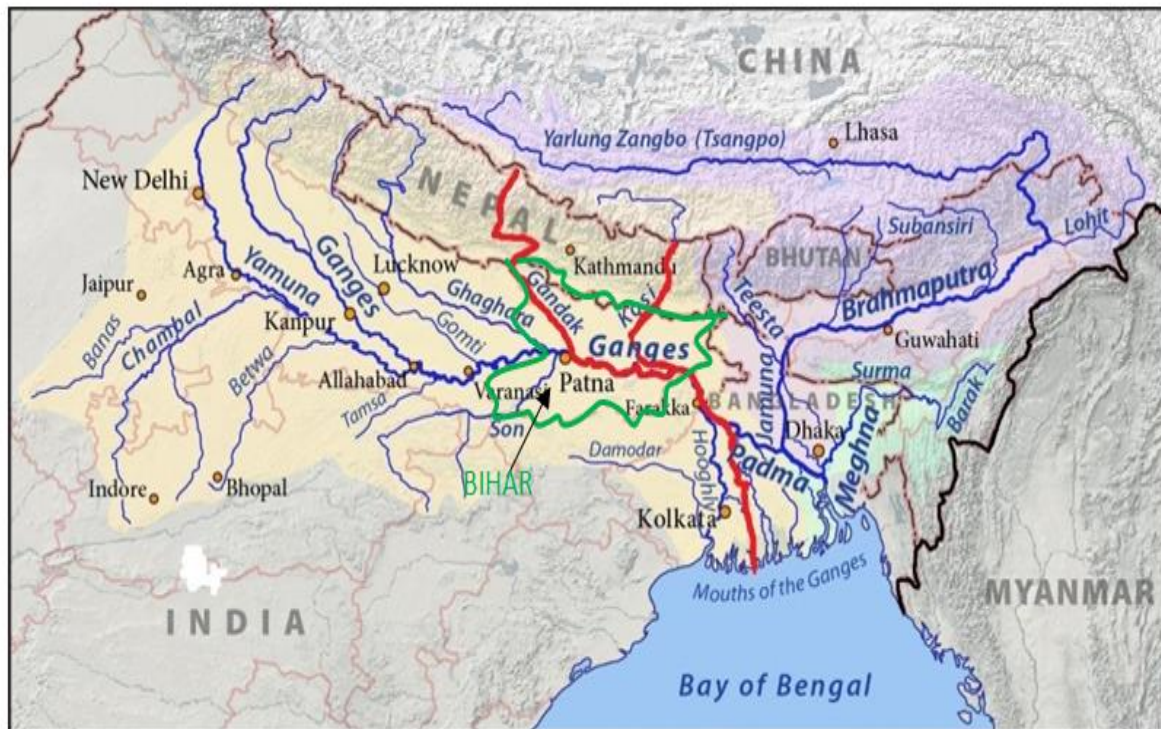
Figure 3: Master Plan of "Arth Ganga"



Source: Press Information Bureau (2020)

Further, it has been declared by India and Nepal that Kosi (NW 58) and Gandak (NW 37) would be developed as international Indo-Nepal waterways. With the development of these waterways, consignments will be able to reach Nepal directly through waterways. Through the NW 58, inland vessels could come up to Hanuman Nagar in India, which is linked to Rajbiraj and East-West Highway of India. At the same time, NW 37 could bring containerised traffic as close as possible to Bharatpur and Chitwan in Nepal. Connectivity from Nepal through NW37/ NW58 and NW1 is depicted in Figure 4 and is coloured in red and the boundary of Bihar is outlined with green.

Figure 4: Mapping India-Nepal connectivity through NW37 and NW 58



Source: Sandarbha (2016)

Alternatively, the consignment could also be brought to Sahibganj multimodal terminal in Jharkhand through Biratnagar ICP (Bihar, India) or Kalughat terminal at Saran district through Raxaul ICP (Bihar, India) via roadways. From there, cargoes could be taken to other states of India using inland waterways (either through cargo-carrying or Ro-Ro vessels.⁸) The distance between Kalughat and Raxaul ICP and Sahibganj and Biratnagar ICP is 204 Km and 233 Km, respectively. India has agreed in principle to allow landlocked Nepal to use its inland waterways, thus expanding Nepal's transit options by sea. However, governments are yet to finalise the protocols.

