

KEY POINTS

- The development of Multimodal Logistics Parks (MMLPs) at strategic locations is envisaged by the Government of India to improve logistics performance and bring down cost of logistics in India.
- These MMLPs are expected to facilitate freight aggregation and distribution, multimodal freight transport, integrated storage and warehousing, technology support, and value-added services.
- In 2017, the Government of India launched a program to develop 35 MMLPs across the country. The Asian Development Bank as lead partner, supported a pre-feasibility study to assess the suitability of the MMLP locations (Bengaluru in Karnataka and Guwahati in Assam) and identify the requisite infrastructure, connectivity, and regulatory reforms.
- The study found that models for MMLP financing and operations are dependent on the development and operations and maintenance responsibilities of the nodal agency and the third-party developers.
- The draft National Logistics Policy proposed the setting up of the Multimodal Logistics Park Authority of India as the nodal agency.

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Developing Multimodal Logistics Parks in India

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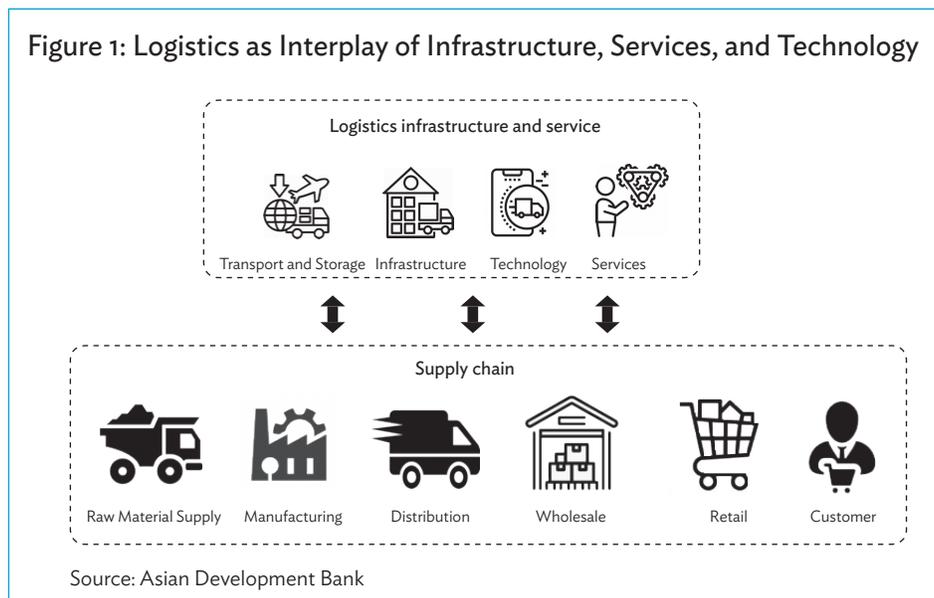
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LOGISTICS IN INDIA

Logistics in India is expected to be a \$215 billion industry in 2020. It is projected to expand through 2032 at a rate that is roughly 1.2 times the growth rate of India's gross domestic product (GDP) and generate \$360 billion in value added.¹ The logistics industry has evolved significantly over time. Compared with the traditional logistics industry consisting of scattered and single-operation activities, modern logistics is systematic and integrated, providing a full range of one-stop service through extensive application of information technology and industry expertise to support the entire supply chain from transport and freight, warehousing management, and order processing to delivery and customer service (Figure 1).

¹ *Business Standard*. 2019. Logistics Market Seen Growing 10.5% A Year, To Reach US\$ 215 Bn By 2020: Study. https://www.business-standard.com/article/companies/logistics-market-seen-growing-10-5-a-year-to-reach-215-bn-by-2020-study-119031800701_1.html#:~:text=The%20market%20size%20of%20the,was%20estimated%20at%20%24160%20billion.

Figure 1: Logistics as Interplay of Infrastructure, Services, and Technology



Efficient logistics are a critical enabler for policy initiatives such as “Make in India” and the nationwide implementation of the uniform indirect tax system, the Goods and Services Tax. Logistics has been accorded “infrastructure” status in 2017, facilitating the availability of debt on easier terms and access to external commercial borrowings, longer tenor funds from insurance companies, and pension funds, as well as investment support. For institutional support, a new Logistics Division has been set up in the Department of Commerce, Ministry of Commerce and Industry, Government of India, to coordinate integrated development of the sector by way of policy changes, improvement in existing procedures, identification of bottlenecks and gaps, and introduction of technology-based interventions. Technological support is being provided through the development of a Logistics Portal which will serve as a transactional e-marketplace for logistics service providers and users. A Logistics Data Bank has been commissioned to track containers on a near-real-time basis.

