सत्यमेव जयते

Government of India
Ministry of Commerce and Industry
Department of Commerce

LEADS 2021

Logistics Ease Across Different States

INDIA LOGISTICS


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PIYUSH GOYAL

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वितरण तथा वस्त्र मंत्री, भारत सरकार
MINISTER OF COMMERCE & INDUSTRY,
CONSUMER AFFAIRS, FOOD & PUBLIC DISTRIBUTION AND
TEXTILES, GOVERNMENT OF INDIA

FOREWORD

Despite COVID-19 pandemic, Indian economy has shown immense resilience and is quickly moving towards significant economic recovery. A case in point is India's robust exports performance. India reported $197.5 billion in exports in 1st half of the year ending September 2021. This is historically high with exports consistently hitting $30 billion plus per month.

Logistics industry is not only an enabler to India's economic growth but has also emerged as a lifesaver in fight against COVID-19. From movement of Liquid Medical Oxygen through tankers and Special Oxygen Express trains to transportation of Oxygen Cylinders and Concentrators to hospitals and delivering essential products, each stakeholder within the logistics sector has served selflessly.

Hon'ble Prime Minister Shri Narendra Modi's launch of 'PM GatiShakti - National Master Plan' is envisaged towards creation of world class infrastructure enabling logistics in a holistic and integrated manner. This will further boost manufacturing and exports in the coming years.

The LEADS report by the Department of Commerce has become a milestone in gauging the logistics performance of States and UTs. The report has become a guide for States to identify their strengths and opportunities and build upon the same to further improve their logistics performance. The 3rd edition of 'Logistics Ease Across Different States" LEADS 2021, with wider coverage and inclusive methodology intends to capture the perception of logistics infrastructure and services across India. The ranking and findings of LEADS 2021 share the vision of an 'Aatmanirbhar Bharat', where each State and UT contribute towards achieving the goal of maximum exports from India.

I am confident that LEADS 2021 will foster growth and improvement in Logistics ecosystem at the State/UT level, which will in turn help the country achieve the goal of 'Local goes Global'. The department will continue its engagement with the States and UTs to implement the recommendations in the report and to stimulate holistic growth and progress.

Piyush Goyal

Ministry of Commerce & Industry : Udyog Bhavan, Rafi Marg, New Delhi-110011
Tel. No. : +91 11 23062223, 23061492, 23061008, Fax : +91 11 23062947, E-mail : cimoffice@nic.in

बी. वी. आर. सुब्रह्मण्यम
B. V. R. SUBRAHMANYAM

वाणिज्य सचिव
भारत सरकार
नई दिल्ली–110011
COMMERCE SECRETARY
GOVERNMENT OF INDIA
NEW DELHI-110011

FOREWORD

The first (2018) and the second (2019) editions of "Logistics Ease Across Different States – LEADS" have been a milestone in analysing the logistics ecosystem across States. The third edition of the report couldn't be prepared in 2020 due to the COVID pandemic and was postponed to 2021. To have a focused approach towards logistics, several States in India have already constituted an institutional mechanism for logistics comprising a Nodal officer, State Logistics Cell and a Coordination Committee. A few States have also formulated a Logistics Policy for the State, primarily focusing on streamlining the logistics chain, focusing on cost optimization and making the State attractive for doing business.

LEADS 2021 has been a joint effort of the Department of Commerce, State Governments and stakeholders. In LEADS 2021, we have done a total revamp of the ranking methodology. The ranking this year has factored in not only the responses from stakeholders' perception but also, for the first time, included objective data and States' responses. Objective responses are based on States' existing policies, regulatory mechanism, institutional setup and core infrastructure. It further supports competitive federalism among States where they can learn from each other and help economic growth.

The report at a granular level also analyses observations and concerns of stakeholders. It provides suggestive actions that a State / UT can look at to resolve current issues.

I am hopeful that the LEADS 2021 report will accelerate the efforts of States and UTs in improving logistics efficiency.

[B.V.R. Subrahmanyam]

New Delhi
12th October 2021

Room No. 143, Udyog Bhawan, New Delhi-110 011, Tel.: 23063664 / Fax : 23061796 / E-mail : csoffice@nic.in

आज़ादी का अमृत महोत्सव

Amrit Lal Meena, IAS
Additional Secretary (Logistics)

सत्यमेव जयते

भारत सरकार
वाणिज्य एवं उद्योग मंत्रालय
वाणिज्य विभाग
उद्योग भवन, नई दिल्ली–110 011
GOVERNMENT OF INDIA
MINISTRY OF COMMERCE & INDUSTRY
DEPARTMENT OF COMMERCE
Udyog Bhawan, New Delhi-110 011
http://commerce.gov.in

11th October, 2021

FOREWORD

The "Logistics Ease Across Different States – LEADS" report has become a milestone which helps the States and UTs gauge their Logistics ecosystem. It acts as a litmus test for the State governments to check the actual impact of their programs and policies for promoting logistics vis-à-vis the perception feedback received from the Stakeholders. The report in its 3rd edition is in line with Government of India's vision of creating an "Aatma Nirbhar Bharat" through quantifying impact of various logistics and Infrastructure projects across the States and U.T.'s.

The LEADS 2021 report comes in the backdrop of COVID-19 Pandemic which adversely affected the entire Nation. The report discusses and covers key challenges and mitigation measures for the same from a logistics perspective in a separate section.

The LEADS 2021 has been a joint effort of the Department of Commerce, State Government, and logistics stakeholders . There has been a constant effort by the department to make the report progressive and more representative in each consecutive edition. This year's rankings considers, not only the perception responses from industry, but also, for the first time, objective data from the States and UTs. Thus moving to a more data based scientific approach.

In true sense, purpose of the LEADS 2021 report is to analyse the business environment at the State level pertaining to Logistics infrastructure, policy framework and regulatory regime. It provides a further suggestive roadmap to States and UTs along with a detailed list of reforms and best practices followed by other States and UTs to learn from. The report clearly indicates State-wise recommendations on Infrastructural gaps, policy and regulatory support needed for further improvement of logistics efficiency.

I am confident that the LEADS 2021 report will give a directional headway to the States and U.T.'s to improve logistics ecosystem in a bid to fare better in the coming years.

11.10.21

(Amrit Lal Meena)

Room No. 132, Udyog Bhawan, New Delhi-110011 (India)
Tel. : +91-11-23061624, E-mail : as.logistics@gov.in

Acknowledgement

LEADS 2021 report has been prepared by a team of Transport & Logistics professionals at EY LLP with guidance and inputs from officials of Department of Logistics, Ministry of Commerce and Industry, Government of India.

The team is thankful to senior officials, specifically Shri B.V.R Subrahmanyam, Commerce Secretary, Shri Amrit Lal Meena, Additional Secretary – Logistics, Department of Commerce; Shri S. Suresh Kumar, Joint Secretary – Logistics, Department of Commerce; Dr. Jivisha Joshi Gangopadhyay, Deputy Secretary – Logistics, Department of Commerce, Shri S. Bhardwaj, Director – Logistics, Department of Commerce and Shri Vaibhav Kaushik, Consultant, Department of Commerce, for their constant support, time and guidance on various aspects of the logistics ecosystem at National and State level. Team would also like to extend their gratitude towards Shri Pawan Kumar Agarwal (Retd. Special Secretary) for his valuable guidance during the study. Their commitment to collaboratively work with various Central and State level agencies to address complex issues facing the logistics sector and support various initiatives aimed at driving engagement with States was a source of constant encouragement and motivation for the team.

The team would like to extend sincere thanks to the team of professors from IIFT - Dr. Deepankar Sinha, Dr. Nitin Seth, Dr. Sanjay Rastogi and Dr. Ankit Kesharwani, for their invaluable inputs and guidance on statistical aspects of the study.

Multiple National and State level industry associations facilitated the entire survey exercise covering thousands of industry participants spread across the country. Without their kind and unwavering support, the perception-based survey exercise would have been extremely challenging.

The team was offered excellent support by all the State Government agencies involved in this study. Their deep commitment to collaborate with industry stakeholders and Government of India to drive various initiatives and address challenges was encouraging.

Thousands of respondents from all over the country participated enthusiastically despite challenging conditions posed by COVID pandemic during the survey exercise. Their patience and unwavering support to this study is worth recognition and appreciation.

It has been our honour to support the Ministry on this important agenda of Government of India.

Mihir G. Shah
Partner,
Ernst & Young LLP

Abbreviations

Abbreviations	Full form
3PL	Third Party Logistics
4PL	Fourth Party Logistics
AAI	Airports Authority of India
AFS	Air Freight Station
AI	Artificial intelligence
AKIC	Amritsar Kolkata Industrial Corridor
ANPR	Automatic Number Plate Recognition
APEDA	Agricultural and Processed Food Products Export Development
BBMP	Bruhat Bengaluru Mahanagara Palike
BPCL	Bharat Petroleum Corporation Limited
BSRTC	Bihar State Road Transport Corporation
CAGR	Compound Annual Growth Rate
CAPEX	Capital Expenditure
CBIC	Central Board of Indirect Taxes and Customs
CCL	Central Coalfields Ltd
CCTV	Closed-Circuit Tele Vision
CEO	Chief Executive Officer
CEZ	Costal Economic Zone
CFI	Confirmatory Fix Index
CFS	Container Freight Station
CGTA	Calcutta Goods Transport Association
CHA	Customs House Agent
CI	Confidence Interval
CIIF	Critical Industrial infrastructure Fund
CLU	City Logistics Unit
CMVR	Central Motor Vehicles Rules
CNG	Compressed Natural Gas
COE	Centre of Excellence
CONCOR	Container Corporation of India Limited
CRT	Container Rail Terminal
CRIF	Central Road Infrastructure Fund
CWC	Central Warehousing Corporation
DDU-GKY	Deen Dayal Upadhyay Grameen Kaushal Yojana
DFC	Dedicated Freight Corridor
DFCCIL	Dedicated Freight Corridor Corporation of India Limited
DGCI&S	Directorate General of Commercial Intelligence and Statistics
DGFT	Directorate General of Foreign Trade
DLSWCA	District Level Single Window Clearance Authority
DMCC	Dubai Multi Commodities Centre
DMIC	Delhi-Mumbai Industrial Corridor
DPIIT	Department for Promotion of Industry and Internal Trade
EDC	External Development Charges
EDFC	Eastern Dedicated Freight Corridor
EDI	Electronic Data Interchange
EoDB	Ease of Doing Business
EPOS	Electronic Point of Sale
ETC	Electronic Toll Collection
EV	Electric Vehicle

Abbreviations	Full form
e-way	Bill Electronic Waybill
EXIM	Export and Import
FAR	Floor Area Ratio
FCI	Food Corporation of India
FIEO	Federation of Indian Export Organisations
FMCG	Fast-Moving Consumer Goods
FOIS	Freight Operations Information System
FRI	Forest Research Institute
FSSAI	Food Safety and Standards Authority of India
FTL	Full Truck Load
FTWZ	Free Trade Warehousing Zone
FY	Financial Year
GCV	Goods Commercial Vehicle
GDP	Gross Domestic Product
GHG	Green House Gas
GIDB	Gujarat Infrastructure Development Board
GMB	Gujarat Maritime Board
GMS	Grievance Management System
GoI	Government of India
GPS	Global Positioning System
G-RIDE	Gujarat Rail Infrastructure Development Corporation
GSDP	Gross State Domestic Product
GST	Goods and Services Tax
GSTN	Goods and Service Tax Network
GSVA	Gross State Value Added
GTTC	Government Tool & Training Centre
GVA	Gross Value Added
HMV	Heavy Motor Vehicle
HPCL	Hindustan Petroleum Corporation Limited
H.UT	Himalayan Union Territories
ICD	Inland Container Depot
ICEGATE	Indian Customs Electronic Gateway
ICP	Integrated Check Post
ICT	Information and Communication Technologies
IDTR	Institute of Driver Training and Research
IEC	Importer Exporter Code
IFP	Investor Facilitation Portal
IGST	Integrated Goods and Services Tax
IMC	Inter-Ministerial Committee
INR	Indian National Rupee
IOCL	Indian Oil Corporation Limited
IoT	Internet of Things
IPA	Indian Ports Association
IT	Information Technology
ITI	Industrial Training Institutes
IWAI	Inland Waterways Authority of India
IWT	Inland Waterway Terminal
JMVP	Jal Marg Vikas Project
JNIMZ	Jhansi National Investment and Manufacturing Zone
JNPT	Jawahar Lal Nehru Port Trust
KIADB	Karnataka Industrial Area Development Board

Abbreviations	Full form
KMTA	Kochi Metropolitan Transport Authority
KSIDB	Kerala State Infrastructure Development Board
K-SWIFT	Kerala Single Window Interface for Facilitation Trade
LCL	Less than Container Load
LCP	Land Customs Port
LCS	Land Customs Station
LEADS	Logistics Ease Across Different States
LMV	Light Motor Vehicle
LPAI	Land Ports Authority of India
LPI	Logistics Performance Index
LPPT	Logistics Planning and Performance Monitoring Tool
LSP	Logistics Service Provider
MAITRI	Maharashtra Industry Trade and Investment Facilitation Cell
MAR	Missing At Random
MCAR	Missing Completely at Random
MCD	Municipal Corporation of Delhi
MD	Managing Director
MEIS	Merchandise Exports India Scheme
MICE	Multiple Imputation Changed Equation
MIDC	Maharashtra Industrial Development Corporation
MIIPP	Meghalaya Industrial and Investment Promotion policy
MMLP	Multi Modal Logistics Park
MNAR	Missing Not At Random
MoCA	Ministry of Civil Aviation
MoCAF&PD	Ministry of Consumer Affairs, Food and Public Distribution
MoCI	Ministry of Commerce & Industry
MoEFC	Ministry of Environment, Forest and Climate Change
MoPSW	Ministry of Ports, Shipping and Waterways
MoR	Ministry of Railway
MoRTH	Ministry of Road Transport and Highways
MoSDE	Ministry of Skill Development and Entrepreneurship
MoSPI	Ministry of Statistics and Programme Implementation
MoU	Memorandum of Understanding
MPT	Mormugoa Port Trust
MSME	Micro, Small and Medium Enterprises
MT	Mn Tonnes
MTPA	Mn Tonnes Per Annum
NCR	National Capital Region
NCT	National Capital Territory
NER	North Eastern Region
NH	National Highway
NHAI	National Highway Authority of India
NLP	National Logistics Policy
NMIZ	National Investment and Manufacturing Zone
NVOCC	Non-Vessel Operating Common Carrier
OCR	Optical Character Recognition
OECD	Organisation for Economic Co-operation and Development

Abbreviations	Full form
PCA	Principal Component Analysis
PCS	Port Community System
PFT	Private Freight Terminal
PGA	Participatory Government Agency
PGC	Public Grievance Committee
PLI	Production Linked Incentive Scheme
PMKVY	Pradhan Mantri Kaushal Vikas Yojna
PPP	Public Private Partnership
PQ	Plant Quarantine
PUC	Pollution Under Control
PWD	Public Works Department
QMS	Quality Management System
RC	Registration Certificate
RFID	Radio Frequency Identification
RFP	Request for Proposal
RM	Risk Management
RMSEA	Root Mean Standard error of Approximation
RTIS	Real-Time Train information system
RTO	Regional Transport Office
SBIC	Shendra Bidkin Industrial Area
SD	Standard Deviation
SEM	Structural Equation Modelling
SEZ	Special Economic Zone
SH	State Highways
SHAJ	State Highway Authority of Jharkhand
SIPCOT	State Industries Promotion Corporation of Tamil Nadu Ltd
SLCC	State Logistics Coordination Committee
SLDE	Secured Logistics Document Exchange (SLDE)
SLEC	State Level Empowered Committee
SLSWCA	State Level Single Window Clearance Authority
SPMG	State Project Monitoring Group
STP	Secondary Treatment Plants
SWC	State Warehousing Corporation
SWIFT	Single Window Interface for Facilitation Trade
TEU	Twenty-foot equivalent unit
THC	Terminal Handling Charges
TIES	Trade Infrastructure for Export Scheme
TKD	Tughlakabad
TMS	Ticket Management System
TIDCO	Tamil Nadu Infrastructure Development Corporation
ULIP	Unified Logistics Integrated Platform
USA/US	United States of America
USD	United State Dollars
UT	Union Territory
VAT	Value Added Tax
VHT	Vapor Heat Treatment
VLTD	Vehicle Location Tracking Devices
VRC	Vessel Related Charges
WDFC	Western Dedicated Freight Corridor
WDRA	Warehousing Development and Regulatory Authority
W.E.F.	With Effect From
WTO	World Trade Organization

Executive Summary

India is world's fifth-largest economy in terms of nominal GDP and among the fastest growing major economy world-wide. Efficient logistics ecosystem is considered to act as a catalyst in enhancing the competitiveness of all the sectors of the economy. Thus, improving supply chain efficiencies and reducing logistics costs are fundamental to India capitalizing on this strategic shift and meeting the well-defined aspiration to become a US$ 5 trillion economy by 2025.

Improvement in Logistics is the cornerstone of the Government's push towards achieving *Aatma nirbhar* Bharat. Various initiatives are being taken by the Central governments to improve logistics ecosystem across the country. Infrastructure development initiatives like Sagarmala, Bharatmala, Dedicated Freight Corridors (DFCs) amongst others are under different stages of implementation. Besides, regulatory and process related reforms like paperless EXIM trade process through E-Sanchit, faceless assessment through Turant Customs and introduction of mandatory electronic toll collection system (FASTag) have contributed to increasing the efficiency of the logistics sector.

Given our federal structure, states have an indispensable role in improving the efficiency of overall logistics ecosystem and thereby improving trade competitiveness. Therefore, Indian States and Union Territories (UTs) are required to take concerted and assertive action in respect of integrated development of logistics ecosystem.

Recognizing the need to instil a logistics and supply chain mindset across States/UTs and to enable constructive competition among states, the Ministry of Commerce and Industry (MoCI) launched a study, "Logistics Ease Across Different States (LEADS)" in 2018 with the main objective of ranking States and UTs on the efficiency of their logistics ecosystem. The index evaluated the EXIM logistics ecosystem in the States considering perception-based feedback of key logistics stakeholders at state level. The second edition of the LEADS in 2019 evaluated both EXIM and domestic logistics ecosystem based on perception-based survey of key stakeholders.

The LEADS 2021 exercise has gone one-step ahead in analysis of domestic and EXIM logistics ecosystem of the state. Specifically, two improvements have been done in the overall assessment framework. Firstly, objective parameters have been used along with the perception-based indicators for index formulation. The objective parameters in the LEADS 2021 Index are introduced by way of objective survey instruments administered to the States/UTs and by the inclusion of secondary datasets on logistics across the State/UT level. Alternatively, the overall index is based on twenty-one indicators including seventeen perception indicators and four objective indicators. Secondly, the statistical methodologies to build the index has been updated to get more robust results given change in the overall framework. The LEADS survey 2021 was conducted over the period from May to August 2021 in a challenging environment when the COVID crisis was being fought across multiple fronts. The whole exercise garnered 3,771 responses from 1,405 respondents across the country. For each State/UT, ranking was formulated based on the revised methodology. For representation purposes,

states have been ranked in three separate classes including 'North Eastern States & Himalayan UTs' and 'Other UTs' group.

Gujarat, Haryana and Punjab have emerged as the top performers in the LEADS 2021 index. Proactive policies, well-developed infrastructure and services driven by a responsive Government have helped Gujarat to maintain its rank. Haryana has secured the second position, followed by Punjab. Within the North Eastern States and Himalayan Region, Jammu and Kashmir is the top ranker followed by Sikkim and Meghalaya. Delhi stands at the top rank among Other UTs. Uttar Pradesh, Uttarakhand and Jharkhand have witnessed a remarkable improvement in their ranks compared to 2019 LEADS ranking and have emerged as the top improvers.

The report consists of specific section on States and UTs giving detail analysis of their performance in the LEADS, including issues and challenges being faced by stakeholders as well as suggestions to mitigate the issues. The report is expected to help States/UTs identify their strengths and opportunities and build upon the same and take further action to improve their logistics performance. States/UTs are encouraged to examine and evaluate the findings of the report and formulate a suitable strategy and a prioritized action plan for improving logistics performance.

Department of Commerce through LEADS will continuously engage with all States and UTs to support, facilitate and promote improvements in the overall logistics ecosystem. Synergies flowing from such a coordinated approach will reduce logistics costs and which, in turn, will act as significant stimulants to PM *Gati Shakti* initiative.


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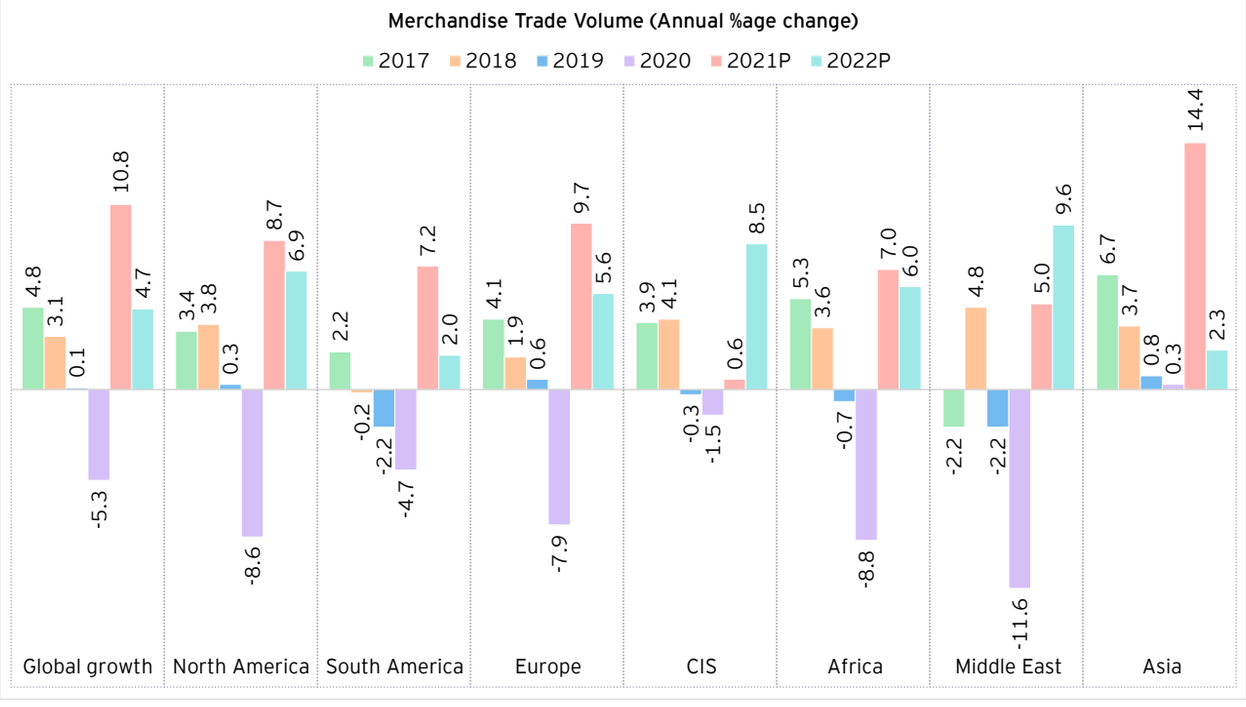
LEADS 2021 – Driving competitive federalism

Global trade – Better days ahead

The OECD has projected a robust recovery in global growth to 5.7% in 2021 and 4.5% in 2022[1], helped by strong policy support, deployment of effective vaccines and resumption of economic activities, particularly in the services sector. In its assessment, global GDP has surpassed its pre-pandemic level. The World Trade Organisation (WTO) is predicting global merchandise trade volume to grow at 10.8% in 2021 as shown in exhibit 1 below. Trade in Asia is expected to grow at 14.4%[2], fastest globally. Having said that, supply-side issues such as semiconductor scarcity, port backlogs may strain supply chains and weigh on trade in particular areas, according to WTO.

Exhibit 1: Merchandise trade volume (Annual %age change)



Source: "Global trade rebound beats expectations but marked by regional divergences"-WTO- 2021 Press release

Covid-19 pandemic has posed significant challenges for supply chains globally. Multiple national lockdowns slowed or even temporarily stopped the flow of raw materials and finished goods, disrupting manufacturing as a result. The pandemic brought to light previously unseen vulnerabilities in the supply chain and is forcing manufacturers everywhere to reassess their supply chains. Overall, it has accelerated and magnified problems that already existed in the supply chain.

Companies are now focusing on making their supply chain strategies more resilient, collaborative, and networked with customers, suppliers, and other stakeholders. There is a shift seen from linear supply chains to more integrated networks connecting many players. With the newly defined objectives of global companies and countries to reduce their supply chain risks in the long term and fix the broken value chains in the short term, India has an exclusive opportunity to emerge as the preferred investment destination going forward.

[1] (OECD- "Global economic recovery continues but remains uneven"-2021)

[2] (Press Trust of India- "WTO estimates global merchandise trade volume growth at 10.8% in 2021"-2021)

India – Economic recovery gathering momentum

India's GDP data for 1QFY22 has signalled robust recovery even as strong base effects are accounted for. High frequency indicators signal that economic recovery is gathering momentum. As per the latest available forecasts by the OECD (Interim Economic Outlook), potential recovery in India has been reassessed upwards to 9.7% in 2021 (FY22) and 7.9% in 2022 (FY23)[3]. These surpass China's forecasted growth at 8.5% and 5.8% for 2021 and 2022 respectively[4]. Clearly, India, amongst major economies, is well on its way to lead global growth in the post pandemic years.

Exports from India have been rising consistently over the last few quarters, after plummeting for a few months as the outbreak of Covid-19 disrupted global trade. India's merchandise exports in September 2021 was USD 33.44 Bn, an increase of 21.35% over USD 27.56 Bn in September 2020 and an increase of 28.51% over USD 26.02 Bn in September 2019. India's merchandise exports in April-September 2021 was USD 197.11 Bn, an increase of 56.92% over USD 125.61 Bn in April-September 2020[5] and an increase of 23.84% over USD 159.16 Bn in April-September 2019[6]. Export hit nearly half of this fiscal's export target of USD400 Bn set by the government.

According to experts, India is well placed to increase its exports and become a substitute for China across various product categories or sectors. With robust growth in global trade as estimated by WTO, India is poised to capture larger share of global trade going froward. Recognizing this opportunity, Hon'ble Prime Minister of India, in his address to the nation on 12 May 2020, laid-out his vision of an 'Aatmanirbhar Bharat' and outlined economy, infrastructure, system, demography and demand as the five pillars.

India has been active on the policy front and is paving the way to become the world's most preferred manufacturing hub. The Production Linked Incentive (PLI) scheme is a cornerstone of the Government's push for achieving an Aatmanirbhar Bharat, boost domestic manufacturing and make it globally competitive.

Improving Logistics Competitiveness of India

India is world's fifth largest economy by nominal GDP and is one of the fastest-growing economies globally. Efficient logistics is the bed rock for a growing economy like India. The reduction in logistics cost could be a key enabler in enhancing the competitiveness of all sectors of the economy. Improving supply chain efficiencies and reducing logistics costs are fundamental to India capitalizing on this strategic shift and meeting the well-defined aspiration to become a USD 5 trillion economy[7] as set by the Hon'ble Prime Minister.

India's logistics cost is estimated to be about 14% of its GDP. For most of the developing countries the cost is in the same range. However, the logistics cost is considerably low for developed countries and it lies within the range of 8-10 percent[8].

As India march on the economic development path, it needs to focus on addressing issues inhibiting reduction in logistics cost including sub-optimal modal mix, fragmented regulatory/Institutional regime, warehousing and packaging losses, shortage of skilled manpower, sub optimal fleet size and lack of inter-modal terminals.

Improvement in Logistics is the cornerstone of the Government's push towards achieving Aatmanirbhar Bharat. Various initiatives are being taken by the Central and State/UT governments to improve logistics ecosystem across the country. Infrastructure development initiatives like Sagarmala, Bharatmala, Dedicated Freight Corridors (DFCs) amongst others are under different stages of implementation. Besides, regulatory and process related reforms like paperless EXIM trade process through E-Sanchit, faceless assessment through Turant Customs and introduction of mandatory electronic toll

[3] (Business standard - OECD trims India's economic growth forecast to 9.7% for FY22 - 2021)

[4] "India's growth prospects – can policy support make India outperform its peers in FY22" - EY - 2021

5 PIB, 2021

[6] (Press Information bureau - Pib.gov.in- 2021, n.d.)

[7] (Press Information Bureau - Vision of a USD 5 Trillion Indian Economy - 2018)

[8] Reimagining India's Supply Chain - CII - 2020

collection system (FASTag) have contributed to increasing the efficiency of the logistics sector.

It has been felt necessary to develop a comprehensive plan to integrate all the existing and proposed development initiatives by way of a National Master Plan wherein various economic zones will be the fulcrum of economic development interconnected with a network of multimodal connectivity infrastructure up to the last mile. With this vision, Hon'ble Prime Minister in his Independence Day speech highlighted that the Government has been targeting an investment of more than INR 100 lakh Crore on infrastructure over the next five years through *'Gati-Shakti'* program[9].

Given our federal structure, Centre and States have to play a complimentary role in integrated development of the logistics ecosystem. States have an essential role to play in bringing down overall logistics costs by having an enabling policy, regulatory and institutional mechanism in place for the logistics sector. Moreover, States can gain advantage by undertaking measures to increase logistics efficiency and making the States' industry products more competitive globally, increasing its share in India's trade basket.

In this context, Logistics Ease Across Different States (LEADS) is a framework for assessment of State logistics performance. It is an instrument to enable constructive competition among States to support and facilitate logistics in their respective jurisdiction by promoting policies initiatives and regulatory interventions. It is an annual study that has a three-fold objective as given below:

- Rank States/UTs in the logistics ecosystem,
- Facilitate feedback from stakeholders involved in the logistics value chain; and
- Recommend action points based on the issues and challenges faced by the logistics players in a State/UT.

LEADS Framework

Indian States and Union Territories (UTs) are required to take assertive action in respect of integrated development of logistics. Recognizing the need to instill a logistics and supply chain mindset across States/UTs, the Ministry of Commerce and Industry (MoCI) launched a study, "Logistics Ease Across Different States (LEADS)" in 2018 with the main objective of ranking States and UTs on the efficiency of their logistics ecosystem on the basis of perceptions of industry stakeholders.

"LEADS 2018" focused on Exim trade and provided a useful starting point in assessing the efficiency of logistics ecosystem in each State and UT. In the second edition of the study – "LEADS 2019", the Ministry expanded coverage to include both international and domestic trade.

The two LEADS exercises have definitely served the purpose of initiating a dialogue amongst all stakeholders, including central and State governments, as also the private sector, to improve the efficiency of the State/UTs logistics ecosystem.

The LEADS initiative has already introduced constructive competition and excitement amongst States. This is now planned to be taken to the next level though greater engagement with the States / UTs. In this regard, the Logistics Division of MoCI initiated the third edition of the study – "LEADS 2021". Similar to "LEADS 2019", the 2021 edition focuses on both international and domestic trade. However, while LEADS 2018 and 2019 editions were perception-based, "LEADS 2021" has introduced objective parameters in the index formulation by engaging with all the 36 States/UTs for the first time.

[9] PIB – Press Release, 2021

LEADS 2021 Indicators

The two previous LEADS reports were studied and reviewed, and extensively discussed with domain experts. These deliberations led to two major changes in the LEADS 2021 exercise. First was to introduce select Objective parameters as part of the index formulation to expand the Index's spectrum. The objective parameters in the LEADS 2021 Index were introduced by way of objective survey instruments administered to the States/UTs and by the inclusion of data variables of logistics ease at the State/UT level. The second was to extend statistical methodologies to include methods for factor analysis. On consideration, Structured Equation Modelling (SEM) methodology was introduced for undertaking a Confirmatory Factor Analysis (CFA) for preparation of LEADS 2021 index.

Construct for "LEADS 2021" continues to be structured along the three dimensions which collectively influence logistics ease i.e.,

- Infrastructure
- Services; and
- Operating and Regulatory Environment

Perception based indicators

The indicators of both previous exercises were deliberated upon to assess if any changes would benefit the 2021 Index become more comprehensive and focused. LEADS 2018 had eight perception-based indicators to measure the efficiency of logistics sector as experienced by the stakeholders. In LEADS 2019, a new indicator was introduced across the three categories of Infrastructure, Services and Operating and Regulatory Environment. In LEADS 2021, endeavor has been made to understand the logistics ecosystem more granularly with an expanded set of indicators in the perception-based analysis.

Details of the perception-based indicators adopted for "LEADS 2021" are listed in exhibit 2 below.

Exhibit 2: LEADS 2021 - Perception Indicators

	Indicators	Coverage
Infrastructure	Quality of Road Infrastructure	Road network and associated physical infrastructure such as road condition, signage, lighting, vehicle refuelling services, toll, State border points, etc.)
	Quality of Rail Infrastructure	Sufficiency of rail tracks, congestion on rail networks, etc.
	Quality of Multi-Modal Terminal Infrastructure	ICDs, CFSs, AFSs, PFTs, MMLP, port terminals, airport terminals, logistics parks, inland waterway terminals, dry ports, Land Custom Stations, etc.
	Quality of Unimodal Terminal Infrastructure	Road-based terminals, transport nagar, LCS/LCP etc.
	Quality of Warehousing Infrastructure	Warehouses including silos/bulk storage, consolidation centres, cold storages, packhouses, etc.
Services	Quality of Logistics Services	Haulage/transportation by different modes, terminal operations including handling and storage of cargo, Delivery in full and on-time, customs broking, and value-added services like consolidation, repackaging, labelling, last-mile connectivity, etc.
	Capability of Logistics Service Providers	Competency of transport providers, truck drivers, freight forwarders, custom house agents, MTOs etc.
	Reasonableness of Road Freight Rates	Road Freight Rates
	Reasonableness of Prices of Terminal Services	Tariff at terminal services includes handling, storage, value-added services, last mile connectivity charges, etc.

	Indicators	Coverage
	Timeliness of Cargo Delivery (Transportation)	Delivery within schedule/expected time within a State/ UT
	Timeliness of Cargo Delivery (Terminal Services)	Reasonable time taken for terminal operations viz., time taken in stuffing up a cargo, customs broking time, dispatch waiting period, etc.
	Availability of Mobile/Internet Connectivity	Ease of tracking and tracing of the cargo movement and condition
	Safety and Security during Transportation	Consistency in delivery without damage/ deterioration/ pilferage/ loss of cargo due to logistics inefficiencies or accidents or thefts during transportation of goods
	Safety and Security at Terminals	Consistency in delivery without damage/ deterioration/ pilferage/ loss of cargo due to logistics inefficiencies or accidents or thefts at the terminal during storage and transhipments
Operating and Regulatory Environment	Extent of Facilitation	Existence and effectiveness of policies related to single window clearances, logistics/ labour, ease of availing land and ancillary facilities, maintenance of law and order, and provision of tax breaks/subsidies/access to credit, grievance redressal and dispute resolution, etc.
	Ease of Obtaining all Approvals	Approvals related to warehouses including silos/bulk storage, consolidation centres, cold storages, packhouses
	Efficiency of Regulatory Services	Pollution control, change of land use, RTOs, GST and all other such agencies

Details of perception-based indicators considered for LEADS 2021 are explained below:

- Quality of available Infrastructure (Rail, Road, Unimodal, Multimodal Terminals and Warehouses): Extensive deliberations with multiple expert groups from industry and Government to develop LEADS 2021 indicators helped establish how the logistics ecosystem could be evaluated in a holistic way and bottlenecks be identified. The root cause analysis (deliberations) ultimately led to the basic premise of availability and quality of logistics, which concluded that availability is necessary but not sufficient for logistics infrastructure. Hence, to understand the ecosystem, it is imperative to understand the "quality" of logistics. The quality of available infrastructure dictates the price being paid for the service, thereby driving service levels. Hence the shift in indicators from availability (in "LEADS 2019") to quality of infrastructure. Since the objective was to identify at which leg of the supply chain were issues being faced, infrastructure construct was further broken into infrastructure sub-groups of transportation (rail, road) and terminal infrastructure (multi-modal, unimodal, and warehousing).
- Quality of Logistics Services and Service Providers: Logistics is a complex chain of actions undertaken by multiple stakeholders to deliver a cargo from its point of origin to destination. From a user perspective though, it's the quality of service which decides his experience and hence the stickiness to a service provider. Thus, it was important to understand the contours of decision making by a user's perspective, whether it is the service, or the service provider and issues associated with them. As a result, the "LEADS 2019" indicator, "Quality of Logistics Services" was been broken down into "Quality of Logistics Services" and "Quality of Logistics Service Providers". This has been done considering that an integrated logistics service provider would be preferred v/s multiple service providers for the same quantum of service.
- Reasonableness of Transport and Terminal Prices: The indicator aims to determine the respondents' perception of reasonableness of cost for services being availed. Pricing is a

derivative of multiple factors like infrastructure available, nature of market (fragmented or organized), demand for the service etc. Continuing with the aim to identify at which leg of supply chain is the issue being faced, the indicator is further broken down in terms of reasonableness of prices for transportation and for terminal service.

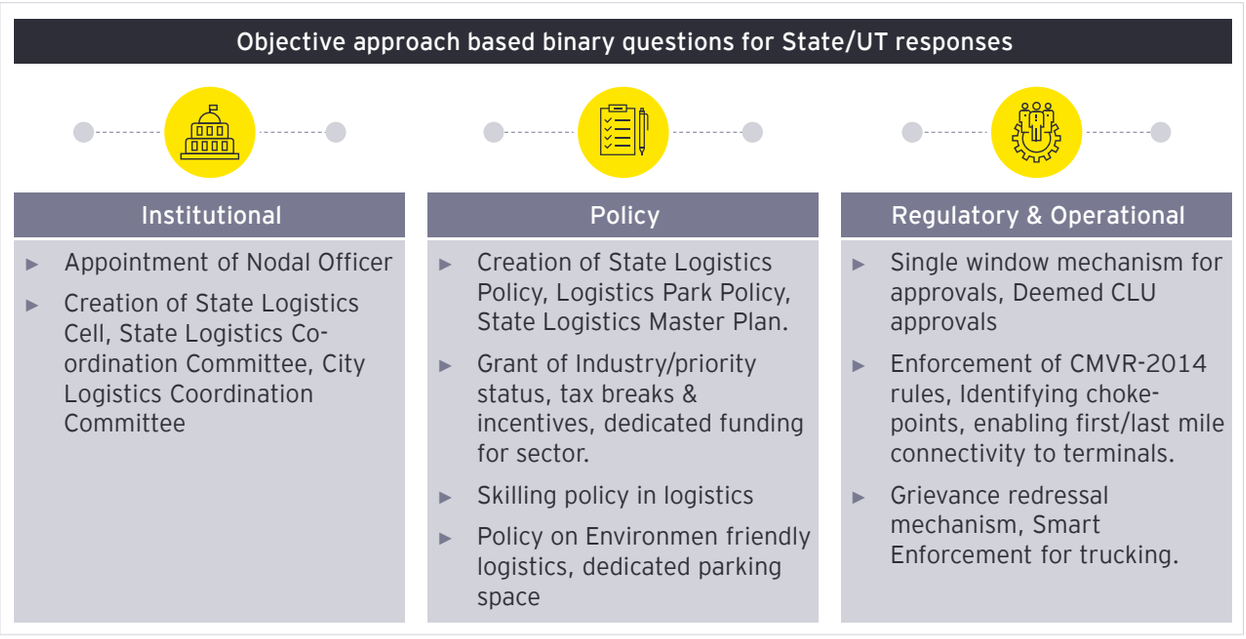
- Timeliness of Cargo Delivery with respect to Transportation and Terminal Services: Delay in cargo delivery happens mainly on two aspects, first during transportation and second at the aggregation/disaggregation hub such as freight terminals. Thus, the two dimensions have been included in "LEADS 2021" exercise to identify where the bottlenecks exist.
- Availability of Mobile/Internet Connectivity: Track and trace is enabled by GPS or SIM-based tracking, which depends on the availability of the cellular mobile network for accuracy. Better the network services in a State, lesser the blind spots in connectivity and the higher the real-time cargo visibility. Ease of track and trace is enabled by strong network strength in the State/UTs.
- Safety/Security of Cargo during Transportation and at Terminals: Cargo theft is a major concern and has direct implications on existence of a business. States have a pivotal role to play in ensuring such adverse conditions are tactfully handled. Theft/pilferage can take place either during transit or at terminals during handling or storage. Thus, the indicator related to Safety/Security has been divided into Safety/Security of cargo during transportation and at the terminal to accurately understand where the issue is being faced.
- The extent of facilitation provided by State/UT: "LEADS 2019" Indicator – "State Facilitation and Coordination" has been transformed into "Extent of facilitation provided by State/UT" for enabling logistics. States policies for creation of logistics infrastructure, enabling regulatory and institutional regimes, etc. have a significant impact on the logistics sector. The indicator captures effect of actions taken by States for supporting logistics and how the industry participants have perceived those actions.
- The Efficiency of Regulatory Processes: The last indicator of LEADS 2019, 'Efficiency of Regulatory Process', has been kept the same in LEADS 2021. Efficiency refers to speed, simplicity, transparency in processing, ease of documentation, etc. Regulatory processes include those relating to pollution control, change of land use, RTOs, GST and all other such agencies.

Perception based questionnaire has questions on 17 parameters covering major determinants of three aspects of logistics efficiency – Infrastructure, Services, and Operating and Regulatory Environment. These 17 parameters are individually taken as 17 indicators in the analysis.

Objective Indicators

Part I – binary questions: The Objective indicators assess the logistics eco-system through the enabling initiatives undertaken by the State/UT and use of available secondary data points. Objective survey, which was administered to all the 36 States and UTs, has a total of 20 binary questions encompassing policy, institutional, regulatory, and other initiatives undertaken by States /UTs for facilitating logistics efficiency. All these 20 questions are collectively considered as a single indicator for the Statistical analysis. The framework for the binary questions is presented in the exhibit 3 below.

Exhibit 3: Binary questions framework



Part II – secondary data sets: The Objective survey also included 27 questions on data variables of logistics ease at the State/UT level, covering availability of logistics infrastructure, services, and facilities across all the States. Limited response on the data variables were received from the States/UTs. In order to maintain uniformity, data has been collated from the repository of different Central Ministries and Government organizations. Out of these 27 questions, eleven data variables on availability of logistics infrastructure and services and facilities have been clubbed together as a single indicator; TIES Outlay and Range Scaled EoDB Ranks variables both have been treated as an individual indicator; two data variables have been used as normalizing parameters; and the remaining four variables have not been used owing to data not being available. Overall, combining 17 perception indicators and 4 objective indicators, a total of 21 indicators have been used for Statistical analysis which is represented in the exhibit 4.

Exhibit 4: List of 27 secondary data Variables

Sr. No.	Variables		Year	Source
Used for statistical analysis				
1	Total Length of State Highways	Replaced with proxy variable - State wise Capital Outlay on Roads and Bridges Average of (2018-19, 2019-20, 2020-21)	2018-19, 2019-20, 2020-21	States/ UTs budget data
2	Total Length of District Roads			
3	Total Length of Urban Roads			
4	Total Length of Rural Roads			
5	Total Length of Village Roads			
6	Total no. of registered Goods Commercial Vehicles (GCVs)		2020-21	MoRTH (VAAHAN data)
7	No. of CFSs		2018	IMC List
8	No. of ICDs		2018	IMC List
9	No. of PFTs		2021	FOIS
10	No. of Railway Good sheds		2021	FOIS

Sr. No.	Variables		Year	Source
11	Capacity of Air cargo terminals / AFSs (MT)		2019-20	MoCA
12	Capacity of cold storages (MT)		2019-20	MoCAF&PD
13	Capacity of warehouses (MT)		2019-20	WDRA
14	Total number of training centres for logistics		2019-20	MoSDE
15	Number of individuals, trained in logistics training		2019-20	MoSDE
16	Amount of subsidy disbursed during the year	Replaced with proxy variable - Subsidy data from TIES, State wise average of (2017-18, 2018-19, 2019-20, 2020-21)	2017-18, 2018-19, 2019-20, 2020-21	MoCI
17	Ease of Doing Business (EoDB)		2019-20	DPIIT - Business Reform Action Plan
Used as normalizing parameter				
1	Gross State Value Added (GSVA)		2019-20	MOSPI
2	Total geographical area of the State/UT		2020-21	FRI Dehradun website
Used for States' analysis/ insights				
1	Number of road accidents during the year of Goods Commercial Vehicles		2019-20	MoRTH
2	Total no. of registered drivers of GCVs		2020-21	MoRTH (SARATHI data)
3	Traffic and capacity of Port terminals		2019-20	IPA
4	Total forest cover of the State/UT		2019-20	FRI Dehradun website

Note: The four parameters viz. amount of subsidies utilized during the year, number of business applications received during the year, amount invested by the State government during the year and total hilly area of the State/UT, have not been used in the analysis due to unavailability of data.

In line with the idea of introducing objectivity to the index, proxy variables were utilised in case the direct, quantifiable measurements were not available for the 27 objective parameters. For instance, on the availability of road infrastructure (State Highway/District/Urban/Rural/Village), the available data was dated and could not be utilised. However, it has been found that total CAPEX on roads and bridges done by States/UTs is a good proxy measure of Infrastructure creation and hence the availability of the road infrastructure. On the terminal infrastructure availability front, a number of CFS/ICD/PFT/Railway goods sheds have been used. There was no ready and verifiable repository of the capacity of terminals of both public and private available across the States. Hence the number of terminals has been used to capture the availability of infrastructure across the States.

The latest available number/capacity of cold storage, general warehouse number and available capacity (as available with Warehouse Development and Regulatory Authority) has been used. States do not maintain logistics sector-specific subsidies and investment-related information as logistics is a support service for Industries. EoDB (Ease of Doing Business) rankings have been retained as a parameter. GSVA (Gross State Value Added) and geographical areas have been used as normalising factors. This ensures fair comparison across States/UTs.

As a result of the above exercise, 13 variables were amalgamed into three parameters (listed below) based on following methodology:

- **Assessment of variables of logistics ease:** 11 objective variables were used for statistical analysis and two other variables out of the 27 were used as normalising parameters, namely – Gross State Value Addition (GSVA) for

Industry and Agriculture, State's Geographical Area. Annexure 3 illustrates the usage of parameters and its normalisation factor. The normalisation factors were finalised with the expert committee. After normalisation, a total score was generated, which was categorised using a class interval of 1-5. This objective score was considered a measure of the quality of infrastructure data to be included in the Infrastructure construct and was named as "Assessment of variables of logistics ease".

- **Range Scaled Ease of Doing Business Index (EoDB) Ranks:** EoDB index for individual States was included in the overall model. This Index is meant to measure regulations directly affecting businesses. The rankings of the States were categorised into separate class intervals before including them in the model. This objective variable was named "Range Scaled EoDB Ranks" and was included in the Operating and Regulatory Environment.
- **Trade Infrastructure Export Subsidy (TIES) Outlay:** TIES – the Government of India launched Trade TIES scheme w.e.f. FY 2017 - 18 to assist Central and State Government agencies for creation of appropriate infrastructure for growth of exports from the States. This parameter was also considered as one of the objective variables included in the Operating and Regulatory Environment. An average of the subsidy across multiple years was calculated. Class intervals were calculated based on the average amount of subsidy for the States. This objective variable was named as "TIES Outlay".

Overall, combining 17 perception indicators and 4 objective indicators, a total of 21 indicators have been used for Statistical analysis.

LEADS 2021 continues to remain predominantly a perception-based Index on which States/UTs are ranked, despite the introduction of objective parameters. Beginnings made in the introduction of Objective parameters has been encouraging and it is hoped that more of them would progressively be used in subsequent LEADS exercise. Much will depend on better quality consistent and comprehensive data points being available in the future which would be amenable to normalization across State/UTs for effective comparison. Perception based indices are generally universally used for such rankings. And yet, perception basis will always have its weaknesses in respect of lack of evidence, recent event bias and the general subjectivity of opinions.

Survey Instrument

Discussions were held with experts to design the perception and objective survey instruments. The design of the survey instrument is one of the critical aspects of successful capture of respondents' perceptions accurately. The designed survey instruments went through multiple iterations to make them accurate, pinpointed, and comprehensive so as to elicit a proper response from the stakeholders. The survey instruments were then subjected to pilot testing sessions with actual stakeholders from the logistics sector to understand their perspectives. After multiple rounds of iterations and modifications, the survey instrument was finalized.

Perception survey questionnaire is enclosed as Annexure 1 to this report. Objective survey is enclosed as Annexure 2 to this report.

Database of respondents

The respondent set included the following categories of logistics industry stakeholders:

- **Transport Service Provider** - Road Operators, Rail Operators, Container Train Operators, Shipping Lines and Airline Operators.
- **Terminal Infrastructure Service Provider** - Port Operators, Air Cargo Terminal Operators, Warehouse Operators, Container Freight Station, Inland Container Depot
- **Logistics Service Provider** - Freight Forwarder, Express Carrier, Air Cargo Agent, Multimodal Transport Operator
- **Trader/Shipper** – End-users of Logistics services both in EXIM and Domestic segments

Exhibit 5: Stakeholder categories for LEADS survey

Sampling

The next step was to arrive at the right sample size, across States and stakeholder. Considering that the sampling frame was segregated as per State and different stakeholder groups / sub-groups, the sample size needed to be customised. The Cochran's formula[10] given here was used to calculate sample sizes for each State's stratum (category of stakeholders).

$$\text{Sample Size (n)} = \frac{NZ^2\ P(1-P)}{d^2(N-1)\quad Z^2\ P(P-1)}$$

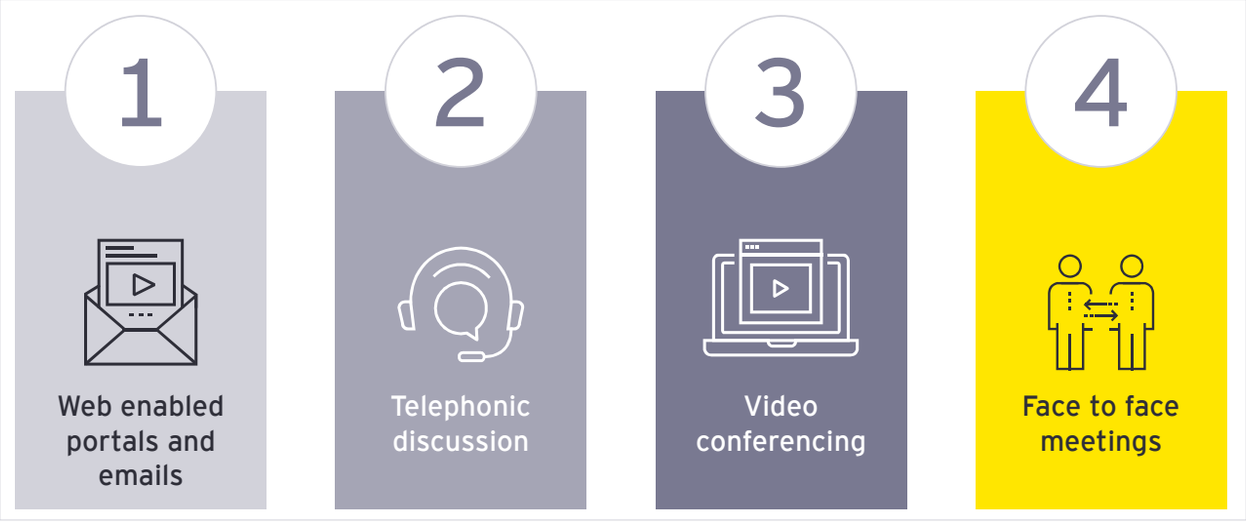
N: Population Size
Z: Critical Value of desired Confidence Level (min: 90%, max: 99%)
P: Population proportion with homogeneous characteristics (90%)
d: Margin of error (Sampling error

Data Collection

To collate a population set of the above categories, industry and trade associations and chambers of commerce were approached. Respondents were contacted through multiple means including web enabled survey tool, telephonic discussions, virtual meetings and in-person meetings. The exhibit 6 below represents the mode of capturing responses.

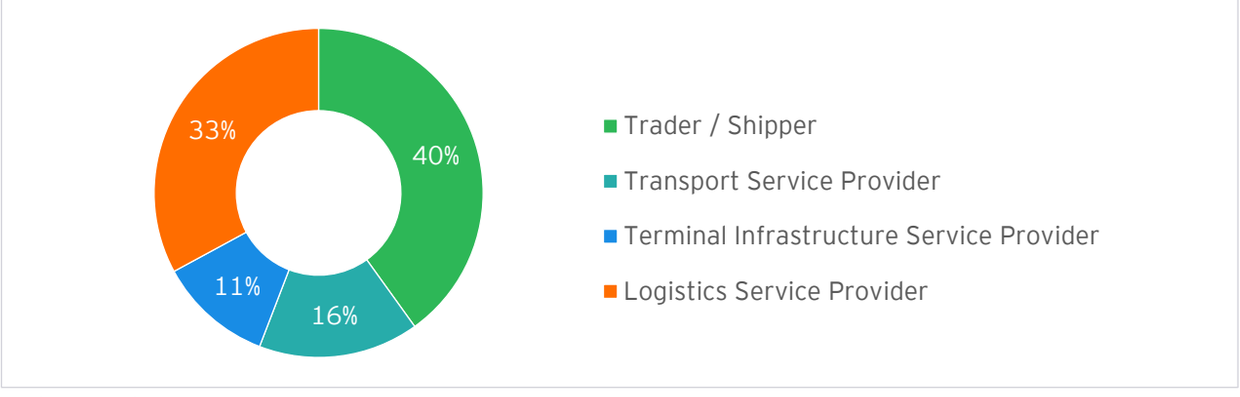
[10] Cochran's formula for sample size determination is an accepted practice in the domain of statistics for small or large population sizes (Cochran, W. G, "Sampling Techniques", John Wiley and Sons, 3rd Edition, 1991)

Exhibit 6: Survey administration tools



A total of 3,771 responses from 1,405 respondents were collected as part of the LEADS 2021 exercise. Data was collected from all the four categories of respondents identified earlier. Distribution of responses is presented in the exhibit 7 below:

Exhibit 7: Distribution of responses captured from the respondents



Data Analysis

For all of 3,771 responses, data was cleaned, and only valid responses totalling 3,363 were used for analysis. Similar methodology for data cleaning was broadly adopted from the earlier studies, along with the use of Multiple Imputation Chained Equation (MICE) packages in R.

Each of the 11 objective parameters used for statistical analysis was normalised either using Gross State Value Addition (GSVA) for Industry and Agriculture or the State's Geographical Area. Annexure 3 illustrates the usage of parameters and its normalisation factor. After normalisation, a total score was generated, which was categorised using a class interval of 1-5. This objective score was considered a measure of the quality of infrastructure data to be included in the Infrastructure construct.

EoDB index for individual States was included in the overall model. This Index is meant to measure regulations directly affecting businesses. The rankings of the States were categorised into separate class intervals before including them in the model. This objective variable was included in the Operating and Regulatory Environment.

TIES outlay was also considered one of the objective variables included in the Operating and Regulatory Environment. An average of the subsidy across multiple years was calculated. Class intervals were calculated based on the average amount of subsidy for the State/UTs.

Statistical Modelling

In this edition of the LEADS report, latent variables, or constructs[11] (dimensions of Infrastructure, Services and Regulatory) have been defined in a way that they are composed of a number of indicators/questions, making the measurement more detailed in nature. The perception questions and the objective variables, illustrated in previous sections, were considered as observable variables. A confirmatory factor analysis approach using SEM was adopted where the measurement models and paths were defined to depict the relationship between constructs, the respective observed variables, and the overall dependent variable. The model was executed using Latent Variable Analysis (Lavaan) package in R.

The "Assessment of Variables of Logistics Ease" variable that reflected the quality of infrastructure was included in the Infrastructure latent construct. The other objective variables such as the" Range scaled EoDB ranks", subsidy and the regulatory policy indicated by States "States' logistics enabling initiatives" were included in the Regulatory Environment latent construct. For parameter estimation, the Pairwise Maximum Likelihood Estimation method[12][13] was used.

During model implementation, goodness-of-fit indices such as chi-square, root mean standard error of approximation (RMSEA), Confirmatory Fit Index (CFI) were examined at every iteration. The CFI was observed to be 0.963, and RMSEA was found to be 0.092. The factor scores of the dependent construct were utilised to arrive at the rankings for the States.

It was further ensured that the discriminant validity (discriminant values of the latent construct are higher than their correlations) and the construct reliability (based on average variance expected) measures were within the acceptable standards. Multicollinearity and Heteroskedasticity tests were conducted, various indices and metrics were checked to ensure that the goodness-of-fit is within recommended limits.

[11] Through a latent variable or a construct, multiple indicators (or questions) are kept together to denote that they measure related aspects. For example, multiple questions related to each other could examine the regulatory environment of a State.

[12] Katsikatsou, M, Moutaki, I and Jamil, H, "Pairwise Likelihood estimation for confirmatory factor analysis models with ordinal variables and data that are missing at random", British Journal of Mathematical and Statistical Psychology, November 2018,

[13] "The Pairwise Likelihood Method for Structural Equation Modelling with ordinal variables and data with missing values using the R package lavaan", https://users.ugent.be/~yrosseel/lavaan/pml/PL_Tutorial.pdf

States ranking

LEADS survey 2021 was conducted over the period May to August 2021 in a challenging period when the world over Covid crisis was being fought across multiple fronts. The Indian logistics industry, which came to a standstill in March 2020, slowly crawled through the crisis and eventually carved a way for itself to restore supply chains. Many learnings emerged since the pandemic struck, and innovation took centre stage on how well supply chains can be managed. The industry's key pain points arose during this crisis where container shortage, shipment delays, and high freight rates took centre stage. Interactions with stakeholders, especially the shippers, traders, and logistics service providers, pinpointed the issue and hoped for an early resolution to manage costs. States that were agile enough and adapted quickly to the situation were able to manage the disruption better. However, COVID-19 did have a recency bias in terms of responses in the LEADS survey. Nonetheless, learnings have been immense; the industry now focuses on adoption of digital interventions and solutions.

For representation purposes 3 category of rankings were created, first for "21 States", second for "North Eastern States and Himalayan UTs" and third for Union Territories.

Puducherry, Ladakh, Daman Diu and Dadra and Nagar Havel, Andaman and Nicobar Islands and Lakshadweep have been excluded from ranking due to inadequacy of responses in the survey. Reason for creation of 3 subgroups is listed in the subsequent section.

Creation of separate North Eastern States and Himalayan UTs – A perspective

For the region comprising of Jammu and Kashmir and NER States, the geographical positioning, terrain, resource base and its economic activity at large act as natural deterrents to development of a robust logistics infrastructure and its effective management. Hence, the region is considered as a separate category for ranking.

Especially for North Eastern States, limited access points, mostly via the inefficient ecosystems in West Bengal (as perceived in LEADS 2021 study) and centered primarily around Assam within the NER, only increase time and cost of cargo movement to/from the region. Lack of major industries / production centers across the entire region discourage logistics infrastructure development and the States' difficult terrain makes operation and management of logistics challenging. NER is a consumption-based economy with little to offer for return cargo. This fact itself makes the region a high-cost logistics territory. The entire region encounters similar kinds of challenges and it appears as though it is one large homogeneous territory with its center in Assam. Though efforts are underway to develop connectivity and build infrastructure in States other than Assam, it will take time for the focus to shift. The NER has a unique status in the national economy and it currently enjoys a determined developmental focus.

Putting these States at the bottom of all States' ranking would be discouraging for them, as also an unfair comparison. In any case, the model applied for determining Indicator scores for said States and others is the same. Keeping all the points above in view, putting these States as a special and exclusive set, in one lot and ranking them just within, was therefore considered fair exercise. It was also considered reasonable to take Assam out of the NER mix, because of its special characteristics, and because it represents, in a sense, the entire region.

Creation of other Union Territories

The regulatory set-up is different as compared to other States. Limited area, and lack of industrial zones are factors that reduce scope of development of logistics infrastructure and robust service deliveries. As a result, the demand in these centers is largely catered by support from infrastructure / service providers in adjacent States. As a result, UTs as a group was treated separately.

Puducherry, Ladakh, Daman Diu and Dadra and Nagar Havel, Andaman and Nicobar Islands and Lakshadweep have been excluded from ranking due to inadequacy of responses in the survey.