Bihar is also developing its first Multi-modal Logistic Park (MMLP) on a hundred acres of land near Jaitia village in Patna district, close to the under-construction Amas-Darbhanga four-lane and Neura-Diyawan railway line. It will enable it to connect directly to many districts in Bihar and other states. This MMLP will be equipped with state-of-the-art facilities, including cold storage, mechanised handling, parking for large vehicles and customs clearance. Besides, the State is also developing a multimodal transport hub near Patna Junction.

To further aid the development of logistics, the State is soon expected to develop its logistics policy.

⁸ The IWAI has plans to give two vessels to Bihar which will be used for Ro-Ro service.

Understanding Logistics Ecosystem in Bihar

Logistics Ease Across Different States (LEADS) Report 2022 is the best source to understand the State of logistics in Indian states. The LEADS report applies three pillars, namely, infrastructure, services, and operating & regulatory environment and 15 indicators⁹ to grade Indian states regarding logistics efficiency. These indicators are Pillar 1 (infrastructure): road infrastructure; rail infrastructure; terminal infrastructure; warehousing infrastructure; Pillar 2 (services): modal logistics services; quality of services at terminals; reasonableness of prices of logistics services; timeliness – transportation services; timeliness – terminal services; track and trace cargo movement; safety/security of cargo; Pillar 3 (operating & regulatory environment): promoting, incentivising, facilitating; ease of obtaining all approvals; ease of entry and issues related grievance redressal.

Based on the performance in terms of 15 indicators, Indian States – grouped into four categories of Landlocked, Coastal, Northeastern Region and Union Territories – have been categorised into three categories: Achievers, Fast Movers and Aspirers. While the *Achievers* have shown exemplary logistics ecosystems with exceptional infrastructure and transparent regulatory processes, the Fast Movers are states that are moving towards becoming Achievers by notifying progressive policy and legislative initiatives along with new infrastructure projects. The *Aspirers* are stating that they have initiated their journey towards logistics ease and excellence by adopting national best practices to improve further their contribution towards India's emerging position as a global manufacturing and logistics hub.

Bihar's achievement in logistics performance is quite unimpressive, as reflected in LEADS Report 2022. The State is at the bottom of the logistics pyramid and is placed in the category of *Aspirers* in the list of landlocked states, along with two other states, namely, Chattisgarh and Jharkhand. The State performed unimpressively in all indicators used in the report, except in rail infrastructure and reasonableness of logistics service prices, wherein it was placed in the category of *Achievers*.

In another eight indicators, the State has been placed on the list of *Fast Movers*. These indicators include terminal infrastructure; warehousing infrastructure; modal logistics services; quality of services at terminals; timeliness - transportation services; timeliness - terminal services; track and trace cargo movement and safety/security of cargo. In the remaining five indicators, the State performed badly, and is listed as Aspirers in the list of landlocked countries. These indicators include road infrastructure, promoting, incentivising and facilitating logistics infrastructure creation, management and operation; ease of obtaining all approvals; ease of entry; and grievance redressal issues.

In the preceding year, 2021, the State had also achieved an unimpressive position, ranked 19th in the list of 21 landlocked states, above Himachal Pradesh and Assam, as per the LEADS

⁹ LEADS 2022 Logistics Ease Across Different States

Report 2021.¹⁰ Its performance appeared sub-optimal across all nine indicators, namely, quality of road infrastructure; quality of rail infrastructure; quality of multimodal terminal infrastructure; quality of unimodal terminal infrastructure; quality of warehousing infrastructure; quality of logistics services; capability of logistics service providers; reasonableness of road freight rates; and reasonableness of prices of terminal services.

Efforts made by Bihar to improve its connectivity and logistics are sub-optimal and far from what other states, including its immediate neighbouring State of Uttar Pradesh. A lot needs to be done by the State in this regard to enable the State to benefit from its trade and economic potential, particularly in the agriculture and services sectors.