THE CHALLENGES

India ranked 44 in the World Bank Logistics Performance Index 2018, which measures performance based on six metrics—customs, infrastructure, international shipments, logistics competence, tracking and tracing, and timeliness. In India, each segment of logistics encounters significant challenges leading to high cost and low efficiency. At 13%–14% of India’s GDP, logistics costs are far higher than the benchmark of 7%–8%.² Road freight

cost at ₹1.9 per ton–kilometer (km) is almost double that in the United States, while the average speed of freight vehicles is about 50%–60% lower. While factors like topography do play a role, the magnitude of the difference is indicative of the inefficiencies present in logistics movement in India, which may be attributed to the factors listed below.

- **Skewed modal transportation mix.** In India, 60% of freight moves by road, which is significantly larger than in many developed economies. Coastal movement and inland waterways are at a nascent stage. Rail transport is marginal, in spite of being 45% cheaper per ton–km than road, due to adverse pricing and rake booking practices and lack of intermodal facilities to enable easy transfer.³
- **Underdeveloped material handling infrastructure.** Warehousing landscape is highly unorganized with the presence of a large number of small, private, and unorganized warehouses, providing little or no value-added services. The economies of scale associated with integrated and large warehousing facilities or multimodal logistical parks (MMLPs) is not available to all participants in the value chain, including the small and medium enterprises.
- **Inefficient fleet mix.** Small and inefficient trucks with gross vehicle weight rating of 16–25 metric tons (MT) (compared to 26–39.9 MT trucks dominant in the People’s Republic of China), have lower payloads. Freight cost for a 9 MT truck at ₹3.56 per ton–km is 2.5 times that for a 40 MT truck. Absence of logistics hubs to act as zones for freight consolidation and disaggregation results in higher point-to-point freight

² Government of India. Ministry of Road Transport and Highways. *Concept Note: Logistics Efficiency Enhancement Program (LEEP) and Development of Multimodal Logistics Parks*. https://morth.gov.in/sites/default/files/circulars_document/File2186.pdf.

³ Footnote 2.

Box: Modern Regional Logistics Parks to Absorb Disruptions like COVID-19 Pandemic

The COVID-19 pandemic has caused unprecedented disruption of global and domestic supply chains, drawing attention to the crucial role of logistics in maintaining essential supplies such as food and medical goods. The need for an efficient and resilient logistical system that can weather disruptions such as the pandemic is being keenly felt by governments round the world. It is acknowledged that to integrate supply chains, functional silos across transport, warehousing, distribution, packaging, inventory management, and other value added services need to be broken. A variety of approaches for increasing supply chain efficiency and resilience are being explored:

- **Shortening the supply chain by strengthening local logistics and consolidation.** The crisis has led companies and governments to re-evaluate their supply chain efficiency. Several companies are examining where they should manufacture their products, store inventory, source materials from, and do their final assembly. A common solution emerging is to shorten the supply chain by either locating the manufacturing closer to the key demand centers or ramping up local storage and distribution. As redrawing manufacturing capabilities is a complex and expensive proposition, strengthening local logistics and establishing fulfillment and consolidation centers (warehouses) closer to demand centers has emerged as a more plausible option. As the supply chain gets more regional, the need for logistics parks at strategic locations becomes more important than ever.
- **Achieving greater efficiency through technology.** Logistics parks with appropriate information technology

infrastructure and integrated Application Programming Interface (APIs) based platforms, can help in digitizing the traditional supply chain, supporting big data analytics and disruptive technology such as artificial intelligence. This can in turn help in achieving on-time performance and concurrently reduce cost to serve.