Exhibit 8: State-wise ranking for LEADS 2021

	Rank	State wise scores of individual parameters	Quality of Road Infrastructure	Quality of Rail Infrastructure	Quality of Multi-Modal 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	Reasonableness of Prices of Terminal Services
States	1	Gujarat	3.85	3.62	3.79	3.50	3.60	3.71	3.64	2.36	2.35
	2	Haryana	3.68	3.67	3.78	3.45	3.74	3.69	3.80	2.65	2.61
	3	Punjab	3.88	3.91	3.98	3.63	3.72	3.89	3.87	2.74	2.75
	4	TamilNadu	3.68	3.30	3.49	3.18	3.52	3.67	3.72	2.54	2.62
	5	Maharashtra	3.40	3.45	3.50	3.31	3.51	3.68	3.66	2.23	2.22
	6	UttarPradesh	3.47	3.50	3.45	3.32	3.23	3.45	3.47	2.53	2.53
	7	Odisha	3.28	2.97	3.28	2.91	2.81	3.52	3.49	2.07	2.35
	8	Karnataka	3.51	3.33	3.41	3.14	3.50	3.52	3.52	2.42	2.49
	9	AndhraPradesh	3.59	3.26	3.38	2.92	3.27	3.55	3.50	2.35	2.47
	10	Telangana	3.48	3.14	3.47	2.94	3.21	3.52	3.56	2.31	2.41
	11	Chhattisgarh	3.31	3.31	3.19	3.19	3.30	3.33	3.38	2.49	2.44
	12	Jharkhand	2.88	3.13	2.88	2.95	3.05	3.22	3.34	2.58	2.59
	13	Uttarakhand	3.03	2.96	3.13	3.07	3.15	3.29	3.24	2.22	2.61
	14	Kerala	3.00	2.87	3.41	2.86	2.90	3.54	3.51	2.25	2.16
	15	WestBengal	3.04	3.38	3.32	2.92	3.03	3.23	3.49	2.38	2.60
	16	Rajasthan	3.19	3.02	2.87	2.66	2.90	3.19	3.44	2.70	2.57
	17	MadhyaPradesh	3.07	3.13	2.80	2.60	2.71	3.01	2.92	2.23	2.35
	18	Goa	3.07	2.98	2.97	2.78	2.85	3.00	3.06	2.50	2.71
	19	Bihar	2.77	2.91	2.54	2.57	2.46	2.63	2.77	2.23	2.26
	20	HimachalPradesh	3.45	2.34	2.79	2.92	2.89	2.93	3.00	1.83	1.98
	21	Assam	2.64	2.69	2.46	2.44	2.45	2.65	2.85	1.97	2.15
North Eastern States and Himalayan UTs	1	Jammu Kashmir	2.46	2.23	2.38	2.56	2.50	2.72	2.64	1.68	1.56
	2	Sikkim	2.30	1.82	2.12	2.33	2.30	2.18	2.33	1.58	1.88
	3	Meghalaya	2.06	1.89	1.76	1.94	2.29	2.19	2.34	1.60	1.71
	4	Tripura	2.37	1.98	1.80	2.20	2.24	2.08	2.26	1.44	1.72
	5	ArunachalPradesh	2.21	2.25	2.21	2.29	2.33	2.17	2.17	1.83	1.83
	6	Manipur	1.96	1.50	1.79	2.04	2.08	1.87	2.22	1.35	1.43
	7	Mizoram	1.93	1.87	1.53	2.13	2.00	2.07	2.13	1.27	1.53
	8	Nagaland	2.21	1.83	2.13	2.00	1.92	1.87	1.78	1.35	1.52
Union Territories	1	Delhi	3.66	3.60	3.59	3.33	3.42	3.54	3.70	2.39	2.29
	2	Chandigarh	3.86	3.50	3.25	3.41	3.57	3.38	3.46	2.78	2.74

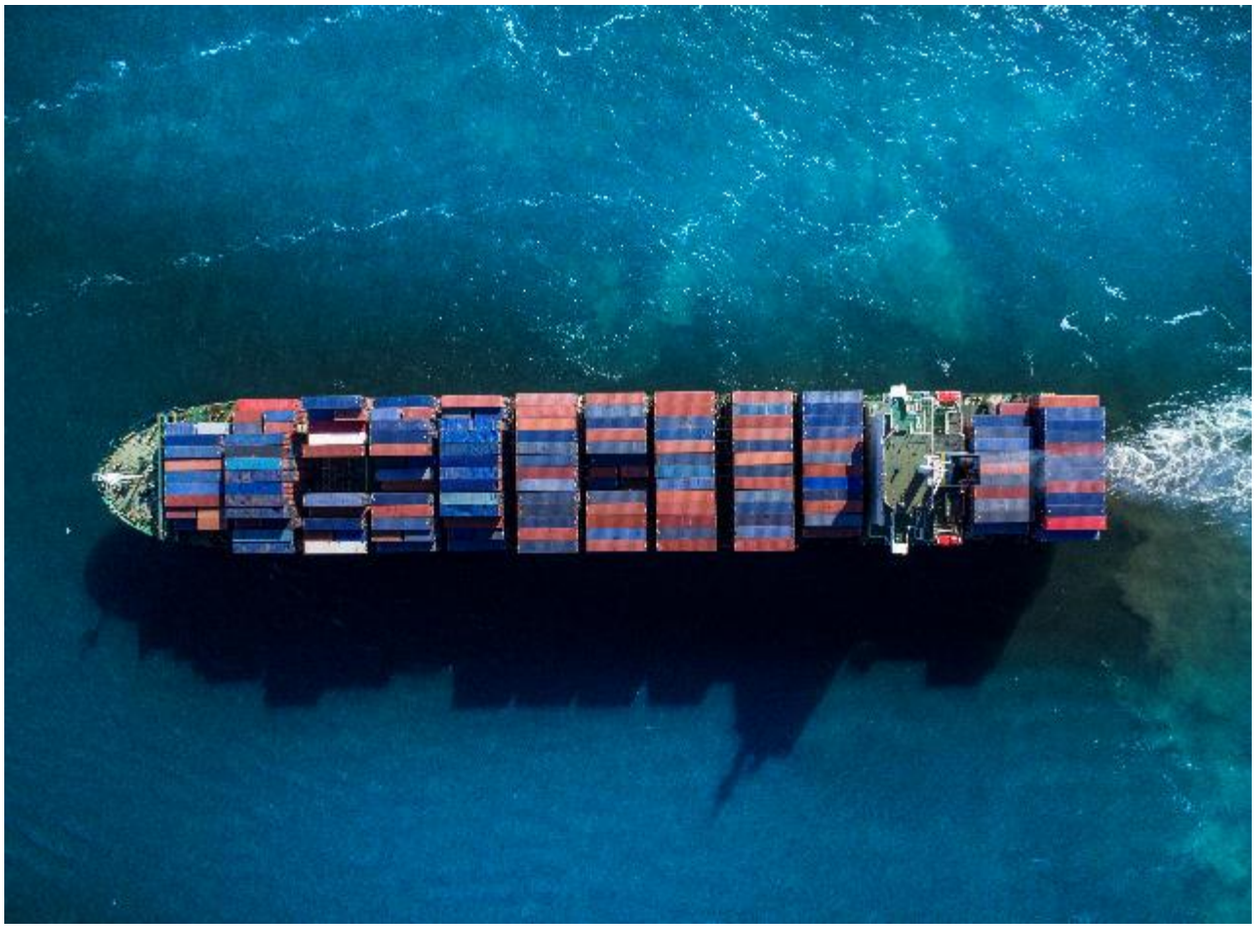
Timeliness of Cargo Delivery (Transportation)	Timeliness of Cargo Delivery (Terminal Services)	Availability of Mobile/ Internet Connectivity	Safety and Security during Transportation	Safety and Security at Terminals	Extent of Facilitation	Ease of Obtaining all Approvals	Efficiency of Regulatory Services	Range scaled EoDB ranks	TIES outlay	States' logistics enabling initiatives	Assessment of variables of logistics ease	Final scores
3.55	3.68	3.53	3.61	3.72	3.41	3.46	3.37	2.00	1.00	5.00	3.11	3.66
3.70	3.71	3.59	3.62	3.74	3.32	3.19	3.38	3.00	1.00	1.00	3.44	3.52
3.56	3.80	3.89	3.86	3.88	3.31	3.28	3.22	3.00	1.00	3.00	3.78	3.51
3.57	3.50	3.69	3.75	3.74	3.13	3.19	3.19	2.00	5.00	2.00	3.44	3.36
3.53	3.51	3.50	3.54	3.62	3.18	3.22	3.19	2.00	2.00	4.00	3.22	3.32
3.46	3.39	3.53	3.26	3.57	3.22	2.95	3.29	5.00	1.00	5.00	3.89	3.25
3.18	3.67	3.62	3.04	3.51	3.17	3.03	2.95	1.00	1.00	2.00	3.67	3.20
3.56	3.49	3.42	3.70	3.74	3.07	3.07	3.07	3.00	2.00	5.00	3.33	3.18
3.48	3.53	3.60	3.61	3.78	2.95	2.94	2.90	5.00	5.00	3.00	3.22	3.17
3.67	3.66	3.72	3.82	3.92	2.94	2.95	2.95	5.00	1.00	5.00	3.00	3.14
3.33	3.22	3.13	3.18	3.38	3.27	3.26	3.18	5.00	1.00	5.00	3.00	3.09
3.01	3.05	2.82	2.66	2.93	3.15	3.15	3.17	5.00	3.00	2.00	3.11	3.09
3.12	3.06	3.27	3.52	3.64	2.76	3.03	2.98	2.00	1.00	5.00	2.33	3.06
3.44	3.70	3.74	3.88	3.88	2.98	2.93	2.97	1.00	4.00	4.00	3.67	3.06
3.21	3.19	3.30	3.05	3.32	2.64	2.62	2.86	2.00	2.00	4.00	3.33	3.04
3.24	3.15	3.49	3.21	3.51	2.20	2.48	2.75	2.00	1.00	3.00	3.44	2.96
2.87	3.07	3.25	2.79	3.41	2.61	2.57	2.83	5.00	4.00	4.00	3.67	2.90
3.09	3.15	2.95	3.25	3.15	3.12	3.26	3.06	2.00	1.00	3.00	2.33	2.84
2.75	2.81	2.97	2.55	2.86	2.39	2.38	2.46	2.00	1.00	3.00	3.22	2.77
3.01	2.90	3.32	3.33	3.38	2.68	2.56	2.62	5.00	3.00	3.00	2.78	2.75
2.48	2.69	2.66	2.74	2.86	2.37	2.26	2.35	3.00	3.00	4.00	3.67	2.63
2.80	2.88	2.67	3.08	3.04	2.58	2.58	2.75	3.00	1.00	4.00	3.56	2.64
2.55	2.21	2.36	2.52	2.76	2.24	2.21	2.45	1.00	3.00	1.00	2.33	2.63
2.07	2.13	2.11	2.43	2.71	1.84	1.84	2.04	1.00	1.00	2.00	2.67	2.51
2.15	2.13	2.51	2.56	2.90	1.92	2.03	2.32	1.00	3.00	3.00	3.33	2.50
2.21	2.33	2.00	2.46	2.50	2.18	2.14	2.18	1.00	1.00	2.00	2.56	2.43
1.87	2.04	2.09	2.17	2.39	2.14	1.82	1.68	1.00	3.00	3.00	2.44	2.39
2.07	1.87	2.07	2.07	2.00	1.93	2.13	2.13	2.00	1.00	3.00	2.67	2.12
2.04	2.22	2.09	2.13	2.48	2.05	1.95	2.05	1.00	1.00	1.00	2.56	2.02
3.45	3.53	3.56	3.44	3.59	3.18	3.13	3.30	2.00	2.00	4.00	3.78	3.35
3.48	3.30	3.70	3.72	3.70	3.18	3.30	3.23	1.00	1.00	2.00	2.22	3.06

The States ranking for 21 States is depicted in Exhibit 8, in the States Group, Gujarat continues to lead as in previous editions. Proactive policies, well-developed infrastructure and services driven by a responsive Government have helped the State maintain its rank. Overall satisfaction on infrastructure is highest in the State. Haryana is a new entry in the top three rankings at 2nd position, followed by Punjab. Stakeholders in Haryana have exhibited higher confidence in existing infrastructure and services compared to Punjab, hence the jump in ranking vis a vis earlier year.

Indicator-wise, the three States fare well and lead in most of the perception-based and objective indicators (refer to subsequent section for indicator wise analysis). Uttar Pradesh witnessed a remarkable improvement in its rank v/s previous exercises driven by supporting policy initiatives, higher infrastructure spending in logistics infrastructure and facilitative policies. The State features high in Ease of Doing Business ranking as well. On the other hand, Madhya Pradesh and Andhra Pradesh registered the biggest fall in rank on account of issues across infrastructure, services, and regulatory environment.

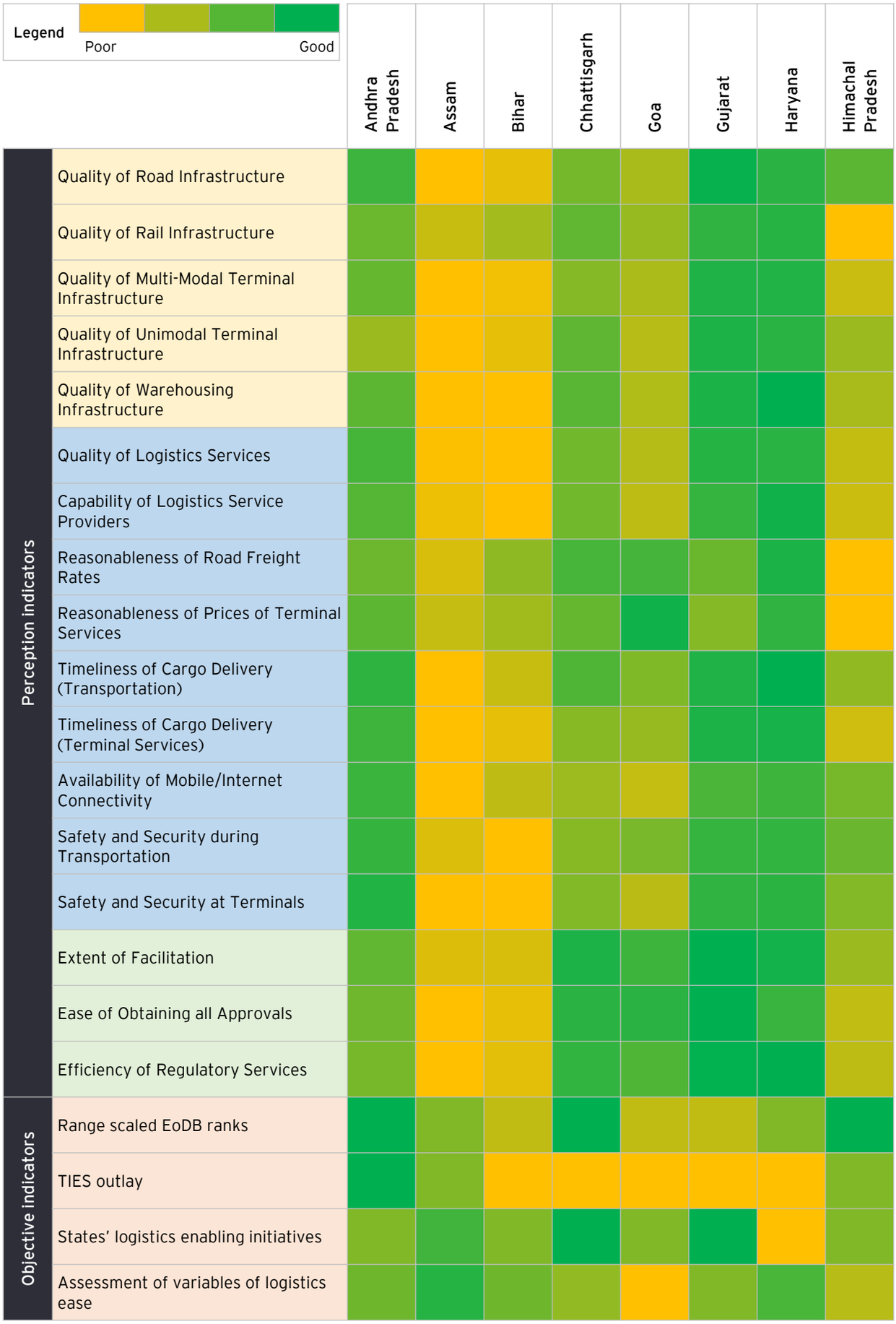
Within the North Eastern States and Himalayan Region, as shown in Exhibit 8, Jammu and Kashmir is the top ranker followed by Sikkim and Meghalaya.

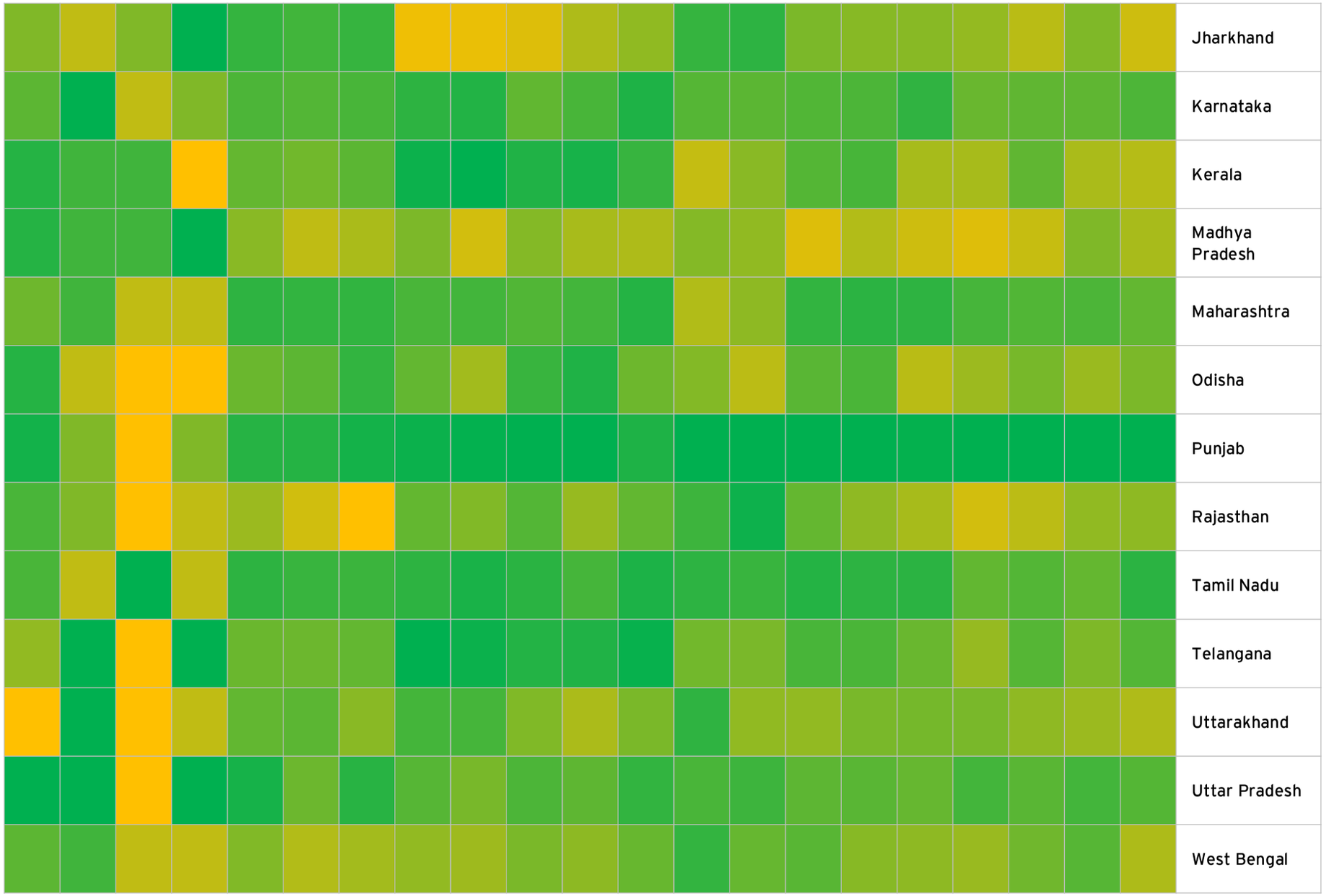
Among Union Territories (UTs), refer Exhibit 8, Delhi stands at the top rank in UTs, given a high overall satisfaction level for infrastructure available and overall logistics services provided. It ranks high, especially in the quality of multi-modal terminals. On the other hand, Chandigarh fares well on the quality of road infrastructure and overall quality of logistics services. Since the number of responses was very low for other UTs they have been excluded from rankings.




RACK-18
RACK-19

Exhibit 9: Indicator wise performance across States




Jharkhand
Karnataka
Kerala
Madhya Pradesh
Maharashtra
Odisha
Punjab
Rajasthan
Tamil Nadu
Telangana
Uttarakhand
Uttar Pradesh
West Bengal

Logistics is an ever-evolving industry in India, stretching from long coasts to deserts, hilly terrains, and plains. As a result, evaluating the whole Country as one logistics ecosystem is near impossible. Different regions have their challenges with varying responses. Yet, if logistics performance is to be assessed for them all on a common platform, logistics infrastructure and its management had to be broken down into indicators that covered all aspects comprehensively. For LEADS 2021, the overall construct of indicators focused on Infrastructure, Services and Regulatory Environment, like in previous studies. The three constructs mapped the entire gamut of experiences a user has in the logistics value chain. These three broad constructs were broken down into 17 specific indicators (5 for infrastructure, 9 for services and 3 for regulatory), which granularly captured every component explicitly. Since objectivity has been introduced for the first time in Index formation for LEADS 2021 exercise, 4 additional parameters (Range Scaled EoDB Ranks, TIES Outlay, States' Logistics Enabling Initiatives and Assessment of Variables for Logistics Ease) were incorporated to assess the States' performance based on data. Thus, the universe of indicators for the current year stood at 21. States' performance in each of these indicators is shown in Exhibit 9.

Top three States namely Gujarat, Haryana and Punjab have emerged as the top performers across perception indicators – infrastructure, services and regulatory. Western India led by Gujarat and Maharashtra exhibit good performance on nearly all perception indicators leading to infer that the States have a well-established logistics ecosystem in conjunction to the current demand. Southern India on the other hand has fared average to good range across indicators. Similarly, east India has witnessed an average rating across parameters in LEADS 2021. Barring a few States, Overall Operating and Regulatory Environment across States has been registered in average to good range. In northern region Haryana, Punjab and Uttar Pradesh endorse of good scores across infrastructure, services, and regulatory categories. Andhra Pradesh, Uttar Pradesh, Telangana, Madhya Pradesh, and Jharkhand are best performing States in Range Scaled EoDB Ranks. Andhra Pradesh and Tamil Nadu also fare well in availing TIES subsidy for creation of infrastructure for export promotion. Majority of the States have reported average to good in in the parameter of Assessment of Variables of Logistics Ease (State logistics enabling initiatives).

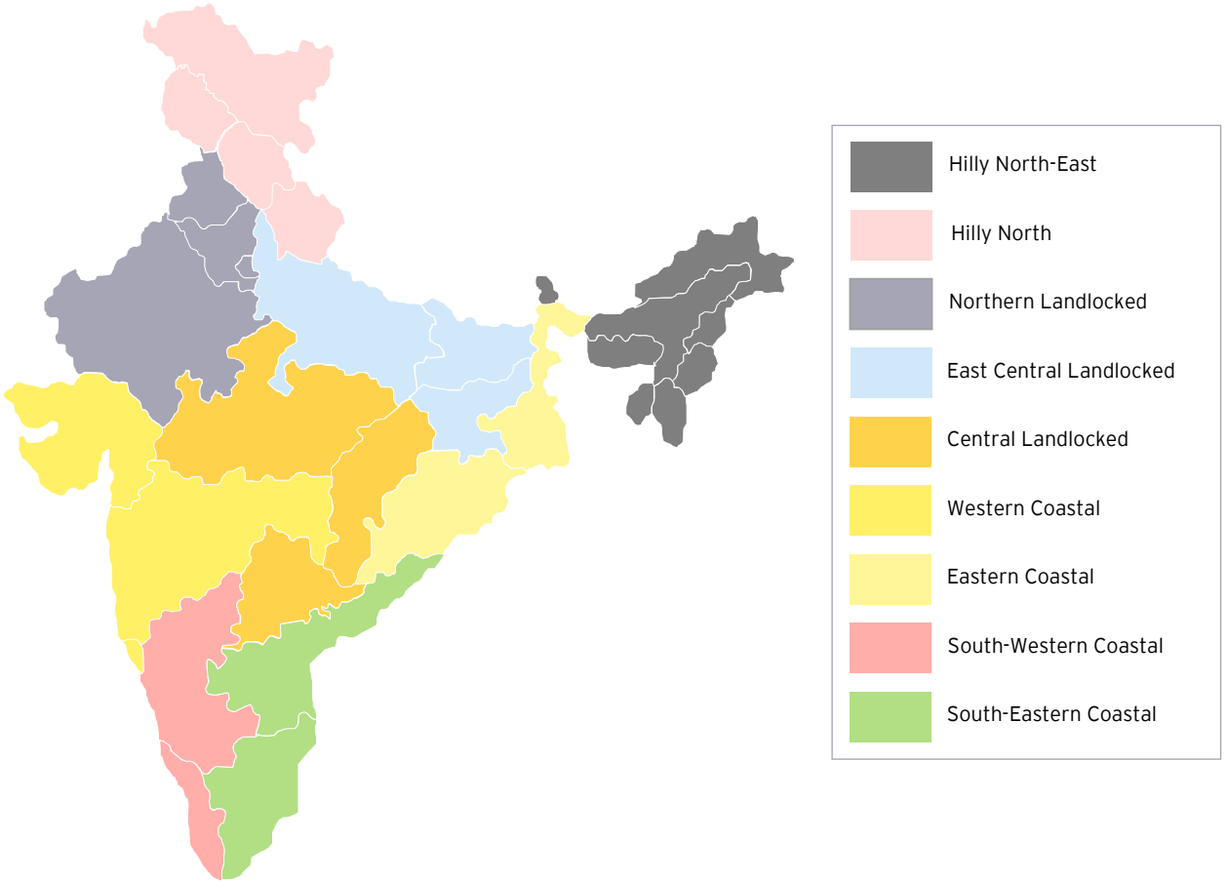
Cluster analysis

Logistics is neither fully restricted nor influenced by the geographical unit of a State boundary. A State is not a single logistics entity, and its different regions may have very different logistics ecosystems. Similarly, adjoining sub-regions of two or three States may exhibit a common ecosystem only differentiated by varying policy measures undertaken by concerned States. The flow of goods from origin to destination is almost always across many States, traversing various geographies. The presence of production and consumption centres are not bound by the logic of administrative units such as a State or a UT. Hence, through many stakeholder interactions during the LEADS survey, it has been felt that there should be a broader geographic scope to examine the performance of a logistics ecosystem.

Examination of the logistics sector only through the lens of a State/UT unit would not do justice to understand the key challenges faced and remedies arrived at by a State acting in a silo of its own, unmindful of what the neighbour is doing. Therefore, there is merit in considering logistics ecosystems in clusters of States, adjacent to each other, for making policy and investment decisions in logistics infrastructure in a coordinated and symbiotic manner.

The State/UTs have been clustered based on their geographic proximity, nine clusters have been made within the broad categories of landlocked, coastal, and hilly clusters. The exhibit 10 highlights the nine clusters carved out for analysis.

Exhibit 10: Cluster Distribution



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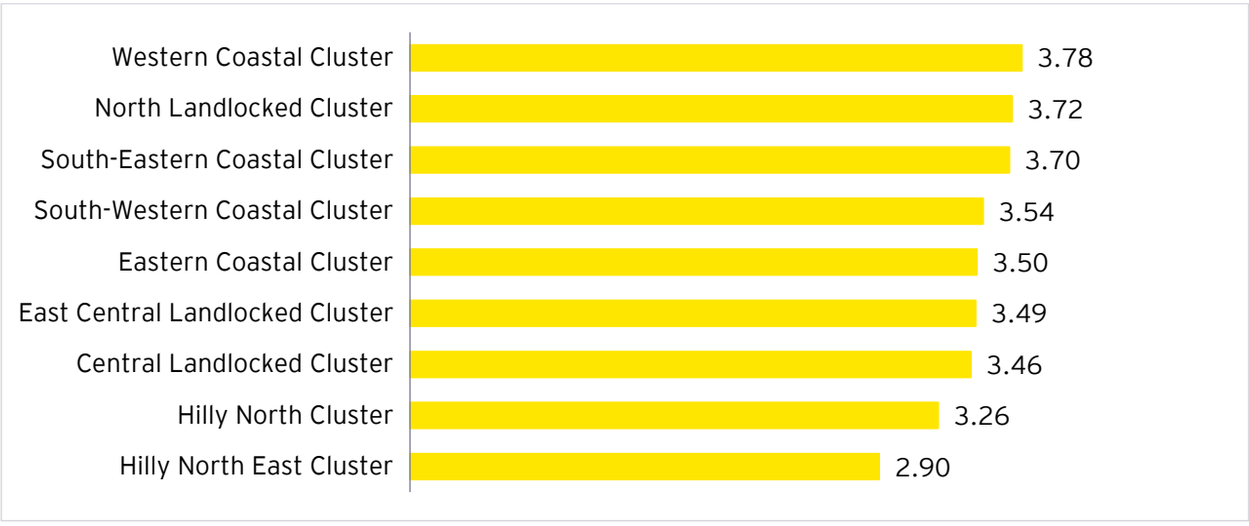
The clustering approach highlights that the logistics ecosystems depend on many variables, of which the geographical position of a State/UT is only one factor. There is little evidence that having an element of logistics infrastructure such as a port, on account of being a coastal State, will have such a decisive influence on the State's logistics ecosystem that will set it apart from a hinterland State. Though geographical position might provide an initial impetus to logistics, its sustenance is based on a number of underlying factors for an efficient ecosystem.

Performance of clusters

An inter-cluster comparison has been undertaken basis the respective indicator scores amongst the clusters to understand the dynamics of logistics in quality of infrastructure, quality of services and logistics service providers and operating and regulatory environment. The exhibit 11 details the cluster scores amongst the nine clusters.

Exhibit 11: LEADS cluster scores



Note: The LEADS cluster scores have been calculated from the average of individual LEADS scores of the States/UTs falling in a particular cluster. Puducherry, Ladakh, Daman Diu and Dadra and Nagar Havel, Andaman and Nicobar Islands and Lakshadweep have been excluded from clustering due to inadequacy of responses in the survey.

The Western coastal cluster (Gujarat, Maharashtra, and Goa) with the availability of adequate logistics infrastructure, leads the Cluster score table.

The Northern landlocked cluster (Delhi, Punjab, Haryana, Rajasthan, and Chandigarh) has scored well amongst all the landlocked clusters. However, on all the indicators related to "Objective Assessment of States' Logistics Eco-system", the cluster has scored low.

Hilly North-East (North-Eastern States) Cluster, with its geographic constraints, has been found in need of improvement across all the 21 indicators and has been ranked the lowest in the inter-cluster comparison.

Within the coastal clusters, Eastern coastal cluster (Odisha and West Bengal) has scored the lowest primarily due to low score in the indicators related to "Quality of unimodal", "Quality of warehousing infrastructure", "Reasonableness of road freight", "Operating and Regulatory Environment", "Range Scaled EoDB Ranks" and "TIES Outlay".

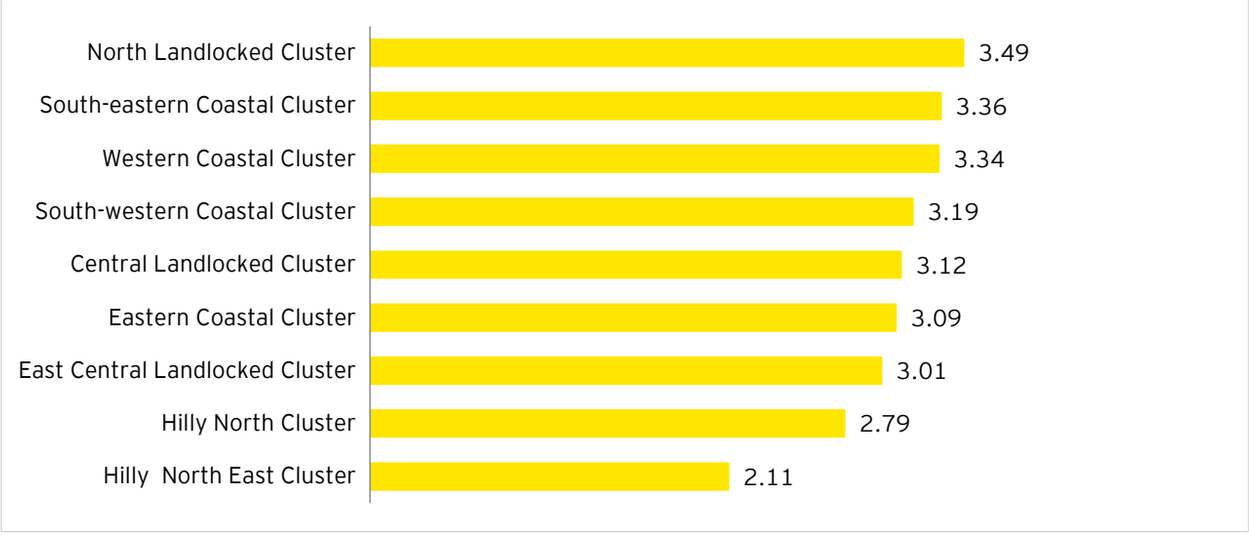
Performance of clusters across indicator categories

Given the score and ranking of each cluster, they are analyzed based on the four themes across a set of 21 indicators. Such categorization of cluster analysis enables an understanding of the strengths and weaknesses of each cluster vis-à-vis others across the four themes of "Availability and Quality of Infrastructure". "Quality and Reliability of logistics services and service providers ", "Regulatory and Operating Environment" and "Objective Assessment of States' Logistics Eco-system".

Availability and Quality of Infrastructure

The overall indicator "Quality of Infrastructure" captures respondents' perception across road, rail, terminal, and storage infrastructure. As evident from the exhibit 12, the score on this theme is influenced by the geography and accessibility of the respective cluster.

Exhibit 12: Availability and Quality of Infrastructure



Note: The composite score for a particular cluster has been calculated from the average of respective indicators' scores of States/UTs falling in a particular cluster.

Northern landlocked cluster has emerged as the top performer across all the five indicators. These States command high economic activity and endorse a well-connected surface terminal and connectivity infrastructure.

On the other hand, the Hilly North East cluster has under-performed in this category mainly because of its geographical positioning and terrain which act as natural deterrents to developing a robust logistics infrastructure. Industry interactions also highlight similar concerns, e.g. poor road connectivity between Nagaland and Manipur, Assam to Tripura, and the poor State of National Highway between Silchar and Imphal (which takes 10-12 hours to cover).

The Western coastal cluster has performed above average in indicators related to availability and quality of terminal, storage, and connectivity infrastructure. This is since India's biggest port terminals are in Gujarat and Maharashtra. The majority of the CFSs are also concentrated in this cluster. However, Goa with its low scores across majority of the indicators, has impacted the cluster score.

The coastal clusters owing to the well-established port terminal and connectivity infrastructure, has generally been perceived to perform well on indicators related to "Availability and quality of infrastructure". The Eastern coastal cluster is the exception as it fares below average on all indicators related to road, storage, and terminal infrastructure. It was highlighted, for instance, that road connecting to Paradeep port and Kolkata port is highly congested and in poor condition. Further, overcrowding of good sheds and warehouses have also been mentioned as additional features that have resulted in the low score.

Availability and Quality of Infrastructure in Hilly North East cluster

Availability and Qualify of Infrastructure is perceived to be a key challenge hindering logistics efficiency in North East. Logistics industry stakeholders have identified multiple infrastructure gaps across the region including:

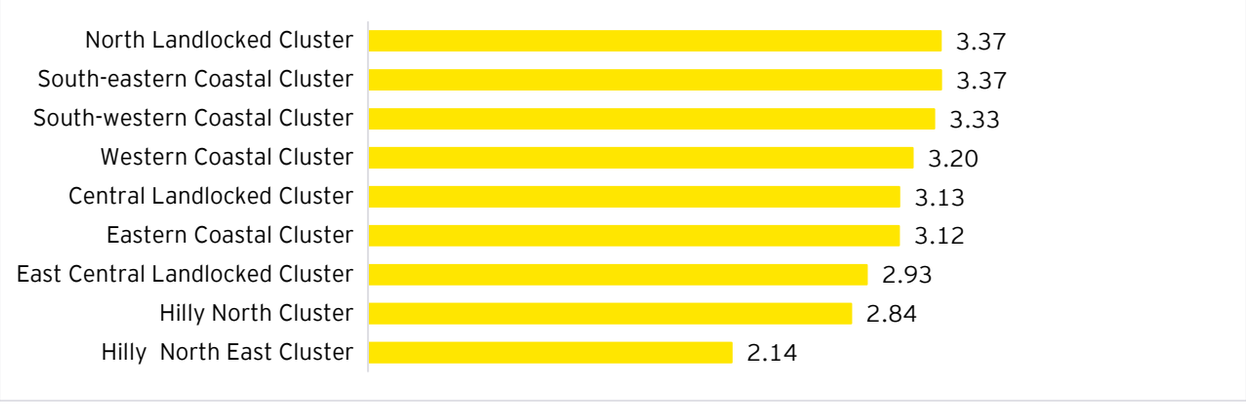
- Poor quality of roads across the region e.g.
  - road connecting Nagaland and Manipur
  - national highway between Silchar and Imphal
  - access to Tripura from Agartala
  - Jiribam to Imphal road
- Old bailey bridges which tend to get damaged frequently
- Limited rail connectivity across the region, although network expansion is being undertaken at certain places
- Lack of infrastructure at Agartala railway station for unloading and parking of cars
- Draft and terminal infrastructure limitations at IWT terminals due to which majority of the cargo continues to move on road
- Lack of logistics facilities like CFS, ICD, Warehouses across the region. Industry is primarily dependent on ICD in Amingaon. According to Government of Tripura, government has initiated a proposal for setting up a Logistics Park at Sabroom in South Tripura district.

These constraints in infrastructure are reflected in the low scores for all the North East States.

Quality and Reliability of logistics services and service providers

The overall indicator "Quality and Reliability of logistics services and service providers" captures respondents' perception across various aspects of logistics service delivery including availability, timeliness, rate reasonableness and safety/security of cargo. The exhibit 13 captures the cluster-wise performance on "Quality and Reliability of logistics services and service providers".

Exhibit 13: Quality and Reliability of logistics services and service providers



Note: The composite score for a particular cluster has been calculated from the average of respective indicators' scores of States/UTs falling in a particular cluster.

With respect to "Quality and reliability of logistics services and service providers", stakeholders have highlighted high freight rates during transit and high prices of terminal services as a challenge for all clusters.

North landlocked and South Eastern coastal (Andhra Pradesh and Tamil Nadu) Clusters have both scored the highest in "Quality and Reliability of logistics service and logistics service providers". The performance of Northern landlocked cluster is dominated by the performance of States like Haryana and Punjab which have skewed the cluster scores in their favor. However, it is also important to understand that this cluster forms the terminal infrastructural backbone for major consumption centers and hence has many service providers pushing quality through competition amongst them.

The South western coastal cluster (Karnataka, Kerala) ranks third in terms of this overall indictor. The cluster scores the highest in the timeliness of cargo handling and safety and security at

terminals as well as during transportation. The stakeholders have also highlighted that the cluster has almost no issues related to track and trace and pilferage of cargo.

The Western coastal cluster has performed above average in all the indicators related to Quality/Reliability of logistics services and service providers. In Gujarat and Maharashtra, Stakeholders have highlighted high freight rates and high prices of terminal services. This has resulted in low scores in reasonableness of freight rates and prices of terminal services compared to other indicators. Congestion in approach roads to JNPT and Mundra has been highlighted in industry interactions which have affected the score of timeliness of cargo delivery with respect to transportation and terminal services

Availability and Reliability of Logistics Services in Kerala

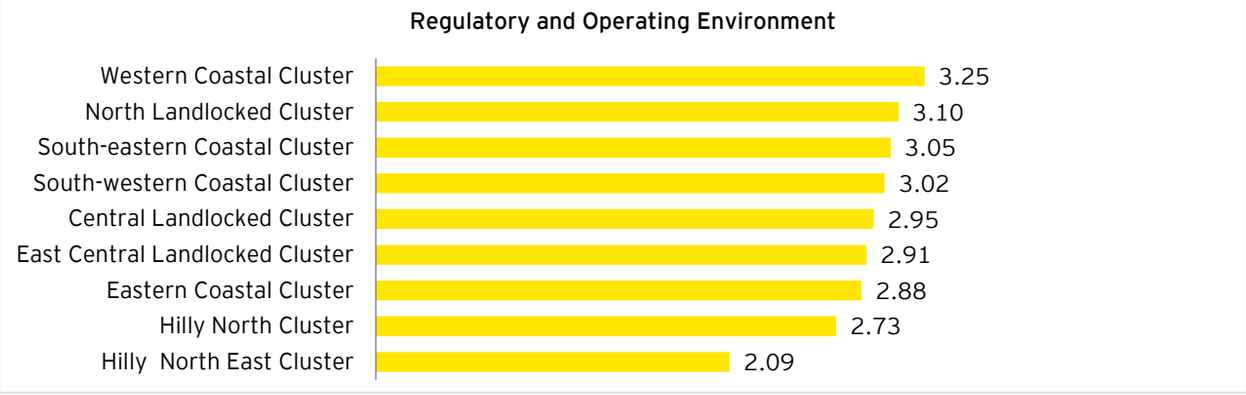
Availability and Reliability of logistics services is perceived to be best in Kerala. The State has successfully implemented smart enforcement measures as below

- **Installation of Automatic number-plate recognition (ANPR) system** -The ANPR system captures vehicle image, number plate and type of vehicle identified as by OCR and AI. ANPR system cross checks the number plate of truck and data as given in e-way bill. If e-way bill is available, risk-based parameters of the truck are checked from central database and the enforcement teams' intercepts in case of any issue. Any issue reported with the vehicle will enable the Control Room for allotting suspected vehicle for direct action based on Alerts received from ANPR System using GPS location. Enforcement vehicles are also supported with GPS supported video surveillance. This acts as a control mechanism to ensure that enforcement agencies are performing any interception only due to a valid reason and further increases transparency in the system. The System will also provide route map to the surveillance vehicle squad, in order to ensure successful interception.
- **Process Simplification** - Modernisation of Check posts, to reduce the physical stoppage and to ensure smooth flow of goods vehicles, weigh in motion weigh bridges and sensors have been incorporated.
- **Training of Enforcement Officials** - Enforcement in Kerala by Motor Vehicle Department is completely digital. Enforcement Squads are also equipped with EPOS Machines for the preparation of Challans and payment schedules. Provisions for online payment of Challan is also provided. Unpaid challan are forwarded to e- courts (virtual Courts).
- **Elimination of Physical Check post** - As the part of Safe Kerala Project being implemented in the State, 724 ANPR cameras are being installed in the State. These cameras are capable of Self Detecting several Violations. The Challans are processed through 14 District Control Rooms set across the State. Vehicle Location Tracking Devices (VLTD) has also been introduced for Goods Carriages in the State.

Operating and Regulatory Environment

The overall indicator "Operating and Regulatory Environment" captures respondents' perception across the efficiency of regulatory services, ease of obtaining approvals and the facilitation provided by the States/UTs towards enablement of logistics. The exhibit 14 captures the cluster-wise performance on "Operating and Regulatory Environment".

Exhibit 14: Regulatory and Operating Environment



Note: The composite score for a particular cluster has been calculated from the average of respective indicators' scores of States/UTs falling in a particular cluster.

The western coastal cluster has outperformed all the other clusters in the Operating and Regulatory Environment indicators. Gujarat has dominated the score of the western coastal cluster and has pushed it ahead of all other clusters.

The South coastal clusters score above average for all the indicators related to the regulatory and operating environment. The State governments of Kerala and Karnataka have taken several initiatives to facilitate logistics infrastructure in the States. The resting facilities near Bangalore International Airport for traders, transporters, or drivers coming to the airport to receive or deliver cargo at a nominal charge has been a progressive step towards driver facilitation.

Central landlocked cluster scores poorly on the overall parameter. Informal payments during road transit, anti-competitive practices by transport unions and unscheduled checking of commercial vehicles by RTO officials in Madhya Pradesh and Chhattisgarh have been perceived as major issues.

The Hilly North-east cluster has scored the lowest in the overall Operating and Regulatory Environment indicator. The States are not making enough regulatory provisions to facilitate logistics that would make a difference.

Operating and Regulatory Environment in Gujarat

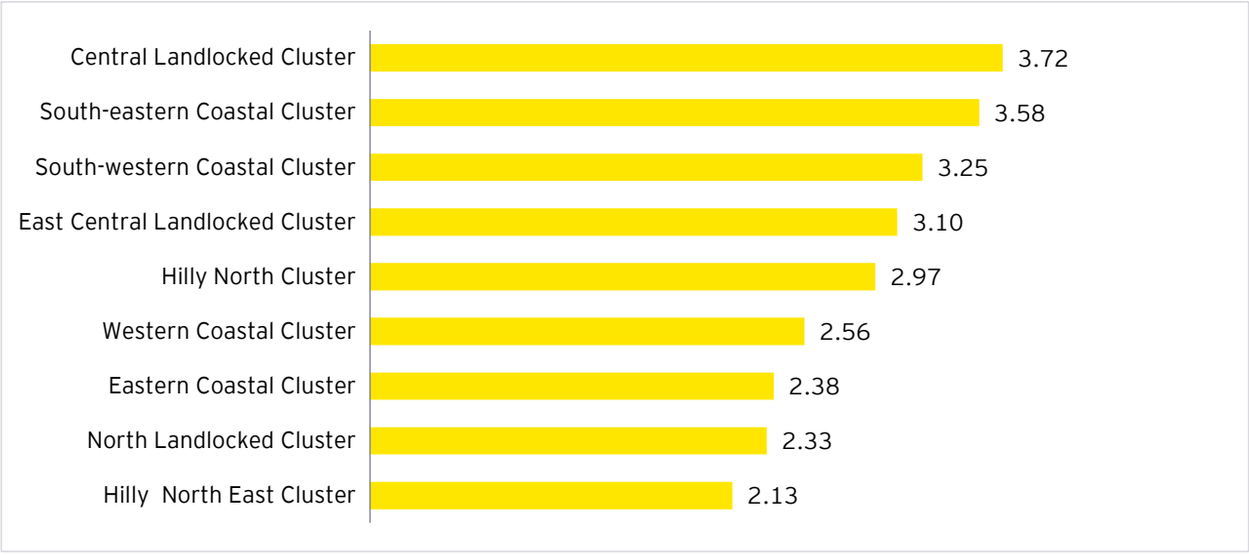
Operating and Regulatory Environment is perceived to be best in Gujarat. The State has implemented single window and grievance redressal mechanism as per the Gujarat Integrated Logistics and Logistics Park Policy

- Single Window Clearance - A separate category for logistics is made available on the Investor Facilitation Portal (IFP) for providing single window clearance to the Unit/ project availing incentives/ support under this policy. This will support the objective to provide single window clearance for setting up logistics facilities and providing logistics services in the State. Once, the investment application is received on IFP, the Logistics Policy Cell shall evaluate it and put forth the recommendations on the proposal to the State Level Empowered Committee (SLEC) for approval. Upon approval, the Logistics Policy Cell will disburse the incentives under this policy and provide necessary support to the Unit/ project. A grievance redressal mechanism for providing time bound and effective resolution to issues and challenges shall also be established under this policy.
- Smart Enforcement – The State has abolished all physical check posts by Motor Vehicle Department as of 2019 and is implementing risk based digital interventions measures to minimal inspection and physical stoppages on the road
- State Facilitation – The State has included certain provisions towards facilitation and development of Logistics parks:
  - Link infrastructure such as roads especially from the State highways should be provided for easy movement of the vehicles. The logistics parks should be proposed near to the Dedicated Freight Corridor for ease of providing rail connectivity
  - The land towards setting up the sub-station for large industrial areas should be provided by the government and this would reduce the cost of overall development from the developer's perspective.
  - The cost towards setting up the sub-station should be reimbursed by the government.
  - Obtaining approvals for providing railway siding is time consuming and steps envisaged to be taken to streamline the approval mechanism.
  - Setting up truck terminals in industrial areas is prioritized. Separate area is earmarked in the industrial area for the truck terminals and for the facilities for the drivers. This area is provided to petroleum corporations such as BPCL, HPCL, IOCL etc., to develop an integrated truck terminal having host of facilities.
  - They have come up with a template model for designing the logistics parks with area demarcation for sector wise processing and packaging facilities based on the location. This helps in standardization and ease the clearance process.

Objective Assessment of States' Logistics Eco-system

The indicator "Objective Assessment of States' Logistics Eco-system" captures respondents' perception across various aspects of States' logistics ecosystem such as investment available for logistics, Range Scaled EoDB Ranks, and States' Logistics Enabling Initiatives. The exhibit 15 captures the cluster-wise performance on "Objective Assessment of States' Logistics Eco-system".

Exhibit 15: Objective Assessment of States' Logistics Eco-system



Note: The composite score for a particular cluster has been calculated from the average of respective indicators' scores of States/UTs falling in a particular cluster.

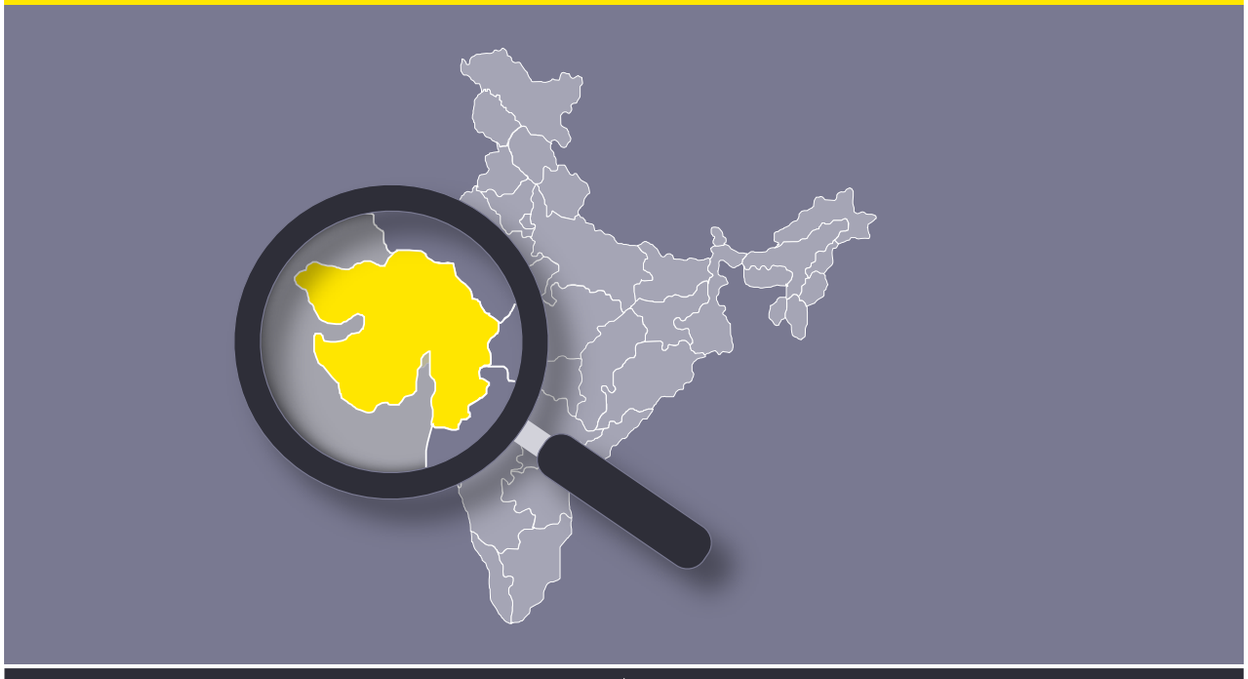
The central landlocked cluster comprising Telangana, Chhattisgarh and Madhya Pradesh has scored the highest in "EoDB rank" and "States' logistics enabling initiatives". Despite the low performance of Madhya Pradesh across indicators, the central landlocked cluster has managed to top the score on the indicator theme, riding on the good scores of Telangana and Chhattisgarh.

Among the Southern coastal clusters, South eastern coastal cluster has scored high in the indicator "TIES Outlay" indicating that the investment by State for logistics has been positively perceived. The South western coastal cluster has scored the highest in Range scaled EoDB Ranks indicating that the investment climate has been perceived in positive light bearing an effect on creation of infrastructure that would also help the logistics ecosystem. The western and eastern coastal clusters lie on the two extremities of the indicator theme score. Although the western coastal cluster has topped the scores across clusters and has also scored the best in the indicator "Operating and Regulatory Environment", it has been perceived to be average in objective indicators of logistics ease and investment environment and States' enabling policies for logistics.

The hilly North-East has the lowest scores in "Range Scaled EoDB Ranks", "States' Logistics Enabling Initiatives", "Assessment of Variables for Logistics Ease". This perception of the stakeholders about the North-East indicates that despite the geographic challenges in the North-Eastern States over which they have limited control, the States are not doing enough to facilitate logistics to make a difference.

States' performance in LEADS index

Gujarat



2021 rank	2021 Score	2019 rank	2019 Score
1	3.66	1	3.62

Note: Owing to the change in statistical methodology between 2019 and 2021, a direct rank and score comparison is not recommended.

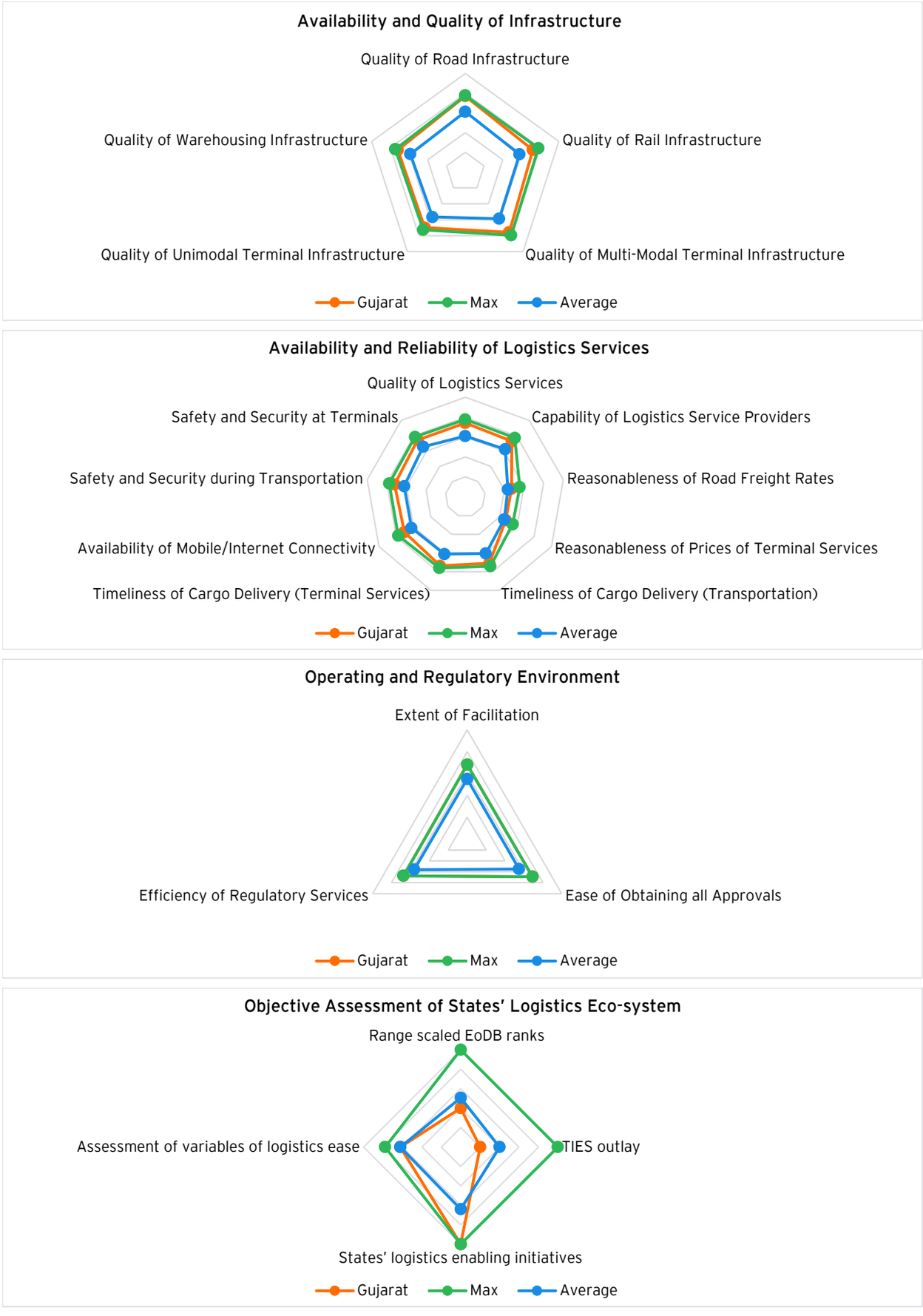
GUJARAT – a brief logistics profile

Brief overview of the logistics profile of the State is provided in the exhibit 16 below.

Exhibit 16: Brief logistics profile of Gujarat

Parameter	Unit	Value	Year	Source	
Road length	km	NH=7,744/ SH=17,201	2020-21	MoRTH/NHAI	*Gujarat has the second highest nos. of ICDs (10 nos.) and cold storage (969 nos.) in the country*
Railway track	Track-km	7,938	2019-20	MoR	
Inland Container Depot (ICD)	nos.	10	2017-18	CBIC	
Container Freight Station (CFS)	nos.	28	2017-18	CBIC	
Private Freight Terminal (PFT)	nos.	8	2020-21	MoR	
Air cargo terminals	nos.	10	2020-21	AAI	
Rail goods sheds	nos.	417	2019-20	MoR	
WDRA registered warehouse capacity	MT	7,97,254	2019-20	WDRA	
Cold storage capacity	MT	38,22,112	2020-21	MoCAF&PD	
Port traffic	MT	50,52,00,000	2020-21	MoPSW	
Logistics training centres	nos.	10	2020-21	MoSDE	
No. of individuals trained in logistics	nos.	1,018	2020-21	MoSDE	

Exhibit 17: States' LEADS indicator score and ranking



Note: It is important to check the confidence interval (CI) of a States' indicator scores before making any judgement on its performance.

Gujarat has maintained its top rank in LEADS index for third time in a row. Gujarat tops among all States in overall satisfaction for indicators of Availability and Quality of Infrastructure, Extent of Facilitation and Ease of Obtaining all Approvals.

The State has maintained its rank through strong initiatives such as an integrated logistics policy and also a logistics park policy, creation of suitable port-related infrastructure and creation of institutional framework even down to the city level. State has set up logistics-related Institutional mechanism and has constituted 08 City Level Coordination Committees. It has been proactively pursuing policies to enable development of logistics infrastructure in the State by incentivizing and facilitating the right operating and development implementation models.

Skilling in logistics domain is also being given a push by the State by incentivizing companies to upgrade skills of their labor force.

The State has above average scores in all the indicators except for Reasonableness of Prices of Road Freight Rates. Industry interactions indicate that undue stoppages at RTO offices is a challenge that increases cost of service. The State may undertake digital initiatives for easing of freight movements and for reducing the cost of transportation.

Issues and challenges as narrated by industry stakeholders

Infrastructure

- During monsoon season, the potholes on road leading to Mundra port gets flooded and leads to congestion.
- There is lack of connectivity between ports Mundra and Hazira via a coastal road.

Services

- The schedule for rail movement between Gujarat and the Northern hinterland (Delhi, Ludhiana) is unreliable. Often there are in-transit delays because of the non-availability of engine/power.

Regulatory and Operating Environment

- Undue stoppage and checking by RTO is an issue in the State. Undue stoppages are prevalent even when all transit related documents are present with the vehicles.
- There are frequent cases of theft reported by industry stakeholders across the State.

Disclaimer: The issues and challenges capture isolated experiences of the stakeholders and continual improvement may already have been in the process addressing the stakeholders' inputs.

Action taken by the State against LEADS 2019 recommendations

Gujarat has been a proactive State and has taken adequate actions against the recommendations as suggested in LEADS 2019 report. Broadly, the following measures have been taken by the State government-

- Widening of road stretches viz. Hazira-Surat, approach roads to ports and air cargo terminal, etc.
- Implementation of CCTV monitoring under VISWAS Project Phase 1 and 2 in Vapi, Silvasa, Gandhidham and Kandla
- Implementation of faceless services in renew of licenses and provision of online permit services for commercial vehicles
- Provision of several financial incentives to the local transporters in the Gujarat Integrated Logistics and Logistics Parks Policy 2021
- G-RIDE in close co-ordination with Ministry of Railways and Government of Gujarat is working on number of gauge conversion/new line/last mile rail connectivity projects viz.
  - Katosan-Becharaji-Chanasma- Ranuj, (gauge conversion with last mile connectivity)
  - New Gothangam (DFC Yard) to Hazira (last mile rail connectivity)
  - Last mile rail connectivity to Old Bedi Port
- Implementation of RFID and FASTag technology on road stretch from Halol to Hazira
- State government is planning for the expansion of the terminal building and warehousing capacity of the State

Suggestions and recommendations

The State may inspect and investigate the constraints being faced by the industry and may undertake the following measures -

- The State may examine the implementation of digital initiatives to prevent unwarranted stoppages and the accompanying informal payments. The State may also consider strengthening the existing grievance redressal mechanism for the industry for reporting and redressal of such issues.
- The State may identify theft prone highway locations and consider implementation of IT infrastructure for surveillance for monitoring mechanism on key freight rates.
- State may coordinate with MoR (Ministry of Railways) to increase the availability of power/engine for rail traffic connecting Gujarat with Northern hinterlands.