Bihar's Trade Potential

Overview of Priority Sectors and Industrial Development in Bihar

Agriculture is Bihar's most dominant sector, employing about 80 per cent of the State's population. The four agro-climatic seasons and fertile soil of Bihar support the cultivation of a wide range of crops. It is the fourth-largest producer of vegetables and the eight-largest producer of fruits in India (India Brand Equity Foundation, 2021). Therefore, the State has identified Agriculture as one of the high-priority sectors.

Under the One District One Product (ODOP) initiative,¹¹ various agricultural products have been identified from each district of Bihar, such as Mango from Arwal and Madhepura and Chilly from Begusarai. The objective is to convert each district of the State into an Export Hub. This would be done by identifying products with

Figure 5. Major Industrial Centres in Bihar

Centres	Industries
Patna	Major agricultural centre of trade, exporting grain, sugarcane, sesame and medium-grained rice; has also emerged as a manufacturing hub in Bihar, with the highest number of industrial units.
Tirhut	Has the 2nd highest number of industrial units in the state; food/beverage processing and manufacturing units located here.
Muzaffarpur	Important trade centre for cloth; famous for exporting fruits, particularly mango and litchi.
Barauni	Has major industrial units including those of Indian Oil Corporation; capacity of the existing thermal power station has undergone major renovation and modernisation.
Bhagalpur	Famous globally for tussar silk; trading of agricultural produce and cloth is an important economic activity; other major industries include rice, sugar milling and wool weaving.
Gaya	Major weaving centre; important tourist hub.

Source: India Brand Equity Foundation, 2021

¹⁰ The ranking system applied in the LEADS 2021 report has been replaced with a new logistics efficiency assessment approach in LEADS 2022 report. The new approach is qualitative in nature and ranks states and UTs into three groups, namely *Achievers*, *Fast Movers*, and *Aspirers*.

¹¹ [List of ODOP for 34 States and UTs](#)

export potential in the district, addressing bottlenecks for exporting these products, supporting local exporters/manufacturers to scale up manufacturing, and finding potential buyers outside India to promote exports, promoting manufacturing and services industry and to generate employment in the district (Press Information Bureau, 2021).

Figure 6: Leading district of crop production



Source: India Brand Equity Foundation (2021)

Other high-priority sectors for the Government of Bihar are textiles, apparel and leather; ethanol production; oxygen manufacturing; information technology-enabled services and food processing (Udyog Mitra, 2021B). Presently, Bihar has 52 industrial areas and mega industrial parks¹².

The Central Government is also setting up two Mega Food Parks (MFP) in Muzaffarpur District (at Motipur) and Khagadia District of Bihar. Additionally, the

government is developing Agro-Processing Cluster (APC) in the Begusarai district of the State (Udyog Mitra, 2021A).

Furthermore, Bihar also gains from the proposed Amritsar-Kolkata Industrial Corridor (AKIC), and Eastern Dedicated Freight Corridor (EDFC) developed by the Central Government, which also passes through the State. AKIC is proposed to be developed in a band of 150-200 km on either side of EDFC in a phased manner. Besides Bihar, AKIC will influence six other states Punjab, Haryana, Uttar Pradesh, Uttarakhand, Jharkhand and West Bengal.¹³

Realising Bihar's Export Potential

As per an EXIM Bank report, the export of merchandise from Bihar was valued at US\$1.35bn in 2017-18 (now equivalent to Rs.10,800 crore at the current INR/US\$ exchange rate). The report also mentions an untapped potential of Rs.7200 crore (US\$900mn); if this is realised, the shipment from the State could exceed US\$2bn in the short-term (Business Standard, 2019). This implies that Bihar's export performance is much below its potential.

In 2020, the total merchandise export from Bihar stood at US\$1.66bn. Major items exported from the State of Bihar were petroleum products, buffalo meat, maize, cereals, wheat,

¹² <https://www.investindia.gov.in/state/bihar>

¹³ Government of India, <https://www.nicdc.in/index.php/amritsar-kolkata-industrial-corridor-akic.html>

makhana (fox nut),¹⁴ fresh vegetable, honey, high-speed diesel, rubber articles, pharmaceutical products, rice (other than basmati), etc., (India Brand Equity Foundation, 2021; Niti Ayog 2020).