- **Strengthening the final mile through seamless intermodal transfers.** Many companies and economies have realized that while capacity exists for the long haul, the true constraint is at the local level. The final mile delivery is labor intensive, has cube constraints for neighborhood delivery vehicles, and may be governed by regulatory constraints. Ramping up local logistics capacity both for seamless transfer from long haul to short haul and final mile transport infrastructure will bring greater efficiency and reduce disruptions.
- **Promoting automation in handling of goods.** The pandemic has underscored the need for contactless delivery, which can be supported by modern logistics parks which are automated through robotics and handling equipment.
- **Inventory planning.** The pandemic has made assessing demand more challenging as companies move from deterministic to probabilistic demand scenarios. Often, companies are unable maintain inventories for contingencies due to the dearth of storage infrastructure at the local level. Regional logistics parks can provide end-to-end visibility of inventory, collaboration, agility and optimization.

movement on lower sized vehicles, compared to more efficient line haul freight.⁴

- **Outdated/inefficient service model.** Efficiency is also compromised as many firms try to compete through the factor advantage of low wages which have led to hiring poorly skilled personnel thereby eschewing investments in information technology and equipment technology, and consequently sacrificing productivity gains and service quality.
- **Fragmented institutional and governance structure.** Different parts of the logistics value chain currently are being managed by different ministries including Road Transport and Highways, Shipping, Railways, Civil Aviation, Commerce and Industry, Finance, Home Affairs, and Department of Posts. In addition, a large number of government agencies including Central Drug Standard Control Organization, Food Safety and Standards Authority of India, and Plant and Animal Quarantine Certification Service provide relevant trade clearances and impact the value chain. Globally, leading countries that have achieved efficiency in logistics, like Germany, Japan, the

Republic of Korea, and Malaysia, follow a completely integrated approach towards logistics, and the government provides coordinated oversight to the entire logistics value chain.

As the logistics industry in India is still developing, the country has an opportunity to add infrastructure optimally to meet the growing demand. While many initiatives have been put in place for transport infrastructure improvement in rail, road, airport, waterways, and ports, a coordinated approach that (i) closely aligns the development of each mode with the country's needs, (ii) supports seamless intermodal transfers to enhance last mile connectivity, and (iii) integrates modern technology while providing other value added services is required. This will build competitiveness and efficiency of the sector.

To achieve this, the Logistics Wing within the Department of Commerce, Ministry of Commerce and Industry, Government of India has placed a draft of the National Logistics Policy in public domain in February 2019. The main objective of the

⁴ Footnote 2.

policy is to bring down logistics cost as a percentage of GDP to about 10%, optimize the modal mix (25%–30% share of road, 50%–55% railways, and 20%–25% waterways), improving last mile connectivity, and enhance the logistics value chain through digitization, standardization, and modernization of warehousing among others. The policy also emphasizes on the development of MMLPs for enabling seamless multimodal freight transfer, providing world-class storage and handling, as well as delivering value-added freight services.

MULTIMODAL LOGISTICS PARKS AS A SOLUTION

The development of MMLPs at strategic locations is envisaged as a key policy measure to rationalize cost of logistics in India and improve its competitiveness. The COVID-19 event has highlighted the need for greater regionalization of the supply chain. The development of MMLPs at strategic locations in different regions can help in developing the supply chain in a more agile and cross-functional way. The MMLPs can provide (i) infrastructure for enabling seamless multimodal freight transfer; (ii) mechanized warehouses and specialized storage solutions such as cold storage; (iii) mechanized material handling and intermodal transfer container terminals, and bulk and break-bulk cargo terminals;

(iv) value-added services such as customs clearance, bonded storage yards, quarantine zones, testing facilities, and warehousing management services; and (v) late-stage manufacturing activities such as kitting and final assembly, grading, sorting, labeling, and packaging activities, reworking, and returns management. Furthermore, MMLPs could improve the utilization and performance of inland container depots (ICDs) and container freight stations where they exist.

The Ministry of Road Transport and Highways (MORTH) estimates that logistics parks would drive about 10% reduction in transportation cost for the top 15 nodes by enabling freight movement on higher sized trucks and rail, which will also result in lower carbon dioxide emissions and less congestion in cities.⁵ Shifting warehouses and wholesale markets, currently inside the city, to logistics parks (driven by lower rentals) would reduce urban congestion. In addition, modern and mechanized storage solutions provided by logistics parks would cut down storage and handling losses.

According to MORTH, these MMLPs are expected to serve five key functions: freight aggregation and distribution, multimodal freight transport, integrated storage and warehousing, information technology support, and value-added services (Figure 2).