Initiatives undertaken by the State Government

State policy for logistics

- Gujarat has formulated an Integrated Logistics and Logistics Park Policy 2021

Institutional mechanism for logistics implementation

- The State has setup a robust institutional mechanism for logistics – appointed nodal officer for logistics, constituted State logistics cell as well as State Logistics Co-ordination Committee
- To ease the freight traffic movement, the City Logistics Co-ordination Committee has been formed for eight cities having Municipal Corporations viz (1) Ahmedabad Municipal Corporation. (2) Surat Municipal Corporation, (3) Rajkot Municipal Corporation, (4) Vadodara Municipal Corporation, (5) Gandhinagar Municipal Corporation, (6) Bhavnagar Municipal Corporation, (7) Jamnagar Municipal Corporation and (8) Junagadh Municipal Corporation.

Investment in logistic infrastructure – facilitation and incentivization

- Gujarat Integrated Logistics and Logistics Park Policy 2021 has granted special financial assistance to develop industrial infrastructure in State, as follows:
  a) The new policy provides a 25% capital subsidy on eligible fixed capital investment of up to a maximum INR 15 Crore to develop and facilitate support mechanism for new jetties, 7% interest subsidy for seven years on sanctions loan which maximum of INR 0.5 crore can extend.
  b) The policy has the provision to reimburse 100% stamp duty. It has the provision for assistance for quality certification, patenting, research, and development.
  c) provision for reimbursing stipend up to INR 15000 per head for 120 hours training to fulfil the demand for skilled manpower and 100% reimbursement for women trainees

Key initiatives under the regulatory regime

- The State has a single-window provision, through the State Investor Facilitation Portal, for granting clearances for industrial investments including logistics infrastructure.

Haryana

2021 rank	2021 Score	2019 rank	2019 Score
2	3.52	6	3.37

Note: Owing to the change in statistical methodology between 2019 and 2021, a direct rank and score comparison is not recommended.

Haryana - a brief logistics profile

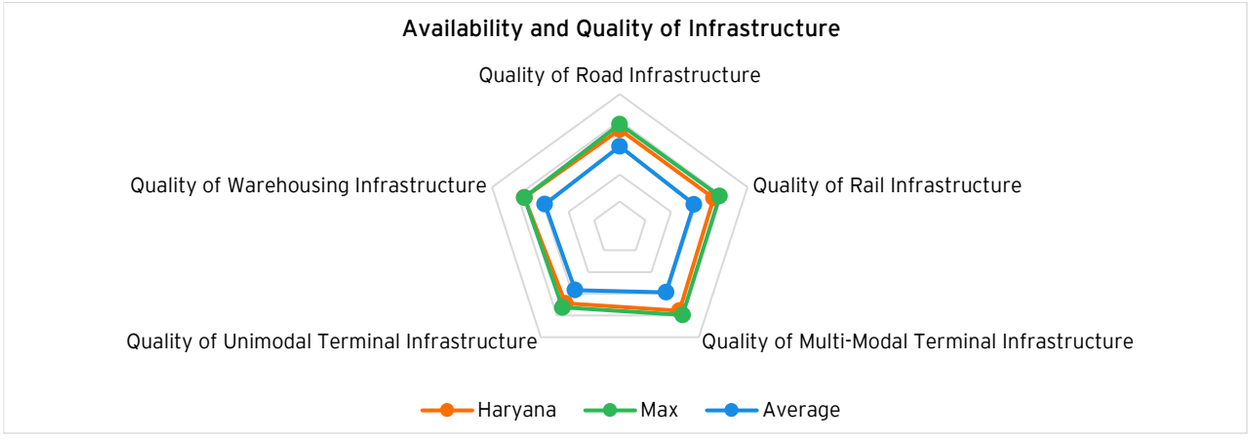
Brief overview of the logistics profile of the State is provided in the exhibit 18 below.

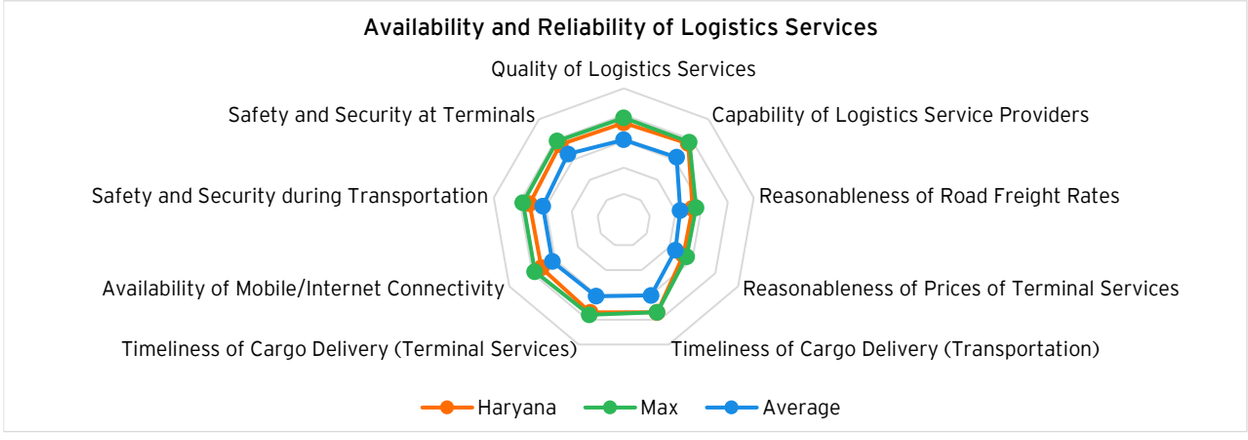
Exhibit 18: Brief logistics profile of Haryana

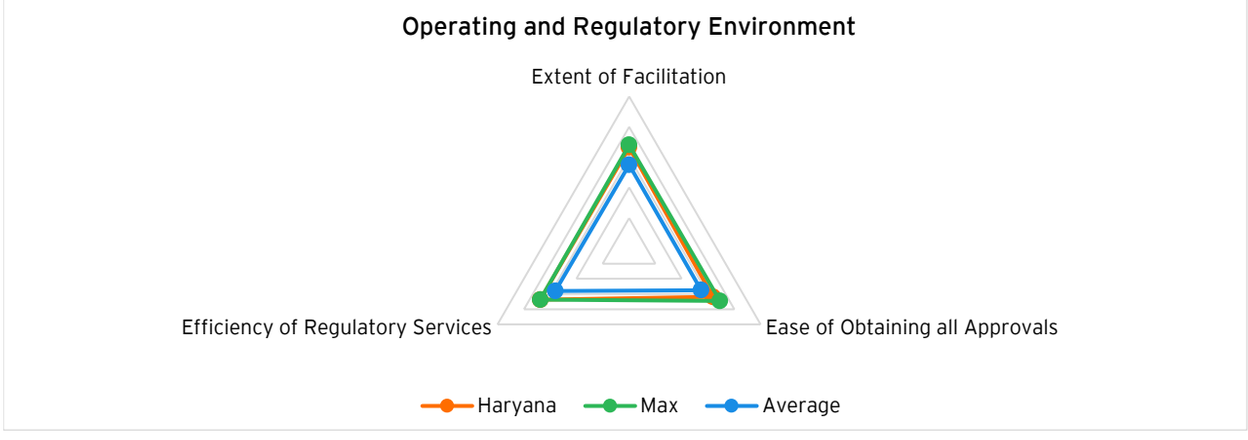
Parameter	Unit	Value	Year	Source	
Road length	km	NH=3,237/ SH=1,602	2020-21	MoRTH/NHAI	
Railway track	Track-km	3,243	2019-20	MoR	
Inland Container Deport (ICD)	nos.	9	2017-18	CBIC	
Container Freight Station (CFS)	nos.	3	2017-18	CBIC	
Private Freight Terminal (PFT)	nos.	9	2020-21	MoR	
Air cargo terminals	nos.	1	2020-21	AAI	
Rail goods sheds	nos.	203	2019-20	MoR	
WDRA registered warehouse capacity	MT	4,68,187	2019-20	WDRA	
Cold Storage Capacity	MT	8,19,809	2020-21	MoCAF&PD	
Logistics training centres	nos.	19	2020-21	MoSDE	
No. of individuals trained in logistics	nos.	1,890	2020-21	MoSDE	

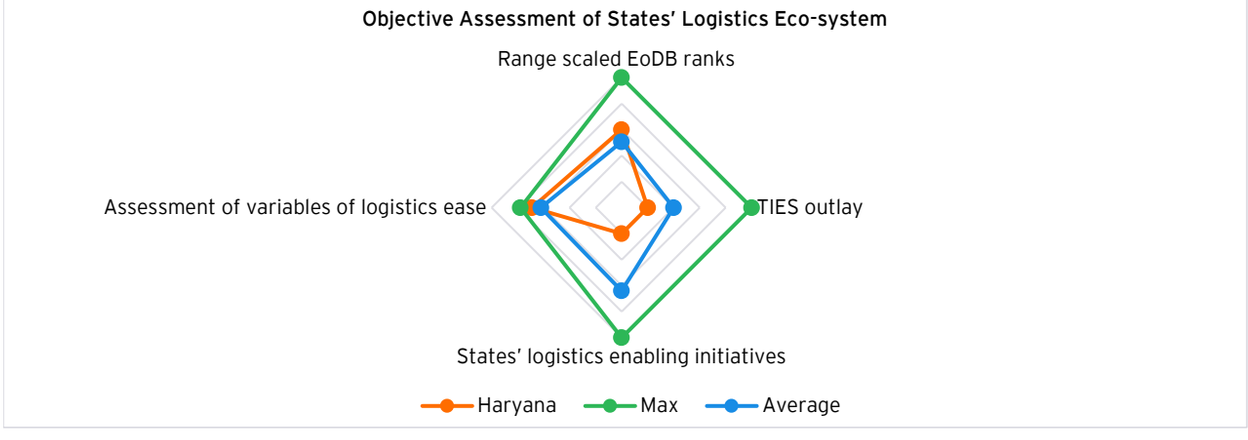
Haryana has the maximum number of PFTs (nine) in the country and stands third highest in terms of ICDs (nine)

Exhibit 19: States' LEADS indicator score and ranking









Note: It is important to check the confidence interval (CI) of a States' indicator scores before making any judgement on its performance.

Haryana is ranked second in 2021 index compared to sixth in 2019 index i.e., an increase of four places. The State has secured highest score for several indicators e.g., Quality of Warehousing Infrastructure, Timeliness of Cargo Delivery during Transportation, Operating and Regulatory Environment, and Efficiency of Regulatory Services.

This improvement in ranking is reflected in the initiatives undertaken by the State. The State has appointed Nodal Officer for logistics and formulated a Logistics, Warehousing and Retail policy. The State provides capital and interest subsidy ranging from 5% to 25% for setting up of warehousing infrastructure, logistics parks and Integrated/Multi-Modal Logistics Parks. The State also provides stamp duty reimbursement, 100% electricity exemption for a period of 05 years and full reimbursement of External Development Charges (EDC).

To enable skilled manpower in logistics, the State reimburses 50% of training cost of workers to logistics and warehousing units. The State has also simplified the regulatory regime through Single Desk Clearance Mechanism, self-certification, and assistance in land acquisition for setting up of logistics Infrastructure in the State. The State has also plans to develop truckers' parks along the National Highways in Haryana. The improvement in the logistics sector in the State is also echoed in the anecdotal evidence such as "Haryana is taking good initiatives with key players bringing warehouse facilities along highways".

Issues and challenges as narrated by industry stakeholders

Infrastructure

- The connecting road from Kundli to Sonipat terminal is not in good condition and requires re-surfacing.
- The road connecting major industrial areas in Panipat, Karnal, Jind, Rohtak need improvement.

Services

- Rail freight charges are high as compared to road freight charges when transporting rice from Sonipat, Panipat, and Taraori belts.

Regulatory and Operating Environment

- Frequent unwarranted stoppage of commercial vehicles by Police and RTO officials.
- Cargo safety is an issue in the internal roads of Haryana and industry interactions have revealed multiple cases of theft during transit.

Disclaimer: The issues and challenges capture isolated experiences of the stakeholders and continual improvement may already have been in the process addressing the stakeholders' inputs.

Suggestions and recommendations

The State may inspect and investigate the constraints being faced by the industry and may undertake the following measures -

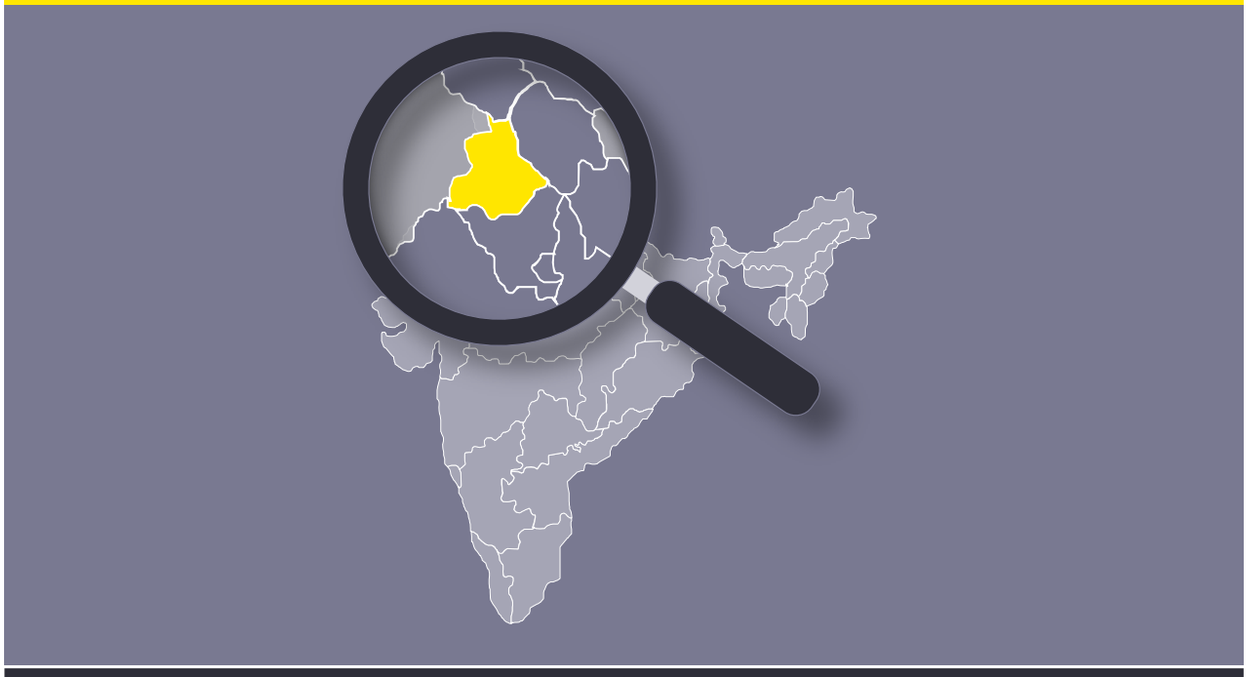
- The State may consider strengthening institutional mechanisms by setting up a city logistics coordination committee to streamline city logistics, a State Logistics Cell and Coordination Committee for the integrated development of logistics ecosystem.
- The State may consider implementation of IT infrastructure for surveillance on key State Highways and consider strengthening highway patrolling to increase cargo safety.
- The State may also consider Implementation of digital initiatives to prevent the number of physical checks of commercial vehicles by police and enforcement officers.
- The State may consider recarpeting and repairing of roads connecting Kundli with ICD terminal in Sonipat and roads connecting industrial areas of Panipat, Karnal, Jind, Rohtak.

Initiatives undertaken by the State Government

State policy for logistics

- Logistics, Warehousing and Retail Policy-2019 formulated by the State is the key enabling policy for improving the logistics ecosystem within the State

Punjab



2021 rank	2021 Score	2019 rank	2019 Score
3	3.51	2	3.46

Note: Owing to the change in statistical methodology between 2019 and 2021, a direct rank and score comparison is not recommended.

Punjab - a brief logistics profile

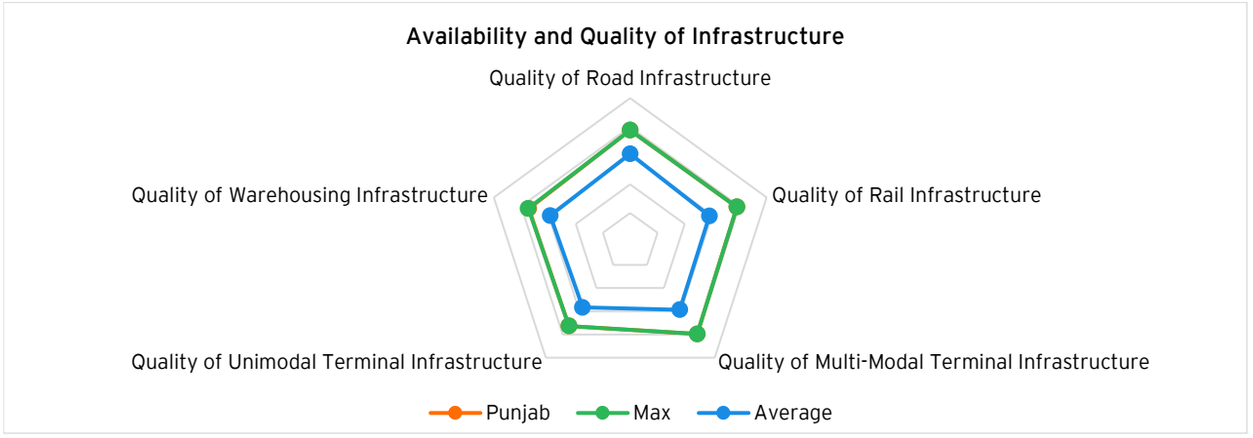
Brief overview of the logistics profile of the State is provided in the exhibit 20 below.

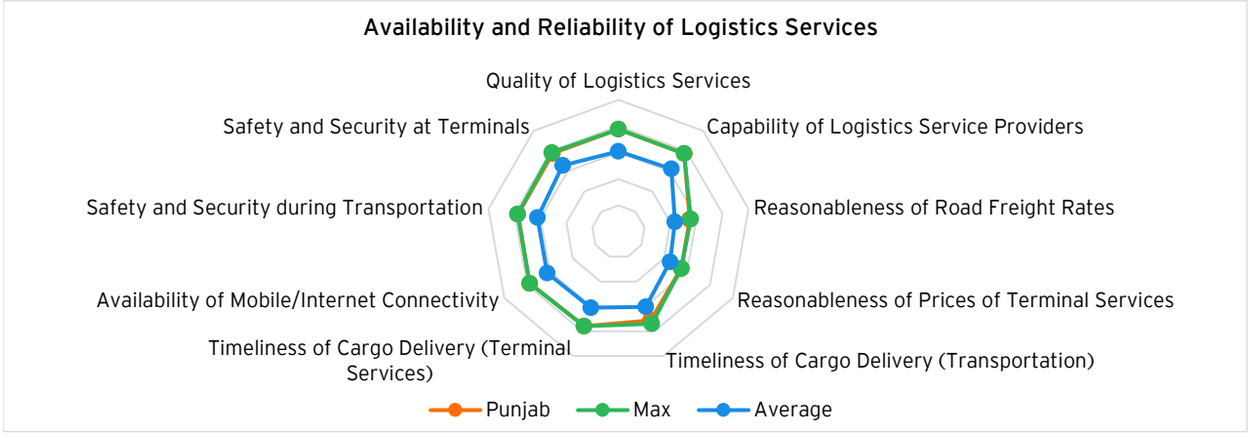
Exhibit 20: Brief logistics profile of Punjab

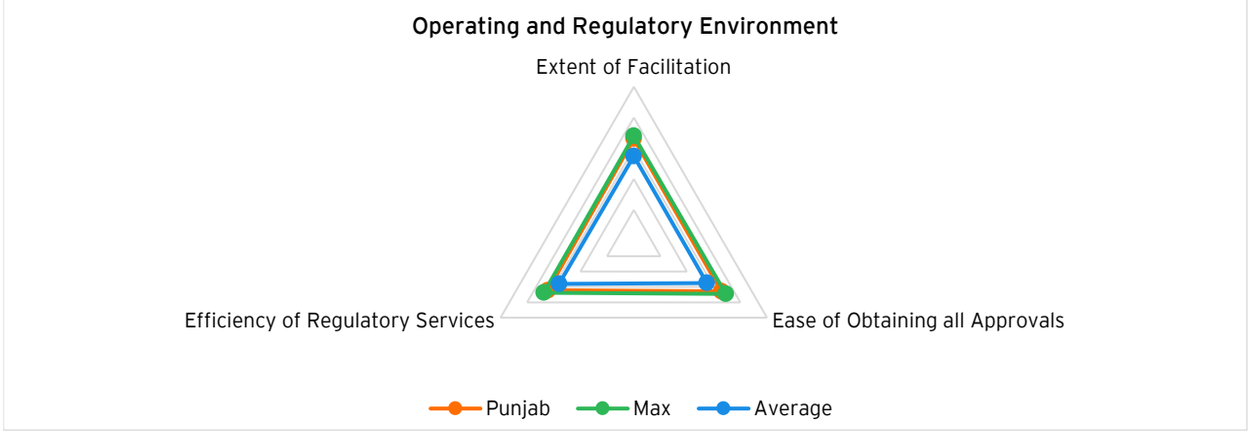
Parameter	Unit	Value	Year	Source
Road length	km	NH=4,099/ SH=1,503	2020-21	MoRTH/NHAI
Railway track	Track-km	3,622	2019-20	MoR
Inland Container Depot (ICD)	nos.	3	2017-18	CBIC
Container Freight Station (CFS)	nos.	14	2017-18	CBIC
Private Freight Terminal (PFT)	nos.	3	2020-21	MoR
Air cargo terminals	nos.	5		AAI
Rail goods sheds	nos.	283	2019-20	MoR
WDRA registered warehouse capacity	MT	7,66,931	2019-20	WDRA
Cold storage capacity	MT	23,15,096	2020-21	MoCAF&PD
Logistics training centres	nos.	13	2020-21	MoSDE
No. of individuals trained in logistics	nos.	826	2020-21	MoSDE

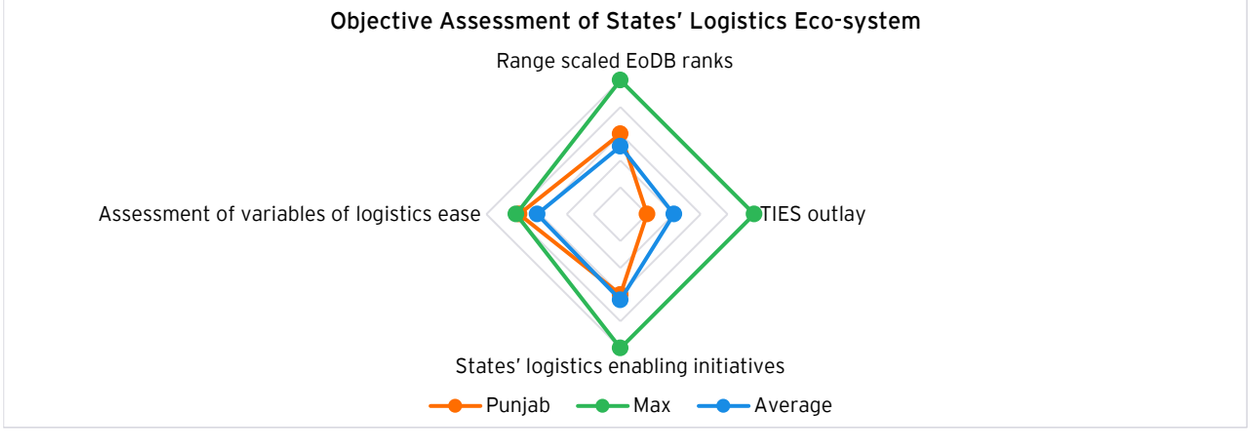
The State has the third highest number of cold storages (697) with fourth largest capacity of the cold storages having a share of 6.27%

Exhibit 21: States' LEADS indicator score and ranking









Note: It is important to check the confidence interval (CI) of a States' indicator scores before making any judgement on its performance.

Punjab is ranked third in LEADS 2021 index. It has featured in top 3 across all three editions of LEADS. The State's proactive policies such as Single window clearance mechanism for regulatory approvals, fiscal incentives under the Industrial and Business Development Policy, grievance redressal mechanism and development of warehousing zones have had an immense impact on the logistic eco-system. The State has also undertaken skilling initiatives such as the State Institute of Automotive and Driving Skills to create positive impact on the eco-system. The State has a flourishing transport sector and there are adequate number of ICDs to cater to the terminal requirement.

The State has been proactive in forming policies and regulations to support the logistics sector. However, factors such as poor road connectivity, lack of warehousing space and transport unionization are perhaps factors that have led to the State moving one step down in the Index. State needs to focus on key areas such as establishing a robust institutional mechanism, drafting a dedicated logistics and logistics park policy to support the logistics sector of the State.

Issues and challenges as narrated by industry stakeholders

Infrastructure

- The Participating Government Agencies (PGAs) involved in the certification do not have their testing facilities anywhere near Ludhiana. This results in samples being sent over to Delhi for necessary testing and certification for clearance of exports and imports, adding to the total transaction time.
- Road condition from industrial areas to ICD Dhandarikalan is sub-standard.
- Ludhiana is a major industrial hub choked with 50-year-old Transport Nagar equipped with outdated infrastructure for trucks, warehouses, and multimodal logistics.
- Connectivity and transit to seaports, especially JNPT, needs improvement.

Services

- The Transporters union is present in Derabassi, restricting the participation of more transport operators, from both outside the State and within the States to offer their services which in turn increases the overall cost of transportation.
- The presence of Transport Unions in the Baddi area has increased the first and last mile costs in Punjab. These Unions do not permit any other States' trucks from entering their region.
- There is a lack of transparency regarding terminal handling charges at ICD/CFS in the State.
- The container availability is a significant issue at the Ludhiana station, and the reposition charges to ICD/CFS in the area are not transparent.

Regulatory and Operating Environment

- There are many cases of theft during road transit of containers on the Amritsar-Delhi highway.
- There is an issue with the implementation of faceless customs clearance at Ludhiana ICD/CFS leading to cases of unfair practices resulting in bottleneck for the trade.

Disclaimer: The issues and challenges capture isolated experiences of the stakeholders and continual improvement may already have been in the process addressing the stakeholders' inputs.

Action taken by the State against LEADS 2019 recommendations

Punjab has been a proactive State and has taken adequate actions against the recommendations as suggested in LEADS 2019 report. Broadly, the following measures have been taken by the State government-

- PSIEC (Punjab Small Industries & Export Corporation) under various schemes has constructed concrete roads in Industrial areas to Ludhiana and have also upgraded the internal roads to focal point, Jalandhar with concrete pavement.
- The State has started the process of repairing and constructing the roads leading to Himachal Pradesh State border (Ghanouli to Nalagarh), under the Central Road and Infrastructure Fund (MoRTH).
- The State has coordinated with NHAI to reduce the traffic on Jalandhar-Ludhiana highway. A Greenfield Expressway, is being developed by NHAI, connecting Delhi to Katra via Ludhiana & Jalandhar. With development of this Expressway and bypasses, traffic on existing Ludhiana-Jalandhar highway is expected to be reduced.
- The State is also in the process of coordination with National Informatics Centre regarding making provision in VAHAN portal for redressal of grievances mechanism.

Suggestions and recommendations

The State may inspect and investigate the constraints being faced by the industry and may undertake the following measures -

- The State may undertake preparation of State Logistics Policy and Master Plan.
- The State may consider investing in building, repair, and maintenance of the roads in the Industrial areas to ensure good connectivity.
- The State Government may devise policies to encourage Air cargo terminals in the State.
- The State government may indulge in facilitation of interaction between ICD/Terminal Operators and Exporter/Importer bodies and examine the possibility of rationalizing the tariff levied by ICD/Terminal Operator and increasing the free days of storing containers in ICD, to give a boost to trade from the State.
- The State may consider installation of IT infrastructure for surveillance along key freight route to solve the issue of theft during transit.
- The State may indulge in facilitation of interaction between Trucker's Union and traders/Other stakeholders to bring down the cost of cargo movement.
- The State may examine plans to promote the creation of warehousing infrastructure by offering incentives and tax breaks to infrastructure developers.
- The State may undertake modernization of the existing Transport Nagars and improving the road connectivity to these facilities.
- The State may undertake facilitation of interaction between the shipping lines, ICD operators and Exporter/Importer associations to resolve the issue of availability of export containers.
- The State may consider introducing tax breaks and subsidies for Warehouse Infrastructure developers to attract more players to the State.
- The State may coordinate with CBIC (Central Board of Indirect Taxes and Customs) to ensure the prudent implementation of faceless Customs clearance mechanism.

Initiatives undertaken by the State Government

State policy for logistics

- The Logistics Policy and Logistics Master Plan of the State is under preparation

Institutional mechanism for logistics implementation

- The State has setup a robust institutional mechanism for logistics – appointed nodal officer for logistics, constituted State logistics cell and State Logistics Co-ordination Committee

Investment in logistic infrastructure – facilitation and incentivization

- The State has planned to develop an Industrial Logistics and Warehousing Hub in the Zirakpur-Tepla-Raipur region of Punjab State
- Construction of Eastern Dedicated Freight Corridor from Sahnewal (Punjab) to Dankuni (West Bengal) with a length of 1,856 km shall facilitate high-speed movement of freight from Punjab to the ports on the eastern as well as the western coasts of India. The length of this corridor in Punjab is 88 km involving the construction of 26 railways over and under bridges
- Development of Freight Terminal/ Logistics Park in New Shambhu
- The State has set up the State Institute of Automotive and Driving Skills, Mahuana, to train truck drivers. In addition to this, three more centres, i.e., Institute of Driving Training and Traffic Research at Kapurthala, Regional Training Centre at Malerkotla and Batala, are in the pipeline
- The State also has plans to set up a green channel for trucks/Vehicle carrying EXIM cargo involving less or no inspection to prevent delay

Key initiatives under the regulatory regime

- Punjab State has implemented a single-window system for availing various regulatory clearances and fiscal incentives under the Industrial and Business Development Policy- 2017
- The State has implemented a unified grievance redressal mechanism 'PBGRAM' to receive and respond to the public grievances of the industry stakeholders

Tamil Nadu

2021 rank	2021 Score	2019 rank	2019 Score
4	3.36	5	3.40

Note: Owing to the change in statistical methodology between 2019 and 2021, a direct rank and score comparison is not recommended.

Tamil Nadu - a brief logistics profile

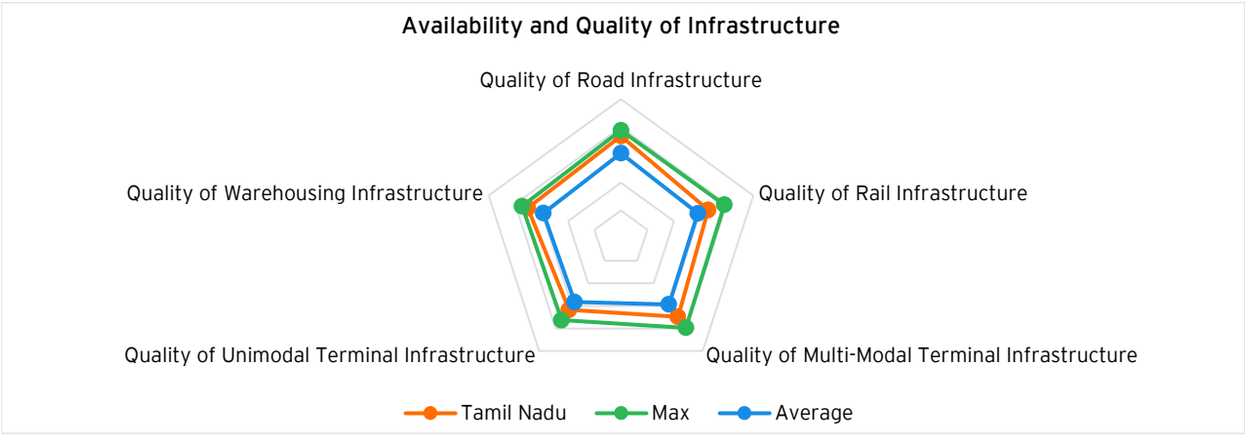
Brief overview of the logistics profile of the State is provided in the exhibit 22 below.

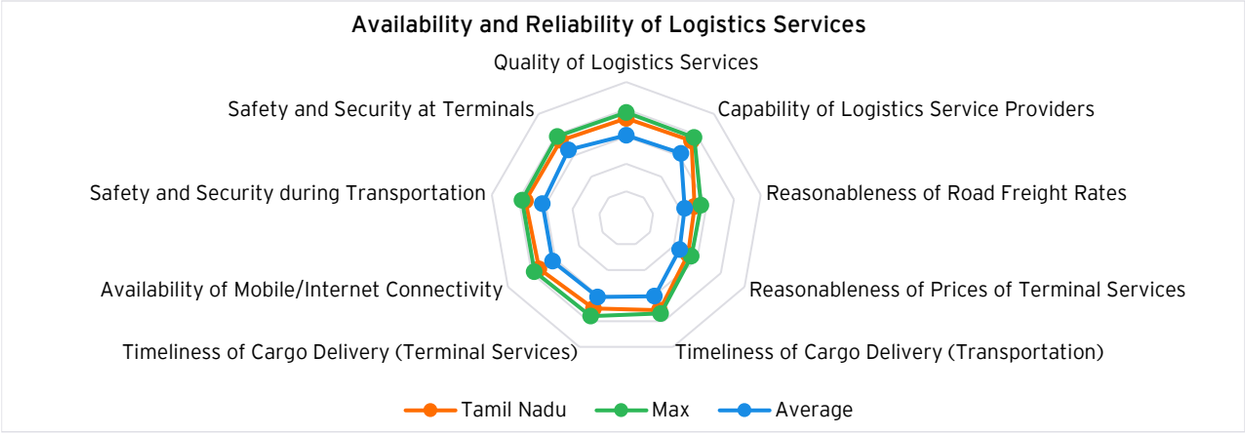
Exhibit 22: Brief logistics profile of Tamil Nadu

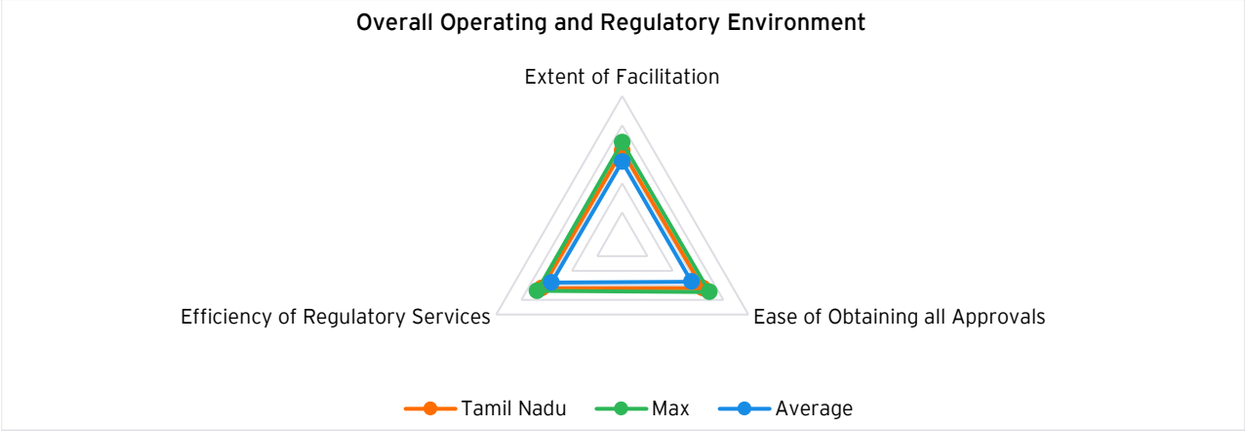
Parameter	Unit	Value	Year	Source
Road length	km	NH=6,858	2020-21	MoRTH/NHAI
Railway track	Track-km	6,836	2019-20	MoR
Inland Container Depot (ICD)	nos.	10	2017-18	CBIC
Container Freight Station (CFS)	nos.	57	2017-18	CBIC
Private Freight Terminal (PFT)	nos.	1	2020-21	MoR
Air cargo terminals	nos.	6	2020-21	AAI
Rail goods sheds	nos.	361	2019-20	MoR
WDRA registered warehouse capacity	MT	13,42,939	2019-20	WDRA
Cold storage capacity	MT	3,82,683	2020-21	MoCAF&PD
Port traffic	MT	108.6	2019-20	MoPSW
Logistics training centres	nos.	8	2020-21	MoSDE
No. of individuals trained in logistics	nos.	563	2020-21	MoSDE

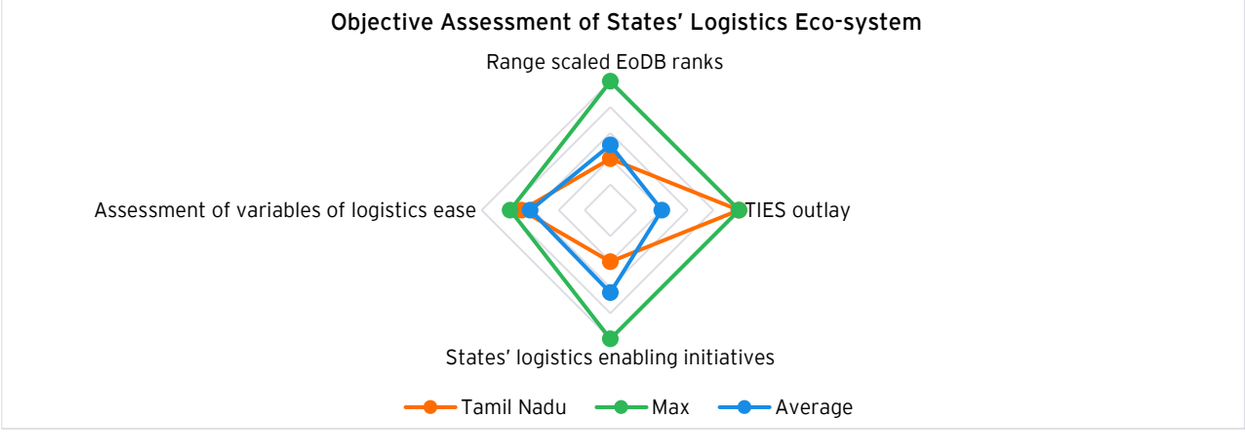
The State has the second largest air cargo capacity in the country with a share of 28.3%. The State also has the highest number of CFS (57) and WDRA registered warehouses (1015)

Exhibit 23: States' LEADS indicator score and ranking









Note: It is important to check the confidence interval (CI) of a States' indicator scores before making any judgement on its performance

Tamil Nadu is ranked fourth in 2021 index compared to fifth in 2019 index i.e., an increase of one place. The State has proactively introduced policies to support logistics such as granting priority status to logistics and pursuing development of a State Integrated Logistics Plan. State nodal agency has been appointed by the State for integrated development of logistics sector.

However, State has low scores for Reasonableness of Road Freight Rates and Prices of Terminal Services. Few key factors influencing freight rates is congestion (which leads to delays) and poor road infrastructure. Industry interactions have also highlighted congestion at ports and poor road/rail connectivity, for instance, poor approach roads of Kamarajar and Kattupalli ports.

To alleviate congestion enroute to gateway port of Chennai, State is developing an elevated corridor to Chennai Port to ease congestion issues. The indicators on which the State has done well are Capability of Logistics Service Providers, Safety/Security during Transportation and at Terminals. Key areas to focus on include strengthening the institutional mechanism for logistics, creation of parking spaces, measures to reduce congestion at ports and investment in rail/road connectivity.

Issues and Challenges as narrated by Industry stakeholders

Infrastructure

- Connectivity and infrastructure in Chennai airport is not sufficient to cater air cargo in large volume. Chennai airport also lacks in infrastructure for refrigerated cargo.
- Industrial areas in the State like Oragadam industrial area, Hosur, Irungattukottai etc., lack space for logistics activities. Road connectivity to these industrial areas is also inferior. There is also in adequate rail connectivity of the main Railway track to the industrial areas.
- Chennai port area faces a lot of congestion. It gets choked outside the gate in the evenings and becomes difficult for containers to get in and out of the terminal. There exists around 15-20km queue of vehicles outside the port.
- Approach roads of Kamarajar and Kattupalli ports are very narrow and in poor condition. Pilferage issues are prevalent in these ports.
- There is a lack of truck parking areas inside the ports. Parking spaces for trucks in ICDs are also not sufficient. Trucks are parked on the roadside along NHs leading to congestion.
- Power issues persist at Tuticorin port.
- Hosur goods shed has only one line with 8-9 rakes being handled with bulk cargo. Infrastructure in Hosur is not adequate for handling EXIM cargo.
- Parking spaces for trucks in ICDs in the State are not sufficient. ICDs allocate only a small portion of approximately 1-2 acres for parking of trucks leading them to park on the roadside along with NHs and SHs.

Services

- Air cargo is unorganised in Chennai airport. There is also a shortage of skilled labour for handling air cargo.
- Tracing cargo inside the airport is complicated. Theft/ damage to the cargo occurs quite frequently in the airport. The waiting period in Chennai customs is very high for clearing cargo.
- Unionisation of local transporters exist in the State for certain commodities like cement; they do not allow any transporter of other States to enter or otherwise demands to informal payments.
- There exists high freight charges in the State. There is also no uniformity in Terminal Head Charges (THC) of different terminals of the State.

Regulatory and Operating Environment

- Delays in Ennore-Manali road improvement project due to land acquisition.
- Multiple physical checks by Police/ RTO officials along routes viz. Chennai to Ongole involving lots of paper processing inducing delays in cargo movement.
- Inadequate presence of custom services in CFS facilities of the State.

Disclaimer: The issues and challenges capture isolated experiences of the stakeholders and continual improvement may already have been in the process addressing the stakeholders' inputs.

Suggestions and recommendations

The State may inspect and investigate the constraints being faced by the industry and may undertake the following measures -

- State may establish a State Logistics Cell for providing hand-holding support to the stakeholders to get all the requisite approvals and clearances relating to logistics operations.
- State may work on preparation of State Logistics Policy and Logistics Master Plan in next one year for driving greater coordination between cross-sector implementing agencies for targeted outcomes and focused central government support.
- State may work on identification of two major cities of the State to set up City Logistics Coordination Committee.
- The State may invest in modernization of Chennai airport in terms of connectivity and infrastructure for safe handling of air cargo movement.
- Coordination with NHAI and PWD may happen to inspect and invest in widening and maintenance of approach roads connecting to the ports of Chennai, Ennore and Kattupalli and the road stretch of Ennore-Manali.
- The setting up of training institutes in the State for skilling the labours in handling the different types of cargo.
- Provision may be made of adequate parking spaces for trucks inside the ports and ICDs to avoid congestion on the approach roads of the ports.
- State may work on implementation of IT infrastructure for surveillance for monitoring of unwarranted stoppages and informal payments taken by police and RTO officials and strengthening of existing grievance redress mechanism for the industry to report such issues.
- State may work on coordination with States' Electricity Board and examine and resolve the issue of extensive power outage in the ports of Tuticorin.
- State may work on modernization of infrastructure facilities at Hosur goods shed for handling the cargo.
- State may work towards facilitation of regular interactions between the industry, transporters' unions, and terminal operators to jointly address issues, thereby enabling logistics ease.
- State may coordinate with Ministry of Railways (MoR) regarding the provision of rail connectivity to the industrial areas of the State.
- State may work towards coordination with Customs Department for facilitating the customs services to the CFSs of the State.

Initiatives undertaken by the State Government

State policy for logistics

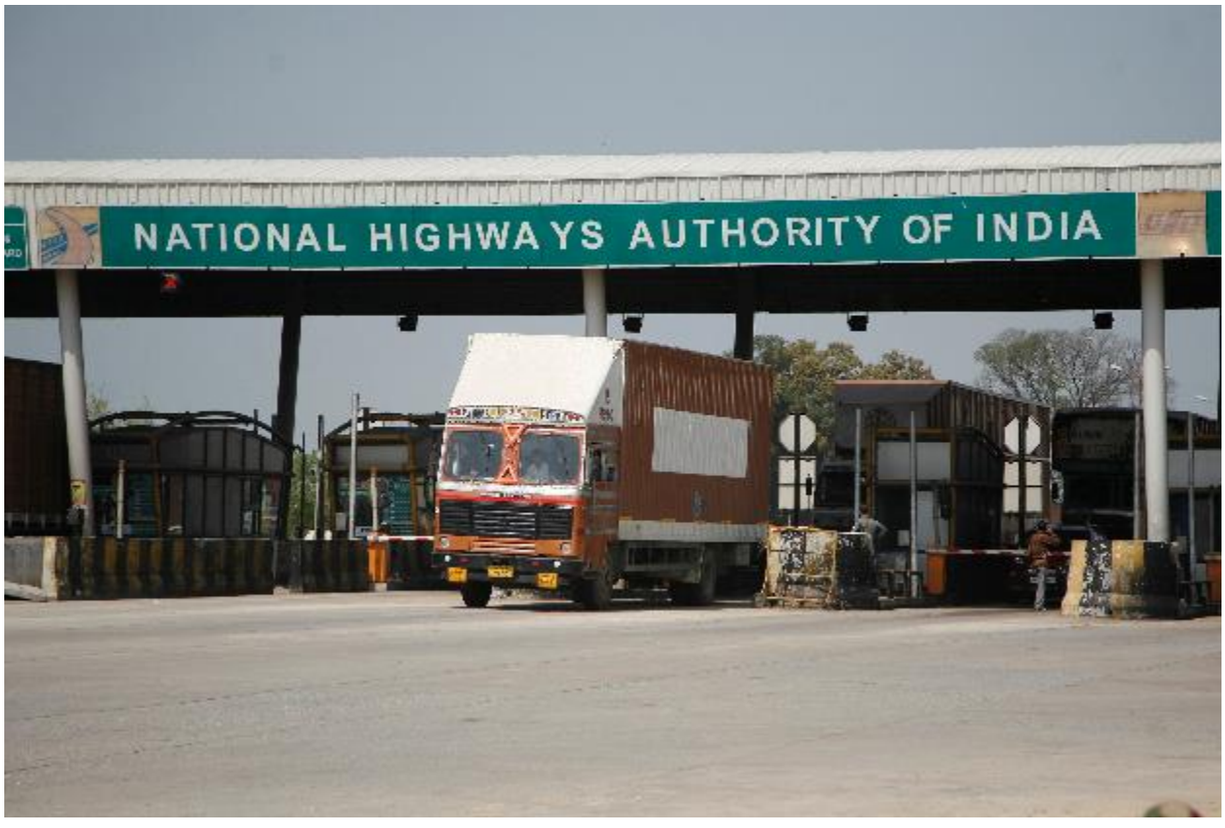
- The State has launched an Industrial Policy, 2021 that covers logistics. It grants "Priority" status to logistics and provides taxes (holiday/rebate) and other fiscal incentives to the logistics sector
- The State government Has already floated RFP for preparing State Integrated Logistics Plan. The plan is likely to be launched in the next year
- Tamil Nadu Environment Policy 2017 mandates that the State will prepare comprehensive master plans to guide industrial development in a planned manner to assess and address environmental impacts comprehensively

Institutional mechanism for logistics implementation

- Tamil Nadu Industrial Development Corporation Limited (TIDCO) has been appointed as the State nodal agency for the integrated development of the logistics sector in the State. The State also has set up the State Logistics Coordination Committee (SLCC)

Key initiatives under the regulatory regime

- Single Window Facility of the State covers offers 38 services/clearances about 14 Departments with defined timelines for granting approvals/clearances at various stages of the business lifecycle



Maharashtra

2021 rank	2021 Score	2019 rank	2019 Score
5	3.32	4	3.42

Note: Owing to the change in statistical methodology between 2019 and 2021, a direct rank and score comparison is not recommended.

Maharashtra - a brief logistics profile

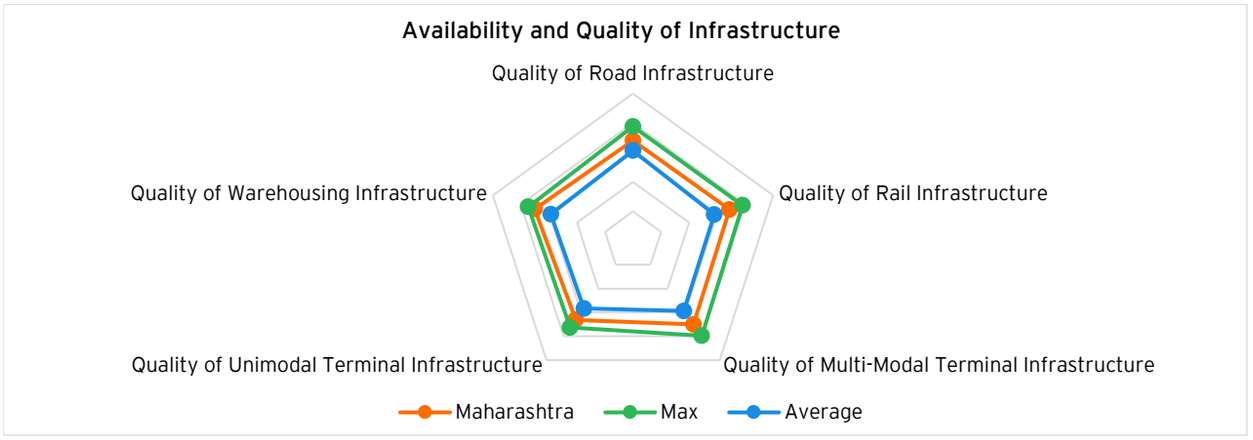
Brief overview of the logistics profile of the State is provided in the exhibit 24 below.

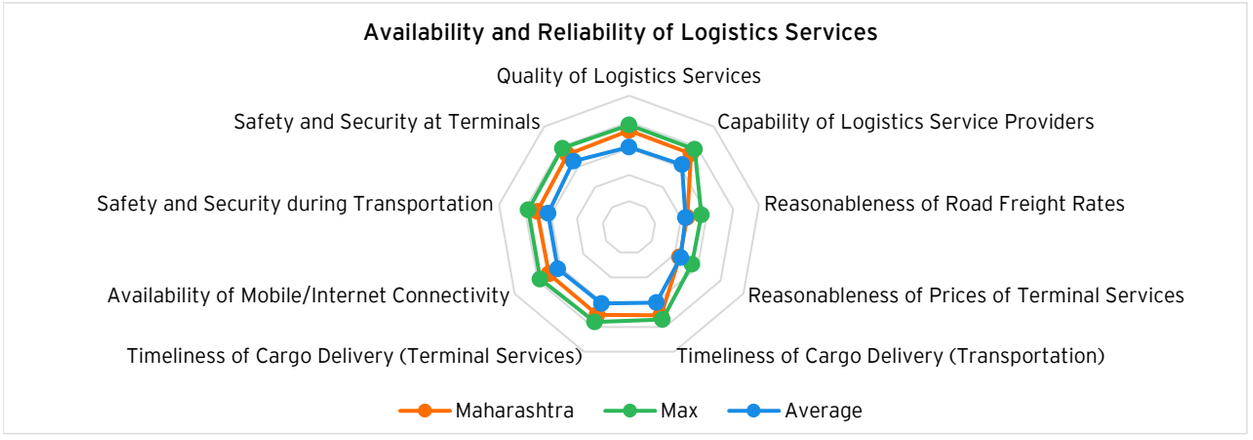
Exhibit 24: Brief logistics profile of Maharashtra

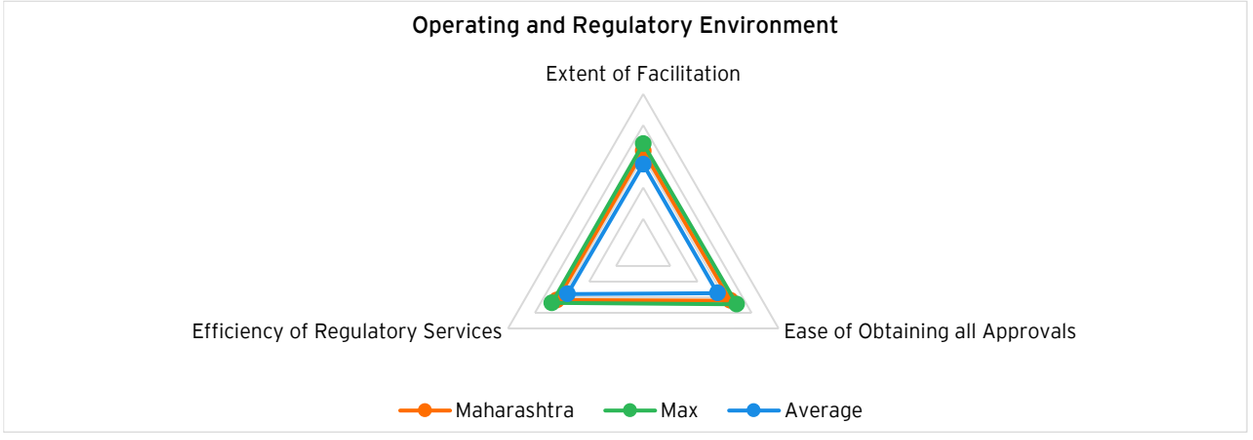
Parameter	Unit	Value	Year	Source
Road length	km	NH=17,757/ SH=29,030	2020-21	MoRTH/NHAI
Railway track	Track-km	11,631	2019-20	MoR
Inland Container Depot (ICD)	nos.	11	2017-18	CBIC
Container Freight Station (CFS)	nos.	45	2017-18	CBIC
Private Freight Terminal (PFT)	nos.	7	2020-21	MoR
Air cargo terminals	nos.	10	2020-21	AAI
Rail goods sheds	nos.	541	2019-20	MoR
WDRA registered warehouse capacity	MT	9,32,875	2019-20	WDRA
Cold storage capacity	MT	10,09,693	2020-21	MoCAF&PD
Port traffic	MT	115,10,0000	2020-21	MoPSW
Logistics training centres	nos.	21	2020-21	MoSDE
No. of individuals trained in logistics	nos.	1,554	2020-21	MoSDE

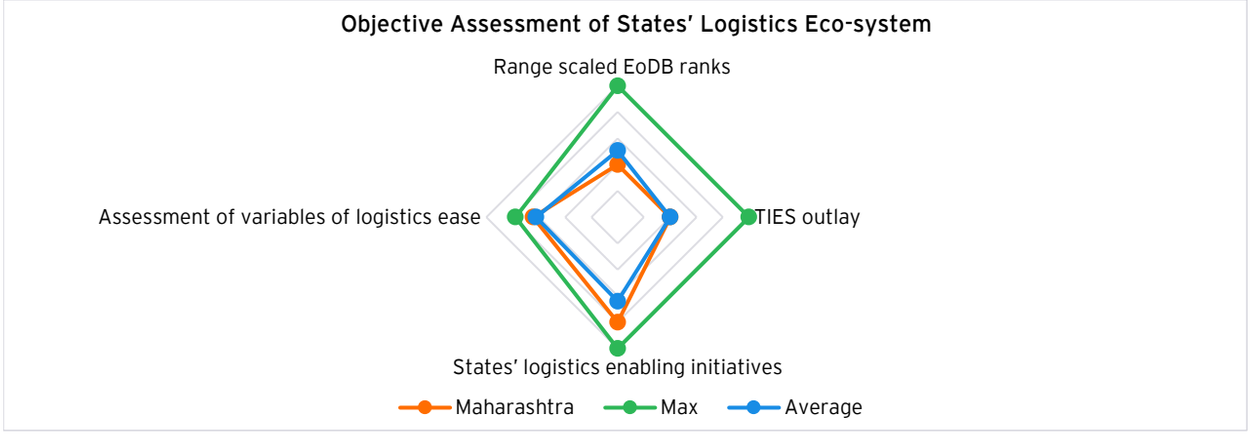
The State has the highest number of ICDs (11) and second highest number of CFSs (45) and railway goods sheds (541) in the country. It also has the maximum number of registered goods commercial vehicles with a share of 14.64%

Exhibit 25: States' LEADS indicator score and ranking









Note: It is important to check the confidence interval (CI) of a States' indicator scores before making any judgement on its performance.

Maharashtra is ranked fifth in 2021 index compared to fourth in 2019 index i.e., a drop of one place. This is primarily due to worsened road infrastructure and congestion at the port terminals. Poor road connectivity to gateway port of JNPT leads to time delays and escalated costs for shippers. This high cost of transportation and terminal services is reflected in the low scores obtained by the State in indicators of Reasonableness of Road Freight Rates and Terminal Services. Labour unions, entry restrictions and lack of effective grievance redressal mechanism for the sector have also been highlighted by the trade as key limiting factors.

The State has taken steps in policy initiatives and has formulated a Logistics and Logistics Parks Policy. It has also set up an institutional mechanism for logistics. To enable development of new and modern logistics infrastructure in the State, it has created a land bank for development of logistics infrastructure and has provided for deemed conversion of 'Change of Land Use'. Dedicated areas have been earmarked by the State for building infrastructure across the State, in areas like Thane, Nashik, Aurangabad, Amravati, and Nagpur.

Issues and challenges as narrated by industry stakeholders

Infrastructure

- Long queuing of trucks is a significant issue on the approach roads to JNPT and stretch from Dharmabad to Latur.
- Cargo clearance time taken at JNPT port is high as the Port's gate capacity for handling trucks is inadequate.
- Draft at JNPT port is inadequate to handle bigger size vessels (Mother Vessels).
- Toll gates on crucial freight routes often have high waiting times despite having a FASTag facility.
- The present network of warehouses, especially under State warehouses are in bad shape.
- There is huge congestion with high volumes at Mumbai Courier Terminal (at Air Cargo Complex in Mumbai). There are issues in terms of delays in package identification and ineffective stacking arrangement due to space constraints.

Services

- Buffer yard charges are very high at JNPT.
- There is a lack of an effective Grievance Redressal Mechanism in the State.
- Labour and its unions are a big issue in State due to high wage rates and bad union behaviour.
- A few incidents of cargo theft and driver harassment have been witnessed on Mumbai to Delhi route.

Regulatory and Operating Environment

- Police officers do not accept the license/ RC stored in the Digi locker. They insist on seeing the documents in physical form leading to unnecessary delays.
- Challans are vague, and the grievance resolution mechanism is poor. There have been cases where overload charges were levied on empty trucks and trucks from other States.
- Transporters are often forced to give informal payments to get faster clearance/release of trucks from RTO.

Disclaimer: The issues and challenges capture isolated experiences of the stakeholders and continual improvement may already have been in the process addressing the stakeholders' inputs.

Suggestions and recommendations

The State may inspect and investigate the constraints being faced by the industry and may undertake the following measures -

- The State may establish State Logistics Cell to strengthen the institutional mechanism for logistics in State.
- The State may identify two major cities of the State to set up City Logistics Coordination Committee.
- The State may consider digital initiatives to keep a check on unwarranted stoppages by RTO and other enforcement agencies.

- The State may indulge in coordination with various Central and State Government agencies to inspect and invest in strengthening, widening and maintenance of roads, namely JNPT Port road, Dharmabad – Latur.
- The State may consider Implementation of strict surveillance by officials through IT infrastructure for surveillance for monitoring on freight routes to ensure safety and security of the cargo. All the freight routes to be well lit.
- The State may implement Port gate automation at JNPT to avoid congestion.
- The State may discuss with Dredging Corporation of India for resolving the issue of the low draft at JNPT port.
- The State may facilitate regular interactions between the industry, transporters' unions, and labour unions to jointly address issues, thereby enabling logistics ease.
- The State may coordinate with Ministry of Railways (MoR) regarding rake allocation to JNPT on priority from the northern and western hinterland.
- The State may consider detailed study and planning to be undertaken to understand the spatial issues at Mumbai Courier Terminal (at Air Cargo Complex in Mumbai) and address the concern. An effective Grievance Redressal Mechanism shall be implemented to resolves queries in a defined time frame.

Initiatives undertaken by the State Government

State policy for logistics

- The State has formulated the Maharashtra Logistics Park Policy in 2018 and Maharashtra Industrial Policy in 2019, which includes provisions and incentivizes for logistics infrastructure in the State
- The State has initiated the institutional setup for logistics – appointed nodal officer for logistics and constituted the State Logistics Co-ordination Committee

Institutional mechanism for logistics implementation

- The State has initiated the institutional setup for logistics – appointed nodal officer for logistics, established a State logistics cell

Investment in logistic infrastructure – facilitation and incentivization

- MIDC has reserved a minimum 500-acre Industrial area for the development of warehousing and logistics facilities in the State
- 20 Industrial areas with logistics and warehousing hubs are planned along Maharashtra Samruddhi Mahamarg with Nagpur-Wardha as a significant logistics corridor. Development of Shendra Bidkin Industrial area (SBIA) and Dighi Port Industrial Area (DPIA) is also planned under Delhi Mumbai Industrial Corridor (DMIC) program
- Two Coastal Economic Zones (CEZ) are planned in Maharashtra - North Konkan (JNPT linkage port) and South Konkan (Dighi and Jaigad port).
- Dedicated spaces have been earmarked for building warehouses across the State, especially in areas like Thane, Nashik, Aurangabad, Amravati, and Nagpur.
- Creation of Critical Industrial Infrastructure Fund (CIIF) with a corpus of INR 1000 crore. This fund will be used to support last-mile connectivity, and support creation and up-gradation of industrial infrastructure such as strengthening of the power network, effluent treatment plant, roads and to resolve infrastructure constraints faced by export-oriented units
- In association with the Maharashtra State Security Corporation and Late Pramod Mahajan Skill Development Scheme, the Skill development department of the State is training people for jobs such as drivers, cash handlers, security guards etc.