Bihar also can export garments, packaged foods and jewellery to Nepal (Export-Import Bank of India, 2019; Pathak, 2018). Presently, major destinations for products exported from Bihar are Nepal, Bangladesh, USA, Germany, Vietnam, Japan, China, etc. (Export-Import Bank of India, 2019).

Bihar's underperformance in merchandise exports and its unutilised potential is duly reflected in the NITI Aayog's Export Preparedness Index (EPI). This seeks to identify challenges and opportunities, enhance the effectiveness of government policies and encourage a facilitative regulatory framework for export. Bihar ranks 22nd in the consolidated list of 36 states and UTs. It is mentioned that the EPI entails four pillars, eleven sub pillars and 60 indicators and covers 28 states and 8 UTs.

Pillars of the Index include (a) Policy – whether the trade policy of the state/UTs provides a strategic direction for exports and imports; (b) Business Ecosystem – whether the State has an efficient business ecosystem to attract investments and create an enabling infrastructure for individuals to initiate start-ups; (c) Export Ecosystem – whether the State has developed a business environment, which is specific to exports; and (d) Export Performance – the reach of export footprints of States and UTs.¹⁵

The State of Bihar has poorly performed compared to many other states in all pillars (sub-pillars and 60 indicators), accounting for slightly more than 0.5 per cent of total exports from India. Bihar's ranking and performance imply that it does not have adequate infrastructure to facilitate an enabling export environment. It has a long way to go to catch up with other states and its export potential.

Conclusion and the Way Forward

Besides infrastructure development that has taken place over the years, various initiatives are being taken by the Central and Bihar state governments to improve the logistics ecosystem in Bihar, including drafting the Bihar Logistics Policy. Despite that, as per the LEADS 2021 Index, Bihar's rank is 19 out of 22 states, albeit the rank has increased by one place compared to 2019, indicating some improvement in the recent past.

The State's position has not changed even in the following year, 2022, with the State included in the list of *Aspirers* among the landlocked states in the LEADS 2022 Index. This implies that Bihar is one of the states which has initiated its journey towards logistics ease

¹⁴ More than 80 per cent of the fox nut produced in India is produced in Bihar.

¹⁵ For details, including on Pillars, Sub-pillars, and 60 indicators used in the report, please see NITI Aayog, Export Preparedness Index 2021 https://www.niti.gov.in/sites/default/files/2022-03/Final_EPI_Report_25032022.pdf

and excellence but has a long way to go. Things can, however, change with the introduction of the PM Gati Shakti Master Plan and NLP by the Central Government to be reinforced by the proposed logistics policy of the State (Box 1).

Box 1. Projects in Bihar under PM Gati Shakti

Bihar is one of the states which will see major development projects over the next five years as part of the PM Gati Shakti for the Eastern Region. Several infrastructure projects in Bihar have been proposed to be included under the PM Gati Shakti master plan. Some of these include:

- Development of multimodal connectivity hubs – encompassing rail, road and water junction – is being explored in 5 cities of Bihar, namely, Patna, Bhagalpur, Hajipur, Buxar and Katihar. Under this scheme, rail, road and water junctions will be built simultaneously, and this multimodal connectivity will be connected with waterways, rail and roadways.
- Work has started on the ground level on the Plan to run 14 bridges, 4 expressways and bullet trains on the river Ganga.
- Doubling of two railway tracks in Bihar: (a) Muzaffarpur-Sagauli: 100.6 km; (b) Sagauli-Valmikinagar: 109.7 km. There are also projects related to gauging the conversion of rail tracks and rebuilding bridges.
- The first Gati Shakti Cargo Terminal is proposed to be set up at Barauni under the PM Gati Shakti Yojana.
- A four-lane highway from Gazipur - Ballia - UP/Bihar State Border to connect the economic centres for better freight flow and interstate multimodal connectivity.

Further, in line with the NLP, the State Government is soon likely to come out with State logistics policy. These initiatives are expected to be major milestones for the economy of Bihar in terms of ease of logistics and connectivity within and outside the State.