Figure 2: Key Facilities in a Multimodal Logistics Park by Cargo Type

Cargo type	Dry cargo		Containers		Processing and Value-Added Services
	Perishable	Nonperishable	Empty	Stuffed	
Storage type	Covered warehouse	Open storage or covered warehouse	Open storage	Open storage or covered warehouse	
Facilities	<ul style="list-style-type: none"> Weather- and pest-proof drainage and bagging facilities Cold storage facilities Pack house for horticulture produce Multimodal transport Packing and sorting 	<ul style="list-style-type: none"> Normal storage—heavy industrial floor Conveyor belt systems for bulk cargo Multirack facilities Multimodal transport Bagging or packaging 	<ul style="list-style-type: none"> Cargo stuffing yard Empties storage and repair yard Multimodal and multicountry transport Inland container depots Packaging 	<ul style="list-style-type: none"> Cargo destuffing yard or stacking yard Multimodal and multicountry transport Unpacking Multirack warehouses 	<ul style="list-style-type: none"> Facilities for labeling and packaging Last mile value addition Electronic hardware Light manufacturing and horticulture/food processing
Common facilities	<ul style="list-style-type: none"> Bonded zone and customs clearance Distribution facilities Communication facilities (information technology linkage with port, customs, railways, and end users) Business center facilities and trade finance assistance (wholesale and retail trading platforms) Documentation facility Refreshment/recreation facility (desirable) 		<ul style="list-style-type: none"> Parking facilities Petrol/compressed natural gas/diesel fuelling stations and truck repair shops Light engineering facility Power, water supply, drainage facilities Approach road from highway Weighbridge facilities Security services 		

Source: Asian Development Bank

⁵ Footnote 2.

**ASIAN DEVELOPMENT BANK:
ROLE AND SUPPORT**

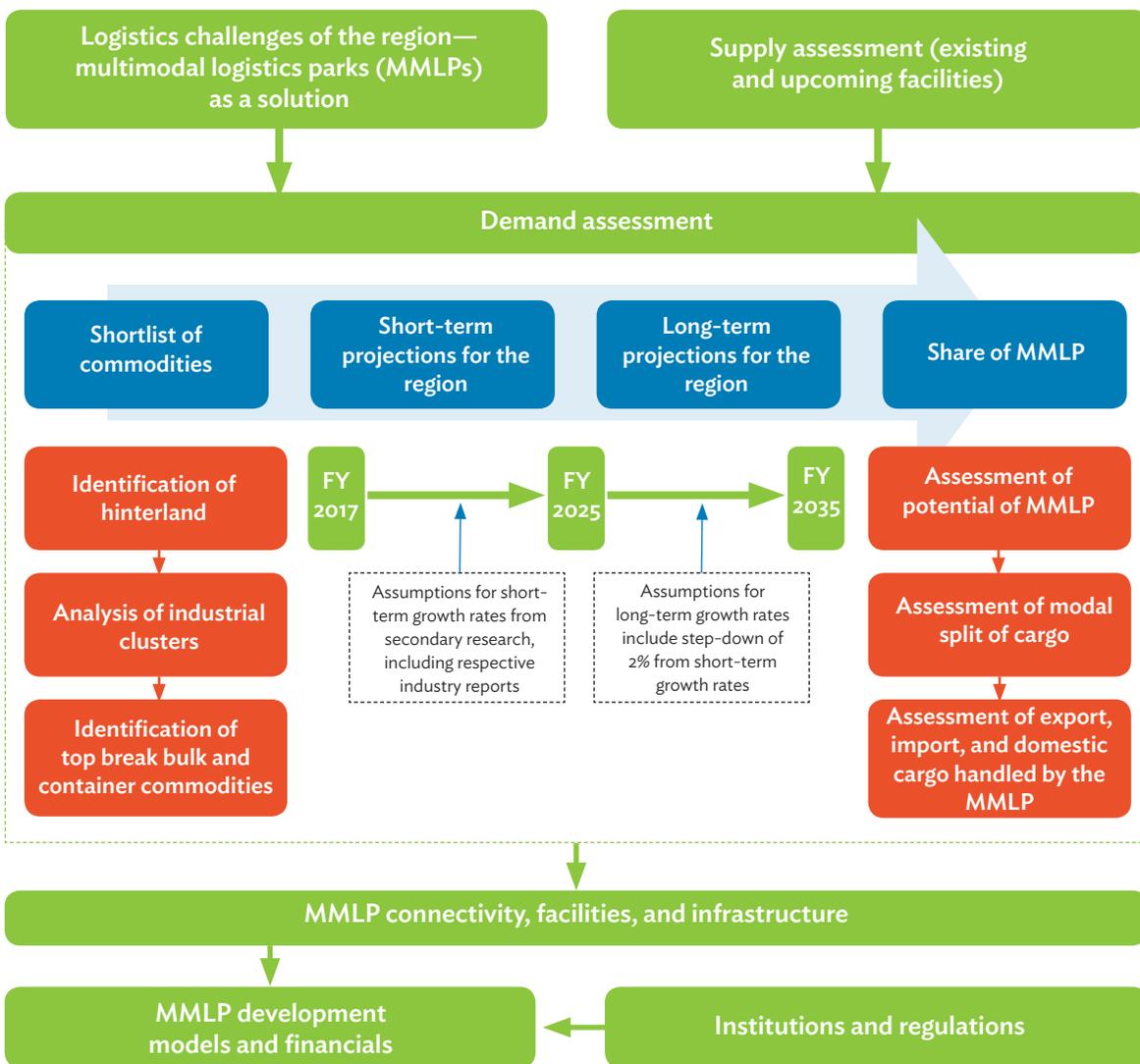
In 2017, the Government of India launched a program to develop 35 MMLPs across the country and invited the Asian Development Bank (ADB) to provide necessary support as lead partner. ADB then conducted a pre-feasibility study to assess the suitability of MMLPs in the vicinity of Bengaluru (Karnataka) and Guwahati (Assam) and identify the requisite infrastructure, connectivity, and regulatory reforms. Bengaluru is ideally located for an MMLP in south India, with good connections via rail and road networks, and proximity to 17 million potential consumers in Chennai. In this regard, the state government identified