Key initiatives under the regulatory regime

- A dedicated investor facilitation cell and online Single Window portal have been established under Maharashtra Industry, Trade and Investment Facilitation Cell (MAITRI). The Single Window Portal has provision for a single application, payment, tracking and monitoring of most industry-related approvals across various departments of the State Government. MAITRI cell also acts as a grievance redressal cell.

Uttar Pradesh

2021 rank	2021 Score	2019 rank	2019 Score
6	3.25	13	3.08

Note: Owing to the change in statistical methodology between 2019 and 2021, a direct rank and score comparison is not recommended.

Uttar Pradesh - a brief logistics profile

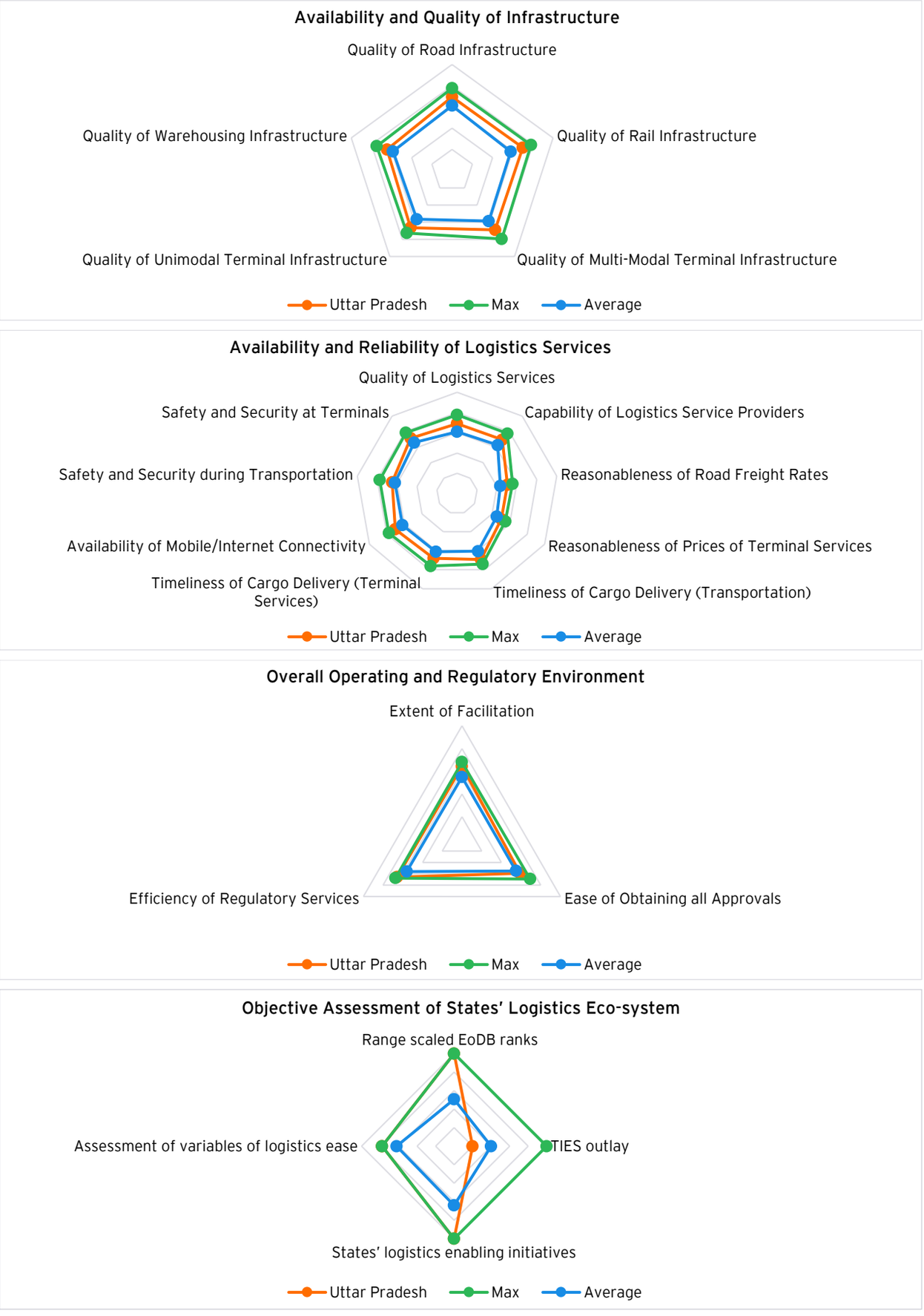
Brief overview of the logistics profile of the State is provided in the exhibit 26 below.

Exhibit 26: Brief logistics profile of Uttar Pradesh

Parameter	Unit	Value	Year	Source
Road length	km	NH=11,737/ SH=7,147	2020-21	MoRTH/NHAI
Railway track	Track-km	16,001	2019-20	MoR
Inland Container Depot (ICD)	nos.	10	2017-18	CBIC
Container Freight Station (CFS)	nos.	9	2017-18	CBIC
Private Freight Terminal (PFT)	nos.	6	2020-21	MoR
Air cargo terminals	nos.	8	2020-21	AAI
Rail goods sheds	nos.	689	2019-20	MoR
WDRA registered warehouse capacity	MT	10,59,361	2019-20	WDRA
Cold storage capacity	MT	1,47,14,235	2020-21	MoCAF&PD
Logistics training centres	nos.	58	2020-21	MoSDE
No. of individuals trained in logistics	nos.	5,495	2020-21	MoSDE

UP has the highest nos. of railway good sheds (689) and cold storages (2406) in the country with maximum cold storage capacity having a share of 39.84%. The State also has the highest nos. of training centres with maximum nos. of individuals trained in logistics

Exhibit 27: States' LEADS indicator score and ranking



Note: It is important to check the confidence interval (CI) of a States' indicator scores before making any judgement on its performance.

Uttar Pradesh is ranked sixth in 2021 index compared to 13th in 2019 index i.e., an increase of seven places. The State has scored high in indicators related to Objective Assessment of States' Logistics Eco-system and Safety/Security of Cargo at Terminals. This has been possible because of recent strong focus of the State on development of logistics sector reflected in the setting up of institutions like Nodal Officer, State Logistics Coordination Committee and State logistics cell. The State has granted Industry Status to Warehousing and Logistics Sector and it provides capital and interest subsidy to Infrastructure developers along with 50% concession on land use conversion charges and incentive on skill development for warehousing and logistics professionals. The State also grants incentive on purchase of transport vehicles.

State needs to further invest in augmenting its road connectivity infrastructure. This issue has been voiced by the logistics sector stakeholders. There is a need to proactively focus on Safety and Security of Cargo during Transportation and Ease of Obtaining all Approvals in which indicator scores are less than the composite average. State also needs to work on regulatory hurdles faced by the sector to improve its rank further.

Issues and challenges as narrated by industry stakeholders

Infrastructure

- Poor road connectivity in below stretches-
  a. in Naderganj Industrial Area, Talkatora Industrial EState
  b. while transporting cargo via Kanpur and onwards to Hamirpur and Madhya Pradesh border, the road becomes a single lane, and the condition of the road is bad
  c. from Lucknow to Gonda, Bahraich and Nepal bridge over river Ghaghara must be crossed while the road up to the bridge is four lanes, the bridge is only a single lane.
- There is always a heavy jam due to improper working of infrastructure despite FASTag facility at Nawabganj toll plaza in Lucknow.
- There is no warehousing area near Deva Road, Chinhat, Lucknow for ancillary units.
- Lack of Transport Nagar facility in Varanasi with multimodal links of road, railways, and waterways.

Services

- Identification of suitable transporter, CHA, and logistics service providers is difficult in the State as there is no platform of information to obtain authentic information about them.
- Truckers go on strike at Dadri due to disputes with CONCOR, as it levies additional charges without any prior notice, leading to delays in the cargo movement.

Regulatory and Operating Environment

- Frequent cases of theft of cargo are seen on many road stretches. This is despite lodging complaints with the local police authorities indicating that there is an ineffective grievance redressal mechanism in the State.
- The cases of truck drivers being unfairly treated by the local police in the Lucknow area are prevalent.
- There are no parking and resting facilities for the drivers on main freight routes of the State.

Disclaimer: The issues and challenges capture isolated experiences of the stakeholders and continual improvement may already have been in the process addressing the stakeholders' inputs.

Suggestions and recommendations

The State may inspect and investigate the constraints being faced by the industry and may undertake the following measures -

- State may prioritise implementation of digital initiatives to decrease the number of physical checks of commercial vehicles by enforcement officers.
- State may plan implementation of IT infrastructure for surveillance for monitoring of critical freight routes and strengthen the safety/security along the routes.
- State Government may invest in widening and strengthening of existing roads and construction of new roads in the below area-
  a. Naderganj Industrial Area, Talkathora Industrial EState
  b. Hamirpur and Madhya Pradesh border

c. Lucknow to Gonda, Bahraich and Nepal bridge over river Ghaghra.

- Identification of areas for developing dedicated parking space and facilities for truck drivers.
- Modernization of existing Transport Nagars and new ones to be developed by State with parking and driver facilities.
- Identification of areas for development of warehousing zone and provision of attractive incentives to infrastructure developers for investment in warehousing infrastructure.
- Facilitation of interaction between CONCOR, Trucker's Union and other stakeholders to prevent unnecessary stoppage of operations due to strikes.

Initiatives undertaken by the State Government

State policy for logistics

- Uttar Pradesh Logistics and Warehousing Policy 2018 facilitates the logistics sector development in the State and grants financial assistance
- The policy has granted "industry Status" to the logistics sector
- The State has stipulated an Integrated State Logistics Plan for uniform and comprehensive development of the logistic sector in the State
- As per the Integrated State Logistics Master Plan, the Housing and Urban Planning department has identified dedicated parking spaces and various Transport Nagars and Truck Terminals on major State Highways.

Institutional mechanism for logistics implementation

- The State has setup a robust institutional mechanism for logistics – appointed nodal officer for logistics, constituted State logistics cell, State Logistics Co-ordination Committee and City Logistics Co-ordination Committee
- The State has formulated the City Logistics Coordination Committee in six different cities

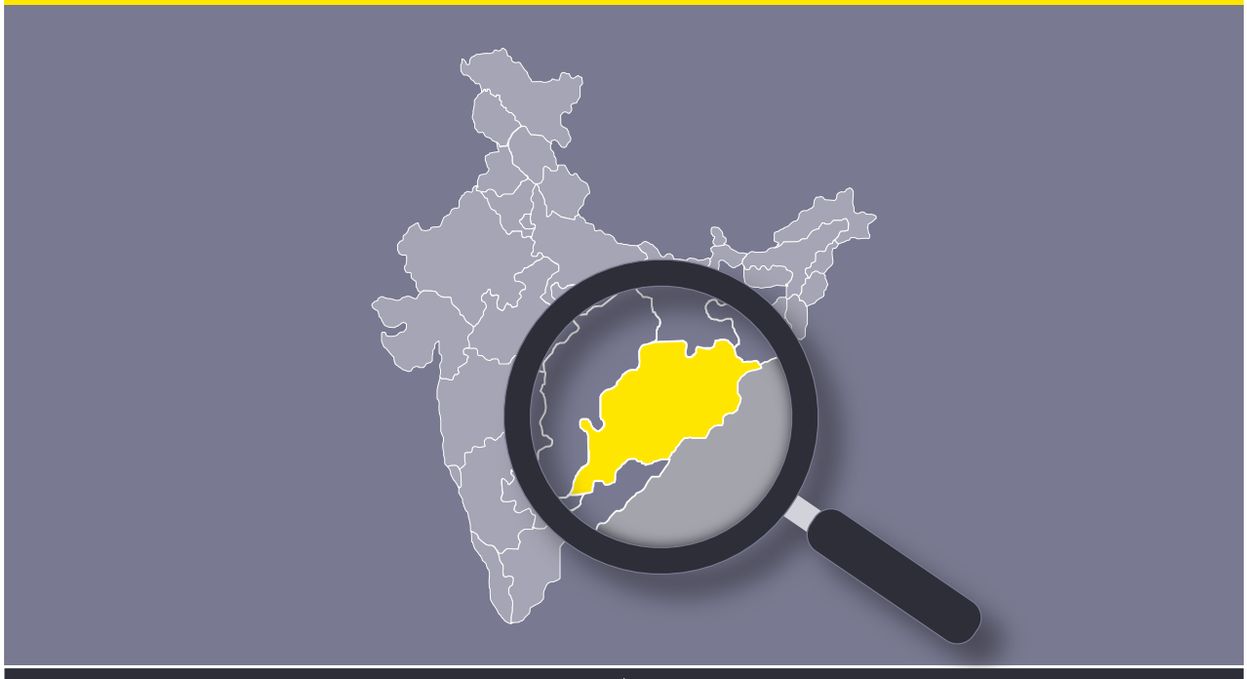
Investment in logistic infrastructure – facilitation and incentivization

- Capital Interest Subsidy to the extent of 5% per annum for five years on loan taken for procurement of material handling equipment, loading and unloading plant and machinery, subject to maximum INR 2 Crore per annum per unit, with an overall ceiling limit of INR 10 Crore Infrastructure Interest, for developing logistics parks
- Subsidy to the extent of 5% per annum for five years on loan taken for the development of infrastructural amenities like roads, drainage, erection of power lines, solar panels, etc. subject to maximum INR 2crores per annum, with an overall ceiling limit of INR 10 Crore
- 100% exemption on the purchase of land in Bundelkhand and Purvanchal region, 75% in Madhyanchal and Paschimanchal region (except GB Nagar, Ghaziabad) and 50% in GB Nagar and Ghaziabad districts
- Developer providing skill training in Warehouse management, Logistics management, etc., will be reimbursed INR1,000 per trainee per month for six months up to a maximum of 50 trainees per annum for five years.
- The State promotes projects such as Integrated Industrial Township at Greater Noida, Multi-Modal Logistics hub at Dadri and Multi-Modal Transport Hub at Boraki.
- The State is identifying Greenfield railway stations and zones that can be developed along Eastern Dedicated Freight Corridor (EDFC) and Amritsar Kolkata Industrial Corridor (AKIC)
- Jhansi National Investment and Manufacturing Zone (NIMZ) is proposed over 5567 Ha alongside National Highway – 44
- State plans to develop Green Channels (with less inspection during transit) to prevent delays for vehicles carrying export-import cargo
- The Institute of Driver Training and Research (IDTR) is also under construction at Raebareli. At present, 688 Motor Driving Training Schools under private ownership are providing training to heavy vehicle's (Bus/Truck) drivers

Key initiatives under the regulatory regime

- Required approvals to logistics units are provided under one roof through a single-window system of the State, NIVESH MITRA. It also acts as a grievance redressal mechanism for the logistics and warehousing sector that would create large scale employment

Odisha



2021 rank	2021 Score	2019 rank	2019 Score
7	3.20	10	3.18

Note: Owing to the change in statistical methodology between 2019 and 2021, a direct rank and score comparison is not recommended.

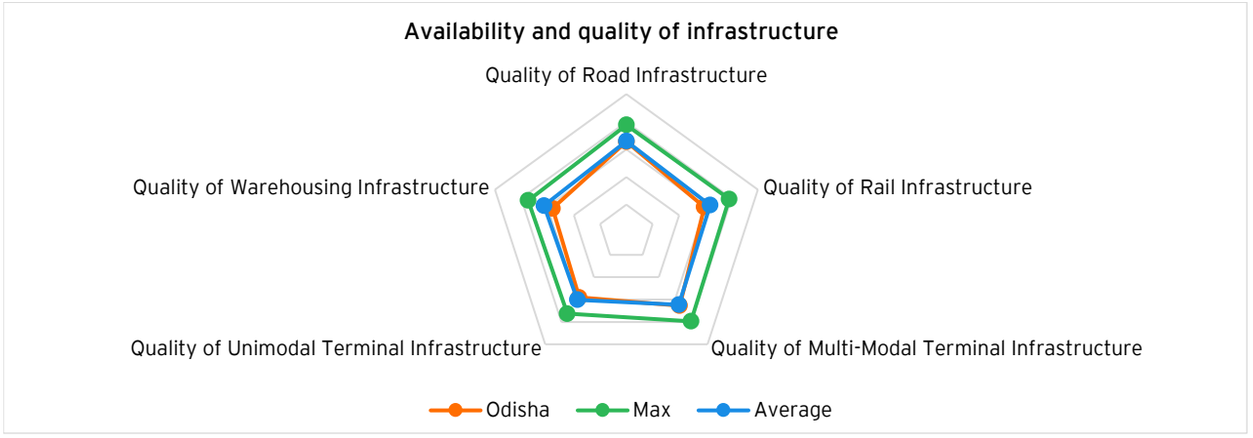
Odisha - a brief logistics profile

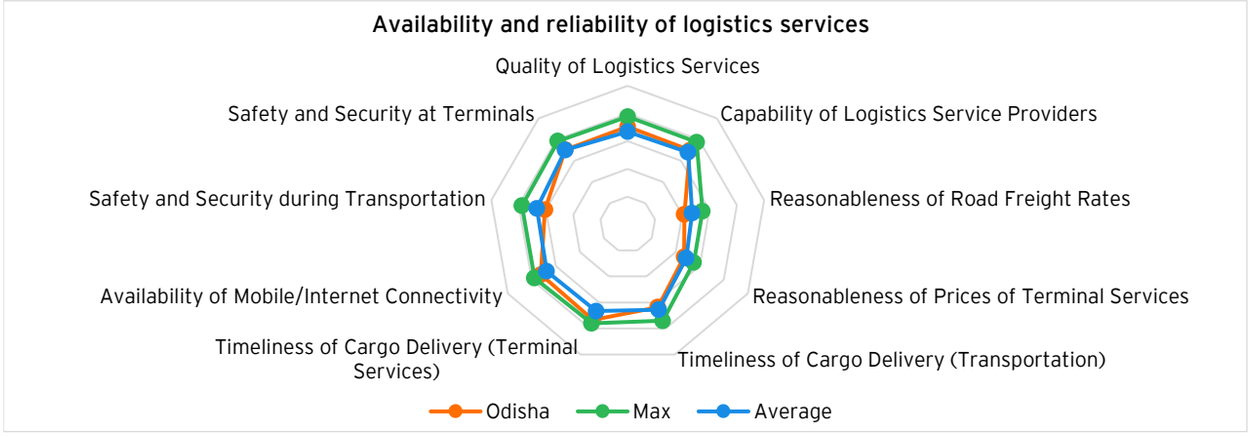
Brief overview of the logistics profile of the State is provided in the exhibit 28 below.

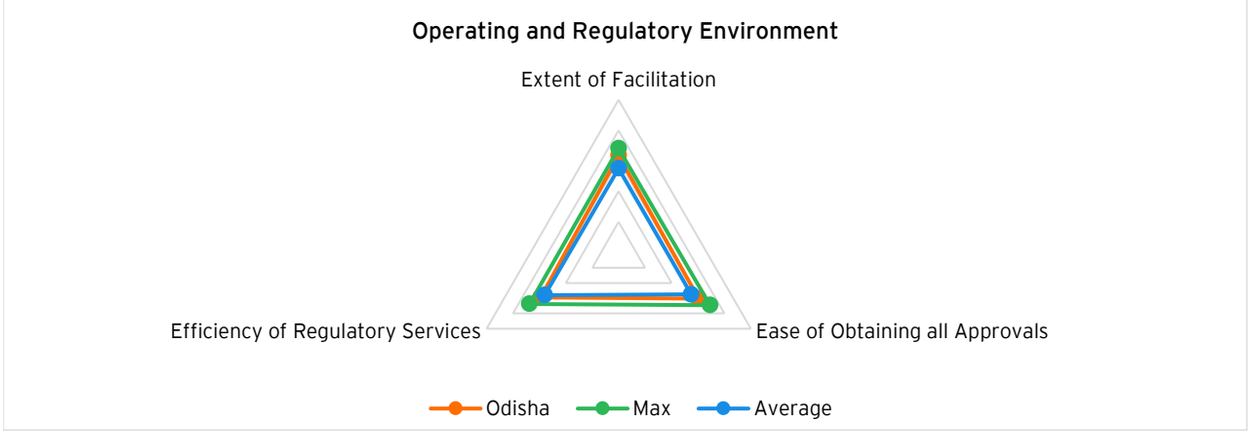
Exhibit 28: Brief Logistics profile of Odisha

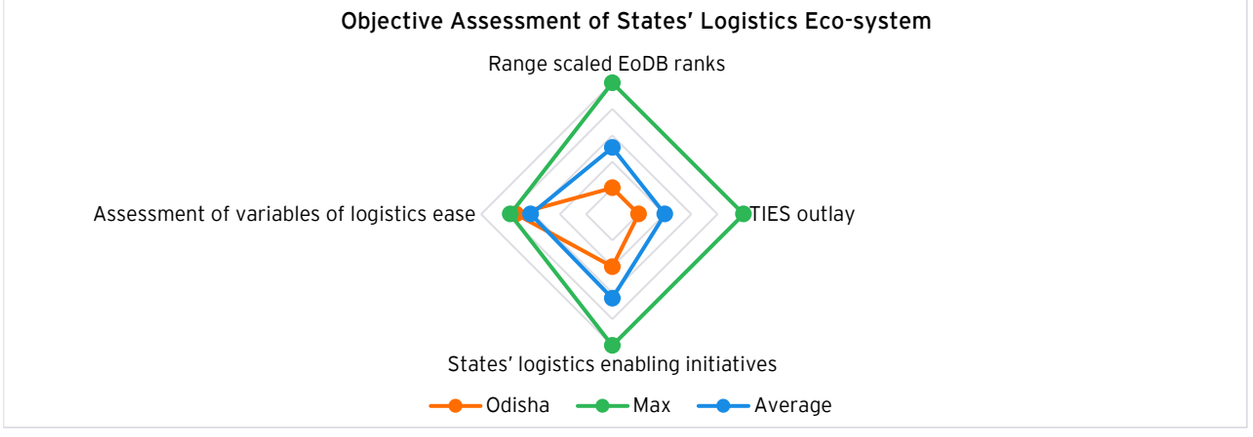
Parameter	Unit	Value	Year	Source
Road length	km	NH=5,897/ SH= 4,101	2020-21	MoRTH/NHAI
Railway track	Track-km	5,506	2019-20	MoR
Inland Container Depot (ICD)	nos.	3	2017-18	CBIC
Private Freight Terminal (PFT)	nos.	6	2020-21	MoR
Air cargo terminals	nos.	2	2020-21	AAI
Rail goods sheds	nos.	354	2019-20	MoR
WDRA registered warehouse capacity	MT	3,16,345	2019-20	WDRA
Cold storage capacity	MT	5,72,966	2020-21	MoCAF&PD
Port traffic	MT	1575,00,000	2020-21	MoPSW
Logistics training centres	nos.	18	2020-21	MoSDE
No. of individuals trained in logistics	nos.	1,592	2020-21	MoSDE

Exhibit 29: States' LEADS indicator score and ranking









Note: It is important to check the confidence interval (CI) of a States' indicator scores before making any judgement on its performance.

Odisha is ranked seventh in 2021 index compared to 10th in 2019 index i.e., an increase of three places. The State has scored high in the parameters of Objective Assessment of States' Logistics Eco-system and Timeliness of Cargo Delivery with respect to Terminal Services. The State has set up State Level Single Window Clearance Authority to provide approvals for all projects resulting in increase in the availability of infrastructure in the State.

The State has scored low in Reasonableness of Road Freight Rates and Terminal Services. This is evident from the industry interaction where stakeholders have highlighted hurdles faced due to transport unions and shortage of labour.

An important initiative that the State has implemented is to set up a State Project Monitoring Group for grievance redressal and dispute resolution for the logistics sector. There are still many issues faced by the logistics sector in the State such as transport unions, cargo thefts and lack of robust institutional mechanism that needs to be taken care of by the State.

Issues and Challenges as narrated by Industry stakeholders

Infrastructure

- The road (NH-5A and SH-12) connecting to the Paradip Port is highly congested and in sub-standard condition.

Services

- The anti-competition practices by the transport Unions increases the transport cost from and to the Port of Paradip.
- Labour availability is a concern in Paradip and Rourkela as the wages charged by them are very high
- Frequent reports of cargo theft from rail wagons, especially pig iron pilferage.

Regulatory and Operating Environment

- There is an over-height fine on 40 feet high cube containers. This ultimately increases the total logistics cost.
- Power and rake allocation by the Indian railways is key concern. There is insufficient supply of rakes in relation to the daily demand. Priority is accorded to Coal and then to other commodities.

Disclaimer: The issues and challenges capture isolated experiences of the stakeholders and continual improvement may already have been in the process addressing the stakeholders' inputs.

Suggestions and recommendations

The State may inspect and investigate the constraints being faced by the industry and may undertake the following measures -

- The State may consider nomination of an officer of the level of Principal Secretary or Addl. Chief Secretary as nodal officer for the integrated development of logistics sector in the State.
- The State may establish a State Logistics Cell for providing hand-holding support to the stakeholders to get all the requisite approvals and clearances relating to logistics operations.
- The State may establish State Logistics Coordination Committee (SLCC) to facilitate the inter-State agencies to act in coordination to meet challenges faced in doing logistics in the State.
- The State may prepare the State Logistics Policy for providing regulatory support, guidelines, requisite approvals, incentives, and clearances for the logistics industry.
- The State may consider Identification of two major cities of the State to set up City Logistics Coordination Committee.
- The State may coordinate with NHAI to inspect and invest in widening and maintenance of roads (NH-5A and SH-12) connecting to Paradip port to curb the issue of congestion.
- The State may consider Implementation of strict surveillance by officials through IT infrastructure for surveillance for monitoring on freight routes to ensure safety and security of cargo. All the freight routes to be well lit.

- The State may re-consider the additional charging of fines on over-height containers to the transporters.
- The State may consider Preparation of State Logistics Master Plan for driving greater coordination between cross-sector implementing agencies for targeted outcomes and focused central government support.
- The State may indulge in facilitation of regular interactions between the industry, transporters' unions, and labour unions to jointly address issues, thereby enabling logistics ease.
- The State may Coordinate with Ministry of Railways (MoR) regarding re-consideration of power and rake allocation to the stakeholders based on the type of the commodity.
- The State may coordinate with IWAI for allowing Steel Industry to transport its cargo through NW-5.
- The State may consider implementation of long-pending enhancement of rail capacity from Mines to the Port, e.g., Talcher to Paradip. Due to shortage of rail capacity, coal is transported by road, leading to higher costs and higher loss of cargo and theft cases on route.

Initiatives undertaken by the State Government

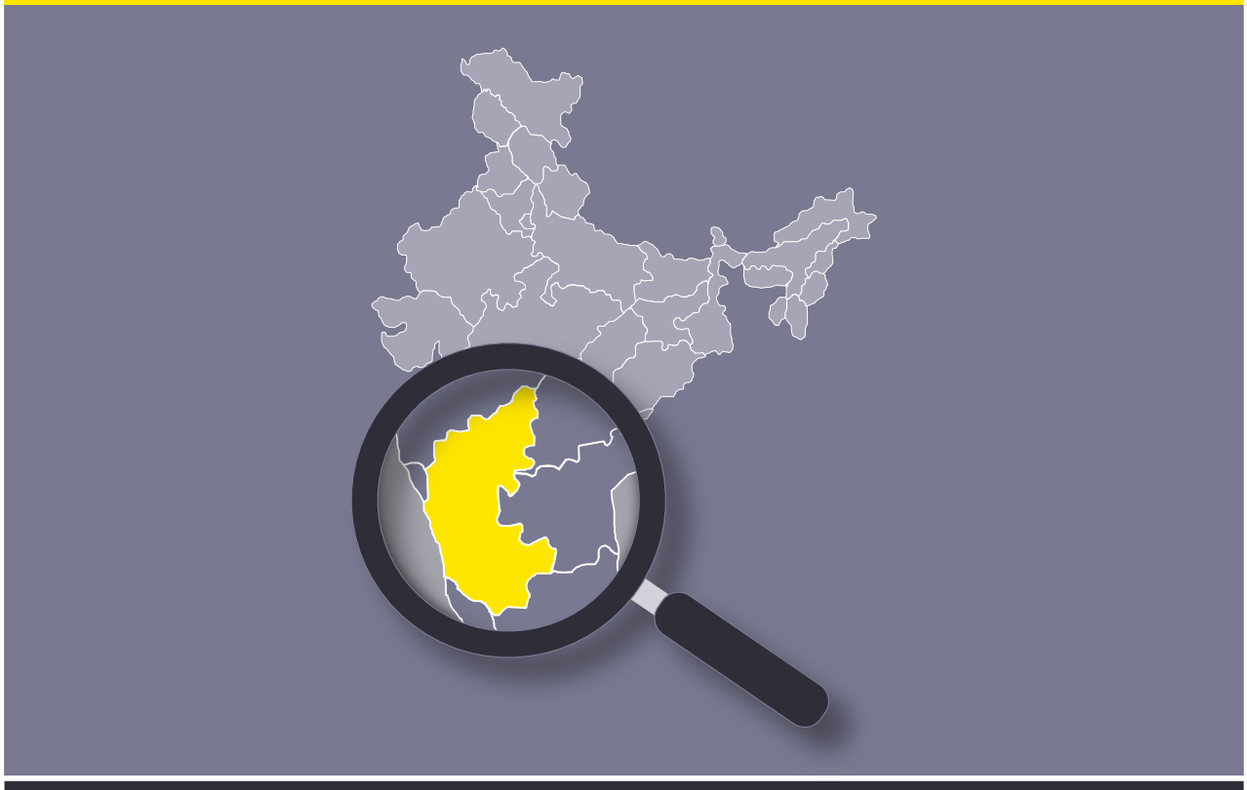
State policy for logistics

- The State has formulated its Industrial Policy in 2015 and MSME Development Policy in 2016

Key initiatives under the regulatory regime

- Under the Odisha Industries Facilitation Act of 2004 and Rules of 2005, State Level Single Window Clearance Authority (SLSWCA) has been set up to approve all projects, including logistics facilities. Similarly, District Level Single Window Clearance Authority (DLSWCA) has been set up to approve all projects at the individual district level. Application to these authorities can be submitted through the GO SWIFT online application system
- The State also has setup a State Project Monitoring Group (SPMG) chaired by Chief Secretary for grievance redressal and dispute resolution for the logistics sector

Karnataka



8	3.18	7	3.37
2021 rank	2021 Score	2019 rank	2019 Score

Note: Owing to the change in statistical methodology between 2019 and 2021, a direct rank and score comparison is not recommended.

Karnataka – a brief logistics profile

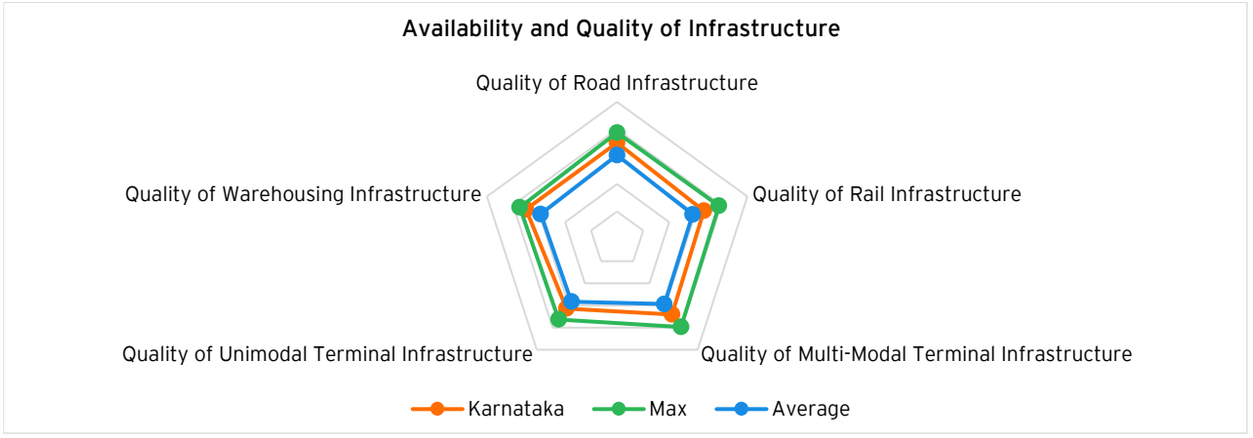
Brief overview of the logistics profile of the State is provided in the exhibit 30 below.

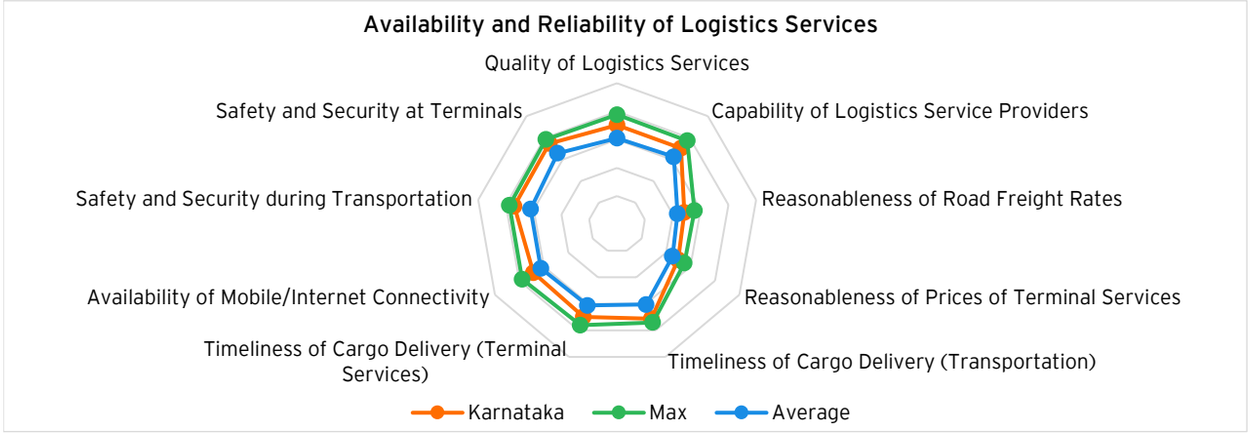
Exhibit 30: Logistics profile of Karnataka

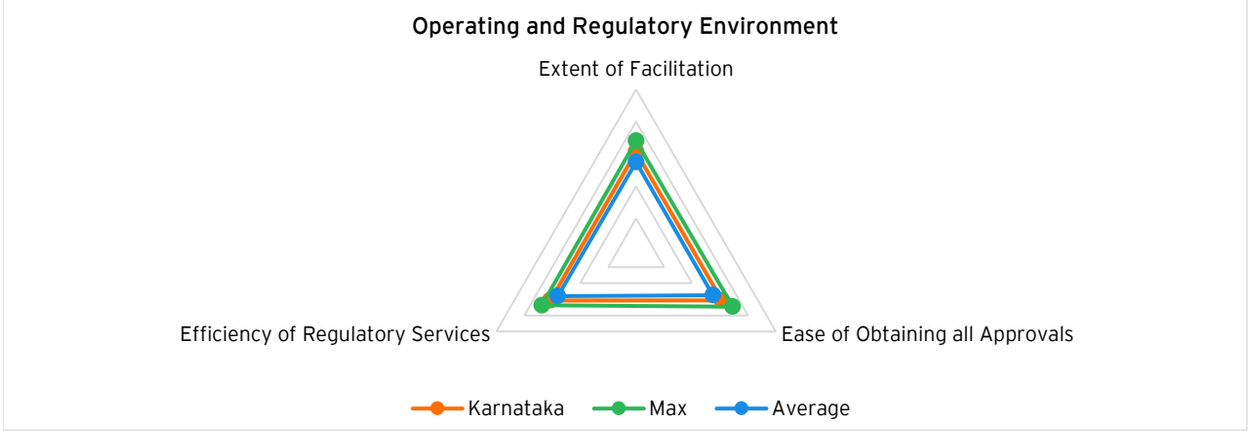
Parameter	Unit	Value	Year	Source
Road length	km	NH=7,412/ SH=28,985	2020-21	MoRTH/NHAI
Railway track	Track-km	6,083	2019-20	MoR
Inland Container Depot (ICD)	nos.	1	2017-18	CBIC
Container Freight Station (CFS)	nos.	7	2017-18	CBIC
Air Freight Station (AFS)	nos.	1	2020-21	MoCA
Private Freight Terminal (PFT)	nos.	2	2020-21	MoR
Air cargo terminals	nos.	9	2020-21	AAI
Rail goods sheds	nos.	322	2019-20	MoR
WDRA registered warehouse capacity	MT	3,47,153	2019-20	WDRA
Cold storage capacity	MT	6,76,832	2020-21	MoCAF&PD
Port traffic	MT	3,73,00,000	2020-21	MoPSW
Logistics training centres	nos.	7	2020-21	MoSDE
No. of individuals trained in logistics	nos.	809	2020-21	MoSDE

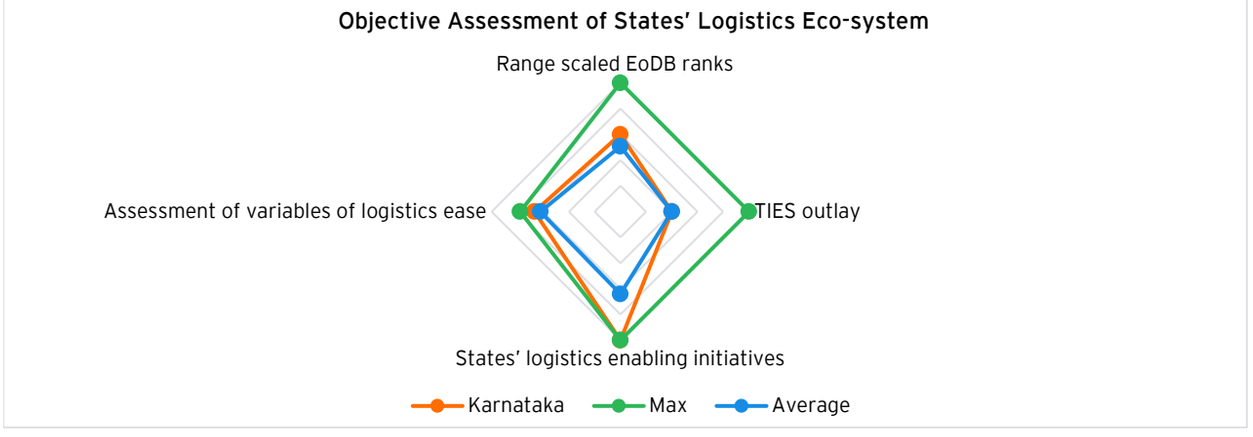
The State has fourth largest air cargo capacity in the country with a share of 9.94%

Exhibit 31: States' LEADS indicator score and ranking









Note: It is important to check the confidence interval (CI) of a States' indicator scores before making any judgement on its performance.

Karnataka is ranked eighth in 2021 index compared to seventh in 2019 index i.e., a drop of one place. The State has ranked poorly in indicators Reasonableness of Road Freight Rates, Prices of Terminal Services and Extent of Facilitation provided to the logistics sector. The primary issues in the State related to logistics sector are poor road connectivity along key freight routes, inadequate parking and resting facilities for truck drivers and insufficient logistics infrastructure. Besides, the logistics stakeholders have highlighted that the sector suffers from unlawful profiteering of transporter/trucker's unions who do not allow trucks from other State to enter the States' border without charging extra money. These factors have led to an increase in the logistics cost for trader and shippers in the State.

For augmenting the infrastructure for the sector, the State is developing a Logistics Park at Dobbaspet, in Bengaluru, and has already earmarked about 400 acres of land in Obalapura for a MMLP. The State has also nominated Nodal agency for supporting logistics. Single Window mechanism for expedited clearance of infrastructure investment proposal have been set up. However, the State lacks a focused approach towards logistics. State logistics policy/plan and institutional mechanism in the form of State Logistics Coordination Committee and Cell are needed to bolster the support to logistics sector in the State.

Issues and challenges as narrated by industry stakeholders

Infrastructure

- Lack of quality road connectivity on the stretches of Mangalore – Bangalore, Mangalore – Hubli (Ghat section), Kodagu - Kushal Nagar – Mangalore, Ramnagar - Anmod (near Goa check post).
- Lack of parking spaces and resting facilities for drivers along the key freight routes. There are no Transport Nagars available in the State.
- Lack of adequate warehousing facility at Mangalore port for sugar and grains and there is also no availability of terminal infrastructure at Hubli.
- There is no rail connectivity from Ankola to Hubli. Current route is through Hassan, which is longer and hence higher freight charges. Hassan to Mangalore is only single line railway track and only few trains are allowed due to difficult terrain.

Services

- Frequent theft cases are reported on State roads such as old Hubli road.
- Non-availability of scheduled train services between Bangalore and Chennai Port. Majority of traffic thus moves by road, adding to the overall logistics cost.
- Mobile/internet connectivity issues persist along freight routes. Tracking and tracing is also an issue while transiting the cargo through the freight routes.
- The Lorry association does not allow vehicles from other States and charges them extra in case it allows them to enter the States' border.

Regulatory and Operating Environment

- There are frequent stoppages/check points at the Karnataka border adding to the transit time and increasing the overall logistics cost.
- Grievance redressal in the State is a major challenge.
- High toll charges on the stretch of Hubli – Rajkot and on Mangalore road.
- Frequent unwarranted stoppages by RTO are prevalent in the State.
- The process for setting up a warehouse/ ICD in the State is not streamlined. It requires clearances from different departments with long lead time.

Disclaimer: The issues and challenges capture isolated experiences of the stakeholders and continual improvement may already have been in the process addressing the stakeholders' inputs.

Suggestions and recommendations

The State may inspect and investigate the constraints being faced by the industry and may undertake the following measures -

- State may Formalize a comprehensive Logistics Policy.
- Establishment of Transport Nagar along Hubli - Nandi highway along with designated warehousing zones in Hubli may be examined.
- The State may consider establishing adequate infrastructure facility at the following locations -
  a) Warehousing facility at Port of Mangalore
  b) Terminal infrastructure facility at Hubli
  c) Handling infrastructure and empty container yard
- State may consider provision for setting up basic amenities for truck drivers along key freight routes.
- State may consider implementation of digital initiatives to check unwarranted stoppages by police or RTO officials.
- The State may examine formulation of standard regulations and guidelines for setting up the warehouses/ ICDs in the State.
- The State may consider rationalization of high toll charges on the stretch of Hubli – Rajkot and on Mangalore road and high freight rates at Mangalore Port.
- The State may consider coordination with Ministry of Railways (MoR) for -
  a) Increasing the frequency of cargo rail services between Bangalore and Chennai Port.
  b) Doubling of rail track from Hassan to Mangalore.
  c) Creating a direct rail link from Ankola to Hubli.

Initiatives undertaken by the State Government

Institutional mechanism for logistics implementation

- The State has setup a robust institutional mechanism for logistics – appointed nodal officer for logistics, constituted State logistics cell as well as State Logistics Co-ordination Committee

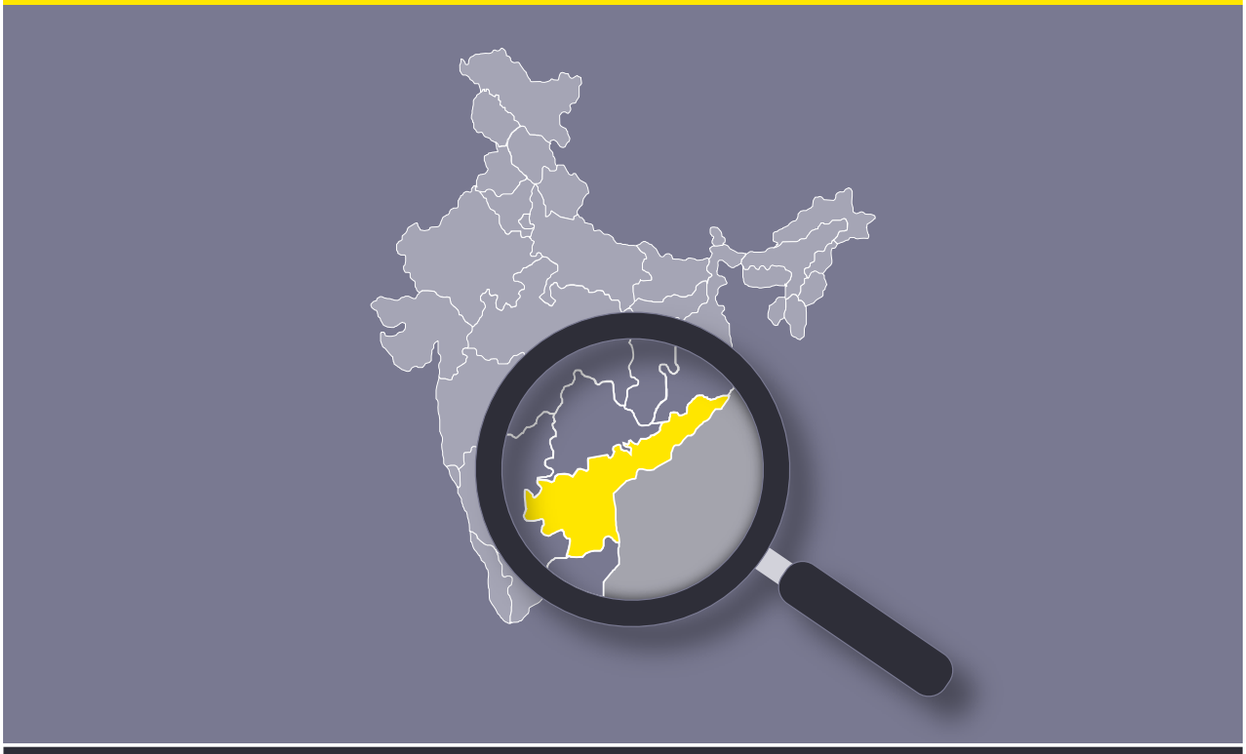
Investment in logistic infrastructure – facilitation and incentivization

- Karnataka Industrial Policy 2020-2025 provides the enabling regulatory support and grants financial assistance for improvement in the logistics ecosystem in the State.
- Karnataka Industrial Area Development Board (KIADB) has also earmarked approximately 400 acres of land in Obalapura near Bengaluru for the development of Multi-Modal Logistics Park (MMLP) under Bharatmala Pariyojana Highways/Expressway Projects

Key initiatives under the regulatory regime

- Bruhat Bengaluru Mahanagara Palike (BBMP) has formed Bengaluru City Co-ordination Committee, which has undertaken the preparation of the city logistics plan.

Andhra Pradesh



2021 Rank	2021 Score	2019 Rank	2019 Score
9	3.17	3	3.42

Note: Owing to the change in statistical methodology between 2019 and 2021, a direct rank and score comparison is not recommended.

Andhra Pradesh – a brief logistics profile

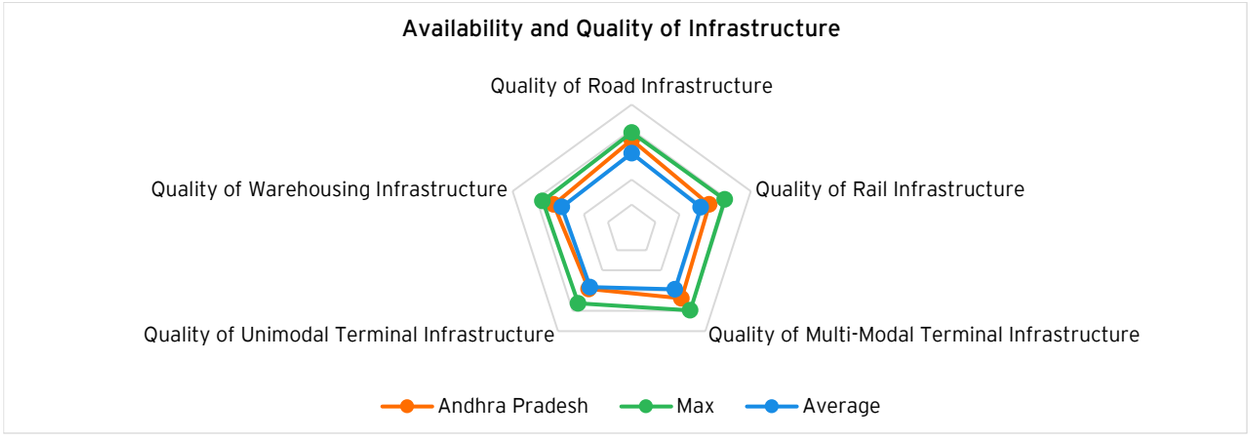
Brief overview of the logistics profile of the State is provided in the exhibit 32 below.

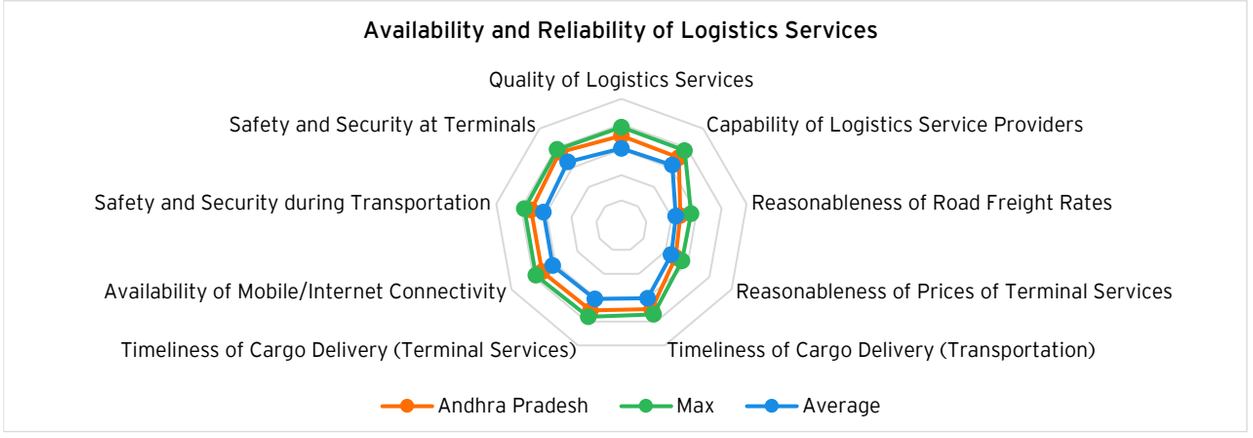
Exhibit 32: Brief logistics profile of Andhra Pradesh

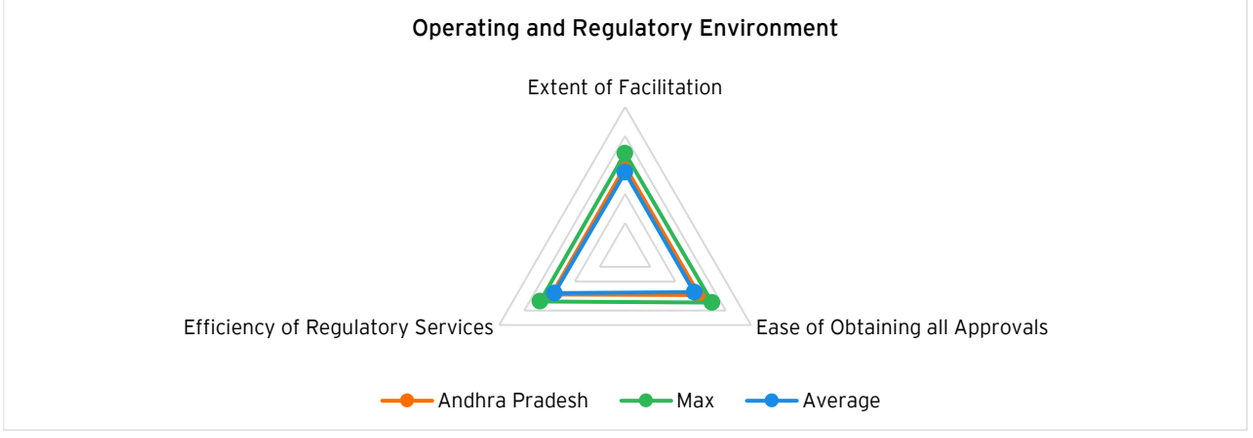
Parameter	Unit	Value	Year	Source
Road length	km	NH=7,340/ SH=13,500	2020-21	MoRTH/NHAI
Railway track	Track-km	7,714	2019-20	MoR
Inland Container Depot (ICD)	nos.	3	2017-18	CBIC
Container Freight Station (CFS)	nos.	14	2017-18	CBIC
Private Freight Station (PFT)	nos.	3	2020-21	MoR
Air cargo terminals	nos.	5	2020-21	AAI
Rail goods sheds	nos.	283	2019-20	MoR
WDRA registered warehouse capacity	MT	11,70,332	2019-20	WDRA
Cold storage capacity	MT	15,67,664	2020-21	MoCAF&PD
Port traffic	MT	15,94,00,000	2020-21	MoPSW
Logistics training centres	nos.	16	2020-21	MoSDE
No. of individuals trained in logistics	nos.	1,297	2020-21	MoSDE

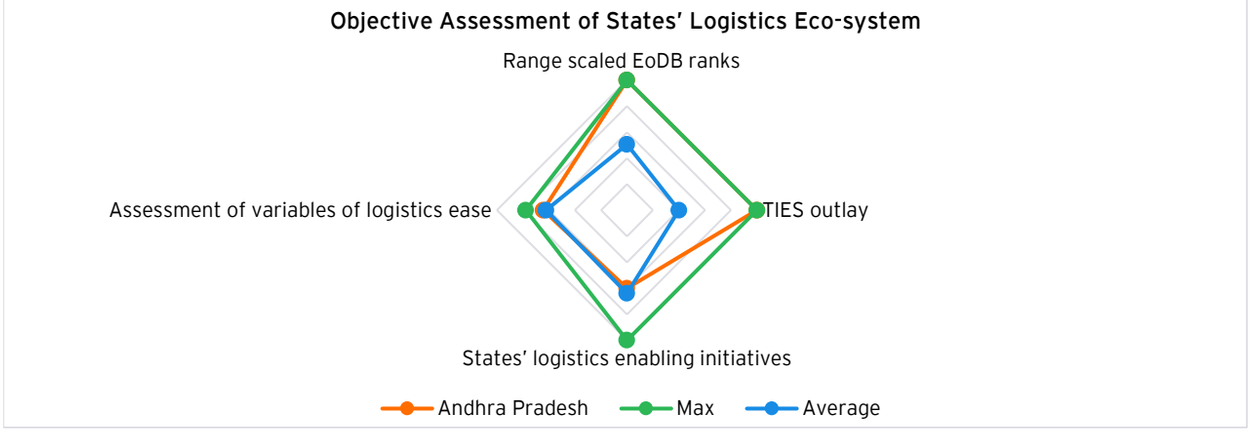
The State has fourth largest warehousing capacity (WDRA registered) with a share of 8.8% and fifth largest cold storages capacity with 4.24%

Exhibit 33: States' LEADS indicator score and ranking









Note: It is important to check the confidence interval (CI) of a States' indicator scores before making any judgement on its performance.

Andhra Pradesh is ranked ninth in 2021 index compared to third in 2019 index i.e., a drop of six places. The State has scored low in the indicators of Quality of Infrastructure and interactions with stakeholders have also brought to fore infrastructure related challenges in the State. For instance, condition of the road stretch from Vijayawada to Visakhapatnam via Rajahmundry and the stretch from Visakhapatnam port to the warehouses/ CFSs along NH-5 needs attention.

The shortage of warehousing facilities, specifically in Vijayawada, Kakinada and in parts of Nellore and the general lack of regulation for setting up a warehousing facility in the State are some other negative factors highlighted in industry interactions. Similar sentiment is also reflected in the below average scores of the State in the Extent of Facilitation and Ease of obtaining approvals. Low scores in the Efficiency of Regulatory Services indicator reflects in issues of frequent stoppage on roads by RTO/Police.

Stakeholders have pointed out that high toll costs and additional levy on diesel are two elements that have resulted in high cost of logistics in the State. Stakeholder perception score has hence been low on the related indicators of Reasonableness of Road Freight Rates and Prices of Terminal Services.

State needs to proactively plan to tackle the challenges highlighted by the logistics industry stakeholders. Robust institutional mechanism and policy framework along with infrastructure augmentation can help the State enable the logistics sector to maximize its potential. In addition, available infrastructure needs to be upgraded in respect of road and rail connectivity.

Issues and challenges as narrated by industry stakeholders

Infrastructure

- The road stretch from Vijayawada to Visakhapatnam via Rajahmundry is in substandard condition, in particular the Kovvur bridge crossing over the Godavari river.
- Frequent congestion on the road between Port of Visakhapatnam to the warehouses/ Container Freight Stations along NH-65 due to heavy movement of container trailers.
- Limited number of warehouses to support EXIM and domestic trade at Vijayawada, Kakinada, and Nellore.
- Limited parking spaces for trucks at the Port of Vizag and Kakinada leads to congestion on roads leading to Port. In addition to this, there is a need for facilities for truck drivers along key freight routes.
- There is a need for modernization of the anchorage Port at Kakinada. The wharf at railway siding in the Port of Kakinada leads to cargo contamination due to gravel mixing.
- There is congestion on railway routes connecting Visakhapatnam-Sambalpur and Raipur-Vizianagaram line.
- There is a draft restriction at Hope Island, Kakinada. This makes it difficult to load the vessel over 25MT capacity.

Services

- The safety and security of cargo in transit is a concern in the State. Vijayawada – Hyderabad route mainly is prone to pilferages of rice cargo in transit.
- The shortage of skilled drivers in the State is a crucial concern.
- Presently there is no deployment of immigration officers at Kakinada anchorage, leading to delays in crew sign-on/off.

Regulatory and operating environment

- There is no separate policy in State governing regulations for setting up a warehousing facility.
- There are cases of unwarranted stoppage of commercial vehicles by RTO/Police primarily on Ranchi-Kakinada stretch
- There is a delay in receiving the certifications from Participating Government Agencies due to the lack of laboratory set up in the State. This adds to cargo dwell time.
- The Port Community System (PCS) implemented at the Port of Vizag lags regularly resulting in delays for the stakeholders.

Disclaimer: The issues and challenges capture isolated experiences of the stakeholders and continual improvement may already have been in the process addressing the stakeholders' inputs.

Suggestions and recommendations

The State may inspect and investigate the constraints being faced by the industry and may undertake the following measures -

- A State Logistics Policy may be prepared to provide regulatory support, guidelines, requisite approvals, incentives, and clearances for the logistics sector.
- Strengthening institutional mechanisms by setting up a city logistics coordination committee to streamline city logistics.
- Implementation of digital initiatives to decrease the number of physical checks of commercial vehicles by enforcement officers.
- Establish State Logistics Cell for the integrated development of logistics ecosystem.
- State may strengthen –
  - Vijayawada – Rajahmundry - Visakhapatnam road stretch.
  - Road stretches connecting Vizag Port to the warehouses and container freight station facilities, primarily along NH-5.
- Set up driver training institutes in the State to compensate drivers' shortage.
- Adequate basic amenities for the drivers – parking spaces, restrooms, drinking facilities, etc. may be provided along highways.
- Develop warehousing facilities in Vijayawada, Kakinada, and parts of Nellore.
- Strict IT surveillance on the routes known for frequent theft/pilferage cases viz. Vijayawada – Hyderabad.
- Dedicated immigration personnel/ officer may be deputed for anchorage purposes at Port of Kakinada.
- Develop more laboratories to facilitate Participating Government Agencies' certification to the traders.
- Increase the draft in Port of Kakinada anchorage to ensure the seamless berthing of vessels in coordination with IWAI.
- Speed up the process of issuance of Phytosanitary Certification (PQ) to the traders for shipping.
- Coordinate with the Indian Ports Association for resolving the issue of frequent failure of the PCS portal.
- Facilitate regular interactions between the industry and transport unions to jointly address issues, thereby enabling logistics ease and set up a grievance cell to address industry grievances.
- Undertake modernization of Kakinada port.

Initiatives undertaken by the State Government

State policy for logistics

- The Logistics Policy and Logistics Master Plan of the State is also under preparation.

Institutional mechanism for logistics implementation

- The State has appointed a Nodal Officer for logistics and has set up State Logistics Coordination Committee under the chairmanship of the Chief Secretary of the State

Telangana

10	3.14	8	3.22
2021 rank	2021 Score	2019 rank	2019 Score

Note: Owing to the change in statistical methodology between 2019 and 2021, a direct rank and score comparison is not recommended.