Source: Times of India, October 16, 2022; Mint, October 03, 2022; Hindustan Times, January 07, 2022; Bihari Voice, February 02, 2022; and other sources

The need for improved connectivity and logistics also emerges from our experience during the COVID-19 pandemic, underscoring the need for a resilient logistics sector that can adjust to and leverage the transforming demand and supply landscape, environment, technology, and workforce aspirations and skill set. To link all these components with the logistics sector and create an integrated and efficient logistics sector, it is important that Bihar frames and implements the logistics policy and develops a master logistics plan for the State, which is under preparation.

The policy is expected to provide regulatory support, guidelines, incentives, requisite approvals, and clearances for the logistics sector. Improved logistics performance of Bihar will boost industries in Bihar, as well as India's domestic and international trade, and increase employment opportunities in logistics and other sectors.

Some immediate measures the Government of Bihar could take to improve the logistics ecosystem and connectivity of the State for enhanced trade and commerce are provided hereunder.

- A. **Improve intra-state connectivity:** Presently, the connectivity to and from Patna, the state capital, is quite weak. Only a few operational bridges connect the north and south Bihar. The combined capacity is far too limited to meet the traffic demand, thereby increasing the transit time and cost of cargo through this route.

Even though the Gandhi Setu has become operational recently after years of repair works and is helping the smooth flow of traffic, some other issues are (a) the Koilwar bridge and Rajendra Setu, which are in poor condition and the latter is already closed; (b) suspension of trucks on JP Setu (Digha-Sonpur rail-road bridge) citing the possibility of damage to the bridge due to heavy vehicles; among others. Because of these issues, often the 10-14 wheeler trucks have to tranship their consignments to 6-wheeler trucks at Transport Nagar, Patna, or take a longer route via Begusarai-Samastipur (374Km) and incur an additional cost of Rs 15000.

- B. **Improve inland waterways infrastructure:** Apart from Gaighat, all other terminals in Bihar on NW 1 have floating jetties and lack other facilities, including mechanical loading/unloading facilities. Therefore, only bulk, non-perishable commodities such as fly ash, crushed stone and coal move through inland waterways from/to Bihar. To decongest roads and reduce logistics costs, it is crucial that Bihar upgrades/mechanises terminals in Bihar and improves inter-modal transport infrastructure.

- C. **Increase the number of ICDs:** One of the most important infrastructures to facilitate export is the Inland Container Depot (ICD). Bihar has only one ICD at Patna, catering to domestic freight (Export-Import Bank of India, 2019). To promote export from Bihar, the State can establish a few ICDs in other strategic locations. Muzaffarpur and Bhagalpur are the ideal centres for establishing ICDs (Export-Import Bank of India, 2019).

Since IWAI is establishing an intermodal terminal in Kalughat in Saran District (located near Muzaffarpur district), establishing ICD in Muzaffarpur will be an added advantage. This ICD will be able to cater to the upcoming Mega Food Park in Muzaffarpur. On the other hand, the ICD in Bhagalpur will be able to cater to the upcoming Mega Food Park in Khagaria District and the forthcoming Agro-Processing Cluster (APC) in the Begusarai District.

- D. **Improve road infrastructure:** Due to the lack of bypass infrastructure in Bihar, commercial vehicles carrying cargo are forced to move through congested cities and towns, increasing transit time. On the other hand, the road condition in the major part of Bihar continues to be substandard. Even the roads connecting Bihar to Nepal are in poor condition and need improvement, especially the road to Raxual, the most

important trade crossing between India and Nepal. There is a 200m bridge connecting Nepal to India and a truck takes about two days to cover this because of congestion.

- E. **Improve warehouse and cold chain infrastructure:** There is a shortage of both warehouse and cold chain infrastructure in Bihar. The current warehouse capacity in Bihar is 0.6 million MT against the requirement of 13 million MT. Every year, about 30 per cent of agricultural produce becomes stale due to a lack of cold storage facilities, resulting in an unnecessary price hike. This calls for improving cold chain and warehouse infrastructure in Bihar.

In this regard, a Single Window System could be implemented to expedite the clearance of approvals for the construction of warehouses and logistics infrastructure projects. Additionally, in Bihar, there is no warehouse-specific policy, and obtaining permissions for the development of a warehouse is cumbersome and time-consuming. Additionally, there is no dedicated single window mechanism for applying and processing such permissions.