Dabaspete, a tiny town located in Bangalore Rural District, as the site for MMLP. ADB also supported the pre-feasibility study for an MMLP in Jogighopa, Assam (about 150 km from Guwahati), which incorporates rail, road, and inland waterway connectivity. The proposed site is located on the Indo-Bangladesh road route along National Waterway 2, making it suitable for multimodal access.

THE FRAMEWORK

In addressing the challenges in logistics, the MMLP feasibility framework also takes cognizance of the existing facilities in the region. The MMLP is envisaged to plug the demand-and-supply

Figure 3: Framework for Conducting a Feasibility Study for Developing a Multimodal Logistics Park



Note: The fiscal year (FY) of the Government of India ends on 31 March. “FY” before a calendar year denotes the year in which the fiscal year ends, e.g., FY2020 ends on 31 March 2020.

Source: Asian Development Bank

gap in logistics infrastructure as well as improve efficiency through new facilities and services. Robust demand assessment forms the basis of the MMLP feasibility through commodity-based short- and long-term growth projections for the region and subsequent estimation of the MMLP's share of the region's demand. The development models are based on the facilities,

services, and connectivity requirements of the MMLP under the purview of regulatory structure, with special emphasis on institutional and implementation mechanisms across multiple stakeholders. Figure 3 summarizes the approach used to conduct the studies.

Table 1: Demand Assessment for Dabaspote

No.	Commodity	Container or Bulk-Break Bulk	Short-Term Growth % (until FY2025)	Long-Term Growth (FY2025-FY2035)
1	Food grains	Bulk-Break Bulk	4.2	4.2%
2	Fast-moving consumer goods	Both	14.7	2% reduction from short-term growth rate every 5 years to account for saturation in industrialization
3	Steel and iron	Both	8.6	
4	Construction materials	Container	8.6	
5	Chemicals and pharmaceuticals	Both	10.9	2% reduction from short-term growth rate every 5 years to account for saturation in industrialization
6	Paper	Both	7.0	
7	Aluminum	Both	6.4	
8	Fertilizers	Bulk-Break Bulk	1.2	5% reduction from short-term growth rate in the first 5 years and 3% reduction in the next 5 years to account for saturation in industrialization
9	Tobacco products	Bulk-Break Bulk	-1.7	
10	Fabric and garments	Containers	8.0	
11	Automotive components	Containers	9.0	10% reduction from short-term growth rate every 5 years to account for saturation in industrialization
12	Gherkins	Containers	4.9	
13	Tires	Bulk-Break Bulk	9.0	
14	Machinery and parts	Containers	12.0	
15	Granite	Containers	8.6	
16	Miscellaneous	Both	6.4	
17	Furniture	Container	26.0	5% reduction from short-term growth rate in the first 5 years and 3% reduction in the next 5 years to account for saturation in industrialization
18	Electrical and electronics	Container	24.4	
19	Solar modules	Both	39.2	

Note: The fiscal year (FY) of the Government of India ends on 31 March. "FY" before a calendar year denotes the year in which the fiscal year ends, e.g., FY2020 ends on 31 March 2020.