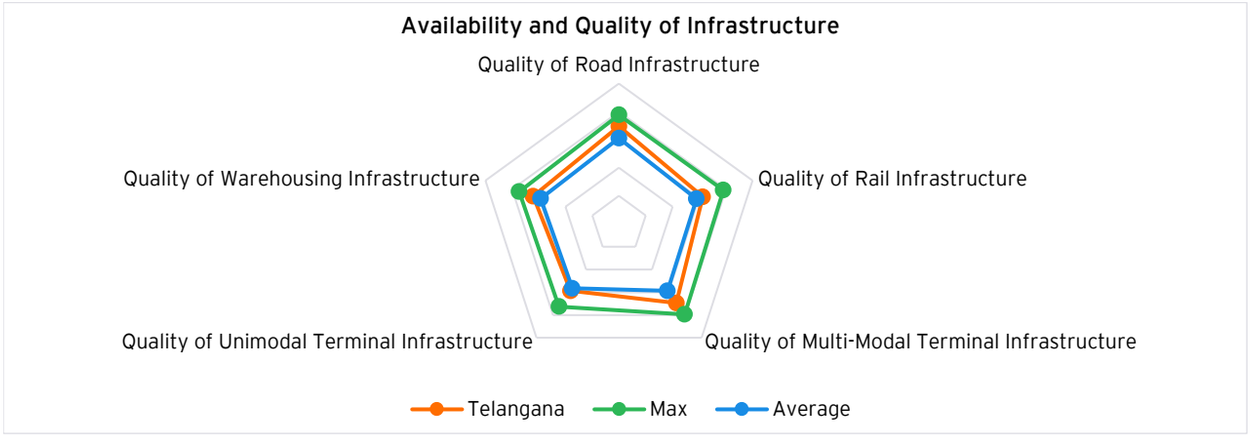
Telangana - a brief logistics profile

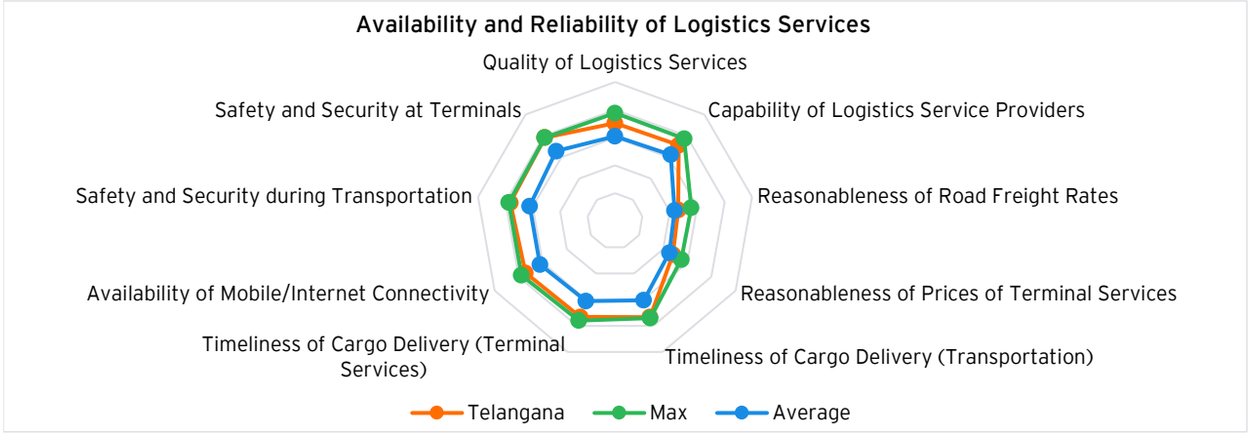
Brief overview of the logistics profile of the State is provided in the exhibit 34 below.

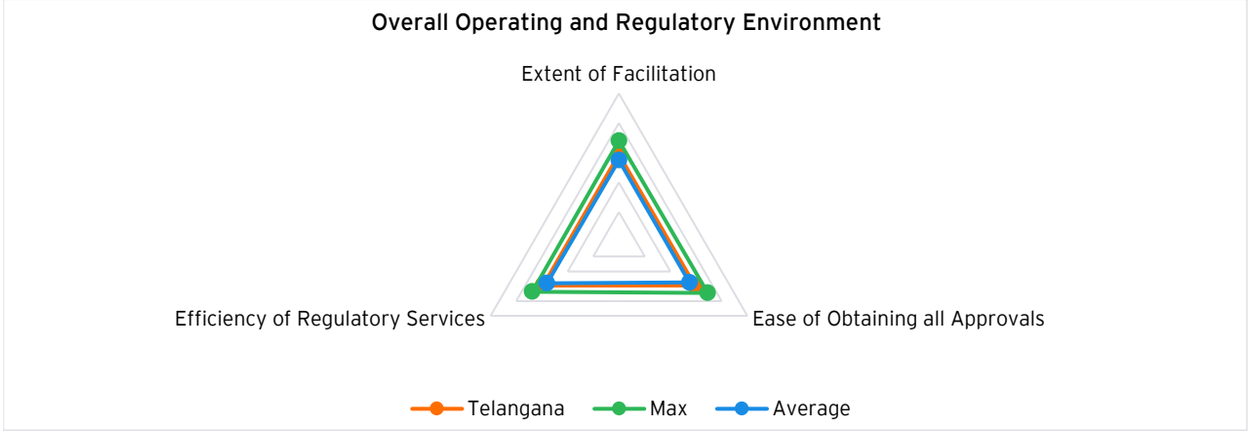
Exhibit 34: Brief logistics profile of Telangana

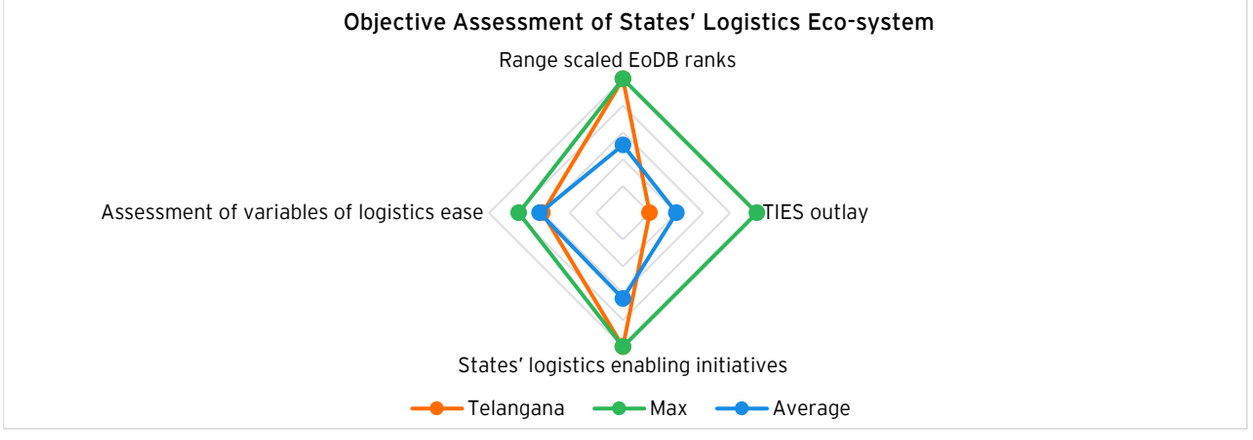
Parameter	Unit	Value	Year	Source
Road length	km	NH=3,974/ SH=2,149	2020-21	MoRTH/NHAI
Railway track	Track-km	3,223	2019-20	MoR
Inland Container Depot (ICD)	nos.	2	2017-18	CBIC
Container Freight Station (CFS)	nos.	3	2017-18	CBIC
Private Freight Terminal (PFT)	nos.	6	2020-21	MoR
Air cargo terminals	nos.	1	2020-21	AAI
Rail goods sheds	nos.	184	2019-20	MoR
WDRA registered warehouse capacity	MT	4,45,369	2019-20	WDRA
Cold storage capacity	MT	4,10,905	2020-21	MoCAF&PD
Logistics training centres	nos.	19	2020-21	MoSDE
No. of individuals trained in logistics	nos.	1,779	2020-21	MoSDE

Exhibit 35: States' LEADS indicator score and ranking









Note: It is important to check the confidence interval (CI) of a States' indicator scores before making any judgement on its performance.

Telangana is ranked 10th in 2021 index compared to eighth in 2019 index i.e., a drop of two places. State has low scores in infrastructure indicators of Quality of Rail Infrastructure and Quality of Uni-modal Terminal Infrastructure. The State has insufficient logistics facilities and related infrastructure like warehouses in Hyderabad area and CFSs in Nizamabad area, insufficient truck parking and handling infrastructure for air cargo.

Logistics sector in the State witnesses high freight rates as evidenced from the low scores on Reasonableness of Road Freight Rates and Terminal Services. State scored low in all parameters of Operating and Regulatory Environment, be it Extent of Facilitation, Ease of Obtaining all Approvals or Efficiency of Regulatory Services. This indicates lack of support from State in terms of Single Window mechanism for approvals for logistics infrastructure, inefficient regulatory environment, and lack of grievance redressal mechanism for the sector.

State has done well above the composite average scores in indicators of Safety/Security of Cargo during Transportation and at Terminals. State has formulated its State logistics policy and it provides subsidies and plans to develop MMLPs/Dry Ports under the PPP mode to create new aggregation/disaggregation points for cargo movement in the State. The State also envisions to promote skill development in the sector. To strengthen the institutional mechanism the State has constituted State level logistics coordination committee which displays the intent of the State to proactively support logistics sector in the State.

Issues and Challenges as narrated by industry stakeholders

Infrastructure

- There is limited availability of warehouse facilities in Hyderabad.
- Local CFS's in Nizamabad are lacking in the standardized facility for handling food-grade cargo.
- Exporters from Telangana move the cargo by road to Krishnapatnam due to the unavailability of rail facilities in Telangana.
- Traders are dependent on the airports of Karnataka and Tamil Nadu for exports of Pharma from Telangana.

Regulatory and Operating environment

- Availability of empty containers (dry and reefer) is an issue in the State. Import imbalance adds to the issue of container availability.
- Due to the non-availability of Phytosanitary certification (PQ) at Telangana, the dependence is on Delhi and Chennai for the same, leading to delays.
- The train connectivity schedule to JNPT is not scheduled; this increases the cargo transit times and cost.
- Despite the clearance relaxations for coastal movement, the cargo is still subjected to customs formalities, thereby causing an increase in dwell time of coastal consignments.

Disclaimer: The issues and challenges capture isolated experiences of the stakeholders and continual improvement may already have been in the process addressing the stakeholders' inputs.

Suggestions and recommendations

The State may inspect and investigate the constraints being faced by the industry and may undertake the following measures -

- CFS at Nizamabad may upgrade their infrastructure to handle food-grade cargo for agriculture and food item exports/imports.
- ICD at Hyderabad may employ skilled labor, including forklift operators, to ensure no cargo delays on account of a shortage of labor.
- State may plan improvement of warehouse network in Hyderabad to support the storage and value addition for consignments.
- Participating Government Agencies may improve their service network in the State to reduce the reliance on Delhi and Chennai.

- Coordination with MoR on scheduling a rail freight connectivity to JNPT port from the State.
- State may work towards strengthening of the institutional mechanism by setting up a city logistics coordination committee to streamline city logistics.
- State may prioritise implementation of digital initiatives to decrease the number of physical checks of commercial vehicles by enforcement officers.

Initiatives are undertaken by the State Government

State policy for logistics

- The abstract of State Logistics Policy 2021-26 has been drafted and approved by the Government The detailed policy is under preparation

Institutional mechanism for logistics implementation

- The State has setup a robust institutional mechanism for logistics – appointed nodal officer for logistics, constituted State logistics cell and State Logistics Co-ordination Committee

Investment in logistic infrastructure – facilitation and incentivization

- 100% reimbursement of vehicle registration and national permit cost for reefer vehicles carrying capacity greater than 15 MT
- In the manufacturing sector, the State has taken up many development initiatives such as Hyderabad Pharma City, National Manufacturing and Investment Zone (NIMZ) in Zaheerabad, Kakatiya Mega Textile Park at Warangal, Electronic Manufacturing Clusters in Shamshabad
- The government of Telangana shall restrict at least 5 Acres of land in upcoming Industrial EStates/Industrial parks and SEZs for the development of common logistics infrastructure- such as warehouse/cold storage/loading/ unloading facilities /Trucking etc.
- The State shall provide 20 reserved office spaces, seats for upcoming start-ups in the logistics sector through T-Hub/ Start-up Ecosystem partner
- The State is aiding in installing tracking devices in the trucking vehicles, logistics management software and help in the implementation of QMS in Cold storage/ warehouse/ ILP/MMLP/ other logistics infrastructure.
- To promote skill development in the sector, the State has a setting with the centre of excellence along with the Telangana Academy of Skills and Knowledge. Further, the State envisions to constitute Telangana Logistics Advisory Network T-Log.

Key initiatives under the regulatory regime

- To fast-track approvals required for the building of any new logistics infrastructure in the State, all the proposals can be applied through the Single Window Clearance system of TS-iPASS

Chhattisgarh

11	3.09	14	3.01
2021 rank	2021 Score	2019 rank	2019 Score

Note: Owing to the change in statistical methodology between 2019 and 2021, a direct rank and score comparison is not recommended.

Chhattisgarh – a brief logistics profile

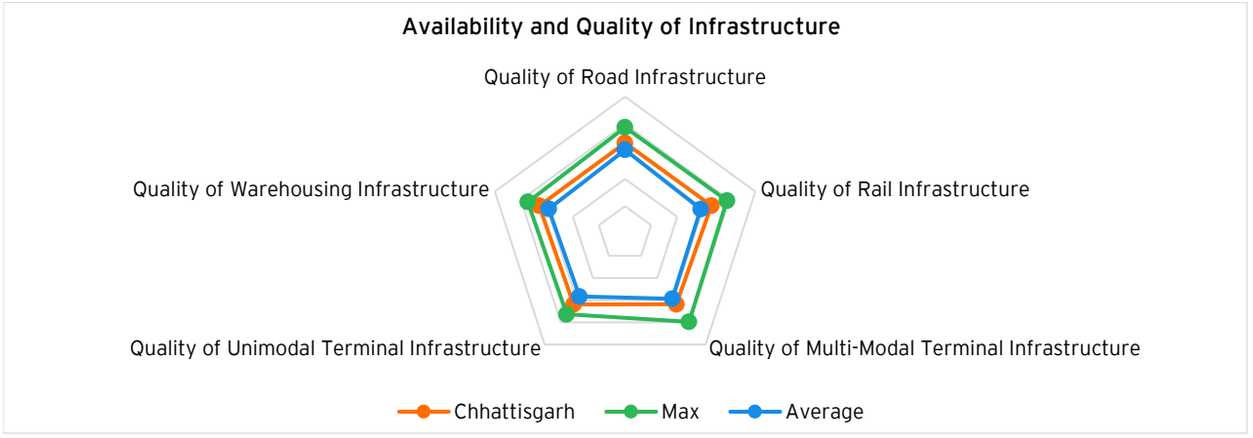
Brief overview of the logistics profile of the State is provided in the exhibit 36 below.

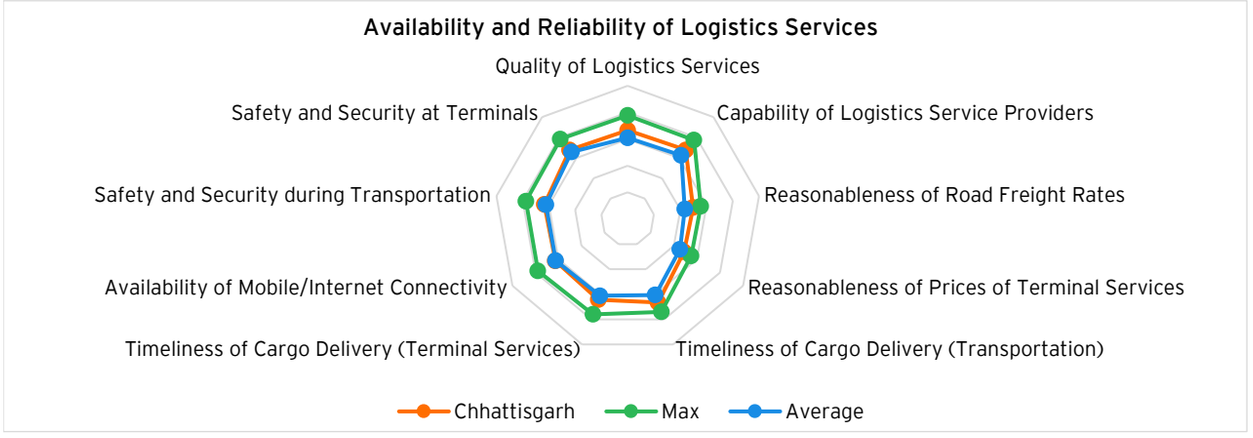
Exhibit 36: Brief logistics profile of Chhattisgarh

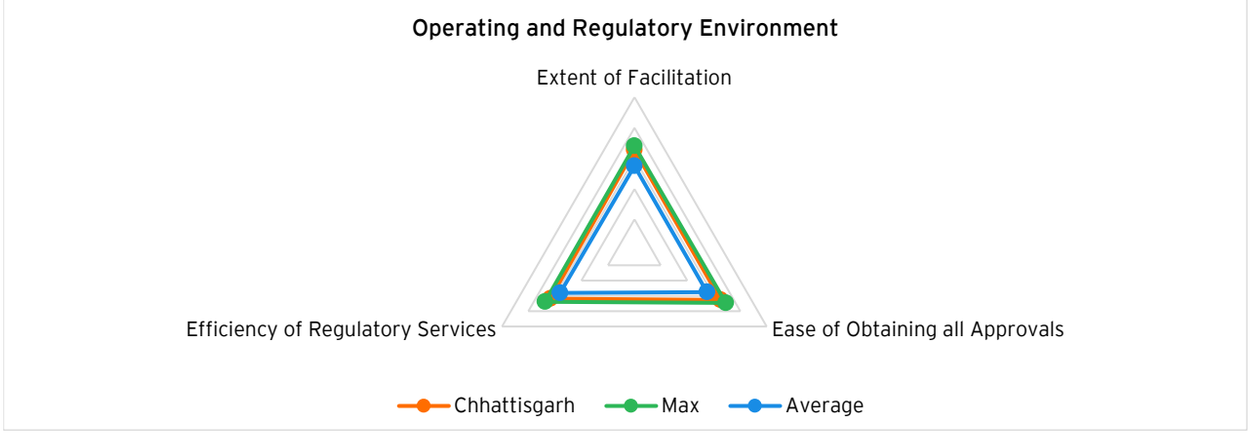
Parameter	Unit	Value	Year	Source
Road length	km	NH=3,620/ SH=4,369	2020-21	MoRTH/NHAI
Railway track	Track-km	2,914	2019-20	MoR
Inland Container Depot (ICD)	nos.	3	2017-18	CBIC
Private Freight Terminal (PFT)	nos.	7	2020-21	MoR
Air cargo terminals	nos.	2	2020-21	AAI
Rail goods sheds	nos.	270	2019-20	MoR
WDRA registered warehouse capacity	MT	2,12,250	2019-20	WDRA
Cold storage capacity	MT	12,462	2020-21	MoCAF&PD
Registered Goods Commercial Vehicles (GCVs)	nos.	9,436	2020-21	MoRTH
Registered drivers of GCVs	nos.	19,584	2020-21	MoRTH
Logistics training centres	nos.	1	2020-21	MoSDE
No. of individuals trained in logistics	nos.	90	2020-21	MoSDE

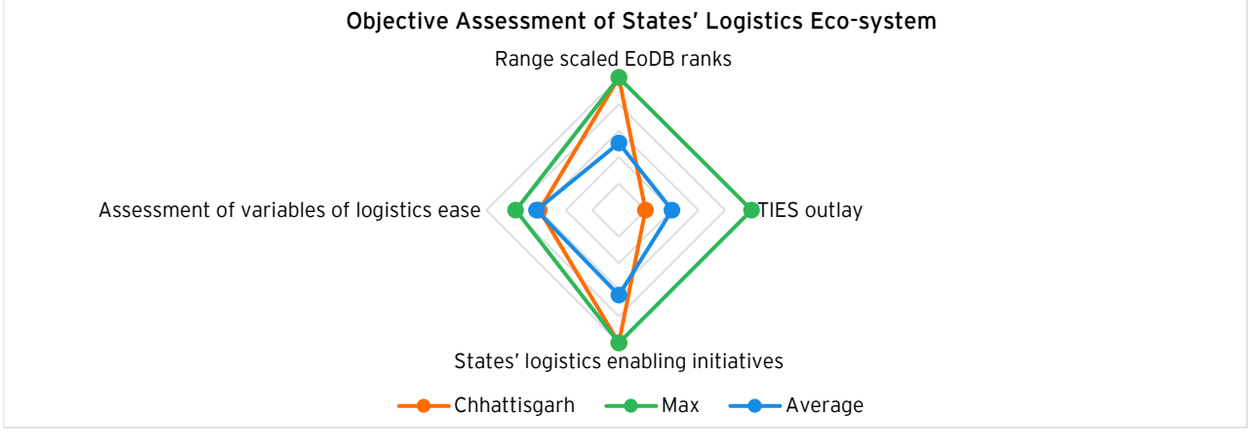
Chhattisgarh ranks third in housing the maximum Private Freight Terminals (PFTs) in the country

Exhibit 37: States' LEADS indicator score and ranking









Note: It is important to check the confidence interval (CI) of a States' indicator scores before making any judgement on its performance.

Chhattisgarh is ranked 11th in 2021 index compared to 14th in 2019 index i.e., an increase of three places. The State has formulated a dedicated logistics park policy along with Chhattisgarh Industrial Policy 2019-2024 for facilitating logistics infrastructure in the State. The policy includes various incentives for setting up logistics hubs, warehouse and cold storage facilities thereby encouraging logistics infrastructure development in the State.

Reasonableness of Road Freight Rates and Prices of Terminal Services are low-scoring aspects of the State's performance. Industry interactions have highlighted the presence of trucking unions and rail connectivity issues as key challenges faced by the trade. A few positive initiatives taken by the State include providing regulatory clearances under single window mechanism and presence of a grievances redressal mechanism for the sector.

Issues and challenges as narrated by industry stakeholders

Infrastructure

- The road stretch between Raipur - Korba district is in a poor State. This causes delays in the movement of cargo and passengers.
- Congestion on Visakhapatnam - Sambalpur and Raipur Vijayanagram rail line.

Services

- Rice loaded on the open-top rakes are prone to damage by rain and other harsh weather condition.

Regulatory and Operating Environment

- Truck unions prevent trucks outside their association to provide services, resulting in higher trucking costs.
- Unwarranted stoppages and checking of commercial vehicles by the RTO pose a significant issue to commercial fleet owners. Commercial vehicles with requisite documentation are stopped by enforcement officials on a frequent basis. Such unscheduled stoppages add to the overall transit time.

Disclaimer: The issues and challenges capture isolated experiences of the stakeholders and continual improvement may already have been in the process addressing the stakeholders' inputs.

Suggestions and recommendations

The State may inspect and investigate the constraints being faced by the industry and may undertake the following measures -

- Strengthen institutional mechanisms by appointing a nodal officer and setting up a State Logistics Cell for the integrated development of logistics ecosystem.
- To prevent unauthorized stoppage of trucks on the road, the State may implement digital initiatives.
- Facilitate regular interactions between the industry, transporters' unions, and terminal operators to jointly address issues, thereby enabling logistics ease.
- State may co-ordinate with MoR for de-congestion of railway line at Raipur-Vijayanagar, to boost movement of cargo and plan for safe carriage of rice on the rakes.

Initiatives undertaken by the State Government

State policy for logistics

- The logistics sector in the State is facilitated by Chhattisgarh Logistics Park Policy 2018-2023

Institutional mechanism for logistics implementation

- The State has initiated the institutional setup for logistics by appointing a nodal officer for logistics.

Investment in logistic infrastructure – facilitation and incentivization

- Chhattisgarh Logistics Park Policy 2018-2023 provides the enabling policy and regulatory facilitation for the development of logistics in the State. The policy grants special financial assistance for setting up logistics parks

Jharkhand

12	3.09	17	2.88
2021 rank	2021 Score	2019 rank	2019 Score

Note: Owing to the change in statistical methodology between 2019 and 2021, a direct rank and score comparison is not recommended.

Jharkhand - a brief logistics profile

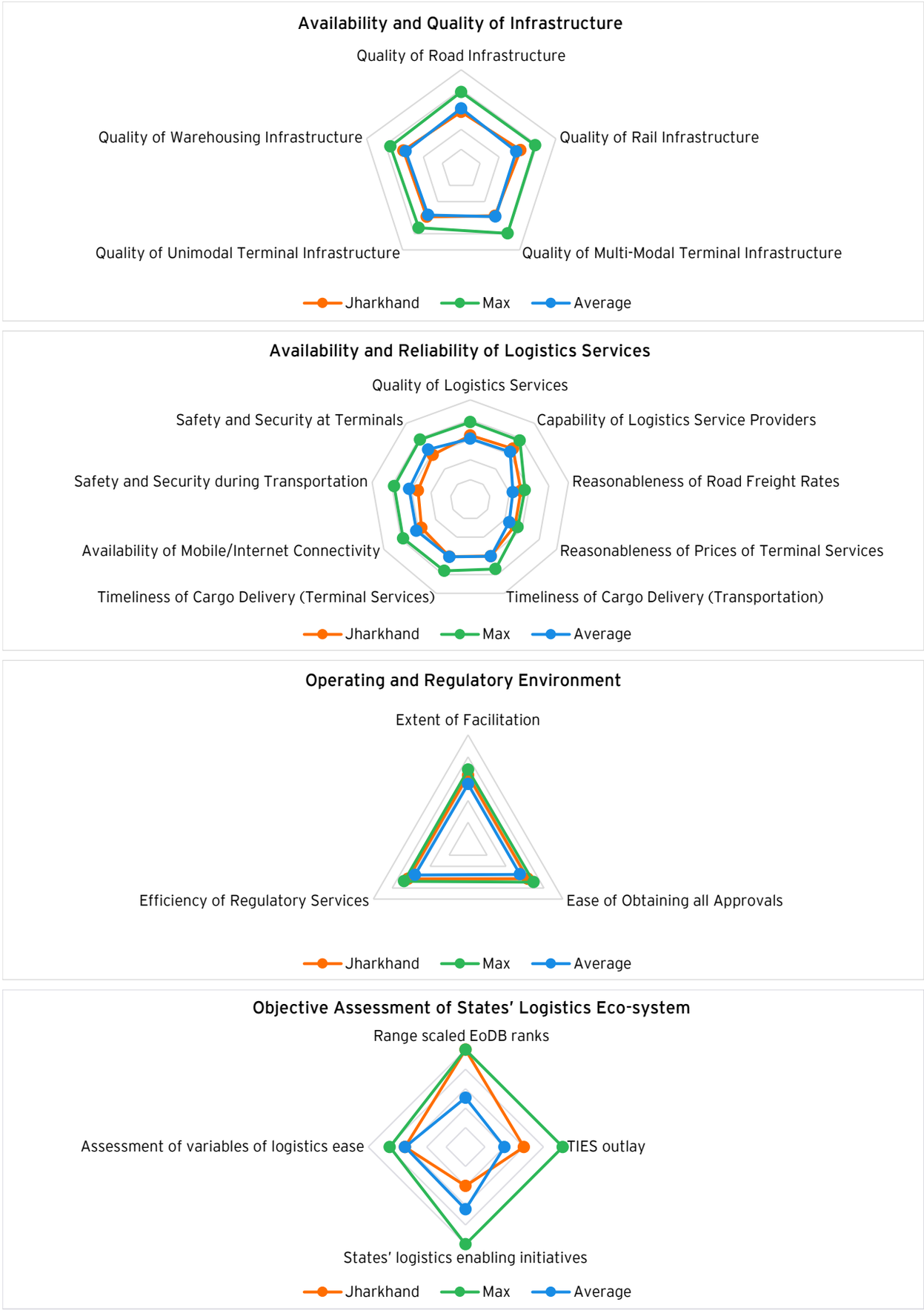
Brief overview of the logistics profile of the State is provided in the exhibit 38 below.

Exhibit 38: Brief logistics profile of Jharkhand

Parameter	Unit	Value	Year	Source	
Road length	km	NH=3,367/ SH=1,232	2020-21	MoRTH/NHAI	
Railway track	Track-km	6,296	2019-20	MoR	
Inland Container Depot (ICD)	nos.	01	2017-18	CBIC	
Private Freight Terminal (PFT)	nos.	01	2020-21	MoR	
Air cargo terminals	nos.	01	2020-21	AAI	
Rail goods sheds	nos.	438	2019-20	MoR	
WDRA registered warehouse capacity	MT	36,691	2019-20	WDRA	
Cold storage capacity	MT	2,36,680	2020-21	MoCAF&PD	
Logistics training centres	nos.	2	2020-21	MoSDE	
No. of individuals trained in logistics	nos.	119	2020-21	MoSDE	

Jharkhand ranks third in having the highest number of railway goods sheds (438) in the country

Exhibit 39: States' LEADS indicator score and ranking



Note: It is important to check the confidence interval (CI) of a States' indicator scores before making any judgement on its performance.

Jharkhand is ranked 12th in 2021 index compared to 17th in 2019 index i.e., an increase of five places. The State has scored well in the indicator's Capability of Logistics Service Providers and overall satisfaction in overall Operating and Regulatory Environment. The State has a single window system to provide regulatory clearances which partly explains the high score in the Operating and Regulatory Environment indicator.

Scores of various indicators related to Availability of Infrastructure – road, rail and terminal are low. Stakeholders have highlighted that there is poor road condition across the State and it also lacks in ICD infrastructure.

The State has low scores in indicator Reasonableness of Road Freight Rates and Prices of Terminal Services. This can be attributed to lacunae existing in the connectivity and terminal infrastructure. Unwarranted vehicle stoppages also inflate cost of logistics in the State. Measures such as adoption of digital initiatives are required to be taken by the State to improve its perception on the said indicator. Another important indicator in which the State has a low score is Safety and Security during Transportation, which has also been an issue raised by the logistics sector during industry interactions.

Issues and challenges as narrated by industry stakeholders

Infrastructure

- Industry interactions have revealed poor road condition across the State.
- The State lacks in ICD infrastructure, the State requires a robust logistics infrastructure.

Regulatory and Operating Environment

- Cargo enroute from Ranchi to Kakinada is faces unwarranted stoppages at check points RTO officials.
- RTO lacks transparency in registration and permits for commercial vehicles.
- The State has no unified policy to cover the regulations and permissions for construction of a warehouse in the State.

Disclaimer: The issues and challenges capture isolated experiences of the stakeholders and continual improvement may already have been in the process addressing the stakeholders' inputs.

Suggestions and recommendations

The State may inspect and investigate the constraints being faced by the industry and may undertake the following measures -

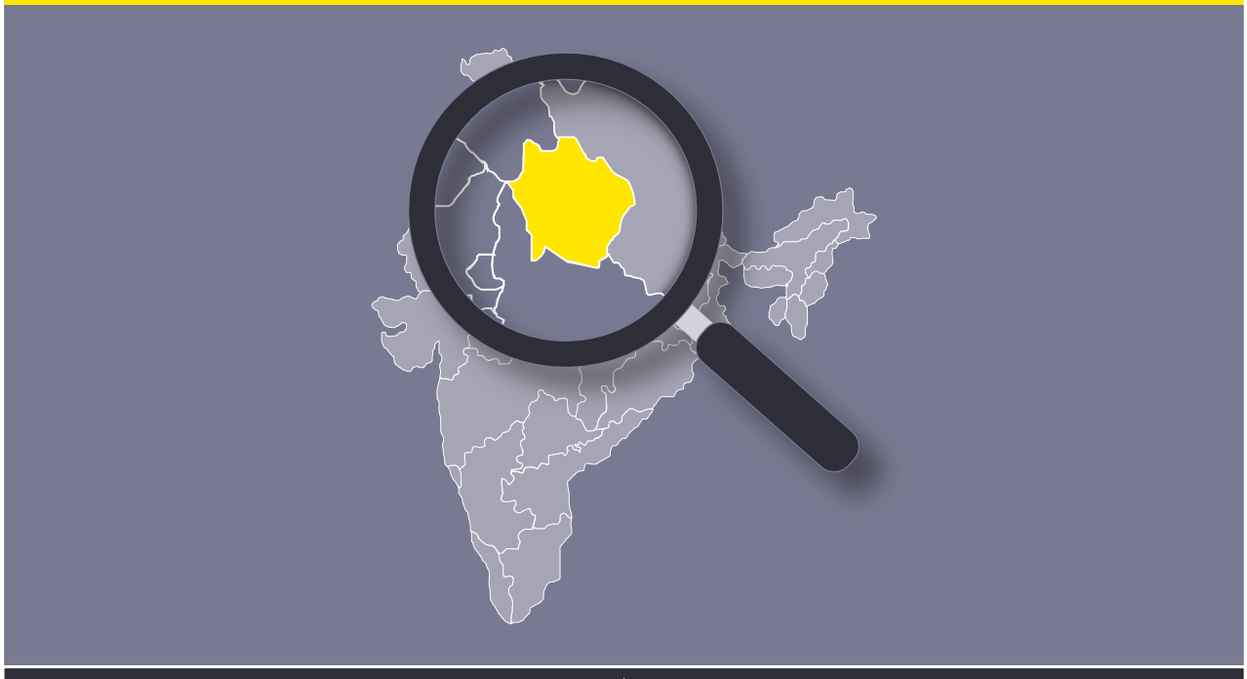
- The State may examine to formulate a State Logistics Policy and appoint a Nodal officer for the development of logistics.
- The State may consider strengthening institutional mechanisms by setting up a city logistics coordination committee to streamline city logistics.
- To prevent unauthorized stoppage of trucks on the road, the State may consider implementation of digital initiatives approach for trucking.
- The State may consider investing in improving connectivity, strengthening, and widening existing roads and investing in new roads.
- To enable the creation of new logistics infrastructure such as Inland Container Depots, the State may consider formulating policies for providing incentives and tax breaks to infrastructure developers.

Initiatives undertaken by the State Government

Key initiatives under the regulatory regime

- To promote investment and industries in the Jharkhand State, the Department of Industries has established a Single Window Clearance System for Ease of Doing Business and to provide mandatory clearances and disbursement of fiscal incentives within the time limit.

Uttarakhand



2021 rank	2021 Score	2019 rank	2019 Score
13	3.06	19	2.85

Note: Owing to the change in statistical methodology between 2019 and 2021, a direct rank and score comparison is not recommended.

Uttarakhand - a brief logistics profile

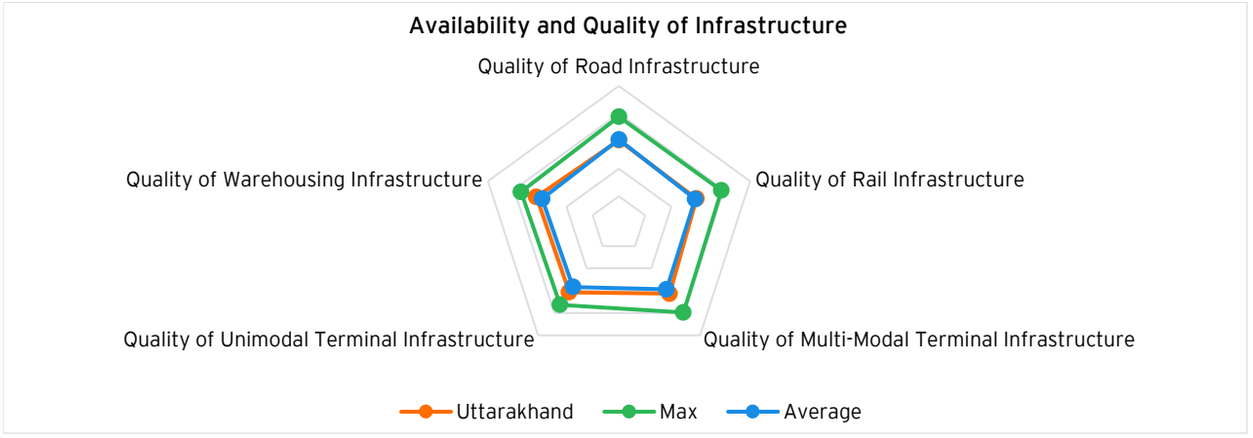
Brief overview of the logistics profile of the State is provided in the exhibit 40 below.

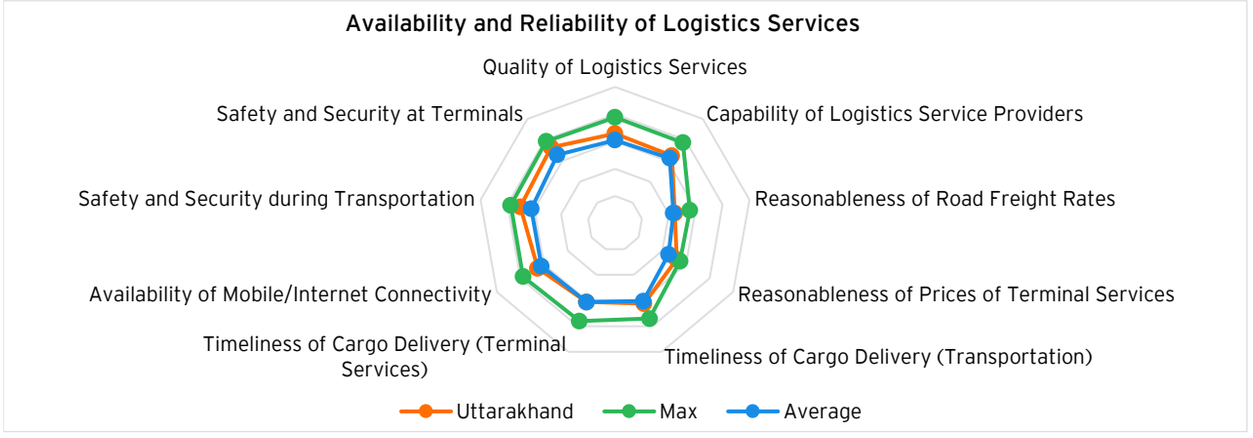
Exhibit 40: Brief logistics profile of Uttarakhand

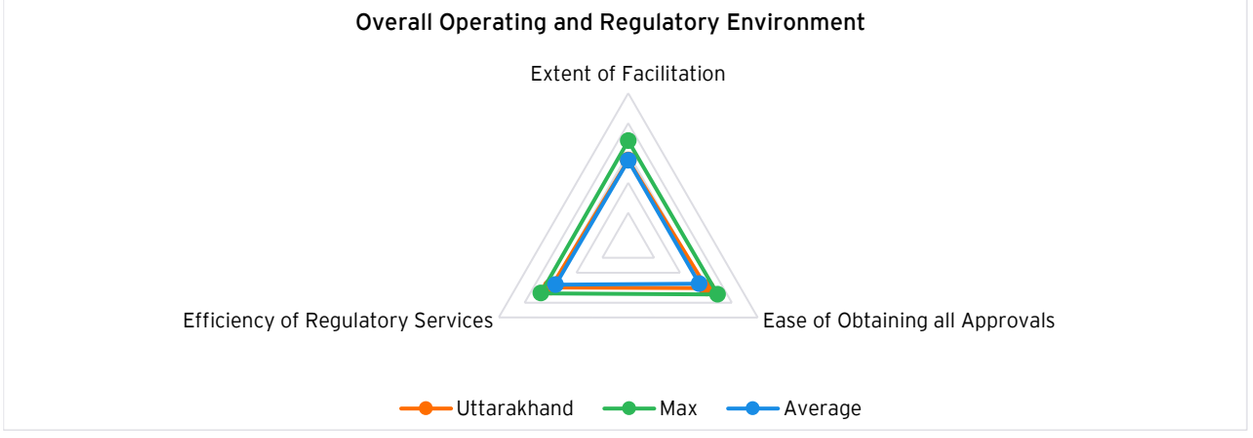
Parameter	Unit	Value	Year	Source
Road length	km	NH=2,949	2020-21	MoRTH/NHAI
Railway track	Track-km	528	2019-20	MoR
Inland Container Depot (ICD)	nos.	2	2017-18	CBIC
Container Freight Station (CFS)	nos.	0	2017-18	CBIC
Private Freight Terminal (PFT)	nos.	2	2020-21	MoR
Air cargo terminals	nos.	3	2020-21	AAI
Rail goods sheds	nos.	45	2019-20	MoR
WDRA registered warehouse capacity	MT	65,190	2019-20	WDRA
Cold storage capacity	MT	1,91,314	2020-21	MoCAF&PD
Logistics training centres	nos.	4	2020-21	MoSDE
No. of individuals trained in logistics	nos.	166	2020-21	MoSDE

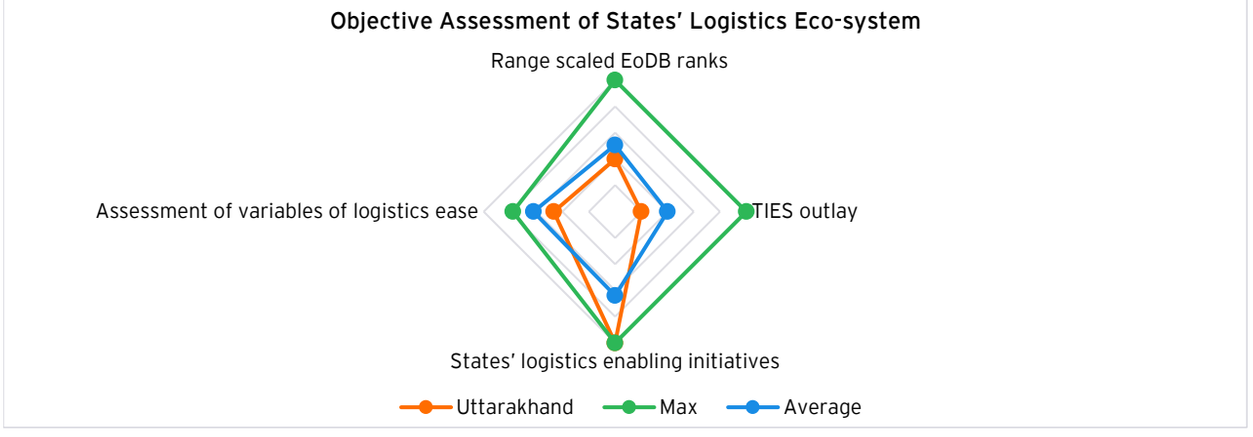
The State has the highest nos. of registered GCVs drivers in the country with a share of 23.29%

Exhibit 41: States' LEADS indicator score and ranking









Note: It is important to check the confidence interval (CI) of a States' indicator scores before making any judgement on its performance.

Uttarakhand is ranked 13th in LEADS 2021 index compared to 19th in 2019 index i.e., an increase of six places. State has scored high in indicators Safety and Security during Transportation and at Terminals and in Quality of Logistics Services. The State has also scored higher than the composite average in indicators related to Quality of Uni-modal Terminal Infrastructure, Reasonableness of Prices of Terminal Services, safety, and in Ease of Obtaining all Approvals. The State has devised a Mega Industrial Policy for providing benefits to the logistics and warehousing sector. The State has also taken a lead towards improving urban freight by mapping the choke points/ bottlenecks in the road freight movement. It conducts frequent meetings of the Road Safety Councils with concerned line departments concerned such as Transport, Urban, PWD etc. to discuss the issues/challenges and suggest solutions. The State has also enabled a single window mechanism for processing approvals for logistics facilities and has implemented grievance redressal and dispute resolution mechanism. Key areas for the State to focus on are inter-State road connectivity, expediting under-construction roads and drafting policy changes to attract investment in warehousing infrastructure.

Issues and challenges as narrated by industry stakeholders

Infrastructure

- Poor road quality from Moradabad to Kashipur due to heavy movement of loaded trucks on the stretch.
- Cargo movement gets blocked due to congestion on main highways owing to delays in construction of bypasses along with SHs.
- Rudrapur has inadequate cold storage infrastructure.
- There are inadequate warehousing hub facilities in the State for handling the movement of seasonal products.

Services

- Limited availability of containers resulting in the diversion of the traffic movement to ICD at Moradabad and ICD at Delhi.
- There is no dedicated center for consolidation and aggregations.
- The trucking rates for the vehicles used for moving seasonal cargo are very high.

Regulatory and Operating Environment

- The truck union at Bajpur charges an extra amount per container which increases the cost of carriage by trucks.
- During festivals like Kavad Yatra, roads are chocked for 15-20 days. The movement of vehicles becomes restricted as there are road closures and entry time for trucks is very limited. This is an annual problem, and the trade at large suffers.

Disclaimer: The issues and challenges capture isolated experiences of the stakeholders and continual improvement may already have been in the process addressing the stakeholders' inputs.

Suggestions and recommendations

The State may inspect and investigate the constraints being faced by the industry and may undertake the following measures -

- State may strengthen institutional mechanism by setting up a city logistics coordination committee to streamline city logistics.
- State may coordinate with NHAI and PWD to inspect and to invest in upgrading and maintenance of roads connecting Moradabad-Kashipur, enabling ease of movement of commercial vehicles on the stretch.
- State may facilitate creation of separate lanes for movement of Kavad's during the yatra so that normal freight movement is not impacted.
- Facilitation of stakeholder interaction with unions for addressing the issues around logistics to create an enabling ecosystem.

Initiatives undertaken by the State Government

State policy for logistics

- The Logistics Policy and Logistics Master Plan for the State is under preparation

Institutional mechanism for logistics implementation

- The State has initiated the institutional setup for logistics – appointed nodal officer for logistics and constituted State logistics cell and State logistics coordination committee

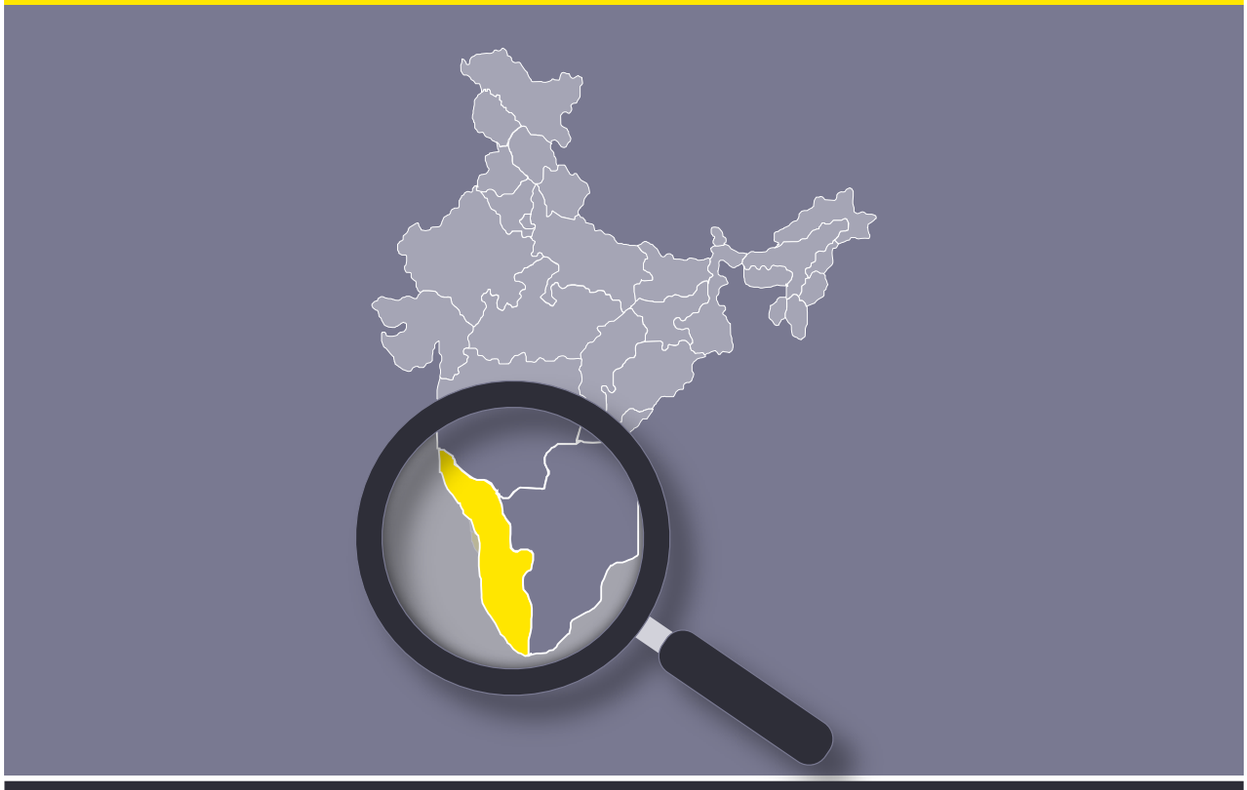
Investment in logistic infrastructure – facilitation and incentivization

- The State has earmarked space for warehousing/ logistics facilities in various State industrial development zones
- The State has created dedicated parking spaces along significant highways like Dehradun- Saharanpur (NH 307), Dehradun-Delhi (NH 7). These spaces allow unloading and loading of heavy goods in loaded Vehicles, which are not allowed to enter the city because of the hilly terrain or other topographical constraints
- The Transport department has empaneled various skill development institutes to provide capacity-building programs to the truck drivers in the State
- The State has taken measures to create and promote sustainable logistics through EV adoption for transportation. Further, the State also has a focus on developing green highways in Dehradun, Haridwar, Rishikesh, Haldwani, Rudrapur and Kashipur
- The State has established transport nagars in the outskirts of the Dehradun and Haldwani, wherein most of the companies have their warehouses and logistics facilities, which allows them to load and unload the shipments received and to be sent

Key initiatives under the regulatory regime

- To make the regulatory process transparent, the State follows a single-window mechanism for approval of logistics facilities and support it with dedicated grievance redressal and dispute resolution mechanism for the logistics sector under investor ticket management system (ITMS) and investor grievance management system (IGMS)

Kerala



14	3.06	11	3.16
2021 rank	2021 Score	2019 rank	2019 Score

Note: Owing to the change in statistical methodology between 2019 and 2021, a direct rank and score comparison is not recommended.

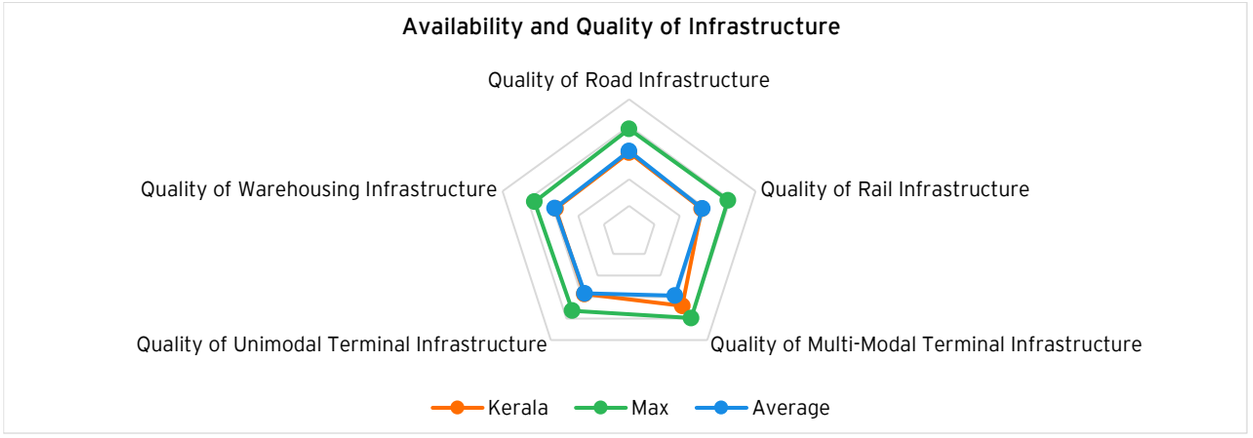
Kerala – a brief logistics profile

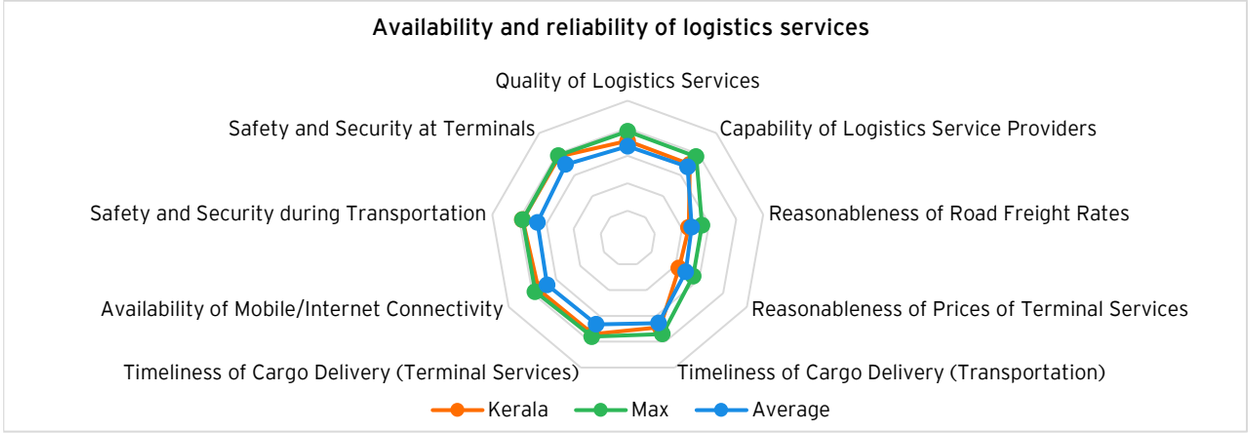
Brief overview of the logistics profile of the State is provided in the exhibit 42 below.

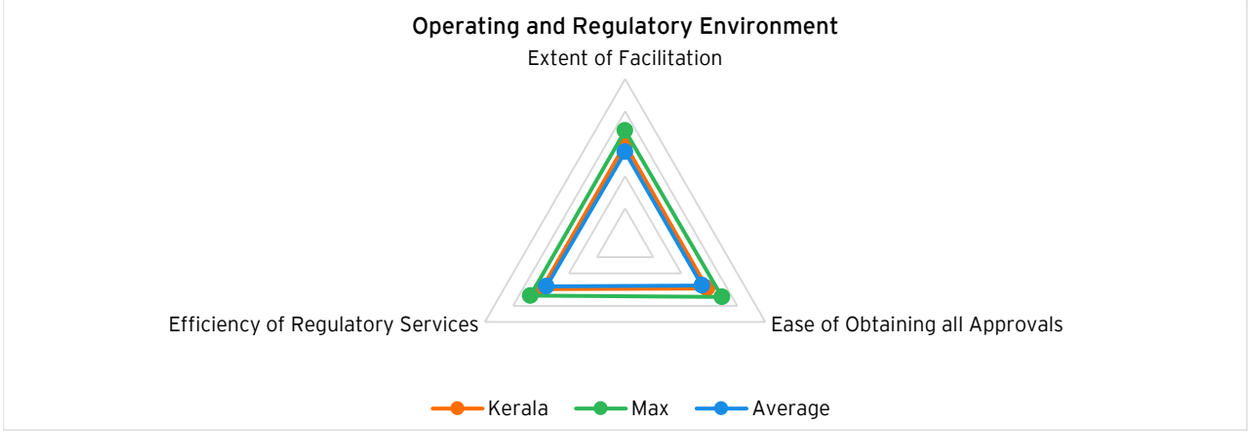
Exhibit 42: Brief logistics profile of Kerala

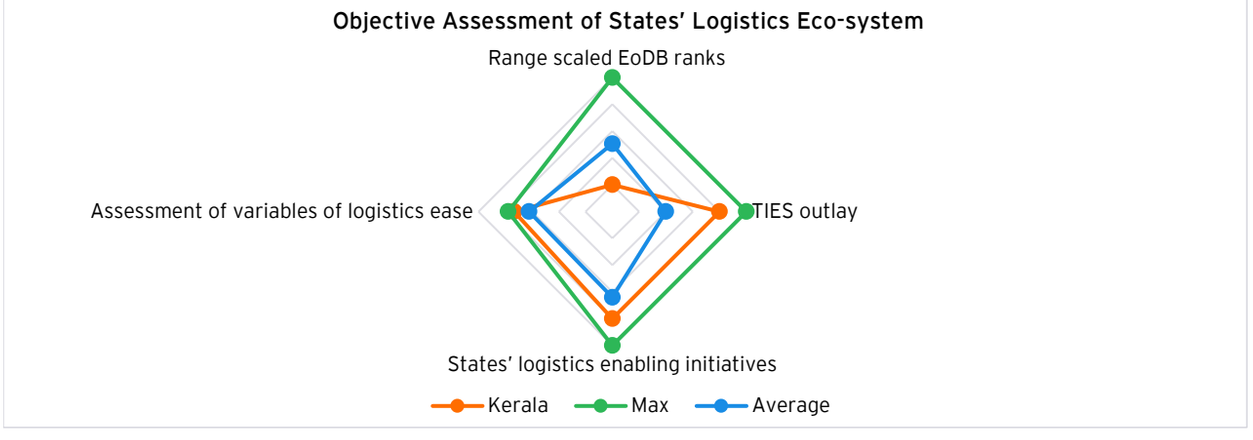
Parameter	Unit	Value	Year	Source	
Road length	km	NH=1,782	2020-21	MoRTH/NHAI	
Railway track	Track-km	2,087	2019-20	MoR	
Inland Container Depot (ICD)	nos.	2	2017-18	CBIC	*The State has second highest number of training centres for logistics in the country*
Container Freight Station (CFS)	nos.	12	2017-18	CBIC	
Air cargo terminals	nos.	4	2020-21	AAI	
Rail goods sheds	nos.	134	2019-20	MoR	
WDRA registered warehouse capacity	MT	1,92,569	2019-20	WDRA	
Cold storage capacity	MT	81,705	2020-21	MoCAF&PD	
Port traffic	MT	316,00,000	2020-21	MoPSW	
Logistics training centres	nos.	44	2020-21	MoSDE	
No. of individuals trained in logistics	nos.	630	2020-21	MoSDE	

Exhibit 43: States' LEADS indicator score and ranking









Note: It is important to check the confidence interval (CI) of a States' indicator scores before making any judgement on its performance.

Kerala is ranked 14th in 2021 index compared to 11th in 2019 index i.e., a drop of three places. The drop in the ranking is primarily on account of the poor terminal and connectivity infrastructure facilities, hindrances by labour unions and high cost of movement of goods. Major port of the State, Cochin Port, has insufficient storage infrastructure and there is high congestion on the connecting roads. Besides, the strong clout of labour unions drives labour cost higher when compared to other States like Tamil Nadu. This has also been reflected in the low scores on the indicators of Reasonableness of Road Freight Rates and Prices of Terminal Services.

The indicator score related to Quality of Road and Rail Infrastructure is low indicating the need for improved connectivity in the State. Indicators score on Quality of Warehousing Infrastructure is also low which is a view expressed by the industry particularly in respect of adequate cold chain infrastructure.

Another persistent issue in the State is the harassment of drivers and transporters by RTOs and Police personnel leading to frequent unwarranted stoppages during transit. The indicator on efficiency of regulatory services is low supporting this understanding from interacting with the logistics industry.

State has taken steps towards betterment of the sector by appointing a nodal officer for the sector, setting up urban freight committee and implementation of digital initiatives measures. However, more is desired from the State in terms of improving rail and road connectivity, development of Inland Waterway terminals, constituting the institutional mechanism committees/cells and adaption of a comprehensive State Logistics policy.

Issues and challenges as narrated by Industry stakeholders

Infrastructure

- Cochin Port Trust, the only major port in Kerala, does not have sufficient storage capacity inside the port limits and infrastructure to handle larger traffic volumes. Movement of cargo from Cochin port to the city roads also leads to congestion.
- There is a shortage of multi-modal logistics parks, warehouses, free trade warehousing zones and cold storage infrastructure in the State.
- Infrastructure at Trivandrum airport is sub-standard. The air cargo is currently handled in a temporary shed.
- Parking space for trucks and basic availability of amenities for drivers is inadequate in Vallarpadam terminal, leading the truck drivers often resorting to strikes.
- The State has one of the largest inland water networks in the country; however, there is only one inland water terminal. There is a vast potential of movement of cargo through waterways, but due to lack of available infrastructure, State is lacking in tapping this potential.
- Toll plaza at Kochi Kumbalam is not wide enough for container trailers to pass through, leading to congestion as it only has one wide bay.
- Vehicles are parked on the roadside for loading and unloading of cargo at seafood processing centres in Cochin, leading to congestion on roads.

Services

- The labour unions charge very high wages for loading/ unloading of cargo and gawking wages.
- Vessel Related Charges (VRC) and Terminal Handling Charges (THC) at Cochin Port are very high leading to less competence in transhipment.
- Trucking rates are also very high in Kerala due to the presence of truck unions. The scarcity of drivers also persists due to high labour cost.
- Tugs are not available at Cochin Port, leading to the higher anchorage time for the vessels.

Regulatory and Operating Environment

- Lack of transparency in dealing with RTO for registration of commercial vehicles.
- Warehousing facilities are scarce as the land cost is very high in the State.