- F. **Improve internet connectivity and other issues at Raxaul ICP:** In Raxaul, there is an issue with internet connectivity and power availability. Therefore, documentation gets delayed and fails to keep pace with the physical movement of cargo. Further, the route to the Raxaul border (in India) from Motihari is not in good condition. Expedient completion of road construction needs to be ensured.

- G. **Address security concerns:** The truck drivers are generally very concerned about security while passing through Bihar. Due to security factors, in some areas, drivers avoid travelling at night or in convoys as preventive measures, which adds to travel time. For example, the Muzaffarpur State highway is prone to theft and these thefts cause the loss of high-value goods during transit. To address this issue, the government should consider installing CCTVs fitted at strategic locations, or officials can be deployed in those strategic locations. The State can also take digital initiatives to stop unwarranted stoppage of trucks.

- H. **Controlling-rent seeking behaviour:** Unjustified stoppages and checking commercial vehicles by Regional Transport Officers (RTO) is another major issue truckers face. Enforcement officials stop trucks with requisite documentation frequently. At times, these stoppages are to seek informal payments from truck drivers. Such unwarranted stoppages add to the overall transit time and transportation cost.

- I. **Establishing Special Economic Zones:** There is no Special Economic Zone (SEZ) in Bihar. Moreover, the State does not have any policy, act, or rule to encourage establishing SEZ. The establishment of SEZ will boost industrial development and

employment in Bihar, and SEZ could be established in Patna, Muzaffarpur or Bhagalpur districts.

Bibliography

Asian Institute of Transport Development. Study of Trade and Transport Facilitation India-Nepal. Asian Institute of Transport Development. <http://aitd.net.in/pdf/studies/4.%20Trade%20and%20Transport%20Facilitation-India-Nepal-Final.pdf>

Business Standard (2019, November 19). Bihar has export potential of \$900 mn, shipment could exceed \$2 bn: Exim. *Business Standard*. India. https://www.business-standard.com/article/pti-stories/bihar-has-untapped-export-potential-of-usd-900-million-exim-119111900278_1.html

CUTS International (2018). *Connecting Corridors beyond Borders: Enabling Seamless Connectivity in the BBIN Sub Region*. CUTS International. https://cuts-citee.org/pdf/Report-Connecting_Corridors_beyond_Borders.pdf

CUTS International (2019). *Bridging the East: Trade and Transport Connectivity in the Bay of Bengal Region*. CUTS International. https://cuts-citee.org/pdf/Project_Report_on_Bridging_the_EastTrade_and_Transport_Connectivity_in_the_Bay_of_Bengal_Region.pdf

Centre for Social and Economic Progress (2019, January 2021). Infrastructure across the India-Nepal borderlands: A photo-essay. *Centre for Social and Economic Progress*. <https://csep.org/blog/infrastructure-across-the-india-nepal-borderlands-a-photo-essay/>

Deloitte (2019). Logistic Ease Across Different States. Department of Commerce, Ministry of Commerce, Government of India. https://commerce.gov.in/wp-content/uploads/2020/08/MOC_637051086790146385_LEAD_Report-2.pdf

DB Pedia (2021, October, 8). *Dhola–Sadiya Bridge*. DB Pedia https://live.dbpedia.org/page/Dhola%E2%80%93Sadiya_Bridge

Directorate General of Commercial Intelligence And Statistics. <http://dgciskol.gov.in/>

Export-Import Bank of India (2019). *Promoting Export from Bihar: Insights and Policy Perspective* (Working Paper No. 88). Export-Import Bank of India. <https://www.eximbankindia.in/Assets/pdf/research-on-states/Bihar.pdf>

Ernst & Young LLP (2021). *Logistic Ease Across Different States*. Department of Commerce, Ministry of Commerce, Government of India. https://commerce.gov.in/wp-content/uploads/2021/11/LEADS-2021-Report_Final.pdf

Government of Bihar (2019). *Bihar Economic Survey (2018-2019)*. Finance Department, Government of Bihar. <http://www.udyogmitrabihar.in/docs/reports/Economic-Survey-2019-EN.pdf>

Gupta M. G. (2020, February 4). Modi govt's waterways authority set to rope in private players to build, operate terminals. *The Print*. [Modi govt's waterways authority set to rope in private players to build, operate terminals \(theprint.in\)](https://theprint.in/modi-govt-waterways-authority-set-to-rope-in-private-players-to-build-operate-terminals/)

Hindustan Times (2017, December 12). Length of Indo-Nepal border could change after re-demarcation: Officials. *Hindustan Times*. <https://www.hindustantimes.com/india-news/length-of-indo-nepal-border-could-change-after-re-demarcation-officials/story-LQ0YBKuGU4WroCKaYLI78H.html>.