Source: Asian Development Bank

CASE 1. THE DABASPETE MULTIMODAL LOGISTICS PARK

The 264-acre MMLP site proposed at Dabaspete is about 50 km from Bengaluru and 25 km from Tumkur with access to Niduvanda and Hirehalli railway stations.⁶ It is surrounded by large manufacturing clusters. Tumkur is one of the nodes along the Chennai–Bengaluru Industrial Corridor.

Supply Assessment

Of the organized facilities, the major container handling facility in the region is ICD of the Container Corporation of India (CONCOR), which handles 112,941 twenty-foot equivalent units (TEUs) of container traffic annually (FY2017), with the containers transported through rail. The CONCOR ICD caters to industrial centers in the districts of Bengaluru Rural and Bengaluru Urban including Peenya, Jigani, Mysore Road, Electronic City, Malur, Dabaspete, and Bommasandra. The facilities are clustered around the Whitefield area, leading to congestion and logistical challenges. The tariff structure of the existing facilities shows high storage costs as they are located within the city.

Demand Assessment

Demand is assessed first for the region and then for the MMLP (as a share of regional demand). Commodities (both container and bulk-break bulk) that contribute to over 60% of the total freight traffic in the region have been chosen for growth forecasts and

shortlisted in Table 1. The traffic potential of the MMLP assessed through origin–destination analysis of key commodities via Mysore Road, Hyderabad–Chennai Road, Hosur Road, and Tumkur Road is presented in Table 2.

The proposed Dabaspete MMLP would provide an integrated platform and facilities for logistics with sufficient capacity to meet the requirements of end users on the western side of Bengaluru for the next 20 years. Projected traffic is expected to grow to 0.35 million TEUs and 14.8 million metric tons of bulk-break bulk cargo in FY2035.⁷ The share of road traffic in the overall modal mix will decline from FY2017 levels by 10 percentage points by FY2025 in favor of rail.

Key infrastructure projects that have been prioritized for the success of the Dabaspete MMLP include the Bengaluru–Chennai Expressway, Satellite Town Ring Road, a railway spur to the Hirehalli Railway Station, a Tumkur–Rayadurg rail connection, and a Tumkur–Davangere rail connection. The development of the MMLP is proposed over two phases:

- Phase I entailing the development of about 125 acres to cater to the traffic projections till 2025, and
- Phase II entailing the development of 148 acres to meet the requirements and market dynamics envisaged in 2035.

CASE 2. JOGIGHOPA MULTIMODAL LOGISTICS PARK

Assam is an industrialized state and a major consumption hub of the northeast region of India with 70% of the region's population. Guwahati is its existing logistics hub and Dispur, a region within Guwahati, the state capital.⁸ The MMLP site proposed is located close to Jogighopa, about 150 km from Guwahati.

Supply Assessment

The only container handling facility in the region, ICD Amingaon, handled 4,808 TEUs of container traffic in FY2017, catering to industries across Assam, Tripura, and Meghalaya. The other facilities that handle bulk-break bulk cargo include those run by the Central Warehousing Corporation, Assam State Warehousing Corporation, and the Indian Railways Goods Sheds. The tariffs of warehousing facilities in Guwahati are higher on average than those in other parts of Assam, including Jorhat, Sorbhog, and Dhubri.

Demand Assessment

Demand is assessed first for the region and then for the MMLP (as a share of regional demand). Commodities (both container

Table 2: Traffic Potential at Dabaspete

No.	Year	Containers for Tumkur Region (TEUs)	Containers for MMLP (TEUs)	Bulk-Break Bulk for Tumkur Region (MMT)	Bulk-Break Bulk for MMLP (MMT)
1	FY2020	116,105	46,442	15.2	3.1
2	FY2025	202,049	80,819	22.6	5.7
3	FY2030	347,981	173,990	31.7	9.5
4	FY2035	578,160	346,896	42.1	14.8

MMLP = multimodal logistics park, MMT = million metric tons, TEUs = twenty-foot equivalent units.

Note: The fiscal year (FY) of the Government of India ends on 31 March. "FY" before a calendar year denotes the year in which the fiscal year ends, e.g., FY2020 ends on 31 March 2020.

Source: Asian Development Bank

⁶ This case study draws upon ADB. 2017. *Bengaluru Multimodal Logistics Park Enhancing Logistics Efficiency in India*. Unpublished report.

⁷ The fiscal year (FY) of the Government of India ends on 31 March. "FY" before a calendar year denotes the year in which the fiscal year ends, e.g., FY2020 ends on 31 March 2020.