- The rate of road tax in Kerala is higher than in other neighboring States.
- The Government charges 15-25% more on the fair value for the process of land-use conversion, and stakeholders are charged additional development charges of INR 100/- per sq. meters when land is used for the development of logistics infrastructure.

Disclaimer: The issues and challenges capture isolated experiences of the stakeholders and continual improvement may already have been in the process addressing the stakeholders' inputs.

Suggestions and recommendations

The State may inspect and investigate the constraints being faced by the industry and may undertake the following measures -

- State may prepare the State Logistics Policy for providing regulatory support, guidelines, requisite approvals, incentives, and clearances for the logistics sector.
- The State may undertake digital initiatives to decrease the number of physical checks of commercial vehicles by enforcement officers.
- State may inspect and invest in the widening, strengthening and maintenance of the road stretches/ toll plaza including Cochin – Kasaragod, Cherthala to Trivandrum, approach roads to the Cochin Port, Toll plaza at Kochi Kumbalam.
- State may implement IT infrastructure for surveillance for monitoring of unwarranted stoppages and informal payments taken by police, RTO or customs officials and strengthen the existing grievance redress mechanism for the industry to report such issues.
- State may undertake the provision of basic amenities for the truck drivers at Vallarpadam terminal – parking spaces, rest rooms, drinking facilities.
- State may examine the need for logistics parks, warehouses and cold storages facilities in the State and take appropriate measures to fulfil the gap in demand and supply of such facilities.
- The State may strengthen and modernize infrastructure facilities at Cochin Port and Trivandrum airport.
- State may maintain transparency and charge uniform rates for land conversion and development purposes involving logistics activities.
- The State may develop suitable infrastructure for establishing inland waterway terminals in the State.
- State may consider rationalization of high road tax and land cost in the State.
- State may indulge in facilitation of regular interactions between the industry, labour unions, truckers' associations, and port terminal operators to jointly address issues (e.g., related to high charges), thereby enabling logistics ease.
- State may take steps towards better Coordination with Customs Department to implement uniform rules/regulations across all the terminals of the State.

Initiatives undertaken by the State Government

State policy for logistics

- The Logistics Policy and Logistics Master Plan of the State is under preparation

Institutional mechanism for logistics implementation

- The State has setup a robust institutional mechanism for logistics – appointed nodal officer for logistics, constituted State logistics cell, State Logistics Co-ordination Committee and City Logistics Co-ordination Committee
- Kochi Metropolitan Transport Authority (KMTA) has also established an Urban Freight Committee to streamline the freight movement in Kochi

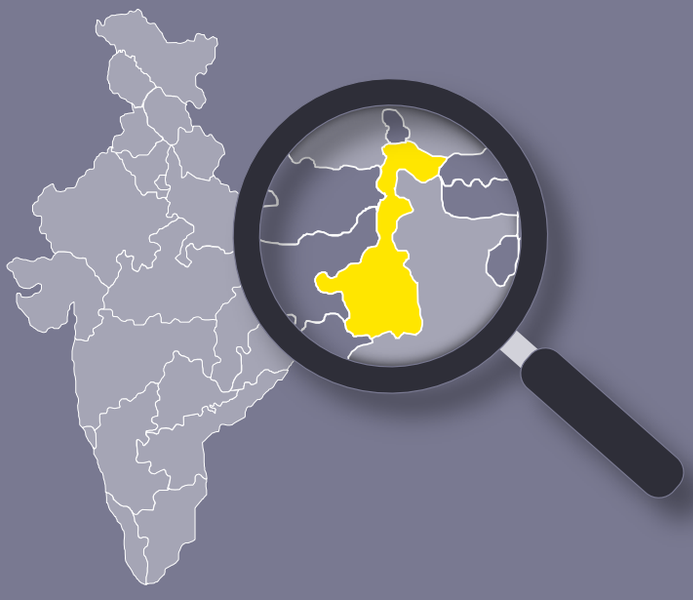
Investment in logistic infrastructure – facilitation and incentivization

- The State aims to re-imagine selected geo-clustering points centred around some strategically located State warehousing corporations as mini-MMLP's or logistics parks
- The State plans to increase the tonnage of roads connecting proposed logistics parks by strengthening bridges and roads, straightening curves etc.
- A Multi-modal Logistics Park (MMLP), including Free Trade Warehousing Zone (FTWZ), is proposed in the vicinity of Cochin Port
- KINFRA Logistics Park is proposed to be developed in Palakkad (the Gateway to Kerala)
- The State plans to develop a Cryogenic Warehouse at an area of 10 acres in Puthuvypeen in the form of a zero CO2 emission cold-chain hub
- The State aims to utilise return cargo by working with Swachta mission to collect recyclable materials in return trips from various place

Key initiatives under the regulatory regime

- Kerala State Infrastructure Development Board (KSIDB) facilitated Kerala Single Window Interface implementation for Fast and Transparent Clearance (K-SWIFT). It currently provides 75+ services of 21 Departments/Agencies, including approvals for setting up logistics infrastructure. It also acts as a grievance redressal portal for industrial investments
- The State has borderless and cashless digital check posts
- Motor Vehicles Department of the State has implemented technology interventions for Smart Enforcement, e.g., Suraksha Mitr. It is a Vehicle Tracking and Management System for ensuring public safety and enforcement in transport vehicles

West Bengal



2021 rank	2021 Score	2019 rank	2019 Score
15	3.04	16	2.99

Note: Owing to the change in statistical methodology between 2019 and 2021, a direct rank and score comparison is not recommended.

West Bengal – a brief logistics profile

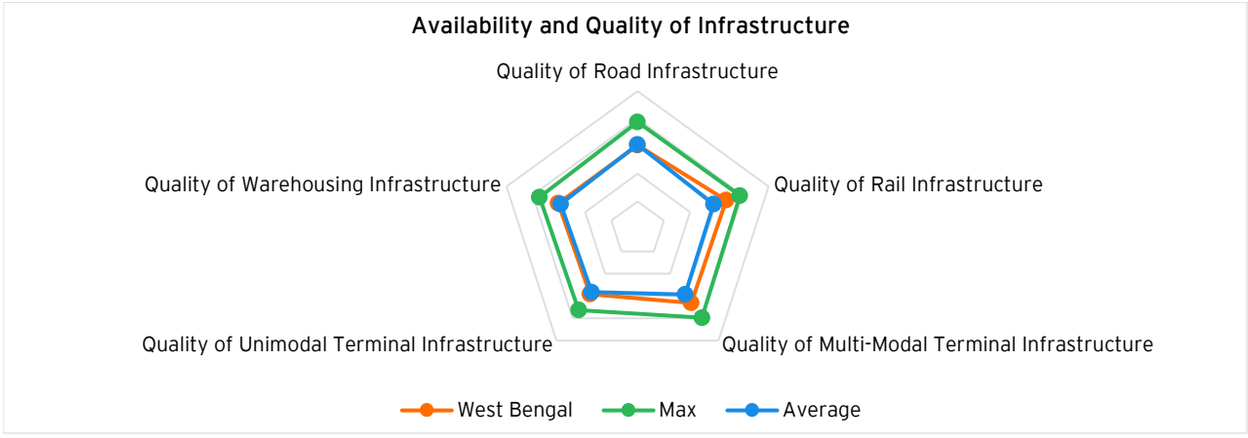
Brief overview of the logistics profile of the State is provided in the exhibit 44 below.

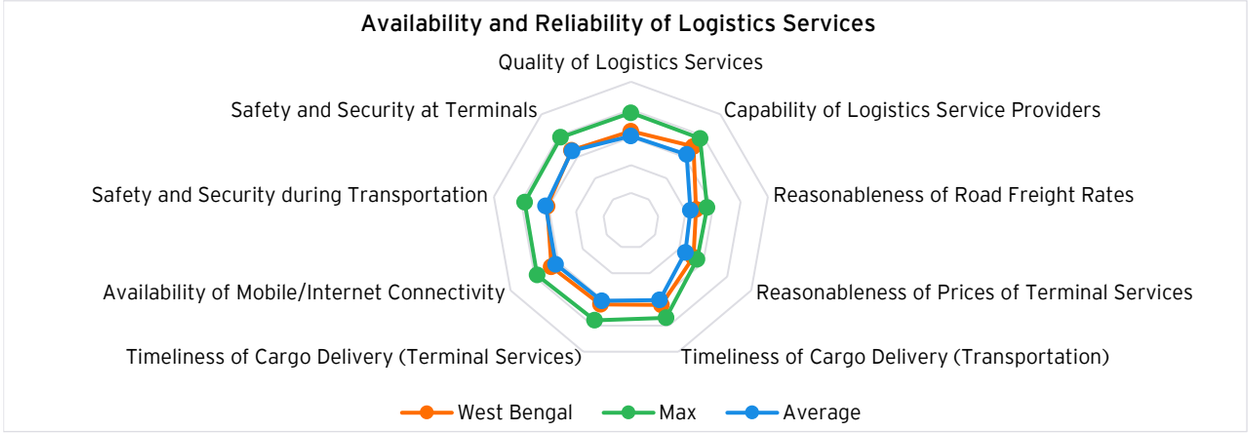
Exhibit 44: Brief logistics profile of West Bengal

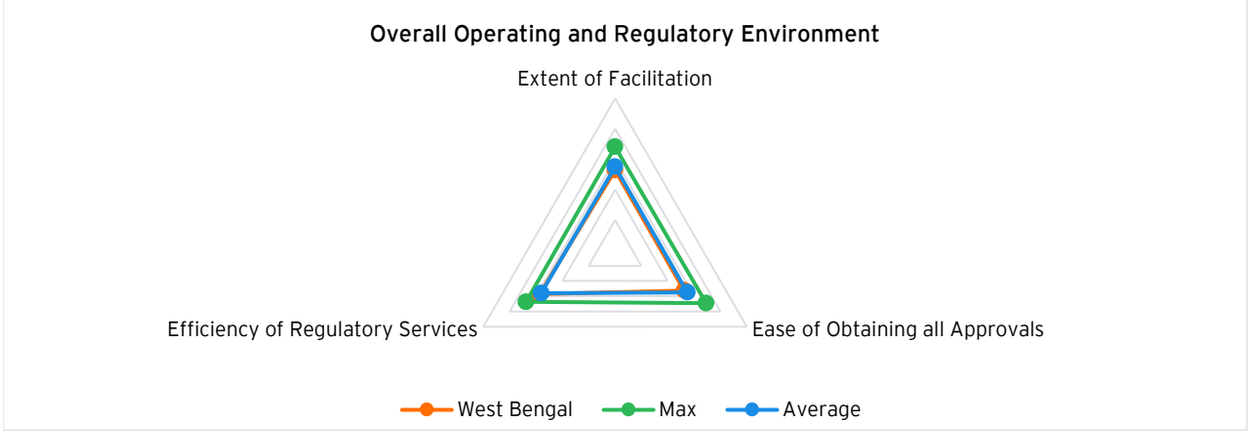
Parameter	Unit	Value	Year	Source
Road length	km	NH=3,665/SH=4,505	2020-21	MoRTH/NHAI
Railway track	Track-km	10,309	2019-20	MoR
Inland Container Depot (ICD)	nos.	1	2017-18	CBIC
Container Freight Station (CFS)	nos.	13	2017-18	CBIC
Private Freight Terminal (PFT)	nos.	3	2020-21	MoR
Integrated Check Post (ICP)	nos.	1	2020-21	LPAI
Air cargo terminals	nos.	3	2020-21	AAI
Rail goods sheds	nos.	424	2019-20	MoR
WDRA registered warehouse capacity	MT	4,04,356	2019-20	WDRA
Cold storage capacity	MT	59,47,311	2020-21	MoCAF&PD
Port traffic	MT	12,27,00,000	2020-21	MoPSW
Registered Goods Commercial Vehicles (GCVs)	nos.	20,756	2020-21	MoRTH
Registered drivers of GCVs	nos.	10,918	2020-21	MoRTH
Logistics training centres	nos.	2	2020-21	MoSDE
No. of individuals trained in logistics	nos.	1,030	2020-21	MoSDE

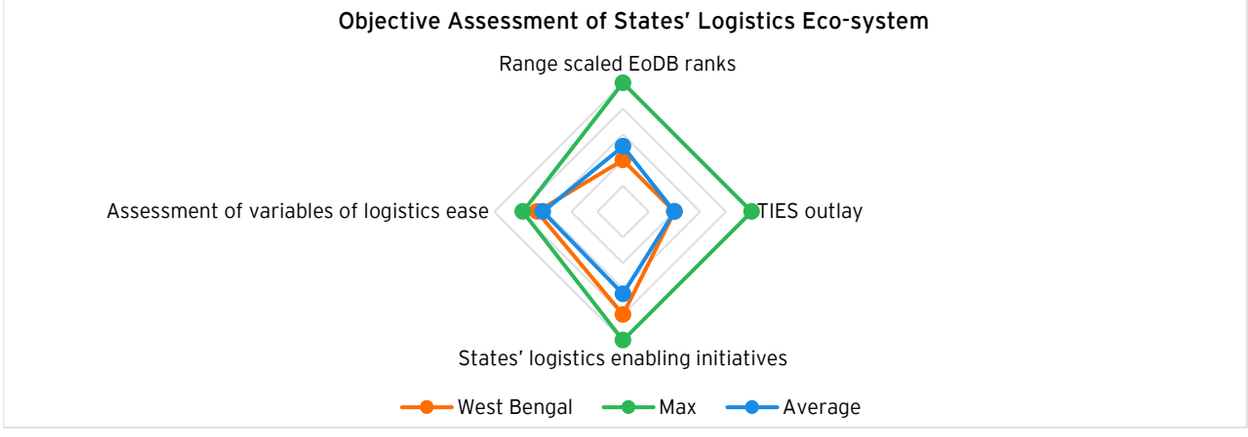
The State has the second highest cold storages capacity in the country with a share of 16.1% and third highest air cargo capacity with 10.36%

Exhibit 45: States' LEADS indicator score and ranking









Note: It is important to check the confidence interval (CI) of a States' indicator scores before making any judgement on its performance.

West Bengal is ranked 15th in 2021 index compared to 16th in 2019 index i.e., an increase of one place. The State has low scores in indicators Reasonableness of Road Freight Rates and Prices of Terminal Services and Ease of Obtaining all Approvals. The increased freight cost experienced by the industry could be partly explained by unwarranted stoppages by regulatory agencies. Heavy congestion on roads connecting to Haldia port (NH-41 and NH-116), also plays a part in the increased cost of movement of goods. Although the State has a single window mechanism, low score in the indicator of Ease of Obtaining all Approvals indicates that it may have not be successfully implemented yet. Evidencing the same, State has obtained less than the composite average indicator scores in Extent of Facilitation provided by the State.

Issues and challenges as narrated by industry stakeholders

Infrastructure

- Roads (NH-41 and NH-116) connecting to the Haldia port are patchy and heavily congested.
- Port infrastructure at Haldia Port is obsolete and unable to cater to the EXIM business needs.
- Many exporters route their cargo via Mundra Port instead of Kolkata Port which increases the overall logistics cost exorbitantly, ultimately rendering the products/ cargo uncompetitive.

Regulatory and operating environment

- The new Motor Vehicle policy has not been implemented by the West Bengal Government, which confuses many drivers while transiting the State. This also leads to harassment of drivers by RTO/ Police officials.
- States' Coastal Shipping Policy is very cumbersome and ambiguous to interpret.

Disclaimer: The issues and challenges capture isolated experiences of the stakeholders and continual improvement may already have been in the process addressing the stakeholders' inputs.

Suggestions and recommendations

The State may inspect and investigate the constraints being faced by the industry and may undertake the following measures -

- The State may prepare and formalize a dedicated Logistics Policy.
- The State may further strengthen the institutional mechanism by the constitution of a State and city logistics coordination committee for the integrated development of logistics ecosystem.
- Implementation of digital initiatives to decrease the number of physical checks of commercial vehicles by enforcement officers.
- The State may coordinate with NHAI to inspect and invest in widening, strengthening and maintenance of roads (NH-41 and NH-116) connecting to the Haldia port terminal.
- The State may focus on maximum utilization of Kolkata port for the direct cargo movement to the south-eastern countries.
- The State may implement IT infrastructure for surveillance for monitoring of incidents related to unwarranted stoppage and harassment by RTO/ Police officials.
- The State may also consider strengthening the existing grievance redressal mechanism.
- The State may implement digital or paperless processing of documents relating to coastal shipping movement.

Initiatives undertaken by the State Government

State policy for logistics

- West Bengal Logistics Park Development and Promotion Policy 2018 summarises the policy objectives and State's role in developing Logistics Park
- A dedicated policy for logistics is under preparation
- The State has formulated a Logistics Master Plan (World Bank Master Plan for Kolkata Metropolitan Area)

Institutional mechanism for logistics

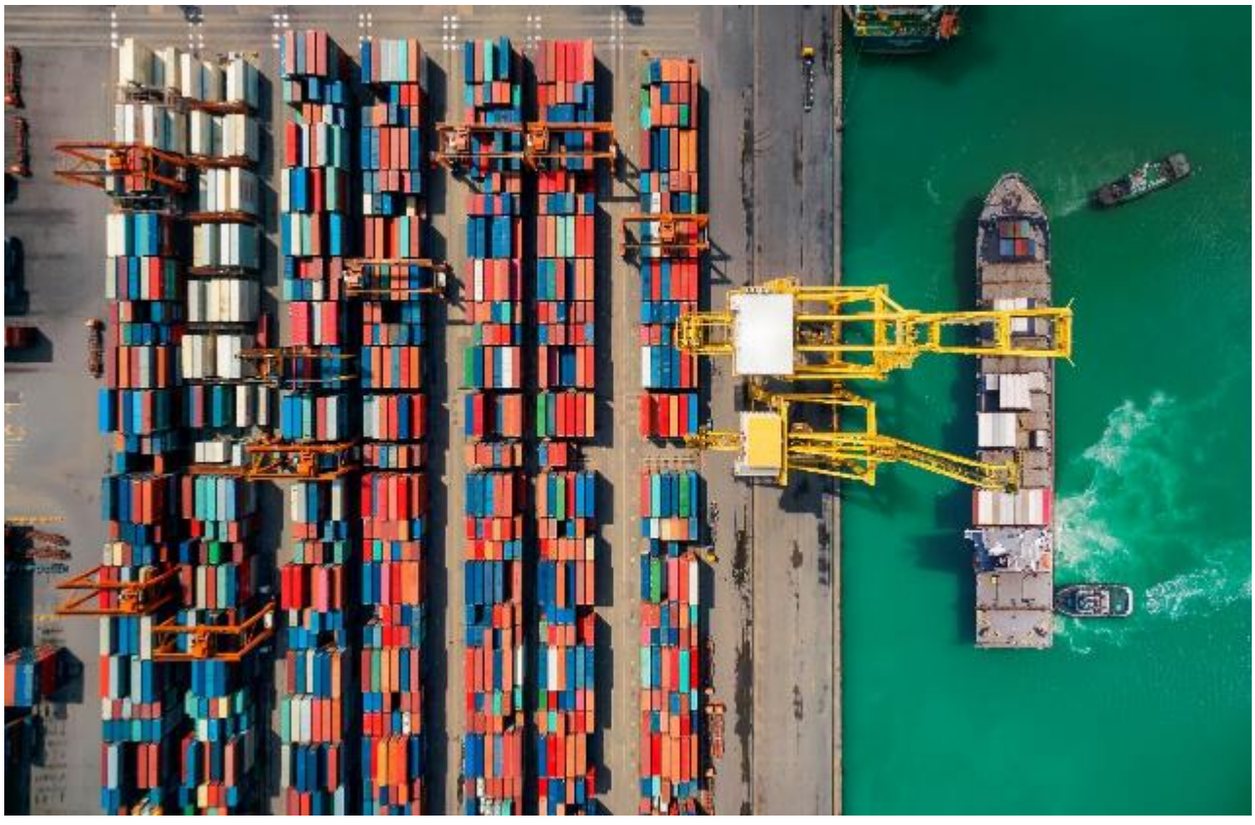
- The State has initiated institutional setup for logistics – appointed nodal officer for logistics and constituted State logistics cell

Investment in logistic Infrastructure – facilitation and Incentivisation

- The State has conducted a detailed study and identified prospective locations for setting up a Logistics Park at Dankuni, Durgapur, Tajpur, Malda City and Siliguri
- Calcutta Goods Transport Association (CGTA) has initiated a transportation hub consisting of truck terminals, warehousing facilities, and other requisite amenities.

Key Initiatives under regulatory Regime

- The State has Silpasathi - Single Window Service, which pertains to approvals and grievance redressal for all industries, including logistics
- The State has launched an enabling training scheme called 'Utkarsh Bangla' for the training of truck drivers and other logistics personnel
- The State is currently evaluating logistics proposals on an objective evaluation framework that includes adopting green building concepts and environmentally sustainable best practices. E.g., Instakart project at Haringhata



Rajasthan

16	2.96	12	3.16
2021 rank	2021 Score	2019 rank	2019 Score

Note: Owing to the change in statistical methodology between 2019 and 2021, a direct rank and score comparison is not recommended.

Rajasthan - a brief logistics profile

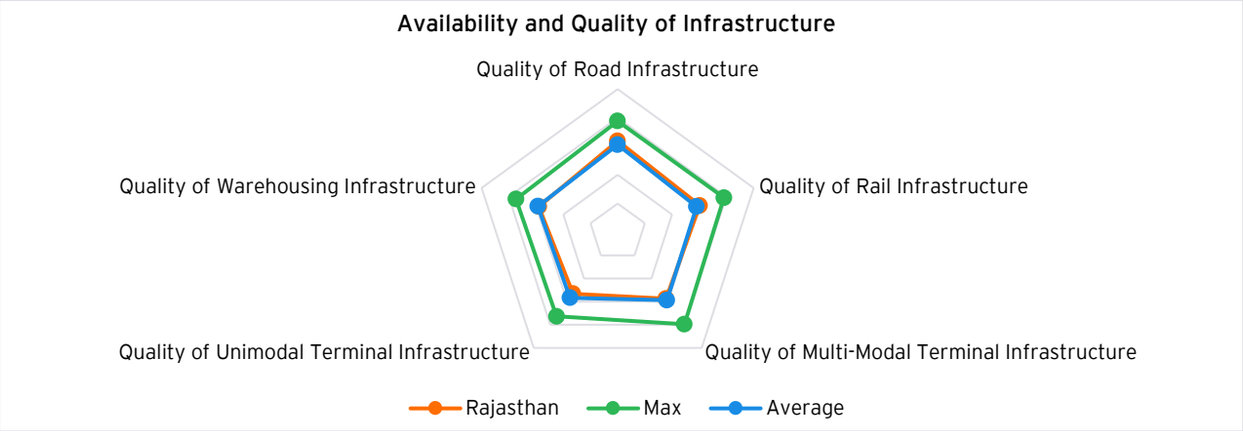
Brief overview of the logistics profile of the State is provided in the exhibit 46 below.

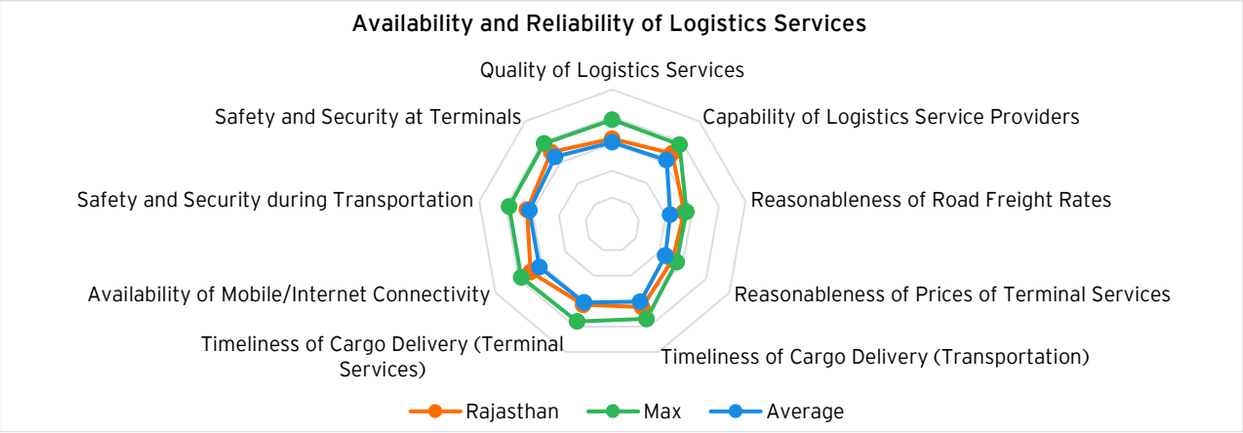
Exhibit 46: brief logistics profile of Rajasthan

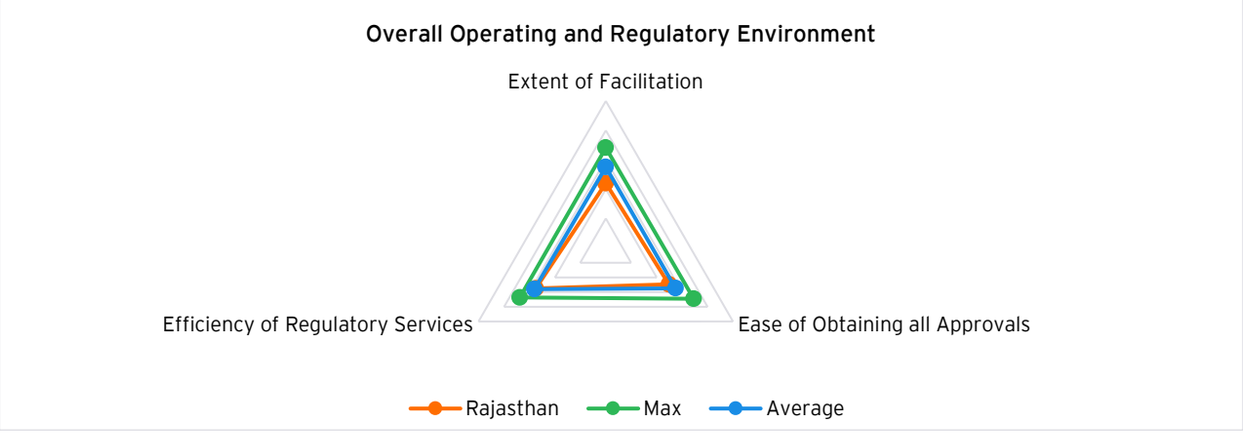
Parameter	Unit	Value	Year	Source
Road length	km	NH=10,350/ SH=15,544	2020-21	MoRTH/NHAI
Railway track	Track-km	9,190	2019-20	MoR
Inland Container Depot (ICD)	nos.	8	2017-18	CBIC
Container Freight Station (CFS)	nos.	2	2017-18	CBIC
Private Freight Terminal (PFT)	nos.	3	2020-21	MoR
Air cargo terminals	nos.	6	2020-21	AAI
Rail goods sheds	nos.	346	2019-20	MoR
WDRA registered warehouse capacity	MT	13,68,903	2019-20	WDRA
Cold storage capacity	MT	6,11,831	2020-21	MoCAF&PD
Logistics training centres	nos.	28	2020-21	MoSDE
No. of individuals trained in logistics	nos.	2,364	2020-21	MoSDE

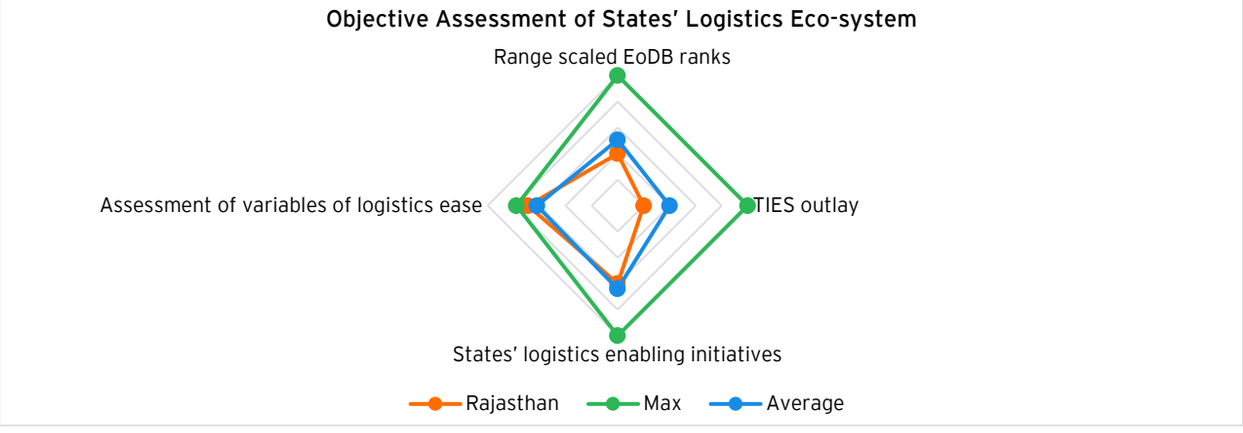
Rajasthan has the second highest warehousing capacity in the country with a share of 10.32%. The State also ranks second in having highest numbers of registered GCVs drivers with 21% of overall share

Exhibit 47: States' LEADS indicator score and ranking









Note: It is important to check the confidence interval (CI) of a States' indicator scores before making any judgement on its performance.

Rajasthan is ranked 16th in 2021 index compared to 12th in 2019 index i.e., a drop of four places. At an overall level, Rajasthan has scored lower than the composite average for most of the indicators. Specifically, the State has witnessed a low score in three indicators related to Operating and Regulatory Environment. The lax regulatory and operating environment has also been highlighted by the trade, for instance, in the significant challenge of hindrances created by RTO in smooth movement of goods. Unscheduled stoppages due to RTOs lead to delays in the movement of cargo in the State which is reflected in the relatively low scores related to Timeliness of Cargo Delivery with respect to Transportation and Terminal Services.

Lack of infrastructure, such as availability of only two ICDs in Rajasthan, has also been viewed by the industry as a major hurdle in the growth of the sector. Stakeholders have highlighted that a large quantum of domestic cargo moves by road as there are not sufficient terminals to handle rail traffic. The indicator scores related to the Availability and Quality of Infrastructure are low supporting the view of the logistics stakeholders. State has scored low on freight rates and prices of terminal services as well.

Keeping in view the significant challenges faced by the logistics sector across several elements the State has put in place an investment promotion policy to attract investment in the development of logistics infrastructure such as multi-modal logistics hubs and logistics parks. The State has also appointed a Nodal officer for development of logistics sector. However, many things are still left to be desired for enabling logistics such as strengthening of the institutional mechanism for logistics by constituting State and city level logistics cell and launching the State logistics policy and master plan.

Issues and Challenges as narrated by industry stakeholders

Infrastructure

- Bulk cargo moves through road due to lack of sufficient terminal and rail infrastructure.
- ICD infrastructure is limited to Jaipur and Jodhpur; other major cargo clusters, including Bhilwara and Udaipur, are devoid of requisite infrastructure.
- The condition of freight routes is poor, making it difficult for movement of heavy cargo.

Services

- The availability of trucks and their tariff is very fluctuating
- High transit cost for carriage of minerals by road.

Regulatory and Operating Environment

- The Participating Government Agencies are lacking testing labs, causing delays in the issue of quality certificates.
- Heavy fines are levied on overweight containers and 40" high cube containers.

Disclaimer: The issues and challenges capture isolated experiences of the stakeholders and continual improvement may already have been in the process addressing the stakeholders' inputs.

Suggestions and recommendations

The State may inspect and investigate the constraints being faced by the industry and may undertake the following measures -

- State may prioritise implementation of digital initiatives to decrease the number of physical checks of commercial vehicles by enforcement officers.
- Consultation with trucking association for resolving the issues around availability of trucks.
- Implementation of tracking and tracing mechanism between ICD in Rajasthan to gateway ports to improve cargo visibility enroute.
- The States Government may facilitate regular interactions with Industries to rationalize the cost of transportation and thereby increase their business competitiveness.

- State may examine the scope of setting up additional ICD infrastructure through speedy provisions, permits and clearances.
- Participating Government Agencies may set up testing centers in the State to avoid cargo delays due to dependency on Delhi for testing infrastructure.
- The State may work on Preparation of State Logistics Policy for providing regulatory support, guidelines, requisite approvals, incentives, and clearances for the logistics sector.
- The focus may be kept on strengthening of the institutional mechanism by setting up a State logistics cell and city logistics coordination committee for the integrated development of logistics ecosystem.

Madhya Pradesh

2021 rank	2021 Score	2019 rank	2019 Score
17	2.90	9	3.21

Note: Owing to the change in statistical methodology between 2019 and 2021, a direct rank and score comparison is not recommended.

Madhya Pradesh - a brief logistics profile

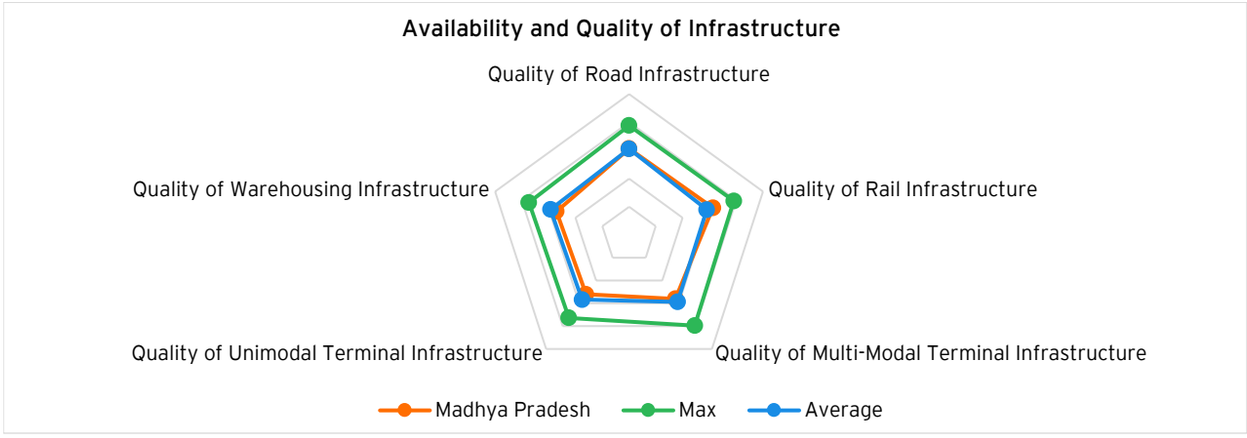
Brief overview of the logistics profile of the State is provided in the exhibit 48 below.

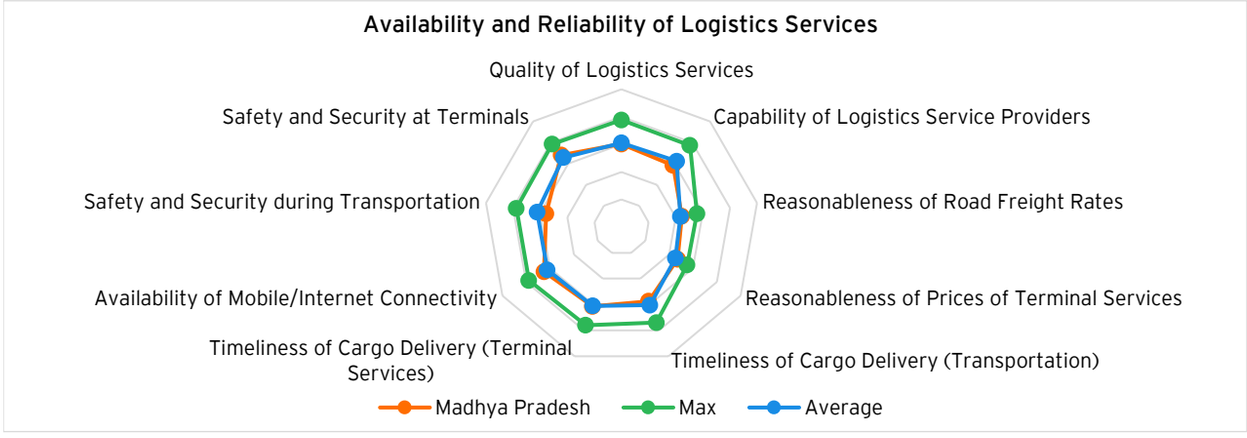
Exhibit 48: Brief logistics profile of Madhya Pradesh

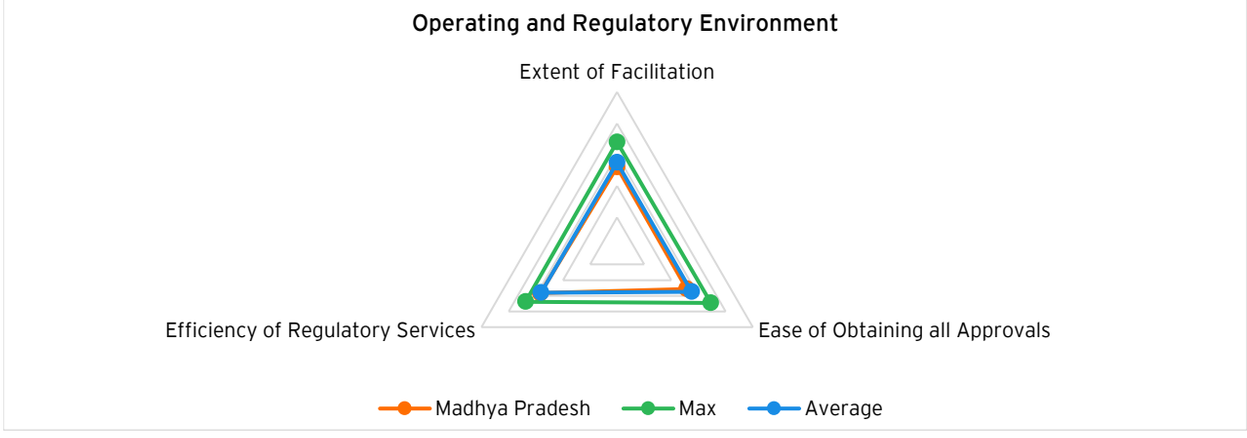
Parameter	Unit	Value	Year	Source
Road length	km	NH=8,940/ SH=11,389	2020-21	MoRTH/ NHAI
Railway track	Track-km	9,702	2019-20	MoR
Inland Container Depot (ICD)	nos.	8	2017-18	CBIC
Private Freight Terminal (PFT)	nos.	5	2020-21	MoR
Air cargo terminals	nos.	5	2020-21	AAI
Rail goods sheds	nos.	425	2019-20	MoR
WDRA registered warehouse capacity	MT	29,99,849	2019-20	WDRA
Cold storage capacity	MT	12,93,574	2020-21	MoCAF&PD
Logistics training centres	nos.	34	2020-21	MoSDE
No. of individuals trained in logistics	nos.	3,854	2020-21	MoSDE

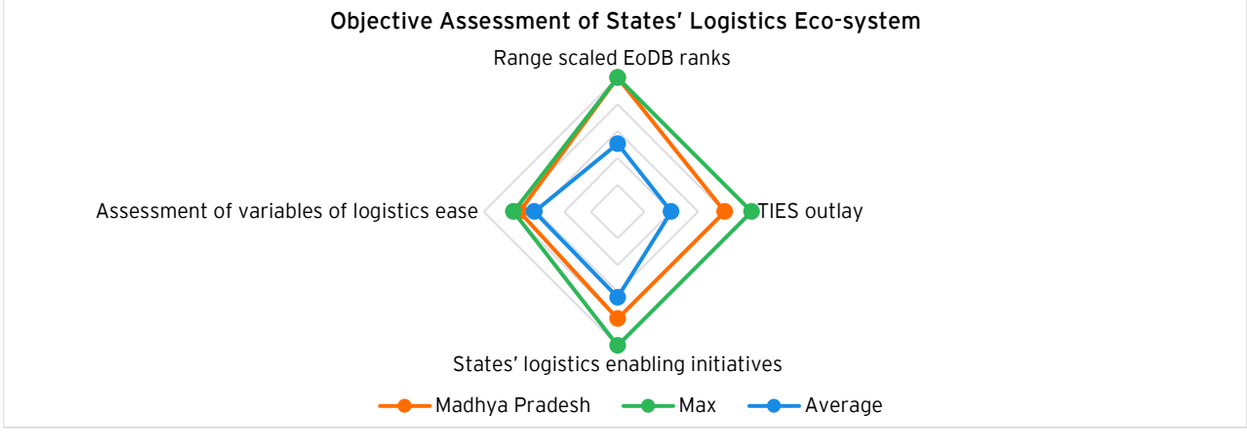
The State has the largest warehousing capacity with a share of 22.62% with second highest number of WDRA registered warehouses (372)

Exhibit 49: States' LEADS score and ranking









Note: It is important to check the confidence interval (CI) of a States' indicator scores before making any judgement on its performance.

Madhya Pradesh is ranked 17th in 2021 index compared to 9th in 2019 index i.e., a drop of eight places. The State has underperformed across majority of the indicators of the Index. Indicators score on overall satisfaction on the Operating and Regulatory Environment of the State is below average and industry interactions also validate this fact by talking about an extremely unhealthy transportation environment. Transport unions, RTOs and police hurdles are key regulatory challenges faced by the sector. This has resulted in an increase in transportation cost due to the indirect costs associated with an unsatisfactory regulatory and operating environment. The State has also scored the lowest on Reasonableness of Road Freight Rates indicator which also substantiates the high cost of transportation faced by the sector.

The State has scored almost 10% below the composite average of the indicator score related to Safety and Security during Transportation. The same is reflected in the industry voice highlighting that the State highways are prone to theft and pilferage (e.g., the State highway stretch near Hoshangabad).

Existing old logistics infrastructure like goods sheds and warehouses within city limits has led to congestion and increased pollution in the State. The State has scored low on the two indicators related to logistics infrastructure, i.e., Quality of Multi-modal Terminal Infrastructure and Warehousing Infrastructure.

Low score in Capability of Logistics Service Providers indicates that the available infrastructure may be used inefficiently due to competency issues with the logistics service providers. The State has started to take proactive steps towards enabling the logistics sector. The State's Industrial Promotion Policy incentivises development of logistics hubs/ parks, food processing units and largescale industries by providing special financial assistance. Keeping pace with logistics sector demand for quality terminal infrastructure, a new State air cargo terminal has been made operational recently in Indore.

Issues and challenges as narrated by industry stakeholders

Infrastructure

- The State road between Indore and Mandideep, especially on SH-22, has a lot of potholes despite consecutive recarpeting.
- Inadequate lighting at ICD Pegasus increases the chances of thefts at the station.
- Inadequate rail connectivity to gateway ports of JNPT and Mundra.

Services

- The cost of movement and repositioning containers from JNPT to Mandideep and Govindpura is very high, adding to the overall logistics cost, making exports from State less competitive as compared to the neighboring States of Maharashtra and Gujarat.
- Lack of financial support from banks for supporting capital expenditure required for expansion of cold storage infrastructure in the State.

Regulatory and Operating Environment

- Truck unions are active in the State, causing problem in truck availability and leading to higher trucking charges. Such practices discourage international buyers from providing big orders to local traders due to added logistics cost.
- Undue cargo checking and stoppages by State police cause harassment to the trader and delays in cargo delivery. Due to this, most of the interstate traffic from North India bypasses the State en-route Gujarat Ports.
- Transparency at RTO authority in the State is a severe issue.
- Road stretch leading to the terminal at Hoshangabad is prone to theft and pilferage.

Disclaimer: The issues and challenges capture isolated experiences of the stakeholders and continual improvement may already have been in the process addressing the stakeholders' inputs.

Suggestions and recommendations

The State may inspect and investigate the constraints being faced by the industry and may undertake the following measures -

- State may strengthen the institutional mechanism by setting up a city logistics coordination committee to streamline city logistics.
- State may consider digital initiatives measures to decrease the number of physical checks of commercial vehicles by enforcement officers.
- State may implement IT infrastructure for surveillance for monitoring on crucial freight routes and terminals viz. Hoshangabad terminal, to avoid cargo theft and enabling safety and security of cargo during transit by road.
- State may indulge in facilitation of regular interactions between the industry associations, transport unions to jointly address issues of unionization being faced by the industry.
- State may develop an online system to enable the application of permits for commercial vehicles with functionality to track the status of approvals for better transparency in RTO dealings.
- State may discuss with local shipping companies to bring down the cost associated with repositioning of containers from JNPT to Mandideep and Govindpur.
- State may facilitate swift allotment of land for the development of MMLPs/ facilities in the State.
- State may coordinate with MoR to improve rail connectivity to gateway ports and ensure rake availability.

Initiatives undertaken by the State Government

State Policy for logistics

- Industrial Promotion Policy 2014 (amended as of October 2019) facilitates the logistics sector by granting special financial assistance
- The Logistics Policy and Logistics Master Plan of the State is under preparation
- To enable environment-friendly last-mile freight movement, the State has notified the Madhya Pradesh Electric Vehicle Policy 2019, which incentivizes three-wheeler electric goods carriers' vehicles (GCVs)

Institutional mechanism for logistics implementation

- The State has initiated the institutional setup for logistics – appointed nodal officer for logistics, established a State logistics cell

Investment in logistic infrastructure – facilitation and incentivization

- The State is planning to establish logistics parks at Gwalior, Ratlam and Katni
- The State has numerous polytechnics (114) and ITIs (415), and other vocational training institutes to ensure the availability of skilled manpower across various sectors in different regions of the State

Key initiatives under the regulatory regime

- To support hassle-free clearance for all industrial investments, the State has a single-window clearance mechanism

Goa

2021 rank	2021 Score	2019 rank	2019 Score
18	2.84	21	2.78

Note: Owing to the change in statistical methodology between 2019 and 2021, a direct rank and score comparison is not recommended.

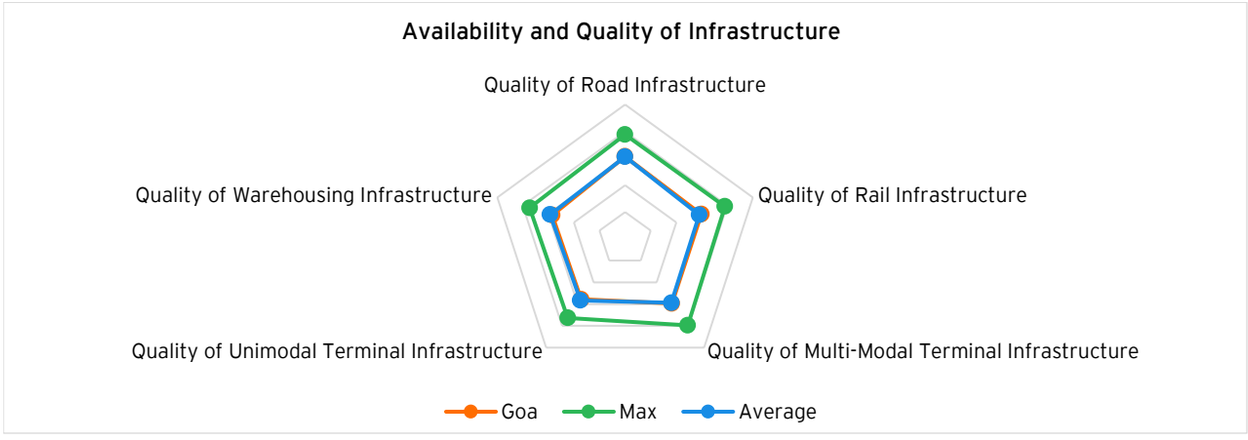
Goa - a brief logistics profile

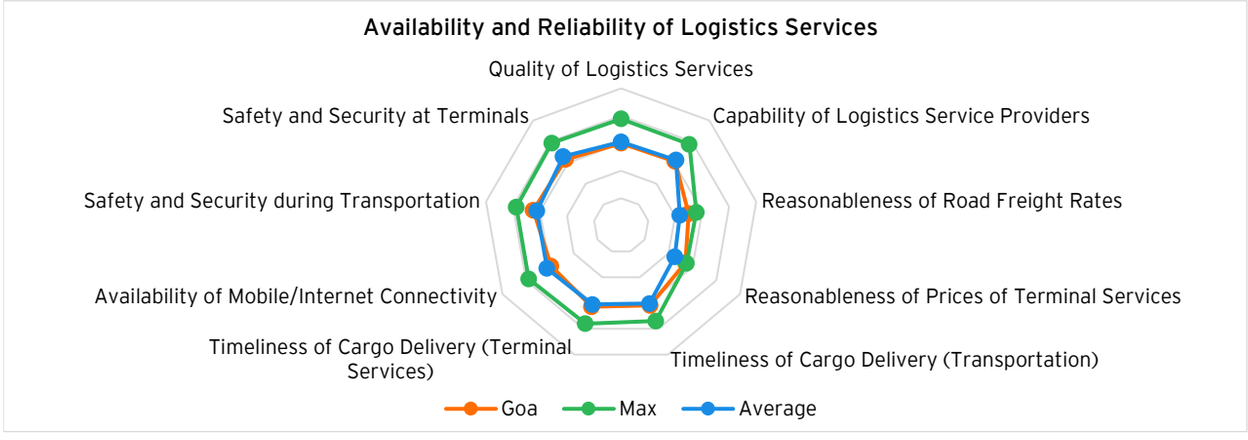
Brief overview of the logistics profile of the State is provided in the exhibit 50 below.

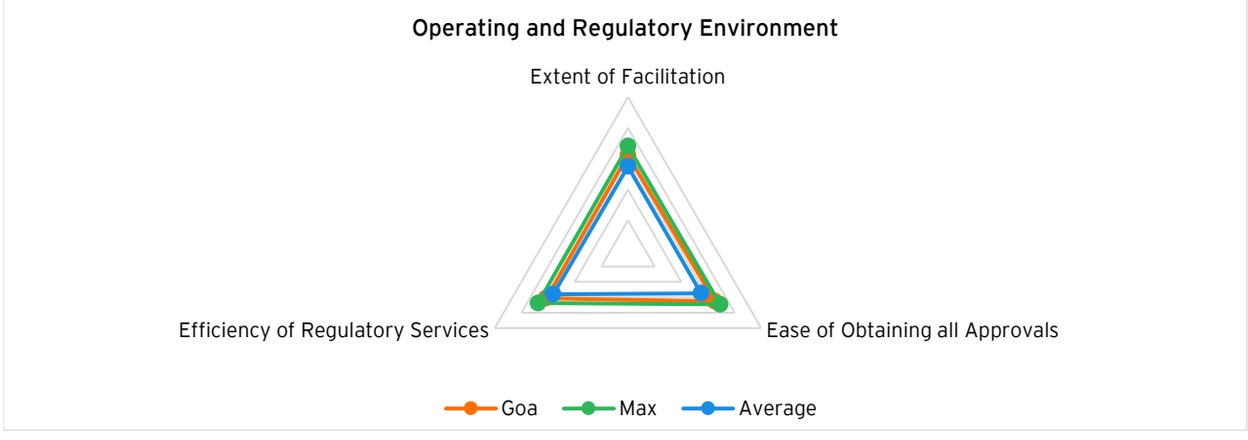
Exhibit 50: brief logistics profile of Goa

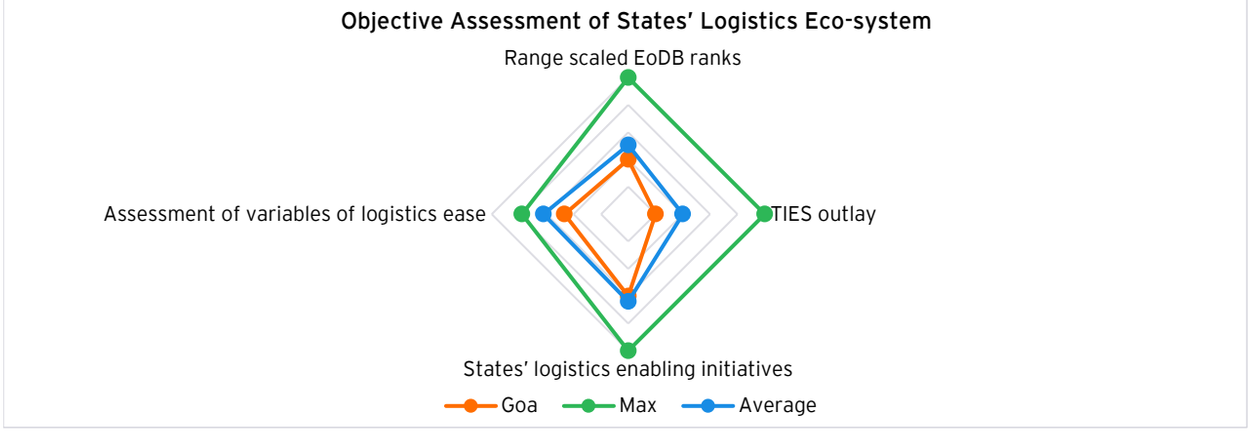
Parameter	Unit	Value	Year	Source
Road length	km	NH=299 / SH=232	2020-21	MoRTH/NHAI
Railway track	Track-km	111	2019-20	MoR
Container Freight Station (CFS)	nos.	1	2017-18	CBIC
Air cargo terminals	nos.	1	2020-21	AAI
Rail goods sheds	nos.	19	2019-20	MoR
WDRA registered warehouse capacity	MT	12,902	2019-20	WDRA
Cold storage capacity	MT	7,705	2020-21	MoCAF&PD
Port traffic	MT	2,20,00,000	2020-21	MoPSW
Registered Goods Commercial Vehicles (GCVs)	nos.	1,287	2020-21	MoRTH
Registered drivers of GCVs	nos.	1,123	2020-21	MoRTH

Exhibit 51: States' LEADS indicator score and ranking









Note: It is important to check the confidence interval (CI) of a States' indicator scores before making any judgement on its performance.

Goa is ranked 18th in 2021 index compared to 21st in 2019 index i.e., an increase of three places. State has scored relatively low under the Availability and Quality of Infrastructure, especially road, rail, and terminal infrastructure.

State needs to improve its road connectivity infrastructure such as Kochi-Mangalore-Goa (NH-17) and stretch from Ramnagar to Anmod near Goa check post. State has a low score in the indicators Reasonableness of Road Freight Rates and Prices of Terminal Services indicators. This is reflected in the high transportation cost as has also been echoed by the industry.

To mitigate the challenges faced by the logistics sector, the State has taken proactive steps such as granting industry status to logistics sector. State is also planning to launch a State policy by the coming year.

Issues and challenges as narrated by industry stakeholders

Infrastructure

- Road stretch Kochi-Mangalore-Goa (NH-17) is not in a good condition.
- The roads leading from Hubli to Goa requires repairs, especially the stretch between Ramnagar to Anmod near Goa check post.

Services

- Feeder Vessel frequency for exports movement is sporadic
- Exporters feel that cost of transportation from Karnataka to Goa is higher than transporting it to JNPT. This results in increase of the logistics cost, thereby making the marine products uncompetitive.
- Non-availability of scheduled rail connectivity for container movement from Goa to JNPT.

Regulatory

- Need for adequate access to ICEGATE service centres for freight forwarders from Goa

Disclaimer: The issues and challenges capture isolated experiences of the stakeholders and continual improvement may already have been in the process addressing the stakeholders' inputs.

Suggestions and recommendations

The State may inspect and investigate the constraints being faced by the industry and may undertake the following measures -

- Prepare and formalize a comprehensive Logistics Policy at the State level to provide regulatory support, guidelines, requisite approvals, incentives, and clearances for the logistics sector.
- Strengthen institutional mechanisms by setting up a city logistics coordination committee to streamline city logistics.
- The road leading from Hubli to Goa, especially the road stretch between Ramnagar to Anmod near Goa check post may be repaired and recarpeted.
- State may coordinate with NHAI to inspect and invest in widening, strengthening, and maintaining NH-17 connecting Kochi-Mangalore-Goa.
- State in consultation with MoR and CONCOR may consider improving the connectivity between Goa and Nhava Sheva to move EXIM containers.
- State may request Customs to set up ICEGATE service centers in the State to facilitate ease of documentation for EXIM stakeholders.
- State in consultation with MoR and CONCOR to improve the connectivity between Goa and Nhava Sheva to move EXIM containers.
- State to request Customs to set up ICEGATE service centers in the State to facilitate ease of documentation for EXIM stakeholders.

Initiatives undertaken by the State Government

State policy for logistics

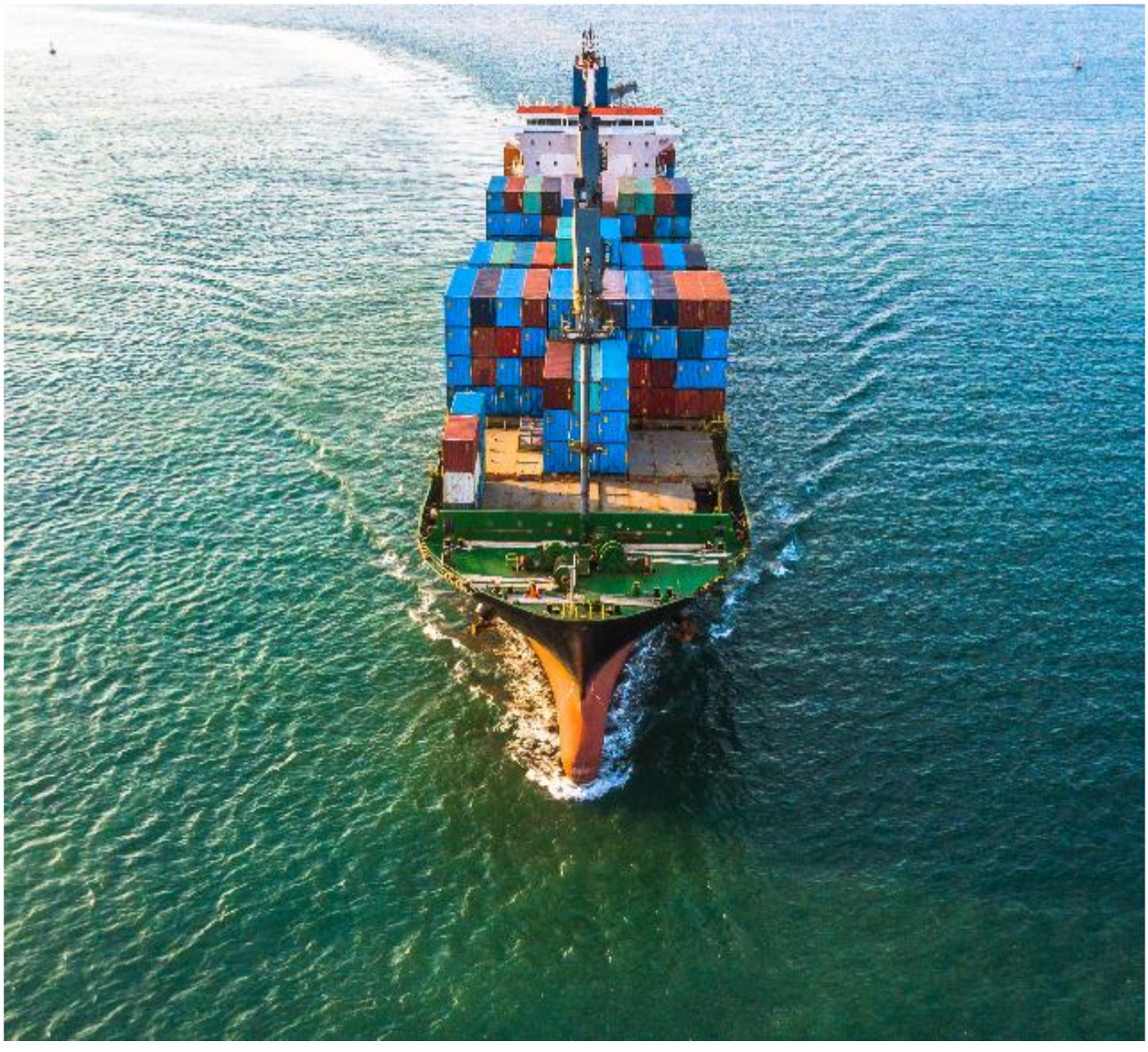
- The Logistics Policy and Logistics Master Plan of the State is under preparation.
- Goa Export strategy 2018 prepared by the State, highlights the aspects for improvement with regards to infrastructure and regulatory issues.