India Brand Equity Foundation (2021, March). *Bihar: Industry in Bihar Presentation and Growth Report*. <https://www.ibef.org/states/bihar-presentation>

Inland Waterways Authority of India. [National Waterways 1 | Inland Waterways Authority of India, Government of India \(iwai.nic.in\)](https://www.iwai.nic.in/)

Niti Ayog (2020). *Export Preparedness Index 2020*. National Institution for Transforming India (NITI) Ayog, Government of India. https://www.niti.gov.in/sites/default/files/2020-08/Digital_ExportPreparednessIndex2020_0.pdf

Press Information Bureau (2011, December 14). No SEZ in Bihar. *Press Information Bureau, Ministry of Commerce & Industry, Government of India*. <https://pib.gov.in/newsite/PrintRelease.aspx?relid=78692>

Pathak, S. (2018, March 12). Bihar seeks Centre's help to promote trade with Nepal to offset revenue loss caused by prohibition. *Hindustan Times*. <https://www.hindustantimes.com/patna/bihar-seeks-centre-s-help-to-promote-trade-with-nepal-to-offset-revenue-loss-caused-by-prohibition/story-L2tKBxftZvdjJ7XOd1uB6N.html>

Press Information Bureau (2020, May 15). Prime Minister reviews "Project Arth Ganga" : Correcting imbalances; connecting people. *Press Information Bureau, Government of India*. <https://pib.gov.in/PressReleasePage.aspx?PRID=1624562>

Press Information Bureau (2021, February 3). One District One Product Scheme. *Press Information Bureau, Ministry of Commerce & Industry, Government of India*. <https://pib.gov.in/PressReleasePage.aspx?PRID=1694805>

Pathak, S. (2021, August 24). Bihar to push for reopening of JP Setu over Ganga to heavy vehicles. *Hindustan Times*. <https://www.hindustantimes.com/cities/patna-news/bihar-to-push-for-reopening-of-jp-setu-over-ganga-to-heavy-vehicles-101629776250125.html>

Rumi, F. (Jul 8, 2021). Bihar to introduce 3 new policies to woo investors. *The Times of India*. <https://timesofindia.indiatimes.com/city/patna/bihar-to-introduce-3-new-policies-to-woo-investors/articleshow/84215089.cms>

Sandarbha (2016, August 1). *Himalayan Rivers- Ganga River System*. Sandarbha. <http://www.sandarbha.com/ganga-river-system/>

Singh, A. (2020, February 4). Bihar to aid in branding and promotion of export items: Sushil Kumar Modi. *The Times of India*. <https://timesofindia.indiatimes.com/city/patna/sumo-state-to-aid-in-branding-and-promotion-of-export-items/articleshow/73911462.cms>

Times of India (2008, April 14). Kolkata-Dhaka Moitree Express flagged off. *The Times of India*. <https://timesofindia.indiatimes.com/india/Kolkata-Dhaka-Moitree-Express-flagged-off/articleshow/2950159.cms>

Udyog Mitra (2021 A, April 6). Centre clears mega food park at Motipur in Muzaffarpur". *Udyog Mitra*. <https://www.udyogmitrabihar.in/centre-clears-mega-food-park-at-motipur-in-muzaffarpur/>

Udyog Mitra (2021 B, October 4). CII East India Summit: Bihar to surge ahead towards promising growth trajectory. *Udyog Mitra*. <https://www.udyogmitrabihar.in/cii-east-india-summit-bihar-to-surge-ahead-towards-promising-growth-trajectory/>

World Integrated Trade Solutions. <https://wits.worldbank.org/>



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