⁸ The case study draws upon ADB. 2018. *Jogighopa Multimodal Logistics Park Enhancing Logistics Efficiency in India*. Unpublished report.

and bulk-break bulk) that contribute to over 60% of the total freight traffic in the region have been chosen for growth forecasts and shortlisted in Table 3. The traffic potential of the MMLP assessed through origin–destination analysis of key commodities, warehousing requirements, and potential for inland waterways through aggregation at Jogighopa is seen in Table 4.

The proposed Jogighopa MMLP shall provide an integrated platform and facilities for logistics with sufficient capacity for the

next 20 years to meet the requirements of end users in the region. The projected traffic potential of the MMLP is expected to grow to 2.9 million metric tons in FY2035.

Key infrastructure projects prioritized for the success of the Jogighopa MMLP include the widening of National Highway 17 (NH-17) between Goalpara and Guwahati, the doubling of the New Bongaigaon–Goalpara–Guwahati Railway Line, a new railway line from Jogighopa to Gauripur, the re-development of Jogighopa

Table 3: Demand Assessment for Jogighopa

No.	Commodity	Container or Bulk-Break Bulk	Short-Term Growth % (until FY2025)	Long-Term Growth (FY2025–FY2035)
1	Tea	Both	4.65	2% reduction from short-term growth rate every 5 years to account for saturation in industrialization
2	Betel nuts	Container	2.17	2.17%
3	Food grains and seeds	Bulk-Break bulk	0.93	0.93%
4	Fruits and vegetables	Bulk-Break bulk	2.17	2.17%
5	Fertilizers	Bulk-Break bulk	2.17	2.17%
6	Fast-moving consumer goods	Bulk-Break bulk	14.7	2% reduction from short-term growth rate every 5 years to account for saturation in industrialization
7	Machinery items and hardware	Bulk-Break bulk	4.83	
8	Iron goods and steel	Bulk-Break bulk	6.98	
9	Construction material	Bulk-Break bulk	6.98	
10	Paper and forest goods	Bulk-Break bulk	7.00	
11	Plastics	Bulk-Break bulk	10.00	
12	Miscellaneous	Both	4.83	

Note: The fiscal year (FY) of the Government of India ends on 31 March. “FY” before a calendar year denotes the year in which the fiscal year ends, e.g., FY2020 ends on 31 March 2020.

Source: Asian Development Bank

Table 4: Traffic Potential at Jogighopa

No.	Year	Bulk-Break Bulk (MMT) Domestic		Bulk-Break Bulk (MMT) Cross-Border		Container (TEUs)	
		Region	MMLP	Region	MMLP	Region	MMLP
1	FY2020	13.56	0.75	0.86	0.34	5,413	1,536
2	FY2025	18.88	1.06	1.53	0.61	6,612	1,876
3	FY2030	24.89	1.44	2.18	0.87	7,515	2,133
4	FY2035	31.15	1.89	2.47	0.99	7,925	2,249

MMLP = multimodal logistics park, MMT = million metric tons, TEUs = twenty-foot equivalent units.

Note: The fiscal year (FY) of the Government of India ends on 31 March. “FY” before a calendar year denotes the year in which the fiscal year ends, e.g., FY2020 ends on 31 March 2020.

Source: Asian Development Bank

River Port as an all-weather port, and an interchange to allow for the connection of NH-17 (including a port connection) to the MMLP over the railway line.

The development of the MMLP is proposed in two phases:

- Phase I entailing the development of about 61 acres to cater to the traffic projections till 2025, and
- Phase II entailing the development of 39 acres to meet the requirements and market dynamics envisaged in 2035.

REGULATORY STRUCTURE

The MMLP development models are dependent on the development and operations and maintenance responsibilities of the players (the nodal agency and third-party developers). Evaluation of the risk profile and efficiency of possible choices indicates two options recommended for development.

1. **Public-Private Partnership (PPP).** This includes development and operation of the logistics park by third-party players, whereas the nodal agency provides the land and collects lease rentals.
2. **Nodal Agency as the Master Developer.** In such a case, the nodal agency develops and operates the common infrastructure and amenities and allows individual third-party players to develop and operate the facilities. The revenue in this case is collected in the form of lease rentals or revenue sharing.

Based on the comparative analysis of the business models, a special purpose vehicle (SPV) with four entities is suggested for implementation of the MMLP under the PPP model.