Institutional mechanism for logistics implementation

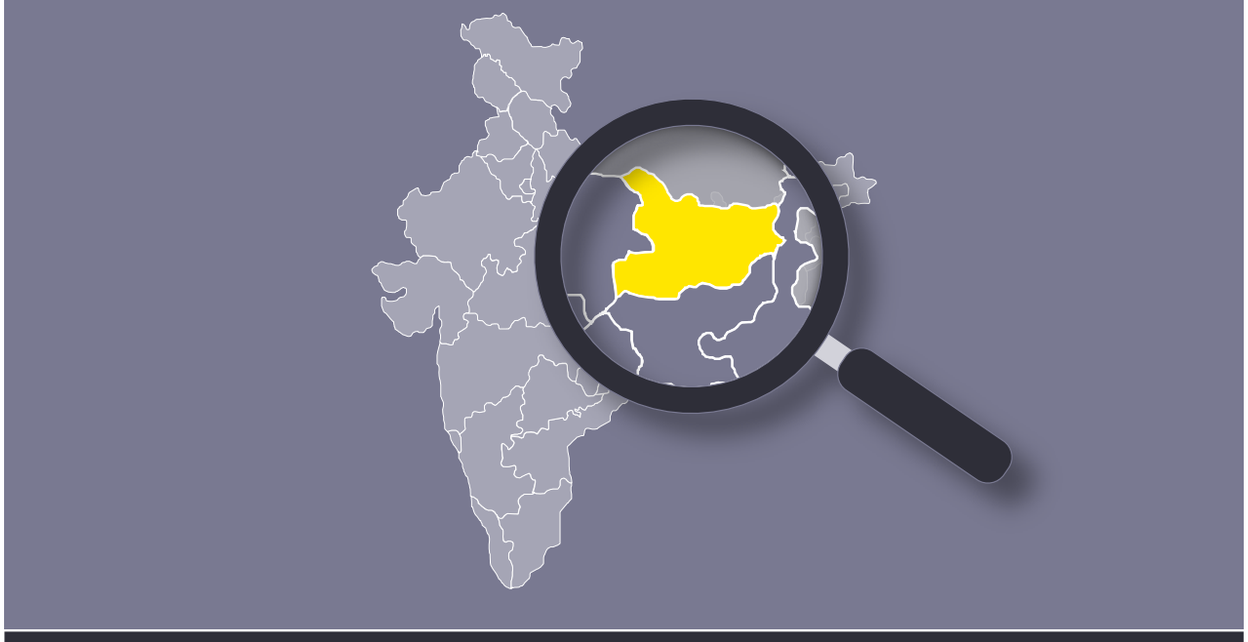
- The State has a robust institutional setup for logistics – Nodal officer for logistics has been appointed, State logistics cell, as well as State Logistics Co-ordination Committee, has been constituted.

Key initiatives under the regulatory regime

- The State has the single-window mechanism for hassle-free processing of approvals for setting-up logistics facilities.



Bihar



19	2.77	20	2.85
2021 rank	2021 Score	2019 rank	2019 Score

Note: Owing to the change in statistical methodology between 2019 and 2021, a direct rank and score comparison is not recommended.

Bihar – a brief logistics profile

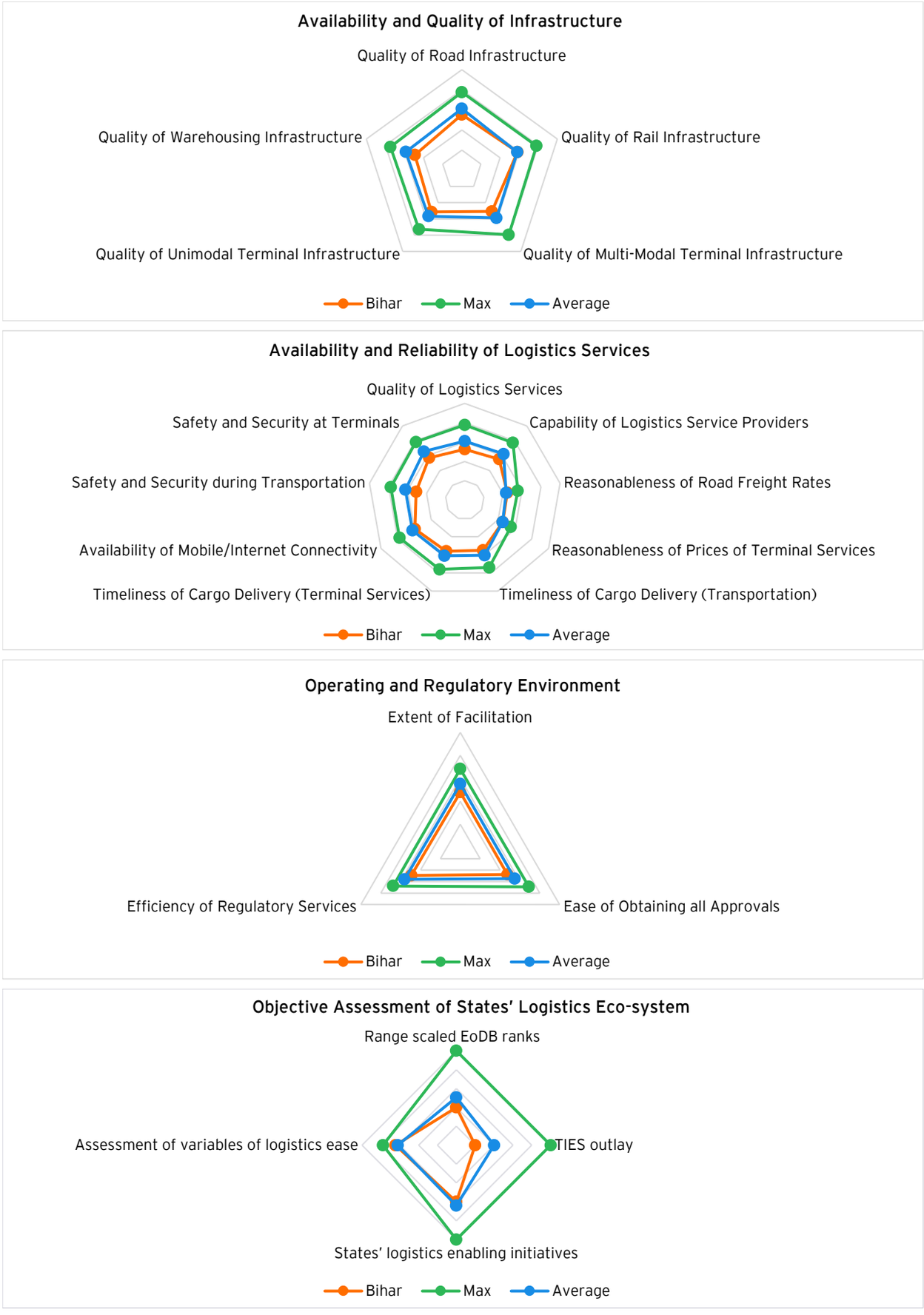
Brief overview of the logistics profile of the State is provided in the exhibit 52 below.

Exhibit 52: Brief logistics profile of Bihar

Parameter	Unit	Value	Year	Source
Road length	km	NH=5,421/ SH=3,739	2020-21	MoRTH/NHAI
Railway track	Track-km	7,663	2019-20	MoR
Inland Container Depot (ICD)	nos.	1	2017-18	CBIC
Private Freight Terminal (PFT)	nos.	1	2020-21	MoR
Integrated Check Post (ICP)	nos.	2	2020-21	LPAI
Air cargo terminals	nos.	2	2020-21	AAI
Rail goods sheds	nos.	266	2019-20	MoR
WDRA registered warehouse capacity	MT	2,15,089	2019-20	WDRA
Cold storage capacity	MT	14,79,122	2020-21	MoCAF&PD
Registered Goods Commercial Vehicles (GCVs)	nos.	13,591	2020-21	MoRTH
Registered drivers of GCVs	nos.	6,908	2020-21	MoRTH
Logistics training centres	nos.	23	2020-21	MoSDE
No. of individuals trained in logistics	nos.	2,197	2020-21	MoSDE

The State ranks fifth in training highest nos. of individual in logistics sector with maximum training centers

Exhibit 53: States' LEADS indicator score and ranking



Note: It is important to check the confidence interval (CI) of a States' indicator scores before making any judgement on its performance.

Bihar is ranked 19th in 2021 index compared to 20th in 2019 index i.e., an increase of one place. State has scored poorly in all the indicators related to three dimensions of Infrastructure, Services, and Operating and Regulatory Environment. The drop of two places is due to the decline in connectivity and terminal infrastructure, regulatory issues, and incomplete institutional setup. Industry interactions have revealed the poor connectivity between north and south Bihar leading to delays in cargo delivery and increased cost of transportation.

When compared to the composite average for the indicators, the State has got the lowest score in Availability and Reliability of Logistics Services indicators. This is due to the logistics sector facing hurdles of insufficient terminal infrastructure, a challenging law and order situation reflecting in thefts/pilferage across key freight routes at inter-State border/check posts.

The State has a long way to go to improve its logistics sector. A few proactive steps have been taken by the State in the right direction by appointing a Nodal officer and setting up State logistics cell and coordination committee. State has also plans to develop the infrastructure which is evident in 03 rail-cum-road bridges planned for intra-State connectivity. To augment availability of skilled manpower for logistics sector, State has introduced courses on logistics under Bihar Skill development mission. These are important initiatives which, if implemented properly, are likely to result in improved efficiency in the State's logistics ecosystem.

Issues and challenges as narrated by industry stakeholders

Infrastructure

- The bridge connecting North and South Bihar, Koilwar bridge is in poor condition. Rajendra Setu, is also closed for heavy vehicles due to the same condition. Gandhi Setu in Patna has only one side of the road open for two-way traffic. Both commercial and private vehicles use this bridge, and congestion adds to the transit time for both cargo and passengers.
- The terminal on National Waterways 1 in Bihar needs upgradation/ mechanization.

Services

- Muzaffarpur State highway is prone to theft during transit and causes loss of high-value goods during transit.

Regulatory and operating environment

- There is no warehouse specific policy and obtaining permissions for development of a warehouse is cumbersome and time-consuming. There is no dedicated single window mechanism for the application and processing of such permissions.
- Unwarranted stoppages and checking of commercial vehicles by the RTO pose a significant issue to commercial fleet owners. Commercial vehicles with requisite documentation are stopped by enforcement officials on a frequent basis. Such unscheduled stoppages add to the overall transit time.

Disclaimer: The issues and challenges capture isolated experiences of the stakeholders and continual improvement may already have been in the process addressing the stakeholders' inputs.

Suggestions and recommendations

The State may inspect and investigate the constraints being faced by the industry and may undertake the following measures -

- State Logistics Policy may be formulated by the State, to provide regulatory support, guidelines, requisite approvals, incentives, and clearances for the logistics sector.
- Creation of new logistics infrastructure such as Inland Container Depots, the State may incorporate provision for giving incentives and tax breaks to infrastructure developers, in the State Logistics Policy.
- Strengthening its institutional mechanism by setting up a city logistics coordination committee to streamline city logistics.

- Implementing IT infrastructure for surveillance along routes leading to Muzaffarpur to tackle theft during transit.
- Implementation of a Single Window System for expediting clearance of approvals for construction of warehouses and logistics infrastructure projects.
- To prevent unauthorized stoppage of trucks on the road, the State may implement digital initiatives.
- Examining and streamline process of issuing new licenses/license renewals using digital interventions.
- Widening of roads to enable smooth movement of freight across States.
- Investing in improving connectivity between North and South Bihar by strengthening and widening of existing bridges or and roads.
- Construction of terminal infrastructure along National Waterways 1, the State may coordinate with IWAI to speed up the process.
- Coordinate with CONCOR to take up the modernization of the existing container terminal near Patna.

Initiatives undertaken by the State Government

State policy for logistics

- The Logistics Policy and Logistics Masterplan of the State is under preparation.

Institutional mechanism for logistics implementation

- To enable and support the logistics eco-system, the State has a robust institutional mechanism - appointed a Nodal Office for logistics and set up State Logistics Cell and State Logistics Coordination Committee.

Himachal Pradesh

2021 rank	2021 Score	2019 rank	2019 Score
20	2.75	22	2.72

Note: Owing to the change in statistical methodology between 2019 and 2021, a direct rank and score comparison is not recommended.

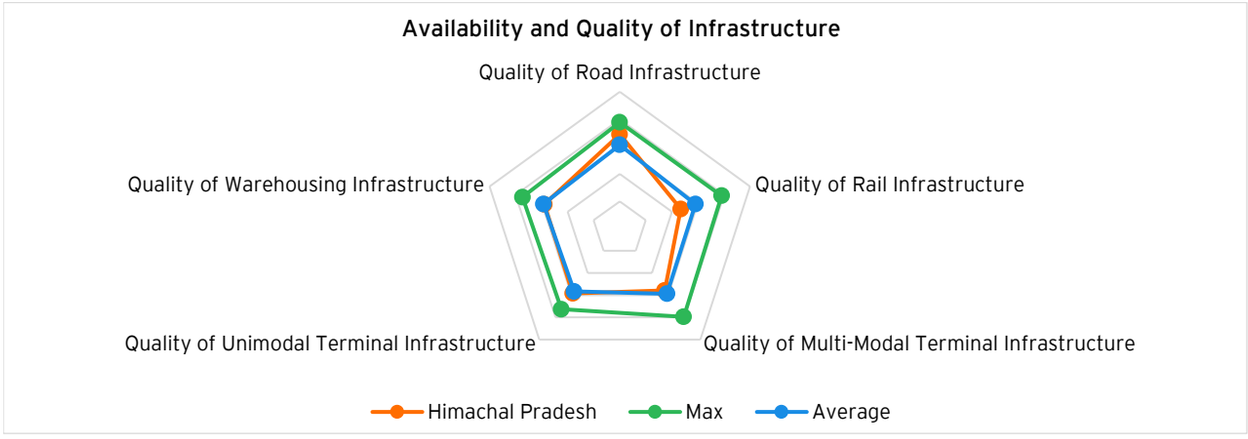
Himachal Pradesh - a brief logistics profile

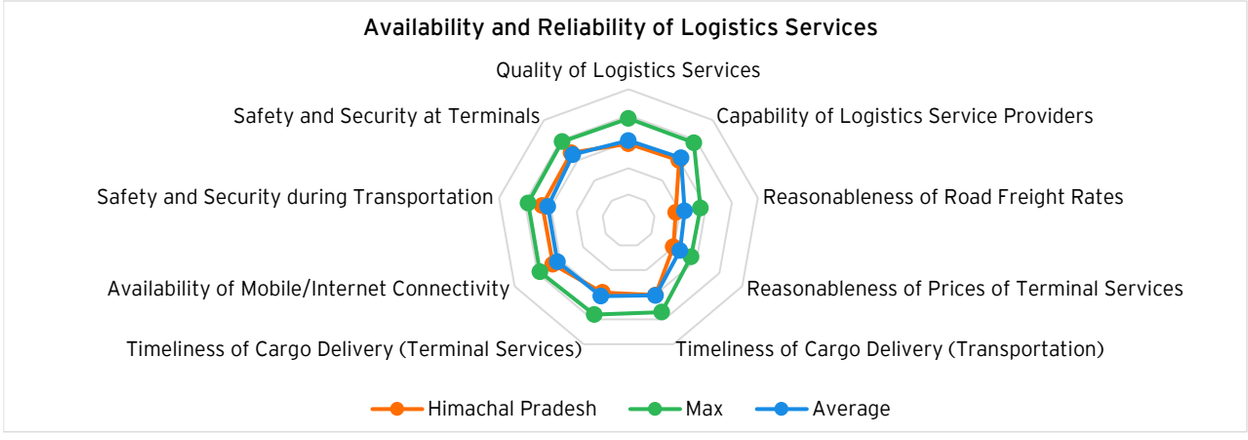
Brief overview of the logistics profile of the State is provided in the exhibit 54 below.

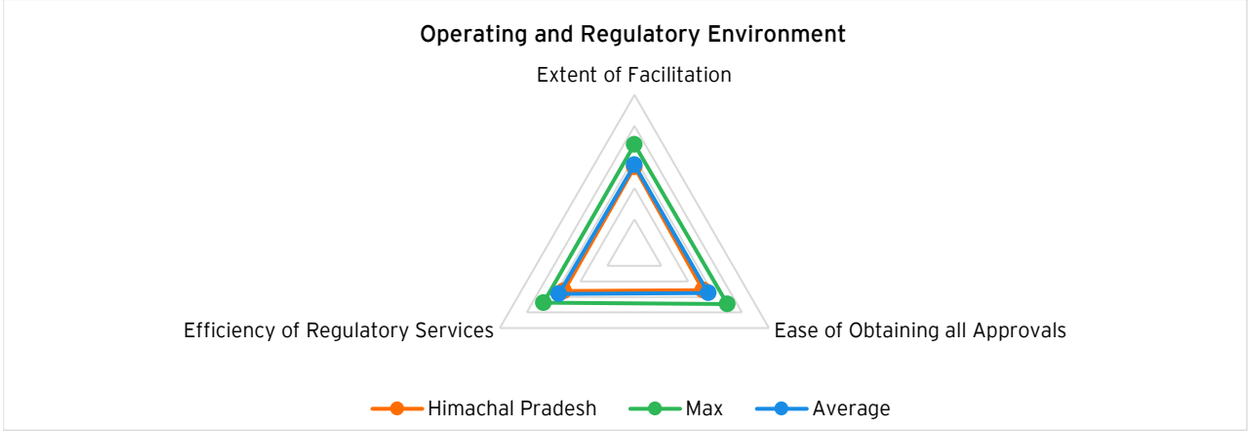
Exhibit 54: Brief logistics profile of Himachal Pradesh

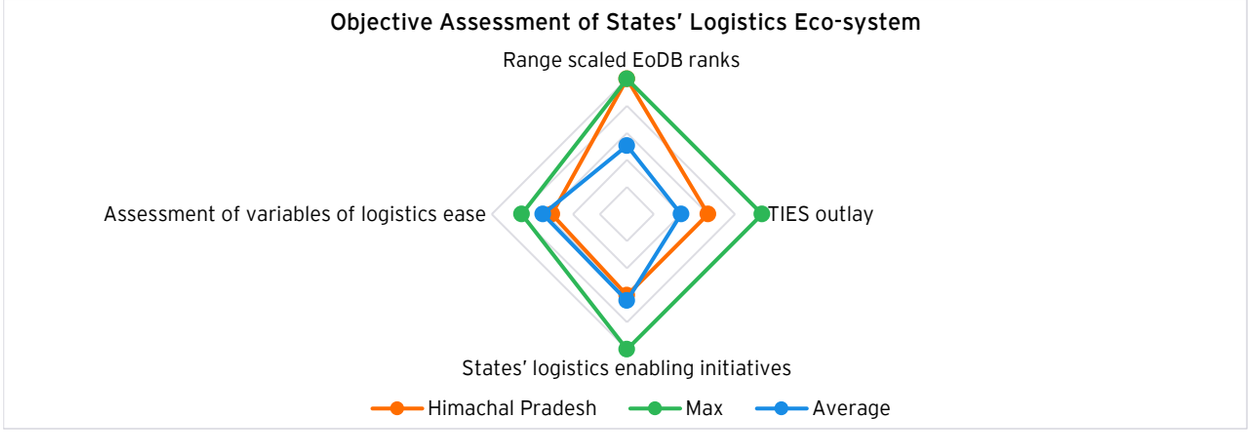
Parameter	Unit	Value	Year	Source
Road length	km	NH=2,607	2020-21	MoRTH/NHAI
Railway track	Track-km	376	2019-20	MoR
Inland Container Depot (ICD)	nos.	1	2017-18	CBIC
Air cargo terminals	nos.	3	2020-21	AAI
Rail goods sheds	nos.	9	2019-20	MoR
WDRA registered warehouse capacity	MT	8,850	2019-20	WDRA
Cold storage capacity	MT	1,46,769	2020-21	MoCAF&PD
Logistics training centres	nos.	10	2020-21	MoSDE
No. of individuals trained in logistics	nos.	1,215	2020-21	MoSDE

Exhibit 55: States' LEADS indicator score and ranking









Note: It is important to check the confidence interval (CI) of a States' indicator scores before making any judgement on its' performance.

The State is ranked 20th in 2021 index compared to 22nd in 2019 index i.e., an increase of two places. Industry interactions have revealed that road and rail infrastructure are still lagging, and State needs to have a proactive approach in providing rail and road connectivity to the logistics stakeholders.

The State logistics sector is also plagued by inefficiencies related to unionization by truck unions. This increases cost of transportation which is reflected in the low score of the State in the indicator Reasonableness of Road Freight Rates and Prices of Terminal Services.

The State has made some efforts to improve the logistics ecosystem by setting up a basic institutional framework. State has developed a dedicated policy for training drivers as well as other logistics personnel to boost skilling in the sector. Steps such as enabling single window mechanism for regulatory clearances, plans to develop Transport Nagars and installation of logistics supporting infrastructure should work in favour of the State in the future.

Issues and challenges as narrated by industry stakeholders

Infrastructure

- The Baddi-Nalagarh highway is a major chock point due to lack of adequate road connectivity.
- ICD at Baddi lacks rail connectivity.

Service

- The road freight charges charged by the local transporters for first and last-mile connectivity is high and adds to the overall logistics cost.
- There is lack of different sized trucks for over-dimensional and project cargo.
- The State levies an entry tax on non-Himachal vehicles which makes road transportation costly.

Regulatory and Operating environment

- There is issue in trucking union in the Baddi area using anti-competitive practices, thus increasing the transport cost.

Disclaimer: The issues and challenges capture isolated experiences of the stakeholders and continual improvement may already have been in the process addressing the stakeholders' inputs.

Suggestions and recommendations

The State may inspect and investigate the constraints being faced by the industry and may undertake the following measures -

- Formulating a State Logistics Policy to provide regulatory support, guidelines, incentives for the logistics sector.
- The State may consider implementation of digital initiatives to reduce unwarranted physical checks of commercial vehicles.
- Engage with trucking association to resolve the unionization issue which has been highlighted by the stakeholders.
- Identification of choke points along the Baddi-Nalagarh highway and development as multi-laning of roads may be done.

Initiatives undertaken by the State Government

State Policy for Logistics

- The State presently have an industrial investment policy-2019 which covers infrastructure development.

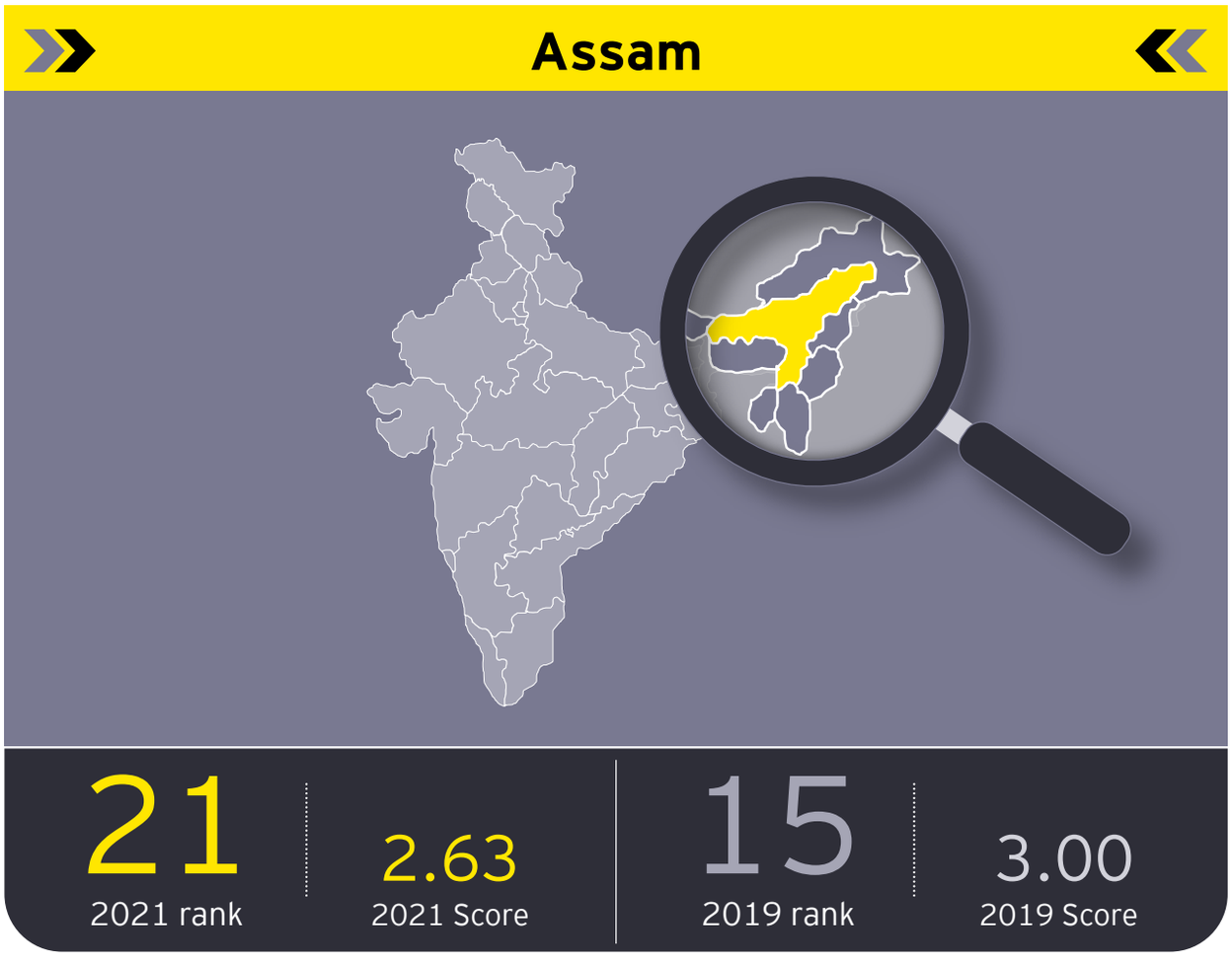
Institutional Mechanism for logistics implementation

- The State has setup a robust institutional mechanism for logistics – appointed nodal officer for logistics, constituted State logistics cell as well as State Logistics Co-ordination Committee

Key initiatives under the Regulatory regime

- The State has set up a single-window clearance system for industrial investments, including logistics under "emerging Himachal" aegis.

Assam



Note: Owing to the change in statistical methodology between 2019 and 2021, a direct rank and score comparison is not recommended.

Assam – a brief logistics profile

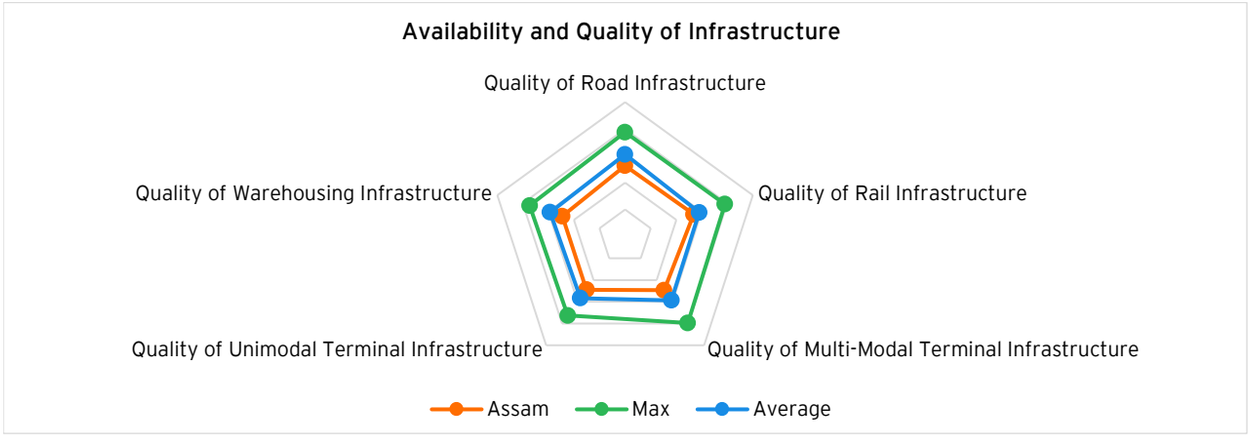
Brief overview of the logistics profile of the State is provided in the exhibit 56 below.

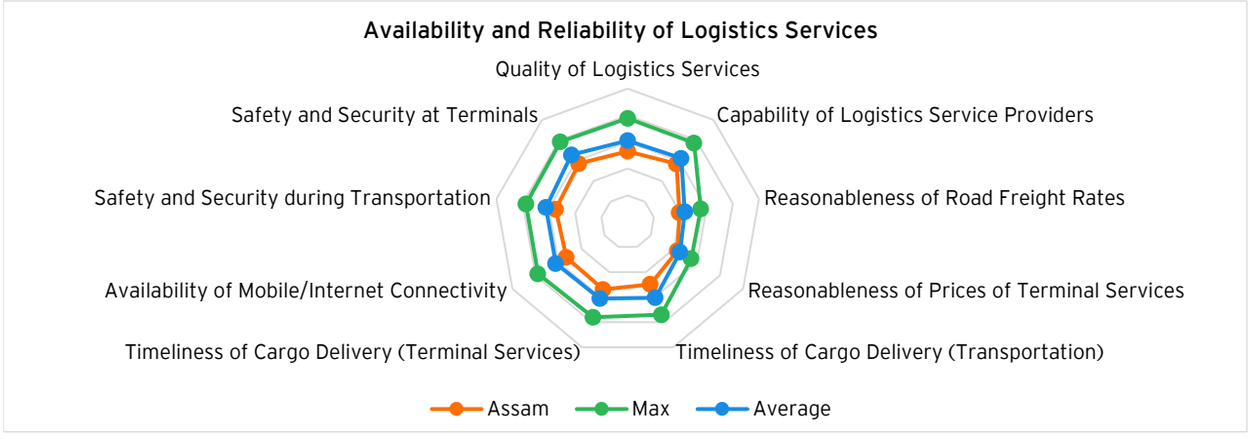
Exhibit 56: Brief logistics profile of Assam

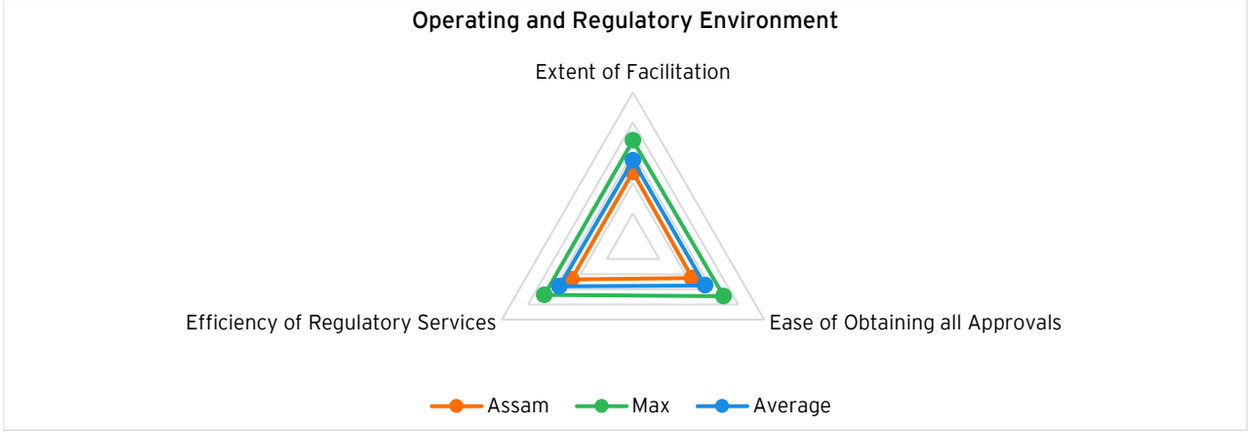
Parameter	Unit	Value	Year	Source
Road length	km	NH=3,936/ SH=3,134	2020-21	MoRTH/NHAI
Railway track	Track-km	3,662	2019-20	MoR
Integrated Check Post (ICP)	nos.	1	2020-21	LPAI
Air cargo terminals	nos.	6	2020-21	AAI
Rail goods sheds	nos.	192	2019-20	MoR
WDRA registered warehouse capacity	MT	42,546	2019-20	WDRA
Cold storage capacity	MT	1,78,096	2020-21	MoCAF&PD
Registered Goods Commercial Vehicles (GCVs)	nos.	12,423	2020-21	MoRTH
Registered drivers of GCVs	nos.	4,573	2020-21	MoRTH
Logistics training centres	nos.	18	2020-21	MoSDE
No. of individuals trained in logistics	nos.	3,199	2020-21	MoSDE

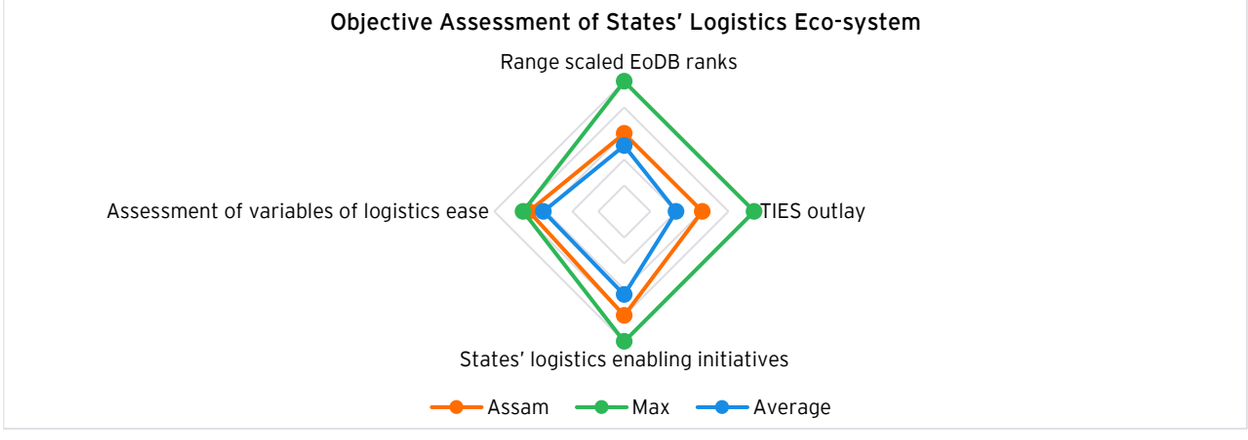
India's first MMLP is planned in Jogighopa, Assam and the State ranks third in training maximum nos. of individual in logistics sector

Exhibit 57: States' LEADS indicator score and ranking









Note: It is important to check the confidence interval (CI) of a States' indicator scores before making any judgement on its performance

Assam is ranked 21st in LEADS 2021 index compared to 15th in 2019 index i.e., a drop of six places. The State's ranking has dropped due to its poor performance in all indicators of Infrastructure, Services, Operating and Regulatory Environment. Poor rail and road connectivity, expensive freight rates, issues of safety and security of cargo, lack of track and trace mechanism and limited support of the State to logistics sector are key challenges as highlighted by stakeholders. The inadequate density of road and rail transportation networks across the State has led to limited transportation choices for the traders in the State.

State has one of the lowest scores for Reasonableness of Road Freight Rates and Terminal Prices. State has had an Exports and Logistics Policy since 2019 and yet, industry interactions have revealed poor performance of the State in all facilitation and regulatory indicators.

Infrastructure development initiatives such as MMLP at Jogighopa and development of Inland Waterway terminals in the State are envisaged to give impetus to logistics in the State. A Nodal officer for logistics has also been appointed by the State to create a supportive institutional mechanism for the logistics sector. State must proactively take up improvement in the logistics sector and enable development of quality logistics infrastructure in the State.

Issues and challenges as narrated by industry stakeholders

Infrastructure

- The inadequate density of road and rail transportation networks across the State has led to limited transportation choices for the traders in the State.
- Inland waterway infrastructure lacks adequate draft and needs augmentation to encourage Inland Waterway movement.
- Cargo destined to a closer neighbouring country such as Myanmar/ Bangladesh goes first to a gateway port of Mundra and then to the destination. This is due to inadequate road connectivity with neighbouring countries.
- Delayed completion of the Maligoaon flyover has caused inconvenience to commuters and impacted freight movement.
- Road at Lokhra in West Guwahati requires recarpeting, and potholes make the movement of cargo and passengers difficult.
- National highway-8 connecting Assam to Tripura and road stretch between Jhirbham, Imphal and Assam - Manipur border requires repair and recarpeting.
- 110 km long highway between Silchar to Imphal is not motorable due to the road's poor condition.

Services

- Limited rail freight services are offered by CONCOR, connecting only Amingaon to Shalimar in Kolkata.
- Empty repositioning charges of containers for both export and import movement are very high, making the transportation cost very expensive.
- High haulage rates along with other charges at ICD Guwahati.
- The availability of trucks is an issue in the State and unfair RTO practices make it challenging to register commercial vehicles.

Regulatory and operating environment

- Cases of pilferage of goods in transit on State highway connecting Assam with Kolkata.
- Undue stoppages of commercial vehicles by the traffic police cause delays in cargo delivery.

Disclaimer: The issues and challenges capture isolated experiences of the stakeholders and continual improvement may already have been in the process addressing the stakeholders' inputs.

Suggestions and recommendations

The State may inspect and investigate the constraints being faced by the industry and may undertake the following measures -

- Strengthening institutional mechanisms by setting up a State and city logistics coordination committee to streamline logistics.
- Implementation of digital initiatives may be adopted to decrease the number of physical checks of commercial vehicles by enforcement officers.
- Implementation of IT infrastructure for surveillance for monitoring of unwarranted stoppages by enforcement officials and strengthen the existing grievance redress mechanism for the industry to report and resolve issues.
- Completion of Maligaon flyover and meanwhile provide an alternative route to ensure ease of transporting goods and passengers.
- Recarpeting of the roads in Lokhra city may be taken up by the State PWD to ensure smooth flow of traffic.
- Repair work on the highway connecting Assam and Tripura, Silchar and Imphal, Jhirbham, Imphal and Assam – Manipur Border.
- Coordinate with IWAI for dredging arrangements for ensuring sufficient draft for inland movement of cargo.
- Coordinate with the Ministry of Railways (MoR) and CONCOR to improve the connectivity from the State and to reduce the haulage charges applicable at the ICD Guwahati.

Initiatives undertaken by the State government

State policy for logistics

- The State has formulated a focussed Logistics Policy, "Export and Logistics Policy of Assam-2019."

Institutional mechanism for logistics implementation

- The State has initiated the institutional setup for logistics and appointed nodal officer for logistics.

Investment in logistic infrastructure – facilitation and incentivization

- Under the Assam Exports and Logistics Policy 2019, the State proposes to undertake various steps for improvement of the logistics sector in the State by setting-up State-of-art MMLP and logistics parks, improving road connectivity and providing fast-track approvals for setting up new logistics facilities, etc.

Key initiatives under the regulatory regime

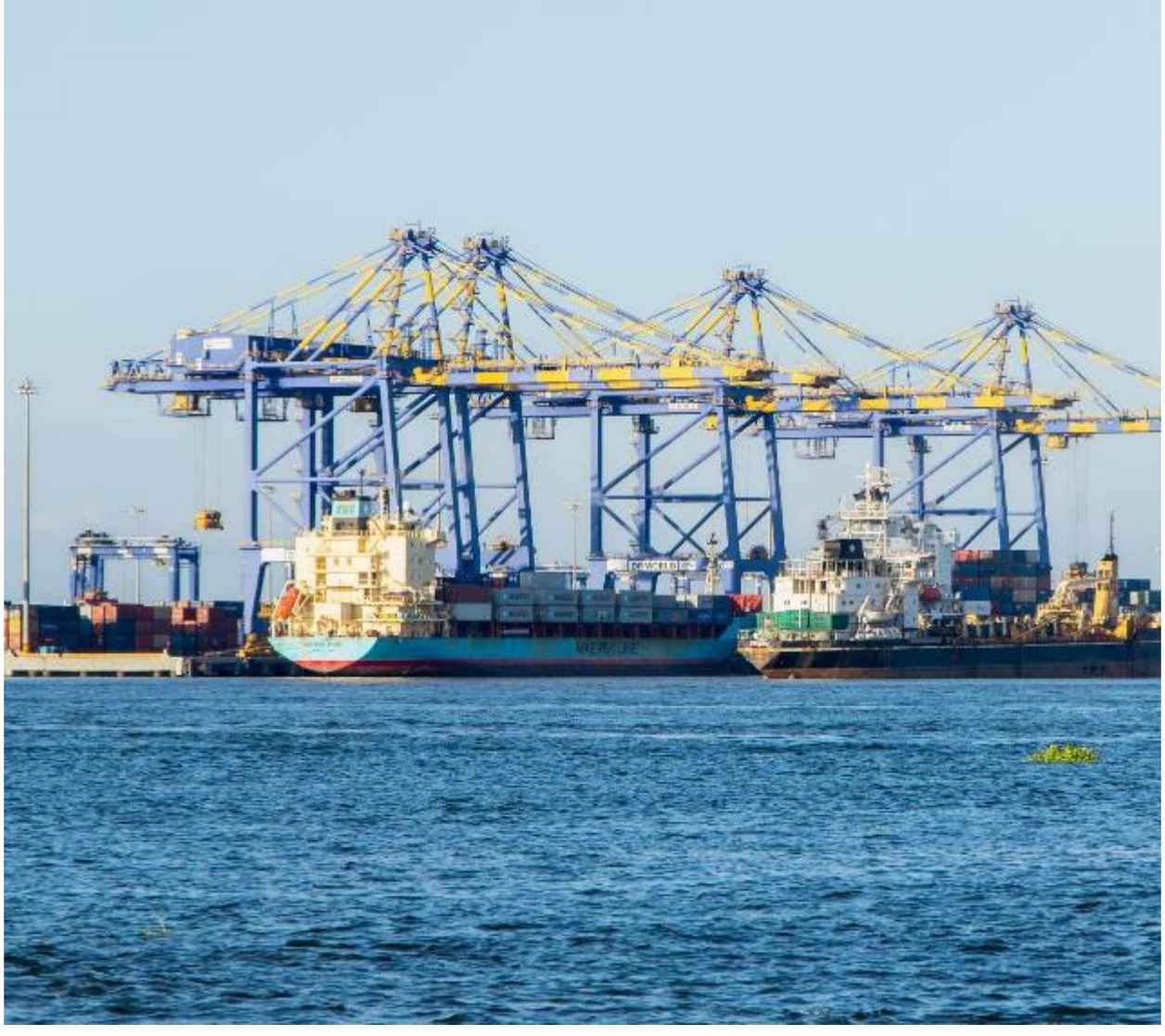
- The State has a single-window mechanism for hassle-free processing of approvals for setting-up logistics facilities.

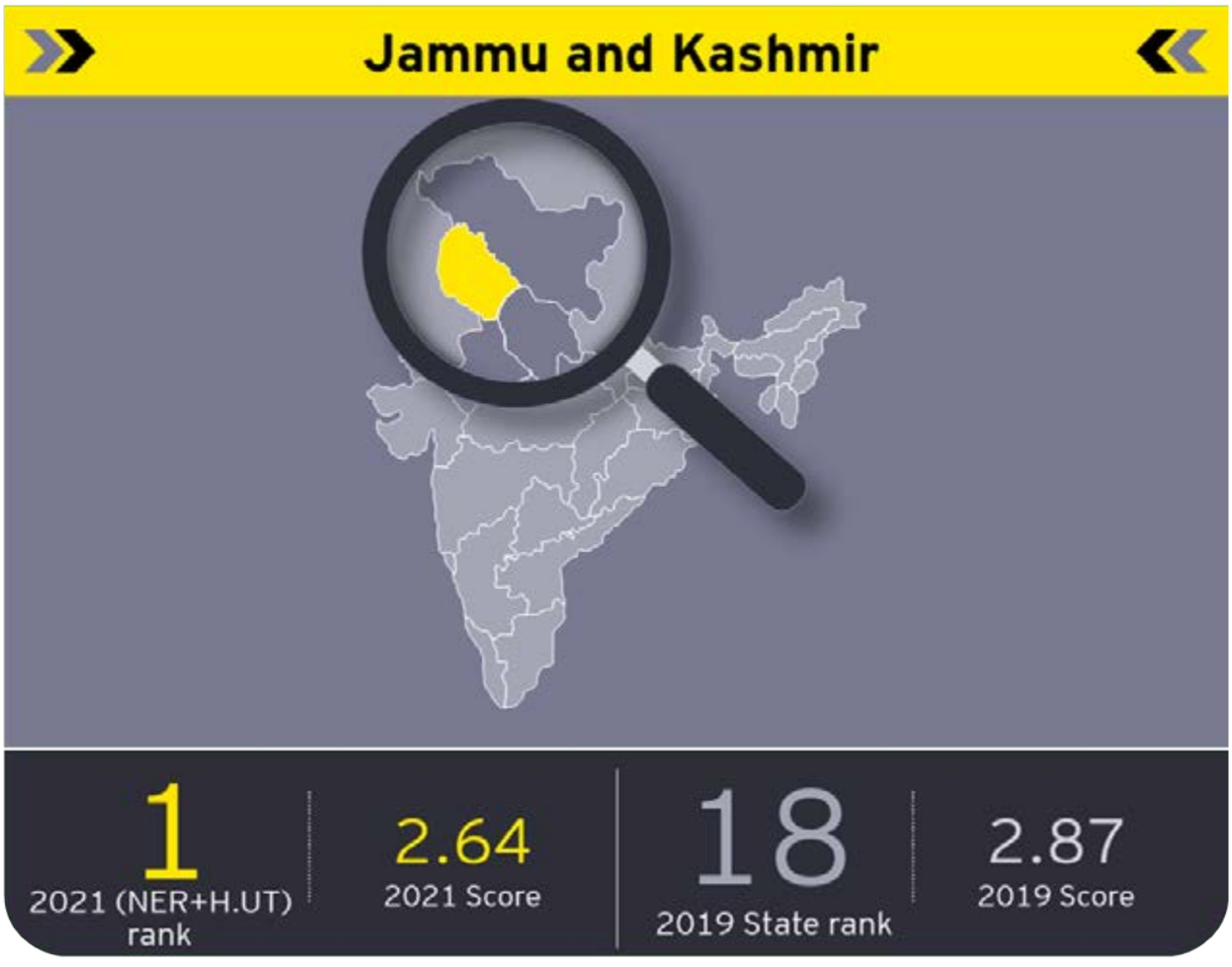
North Eastern States and Himalayan UTs

As have been mentioned in Chapter 3, North Eastern Region and Himalayan UTs has been considered as a separate group for the LEADS 2021 ranking. The approach applied for determining indicator scores for NER States, Himalayan UTs and others is the same as for others. Accordingly, this region has been categorized as a special and exclusive set, in one lot and ranking them just within, was therefore considered fair exercise. Listing this group at the bottom of all States' ranking would be discouraging and an unfair comparison. It was also considered reasonable to take Assam out of the NER mix, because of its special characteristics, and because it represents, in a sense, the entire region.

Jammu and Kashmir and the seven States of Arunachal Pradesh, Manipur, Meghalaya, Nagaland, Sikkim, Tripura, and Mizoram have been discussed.

This chapter discusses the brief logistics profile of the above J&K and NE States, the initiatives undertaken by them for enabling logistics and their LEADS 2021 indicator score and ranking. The issues and challenges on logistics being faced by the NER States are mostly common and thus have been discussed at the end of the chapter along with the suggested action plan for improvement of the logistics eco-system.





Note: Owing to the change in statistical methodology between 2019 and 2021, a direct rank and score comparison is not recommended. Additionally, in 2019, J&K was a part of "State segment" and was ranked among the States but presently, it is a UT with hilly terrain and hence, it has been ranked and compared with NER States with similar features.

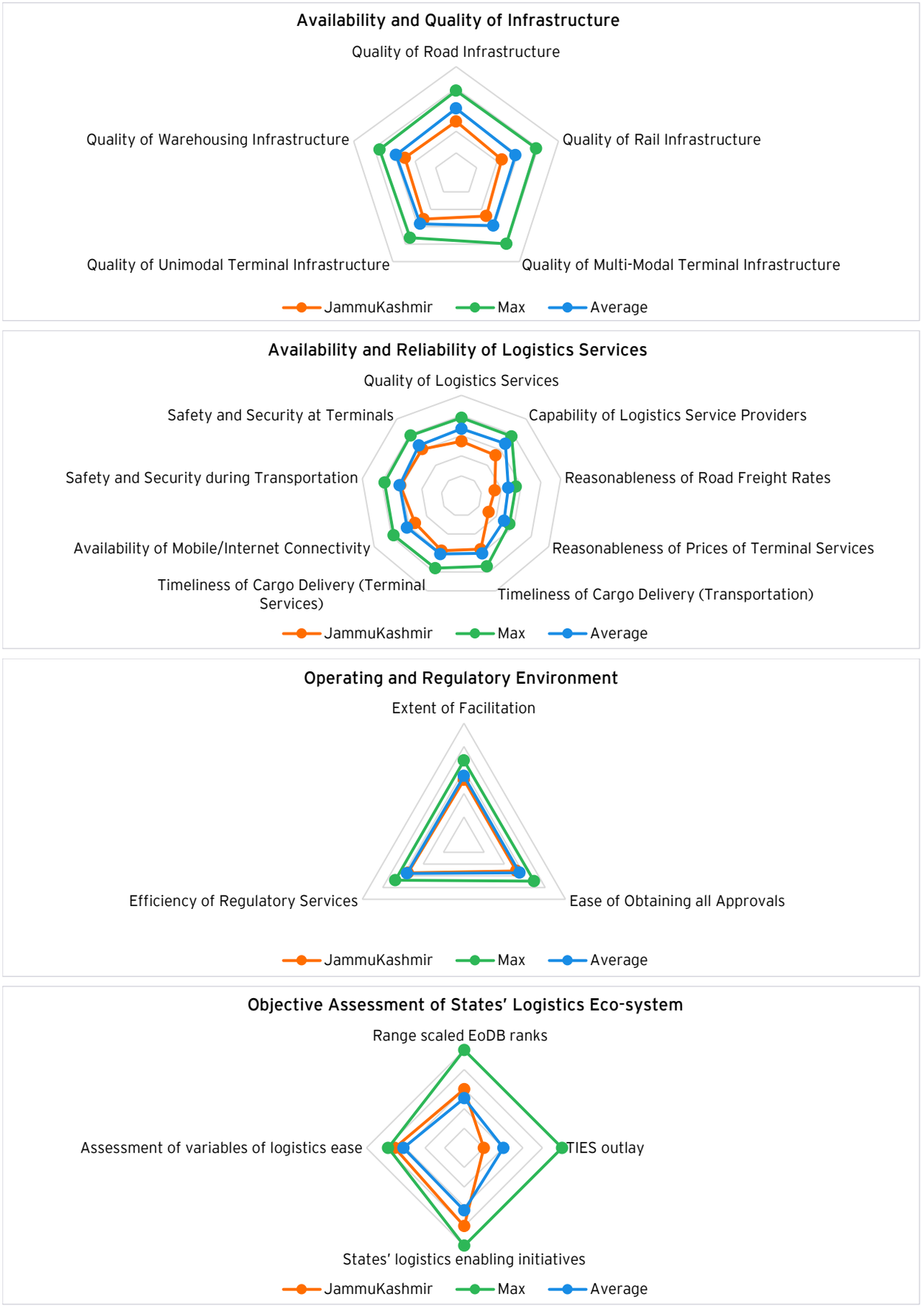
Jammu and Kashmir – a brief logistics profile

Brief overview of the logistics profile of the State is provided in the exhibit 58 below.

Exhibit 58: Brief logistics profile of Jammu and Kashmir

Parameter	Unit	Value	Year	Source
Road length	km	NH=2,423	2020-21	MoRTH/NHAI
Railway track	Track-km	493	2019-20	MoR
Inland Container Depot (ICD)	nos.	2	2017-18	CBIC
Air cargo terminals	nos.	2	2020-21	AAI
Rail goods sheds	nos.	22	2019-20	MoR
Cold storage capacity	MT	2,50,169	2020-21	MoCAF&PD
Registered Goods Commercial Vehicles (GCVs)	nos.	7,056	2020-21	MoRTH
Registered drivers of GCVs	nos.	7,635	2020-21	MoRTH
Logistics training centres	nos.	15	2020-21	MoSDE
No. of individuals trained in logistics	nos.	1,158	2020-21	MoSDE

Exhibit 59: States' LEADS indicator score and ranking



Note: It is important to check the confidence interval (CI) of a States' indicator scores before making any judgement on its performance.

Jammu & Kashmir leads the tally for said group on account of better than average performance in the Operating and Regulatory and Objective indicators. The State is perceived to be lower than the composite average for all three broad parameters – Logistics Infrastructure, logistics services and Operating and Regulatory Environment. The State is perceived to have inadequate rail connectivity along with poor road condition. The same has been buttressed by respondents during stakeholder interactions. The State is perceived to have high freight rates as well as high terminal prices due to less availability of overall logistics infrastructure. During stakeholder interactions it was also highlighted that the State lacks effective State facilitation with regards to logistics.

Issues and challenges as narrated by industry stakeholders

Infrastructure

- High risk is associated due to natural climatic conditions and bad infrastructure of roads. Road condition not good State for truck movement.
- There are no direct rail services to Srinagar (Kashmir)
- State lacks in logistics infrastructure facilities viz. ICD or EXIM infra, warehouses, etc.

Services

- There are limited services of freight forwarders available in Kashmir
- Trucking charges very high in J&K

Disclaimer: The issues and challenges capture isolated experiences of the stakeholders and continual improvement may already have been in the process addressing the stakeholders' inputs.

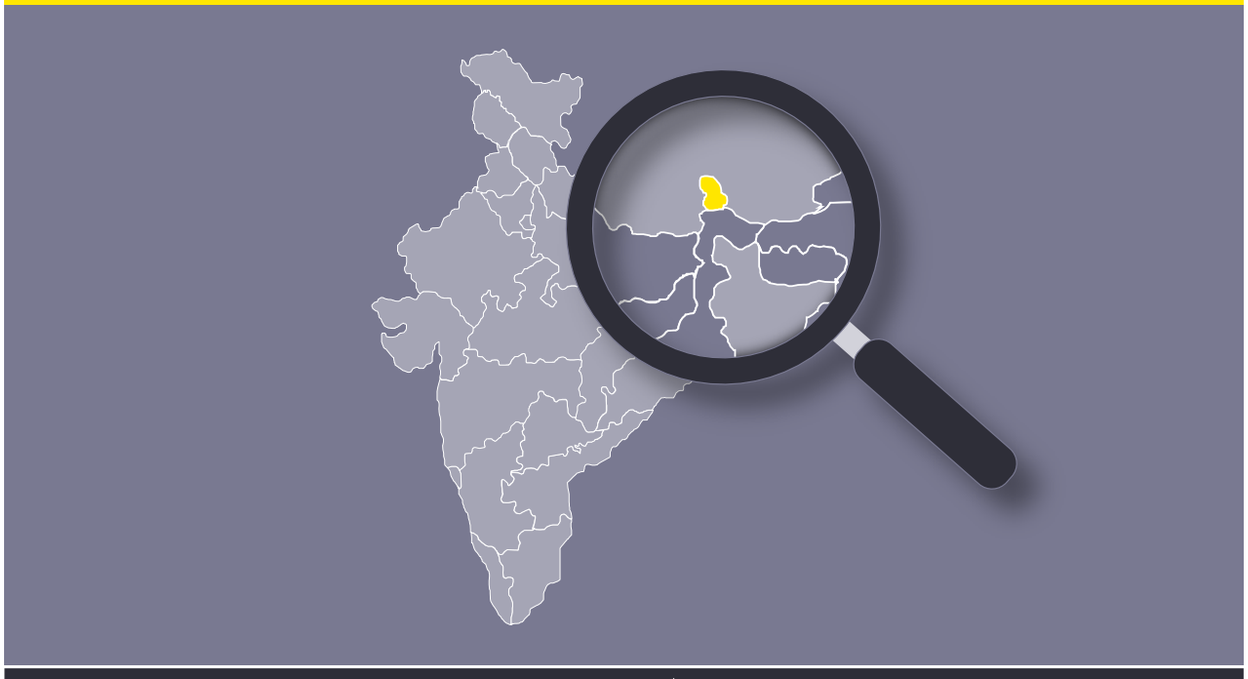
Suggestions and recommendations

The State may inspect and investigate the constraints being faced by the industry and may undertake the following measures -

- Construction of all-weather roads in the State
- Development of logistics infrastructure (ICD/ warehouse)

The UT may coordinate with NHAI, MoR to examines the possibility of development of highways and railway infrastructure.

Sikkim



2021 (NER+H.UT) rank	2021 Score	2019 NER rank	2019 Score
2	2.63	2	2.90

Note: Owing to the change in statistical methodology and classification between 2019 and 2021, a direct rank and score comparison is not recommended.

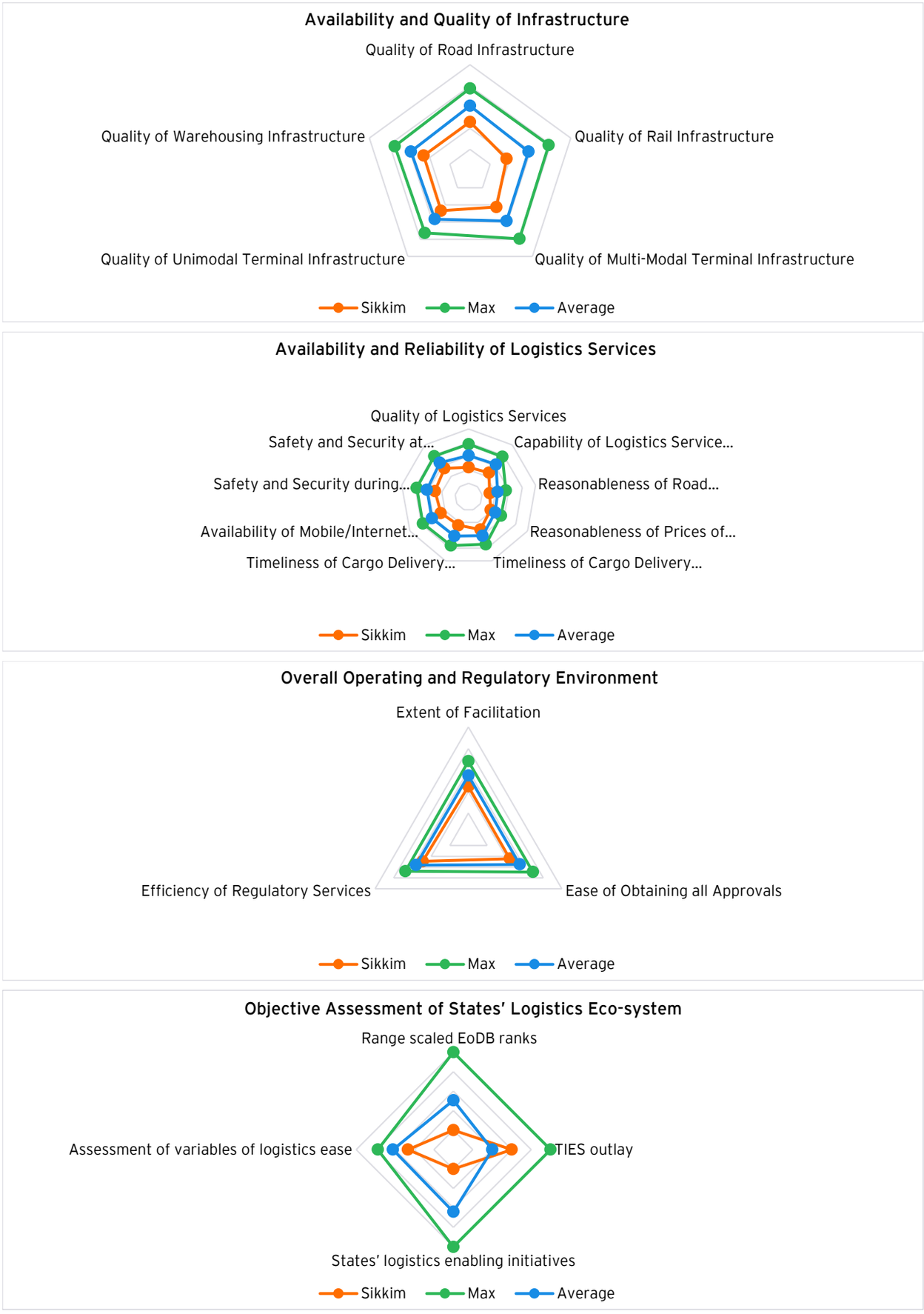
Sikkim – a brief logistics profile

Brief overview of the logistics profile of the State is provided in the exhibit 60 below.