- **Entity 1.** The first entity would be responsible for acquiring the land and leasing it out to the SPV. Further, in order to improve the viability of the project and have control over key resolutions of the SPV, the primary nodal agency could be given a golden share with 26% voting rights in the SPV. The golden share entitles the participating entity control over major decisions of the SPV without mandating it to invest in the equity of the SPV. In the case of the MMLP in Jogighopa, Assam Industrial Development Corporation, being the land-owning authority, is best placed to acquire and lease the land out to the SPV on long-term rental basis.
- **Entity 2.** The second entity could be the anchor investor to develop the common or core infrastructure such as railway infrastructure, sewerage facilities, and utilities such as power and water. Further, depending upon the risk appetite and operational advantages of the parent of the participating entity, this entity might also develop and operate specific facilities inside the MMLP.

- **Entity 3.** The third set of entities would be responsible for developing the external connectivity infrastructure (such as highways and rail) linking the MMLP. These entities might be a part of the SPV with an equity contribution or they could work together with the SPV for developing the external connectivity infrastructure. In return, the SPV could collect user charges such as toll revenues from the users of the MMLP and apportion a share of the charges to this third set of entities.
- **Entity 4.** Finally, the fourth set of entities would develop and operate the individual facilities in the MMLP such as ICDS, warehouses, truck terminal, and private freight terminal.

INSTITUTIONS AND POLICY OPTIONS

Strengthening the current soft infrastructure (policy and regulations) is one of the critical ingredients for the effective functioning of the MMLP. A Logistics Policy enhances the role of critical processes, paves the way for multiple authorities to work together, introduces smart technologies, and promotes the ease of doing business. The draft of the National Logistics Policy has proposed to set up a Multimodal Logistics Park Authority of India (MMLPAI) with representations from various ministries and state governments.⁹ The MMLPAI could be a corporatized body under the central government acting as the nodal agency for facilitating the development and operation of MMLPs in the country. The suggested responsibilities of the MMLPAI are:

- Develop, own, and operate MMLPs on behalf of the Government of India.
- Coordinate transport infrastructure development among different stakeholders, including MORTH, Ministry of Railways, Inland Waterway Authority of India, Ministry of Shipping, and Airports Authority of India, and Land Ports Authority of India, which are charged with transport and border infrastructure development.
- Identify gaps in trunk and multimodal interlinkages and bridge them while developing terminals for efficient multimodal freight transfer.
- Coordinate MMLP development by other ministries and agencies including MORTH, CONCOR, and the Delhi-Mumbai Industrial Corridor Development Corporation. There is a need to ensure that MMLPs are developed at the right locations and supported by connectivity infrastructure.
- Facilitate private sector participation. The PPP is the preferred mode of implementing MMLPs. To encourage greater private participation, the MMLPAI could develop a model PPP framework to define the role and interdependencies between central and state governments and private players.
- Develop the basis for viability gap funding and shortlist and select eligible projects.

⁹ There are various models within India where governance of activities involving specialized operations have been assigned to a nodal authority that has evolved over time and played a key role of coordinating and development of infrastructure as well as providing operational oversight. Examples include the National Highways Authority of India, Land Ports Authority of India, and the Airports Authority of India.

- Regulate the operations of MMLPs, set standards for MMLP development, and benchmark against international best practices. The MMLPAI would play a nodal role in operations of MMLPs across the country to ensure operational safety and minimum service standards including those set by the Bureau of Indian Standards.
- Centralize MMLP approvals. Due to the involvement of multiple state and central agencies, currently over 50 different approvals are required to develop an MMLP.¹⁰ A single window operated by the MMLPAI would facilitate the process of clearances.
- Advise the central government on matters related to MMLP development and design as also implement schemes and programs to promote logistics services.

CONCLUSION

As the government casts focus toward planning for the next unforeseen contingency, the need for developing an integrated, modern, and responsive logistics infrastructure has become more important than ever. The MMLPs can support greater regionalization of the supply chain, prepare for volatility and unpredictability, and augment rather than replace the work force through the adoption of modern technology. The development of MMLPs can be expedited by removing the complexities involved in its implementation, greater coordination for building multimodal transport infrastructure, and adopting a simplified model for private participation.

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ADB is committed to achieving a prosperous, inclusive, resilient, and sustainable Asia and the Pacific, while sustaining its efforts to eradicate extreme poverty. Established in 1966, it is owned by 68 members—49 from the region. Its main instruments for helping its developing member countries are policy dialogue, loans, equity investments, guarantees, grants, and technical assistance.

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