Exhibit 60: Brief logistics profile of Sikkim

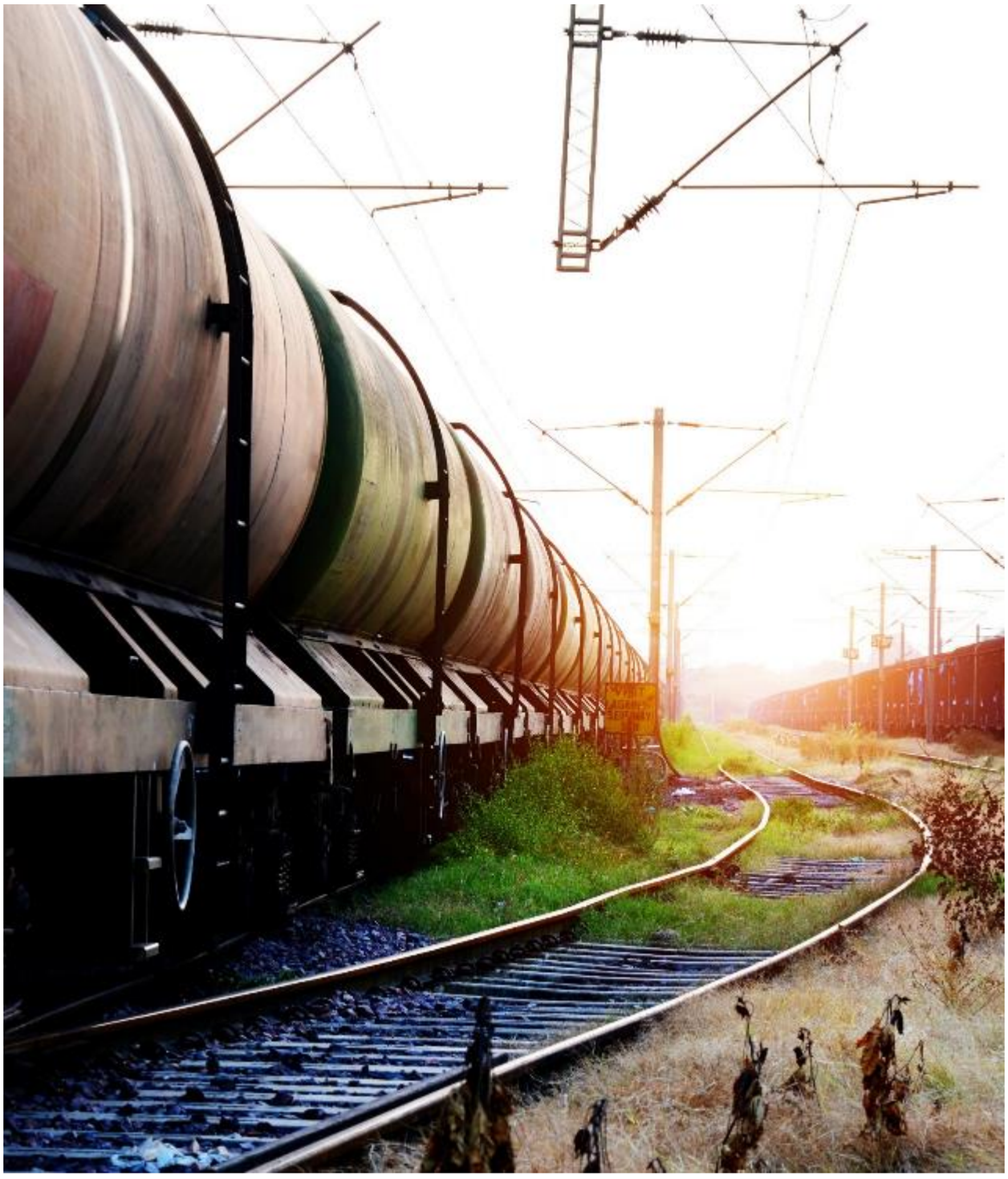
Parameter	Unit	Value	Year	Source
Road length	km	NH=709/ SH=701	2020-21	MoRTH/NHAI
Air cargo terminals	nos.	1	2020-21	AAI
Cold storage capacity	MT	2,100	2020-21	MoCAF&PD
Logistics training centres	nos.	4	2020-21	MoSDE
No. of individuals trained in logistics	nos.	738	2020-21	MoSDE

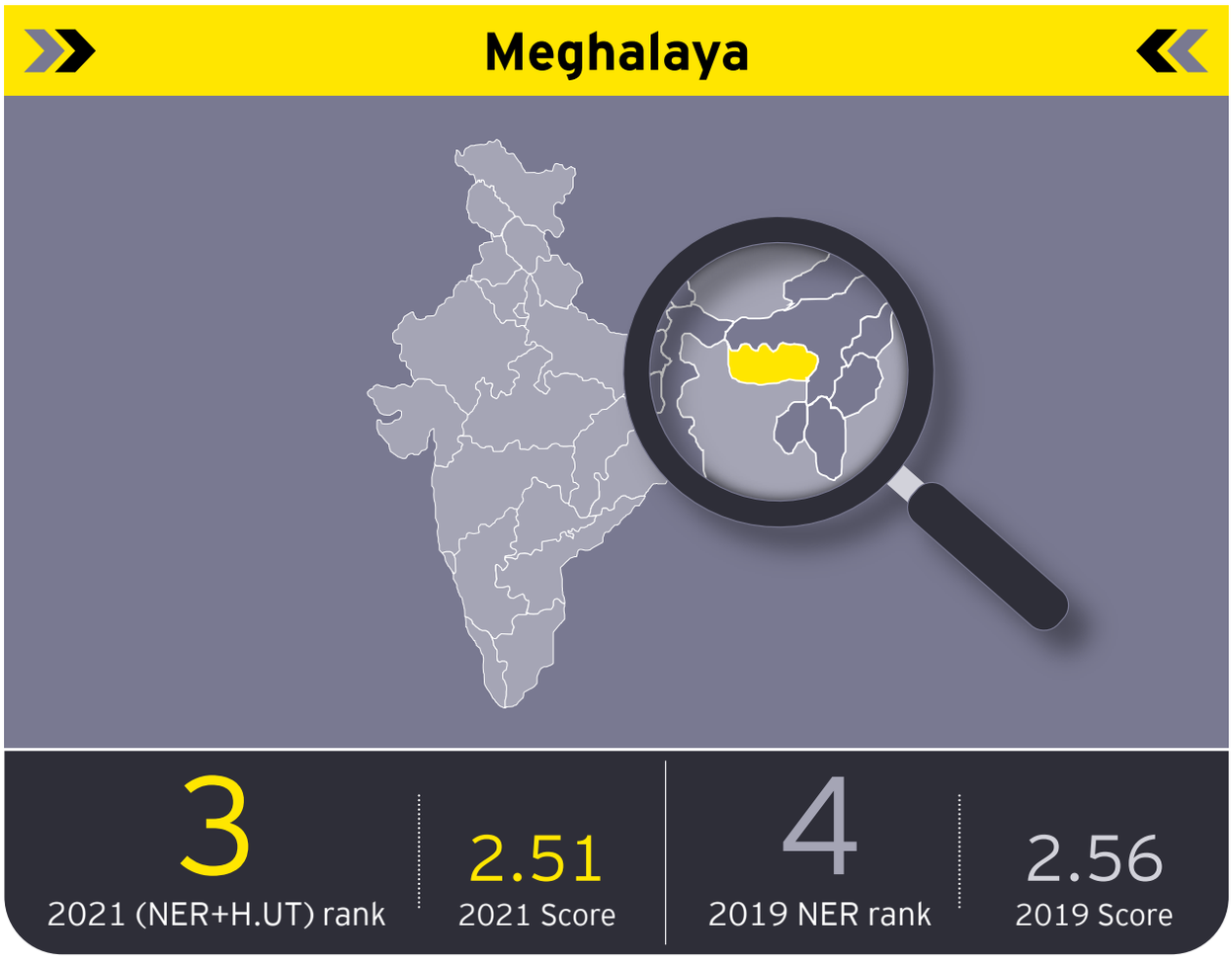
Exhibit 61: States' LEADS indicator score and ranking



Note: It is important to check the confidence interval (CI) of a States' indicator scores before making any judgement on its performance.

Availability and Reliability of Logistics Services is perceived to be better in Sikkim compared to other North Eastern States. Similarly, Operating and Regulatory Environment is perceived to be better in Sikkim compared to other Northern Eastern States. Reasonableness of Road freight rates and Prices of Terminal Services is perceived to be a challenge, as is seen across the country. Availability and Quality of Infrastructure continues to be a challenge according to industry stakeholders. The State proposes to develop a dedicated logistics policy in the coming years.





Note: Owing to the change in statistical methodology and classification between 2019 and 2021, a direct rank and score comparison is not recommended.

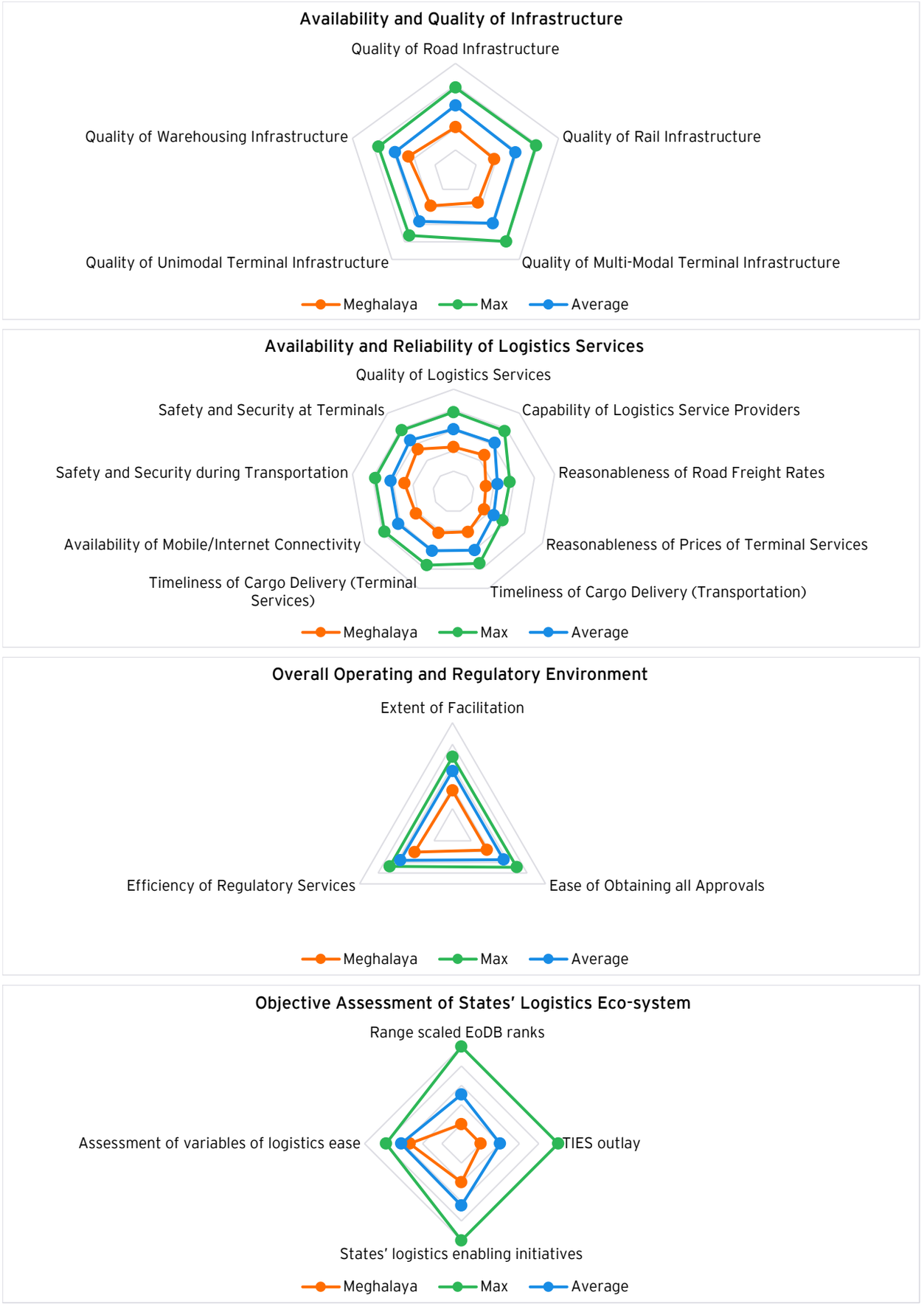
Meghalaya – a brief logistics profile

Brief overview of the logistics profile of the State is provided in the exhibit 62 below.

Exhibit 62: Brief logistics profile of Meghalaya

Parameter	Unit	Value	Year	Source
Road length	km	NH=1,156/ SH=772	2020-21	MoRTH/NHAI
Railway track	Track-km	13	2019-20	MoR
Air cargo terminals	nos.	5	2020-21	AAI
Rail goods sheds	nos.	283	2019-20	MoR
Cold storage capacity	MT	8,200	2020-21	MoCAF&PD
Logistics training centres	nos.	2	2020-21	MoSDE
No. of individuals trained in logistics	nos.	480	2020-21	MoSDE

Exhibit 63: States' LEADS indicator score and ranking



Note: It is important to check the confidence interval (CI) of a States' indicator scores before making any judgement on its performance.

Quality of Logistics Services and capability of logistics service providers is perceived to be better in Meghalaya as compared to other North Eastern States. However, the Overall Operating and Regulatory Environment is perceived to be challenging as compared to other North Eastern States especially in Extent of Facilitation and Ease of obtaining all approvals. Availability and Quality of infrastructure is also perceived to be a challenge especially availability of Road and Terminal infrastructure. Reasonableness of Road freight rates and Prices of terminal services is perceived to be a challenge as is seen across the country.

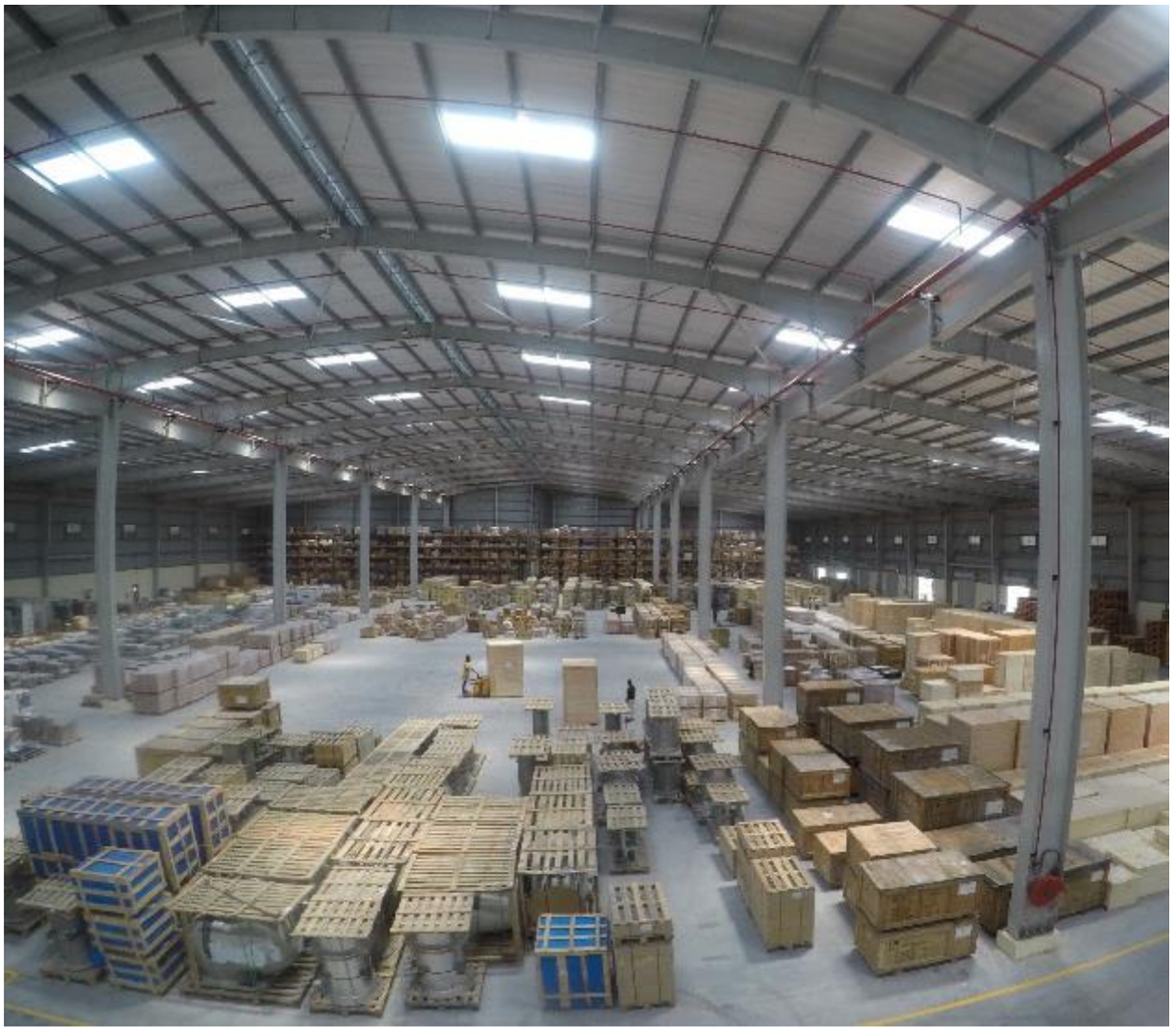
Initiatives undertaken by the State Government

State Policy for Logistics

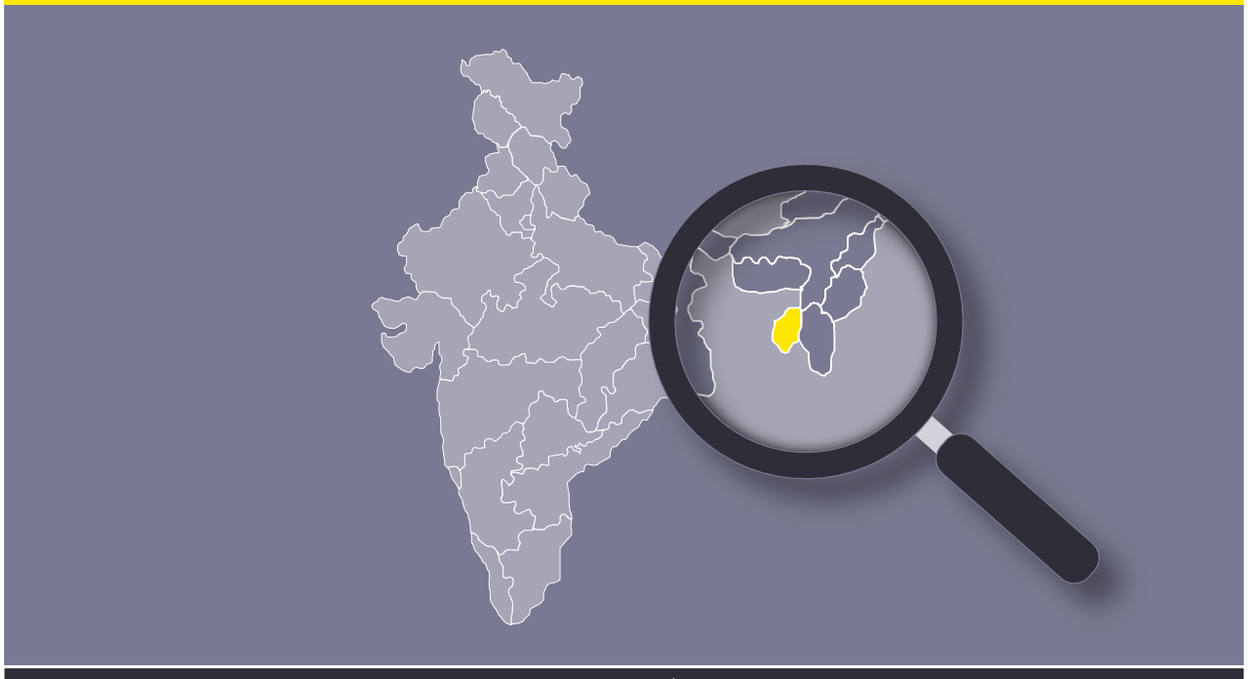
- Currently, the State covers specific aspects of logistics through Meghalaya Industrial and Investment Promotion Policy (MIIPP) 2012

Institutional mechanism for logistics implementation

- The State has initiated the institutional setup for logistics – appointed nodal officer for logistics Investment in Logistics Infrastructure – Facilitation and Incentivisation



Tripura



4	2.50	1	2.95
2021 (NER+H.UT) rank	2021 Score	2019 NER rank	2019 Score

Note: Owing to the change in statistical methodology and classification between 2019 and 2021, a direct rank and score comparison is not recommended.

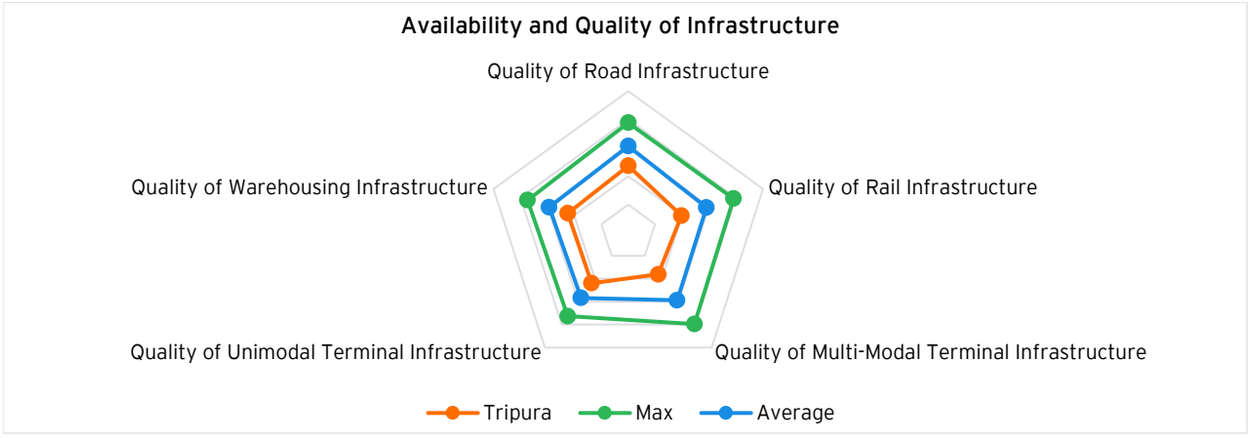
TRIPURA – a brief logistics profile

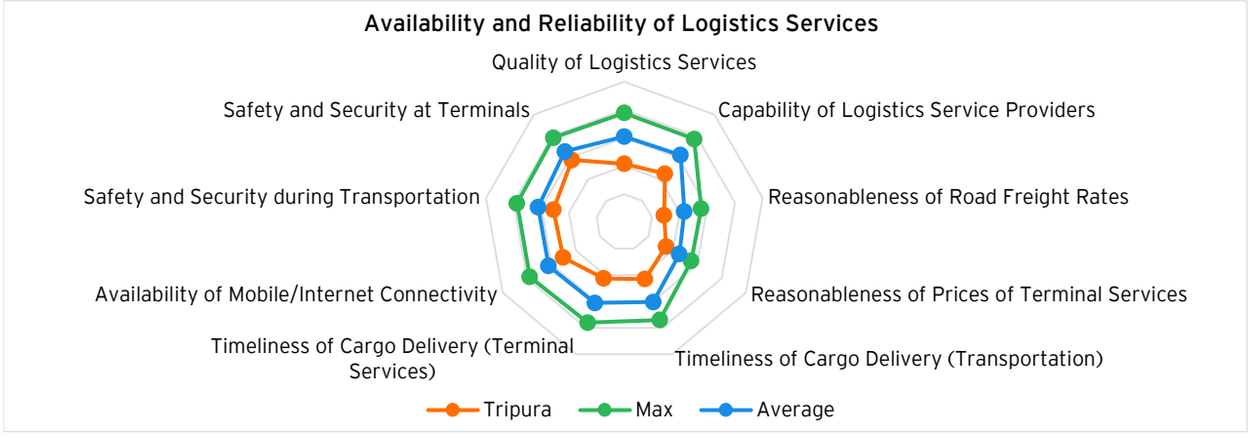
Brief overview of the logistics profile of the State is provided in the exhibit 64 below.

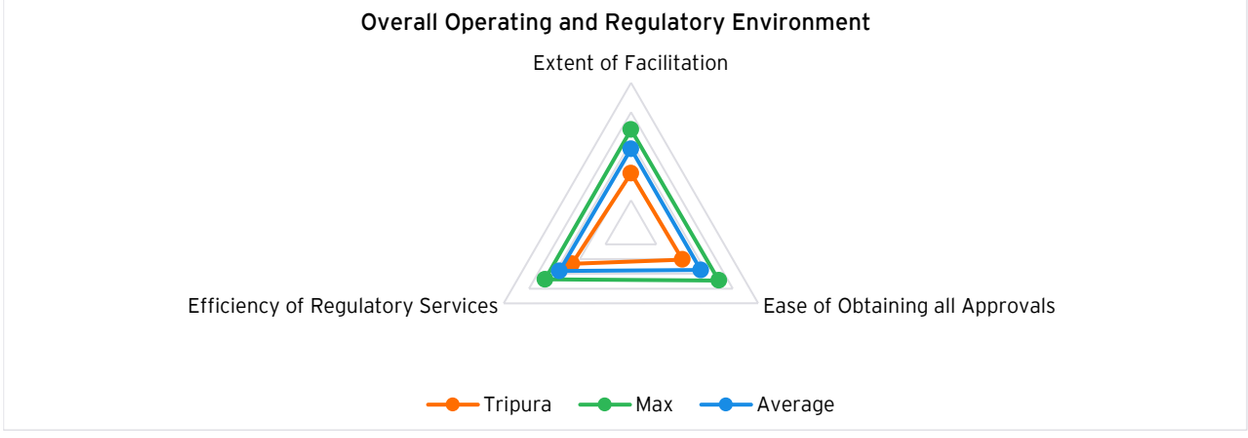
Exhibit 64: Brief logistics profile of Tripura

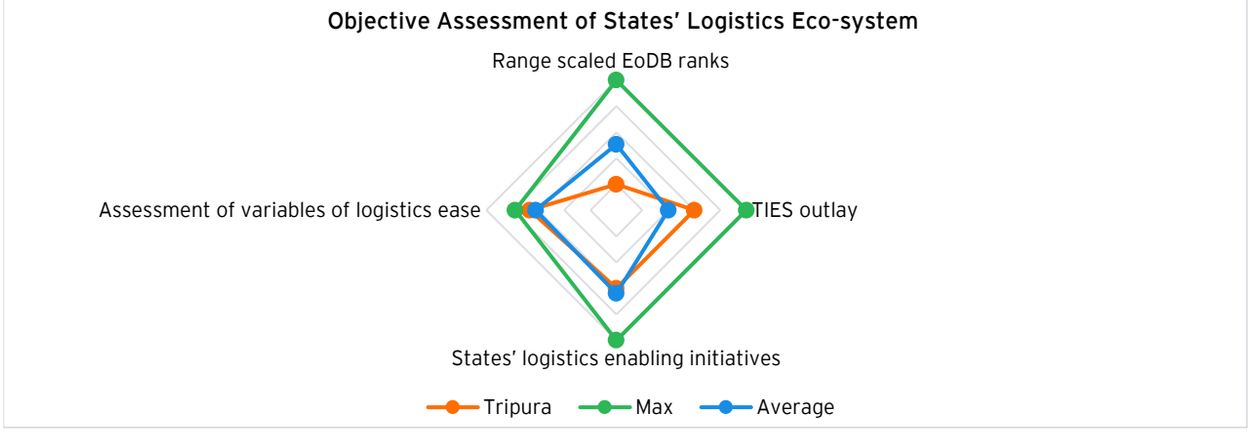
Parameter	Unit	Value	Year	Source
Road length	km	NH=854/ SH=1,057	2020-21	MoRTH/NHAI
Railway track	Track-km	337	2019-20	MoR
Integrated Check Post (ICP)	nos.	1	2017-18	CBIC
Air cargo terminals	nos.	1	2020-21	AAI
Rail goods sheds	nos.	17	2019-20	MoR
WDRA registered warehouse capacity	MT	19,250	2019-20	WDRA
Cold storage capacity	MT	46,354	2020-21	MoCAF&PD
Logistics training centres	nos.	2	2020-21	MoSDE
No. of individuals trained in logistics	nos.	540	2020-21	MoSDE

Exhibit 65: States' LEADS indicator score and ranking









Note: It is important to check the confidence interval (CI) of a States' indicator scores before making any judgement on its performance.

Availability and Quality of infrastructure especially Quality of Road and Terminal Infrastructure in Tripura is perceived to be better by the industry stakeholders. Similarly, perception regarding Reliability and Availability of Logistics Services is perceived to be better in comparison to other select North Eastern States, specifically in issues related to Safety and Security at terminals as well as during transit. Reasonableness of Road Freight Rates and Prices of Terminal Services is perceived to be a challenge as is seen across the country. The State Government has initiated a proposal for setting up of one Logistic Park at Sabroom in South Tripura District. For proper implementation of the Park, the State proposes to introduce Logistic Park Policy. The State has also proposed incentivisation in the logistics sector under in the new Tripura State Incentive Scheme which will be effective from 1 April 2022.

Initiatives undertaken by the State government

State policy for logistics

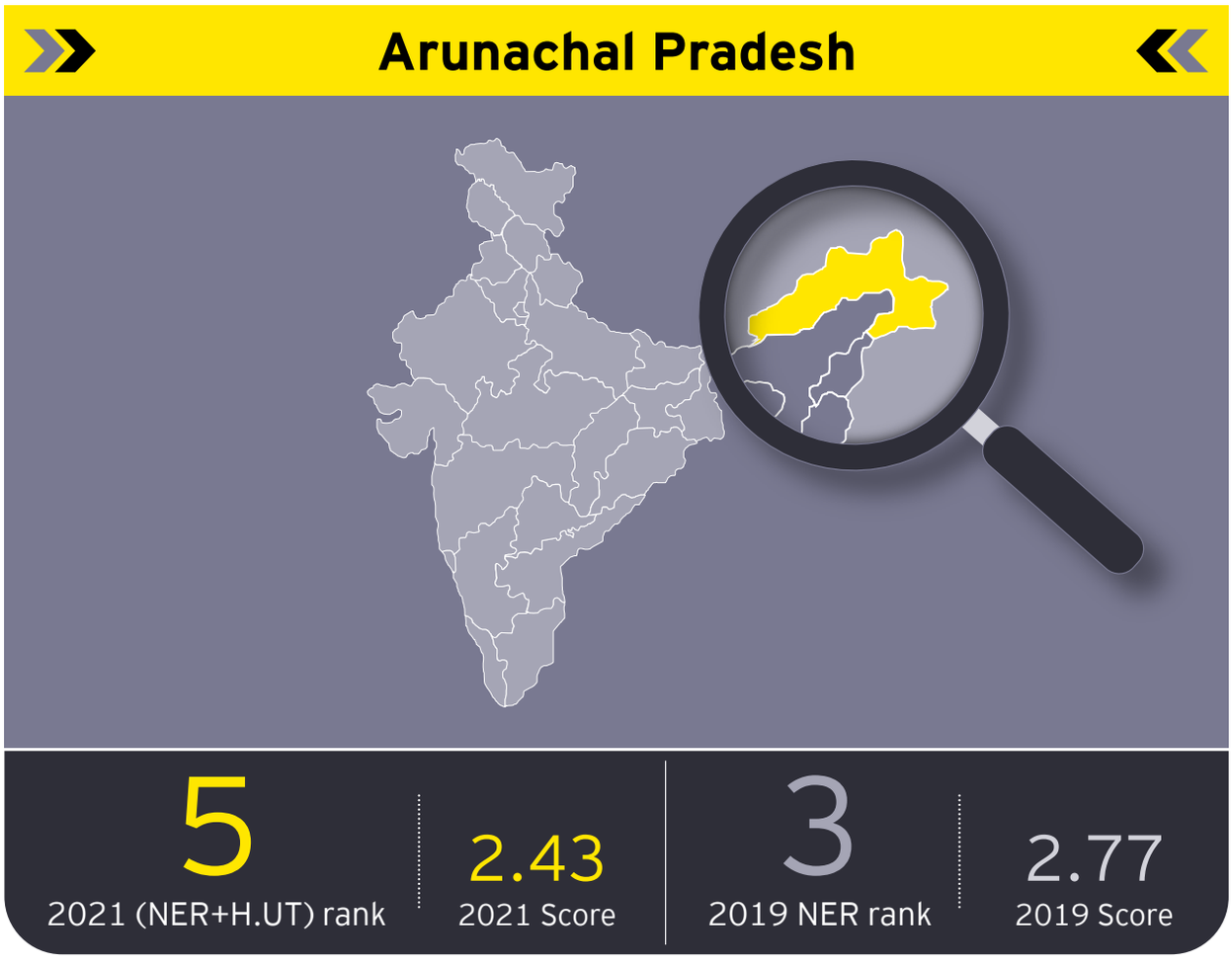
- The present Tripura State Incentive Scheme is valid up to March 2022. In the proposed new Policy effective from 1st April 2022, provisions will be included for incentivizing investments in logistics industry to attract private investment
- The State is preparing a dedicated policy for logistics as well as State Logistics Master Plan

Institutional mechanism for logistics

- The State has setup a robust institutional mechanism for logistics – appointed nodal officer for logistics, constituted State logistics cell, State Logistics Co-ordination Committee

Investment in logistic infrastructure – facilitation and incentivization

- The State Government has initiated a proposal for setting up of one Logistic Park at Sabroom in South Tripura District.
- Tripura State incentive scheme effective from 1st April 2022, provisions will be included for incentivizing investments in logistics industry to attract private investment



Note: Owing to the change in statistical methodology and classification between 2019 and 2021, a direct rank and score comparison is not recommended.

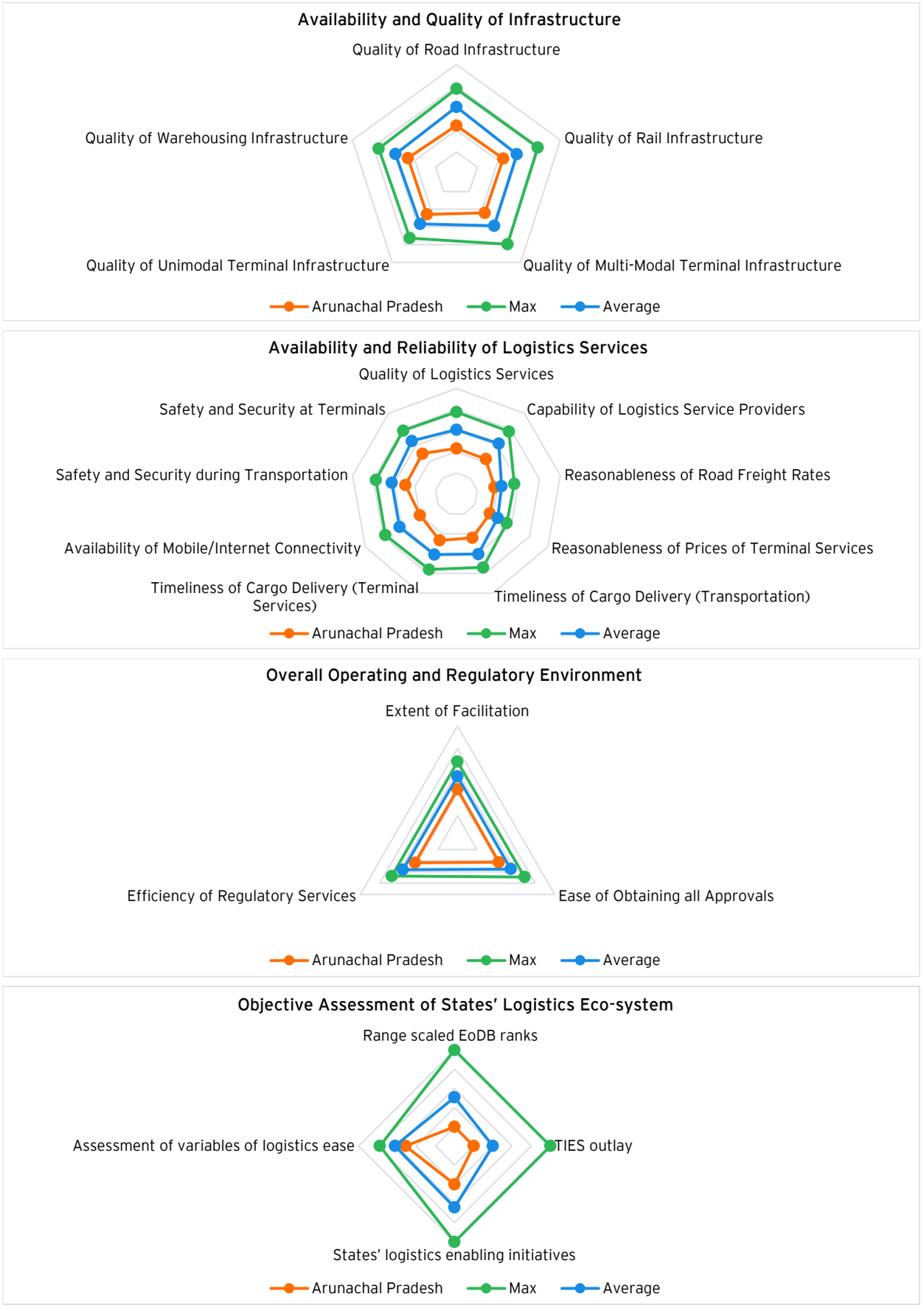
Arunachal Pradesh – a brief logistics profile

Brief overview of the logistics profile of the State is provided in the exhibit 66 below.

Exhibit 66: Brief logistics profile of Arunachal Pradesh

Parameter	Unit	Value	Year	Source
Road length	km	NH=2,537	2020-21	MoRTH/NHAI
Railway track	Track-km	26	2019-20	MoR
Air cargo terminals	nos.	1	2020-21	AAI
Rail goods sheds	nos.	5	2019-20	MoR
Cold storage capacity	MT	6,000	2020-21	MoCAF&PD
Registered Goods Commercial Vehicles (GCVs)	nos.	701	2020-21	MoRTH
Registered drivers of GCVs	nos.	1,087	2020-21	MoRTH
Logistics training centres	nos.	10	2020-21	MoSDE
No. of individuals trained in logistics	nos.	2,009	2020-21	MoSDE

Exhibit 67: States' LEADS indicator score and ranking



Note: It is important to check the confidence interval (CI) of a States' indicator scores before making any judgement on its performance.

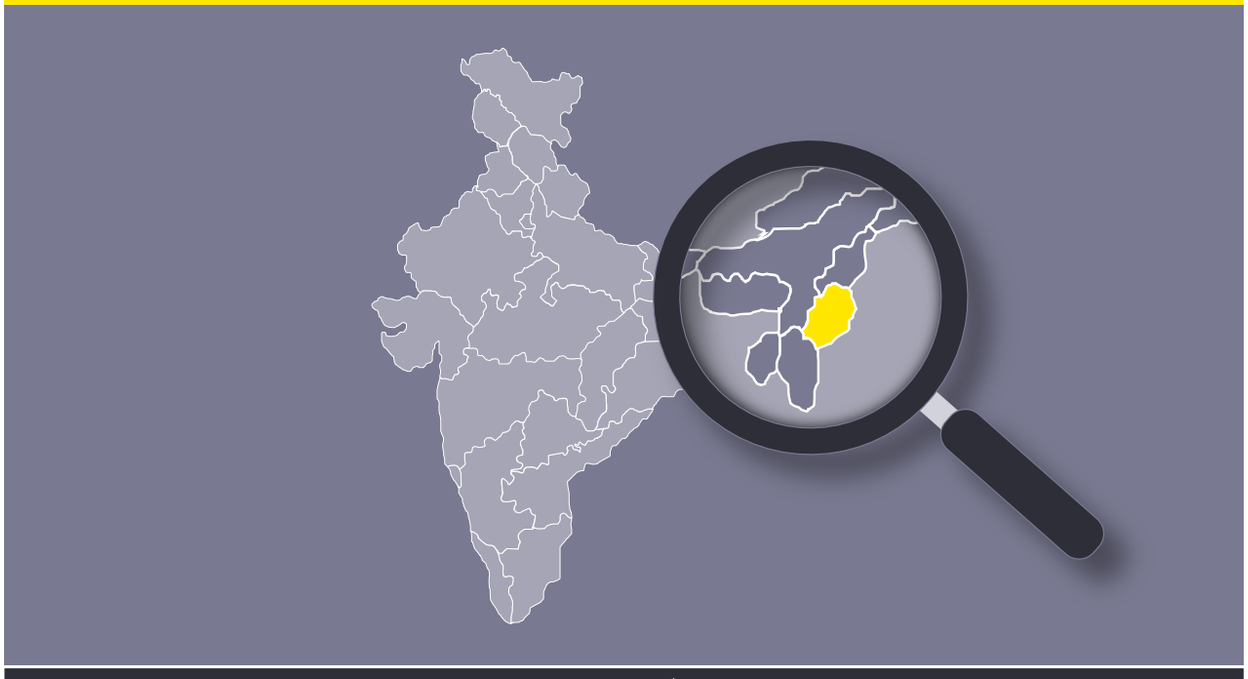
Availability and Quality of infrastructure is perceived to be better in comparison to other North Eastern States (except Assam). Quality and Availability of Logistics Services is perceived to be better in Sikkim, Meghalaya, and Tripura in comparison to Arunachal Pradesh. Availability of Mobile Internet Connectivity is a challenge in comparison to other North Eastern States. Overall Operating and Regulatory Environment are perceived to be better than States of Manipur, Mizoram, Nagaland, and Meghalaya.

Initiatives undertaken by the State government

Institutional mechanism for logistics

- Arunachal Pradesh has initiated the institutional setup for logistics – appointed nodal officer for logistics

Manipur



2021 (NER+H.UT) rank	2021 Score	2019 NER rank	2019 Score
6	2.39	5	2.42

Note: Owing to the change in statistical methodology and classification between 2019 and 2021, a direct rank and score comparison is not recommended.

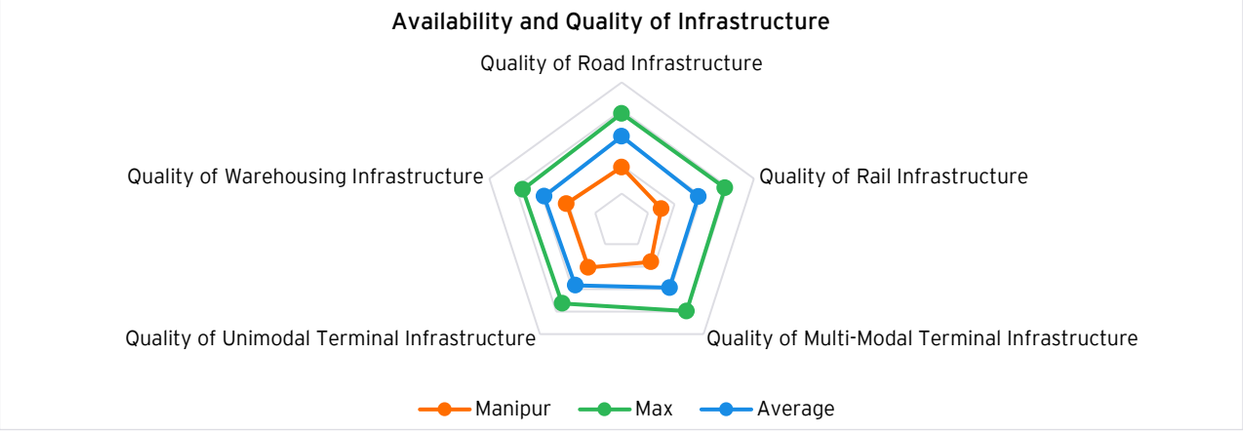
Manipur – a brief logistics profile

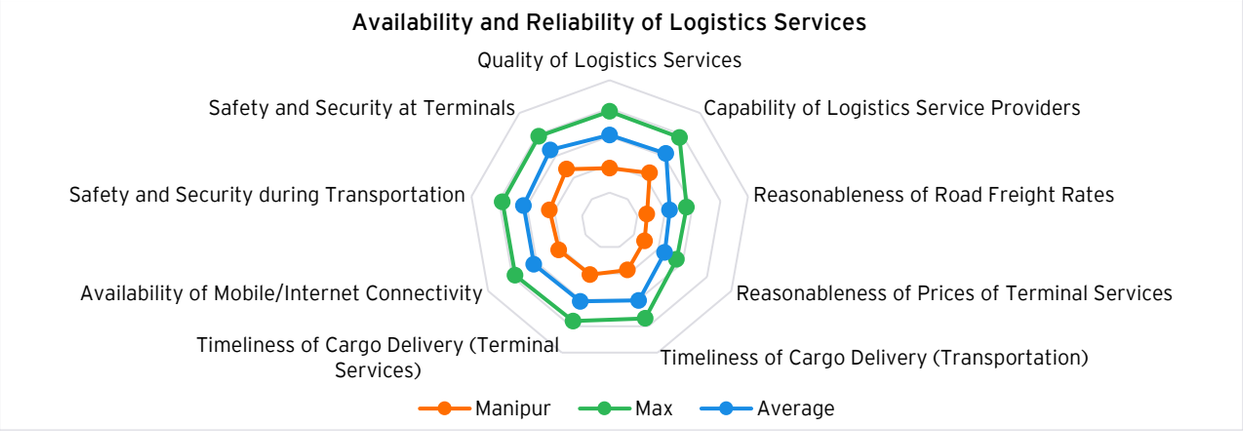
Brief overview of the logistics profile of the State is provided in the exhibit 68 below.

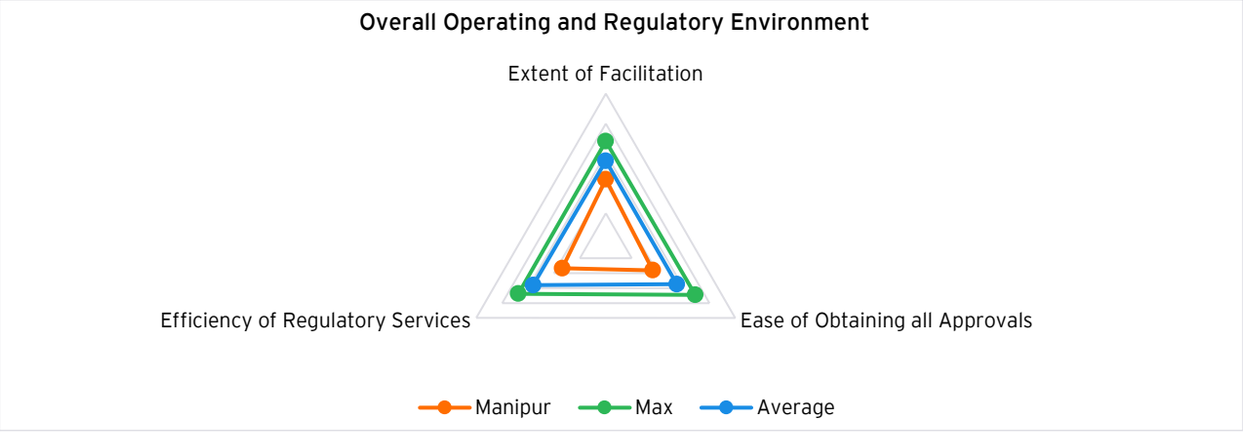
Exhibit 68: Brief logistics profile of Manipur

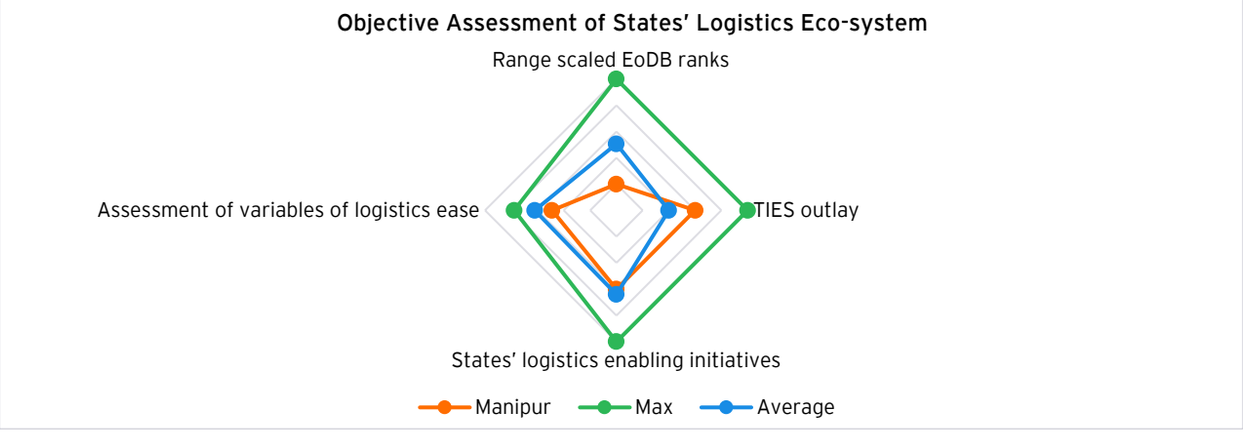
Parameter	Unit	Value	Year	Source
Road length	km	NH=1,750	2020-21	MoRTH/NHAI
Railway track	Track-km	18	2019-20	MoR
Integrated Check Post (ICP)	nos.	1	2020-21	CBIC
Air cargo terminals	nos.	1	2020-21	AAI
Rail goods sheds	nos.	2	2019-20	MoR
Cold storage capacity	MT	4,500	2020-21	MoCAF&PD
Logistics training centres	nos.	3	2020-21	MoSDE
No. of individuals trained in logistics	nos.	808	2020-21	MoSDE

Exhibit 69: States' LEADS indicator score and ranking









Note: It is important to check the confidence interval (CI) of a States' indicator scores before making any judgement on its performance.

Similar to other North Eastern States, Availability and Quality of Infrastructure continues to be a challenge specifically in case of Manipur road infrastructure which is perceived as a significant challenge. Quality of Logistics Services and Mobile/ Internet Connectivity are perceived to be inferior as compared to other North Eastern States. Reasonableness of Road Freight Rates and Terminal Prices are perceived to be a challenge as compared to other North Eastern States. The Ease of obtaining approvals and Efficiency of regulatory services are perceived to be challenging as compared to other North Eastern States. The State is in the process of developing a dedicated State logistics policy.

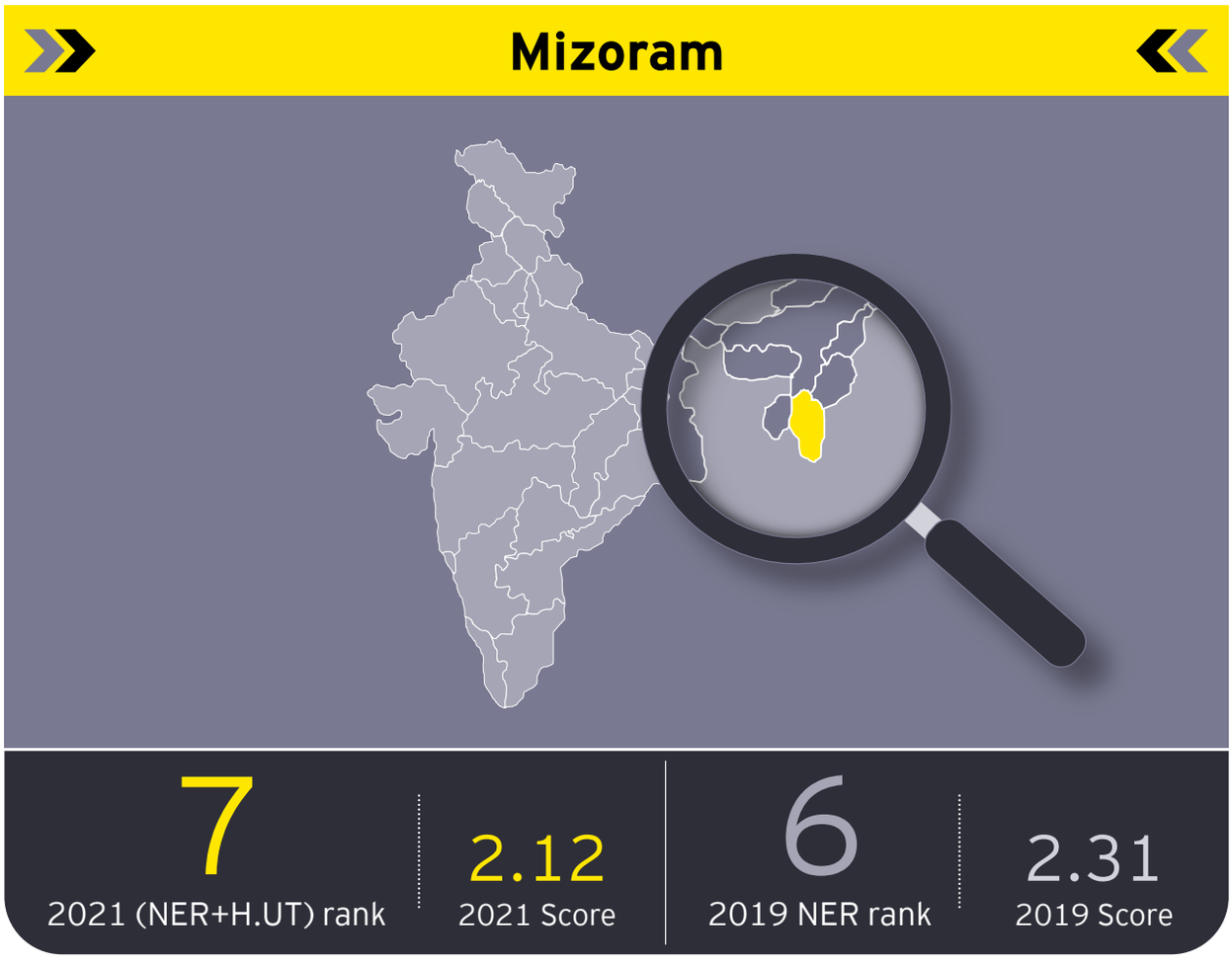
Initiatives undertaken by the State Government

State Policy for Logistics

- The State is preparing a dedicated Logistics Policy and State Logistics Master Plan

Institutional mechanism for logistics implementation

- The State has set up a robust institutional mechanism for logistics – appointed nodal officer for logistics, constituted State logistics cell and State Logistics Coordination Committee



Note: Owing to the change in statistical methodology and classification between 2019 and 2021, a direct rank and score comparison is not recommended.

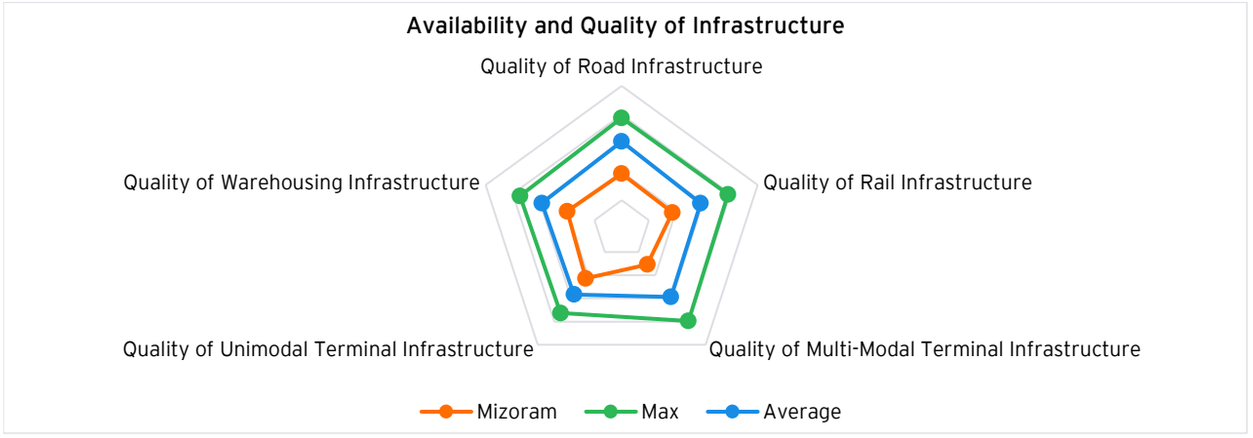
MIZORAM – a brief logistics profile

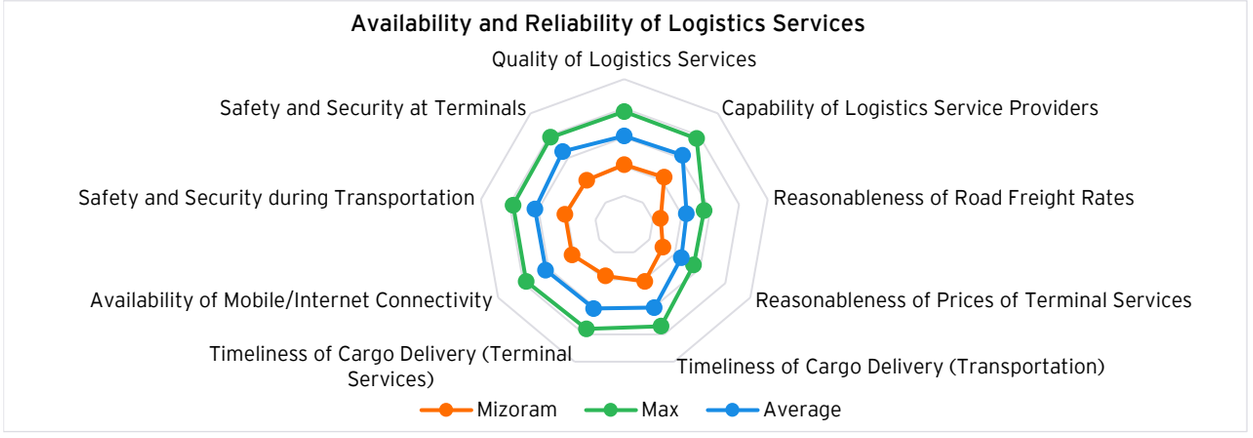
Brief overview of the logistics profile of the State is provided in the exhibit 70 below.

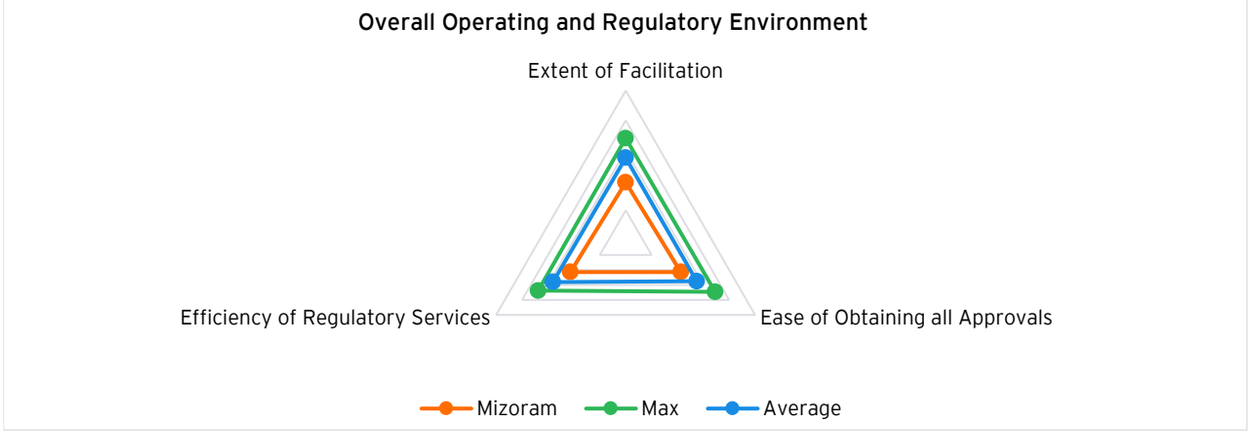
Exhibit 70: Logistics profile of Mizoram

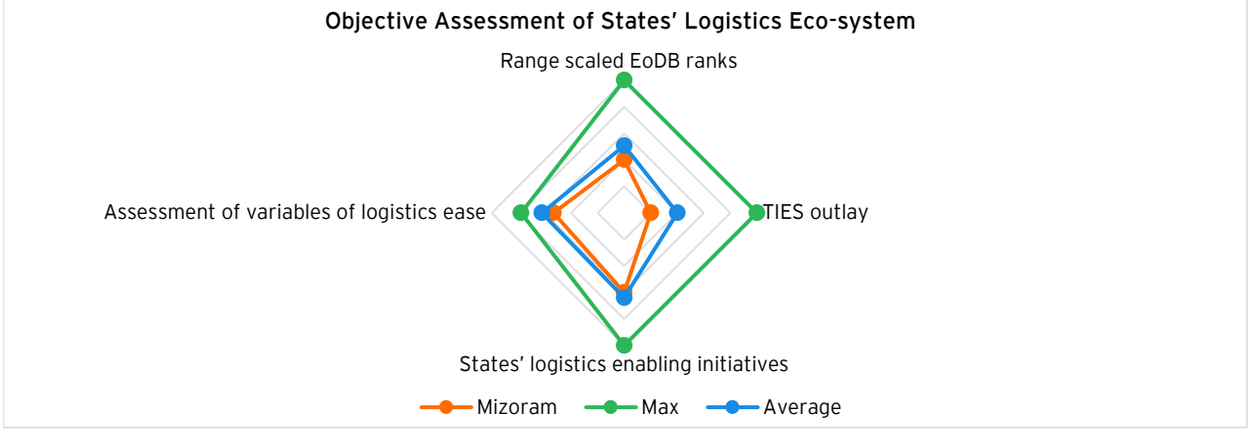
Parameter	Unit	Value	Year	Source
Road length	km	NH=1,423/ SH=170	2020-21	MoRTH/NHAI
Railway track	Track-km	6	2019-20	MoR
Air cargo terminals	nos.	1	2020-21	AAI
Rail goods sheds	nos.	2	2019-20	MoR
Cold storage capacity	MT	4,001	2020-21	MoCAF&PD
Logistics training centres	nos.	7	2020-21	MoSDE
No. of individuals trained in logistics	nos.	1,372	2020-21	MoSDE

Exhibit 71: States' LEADS indicator score and ranking



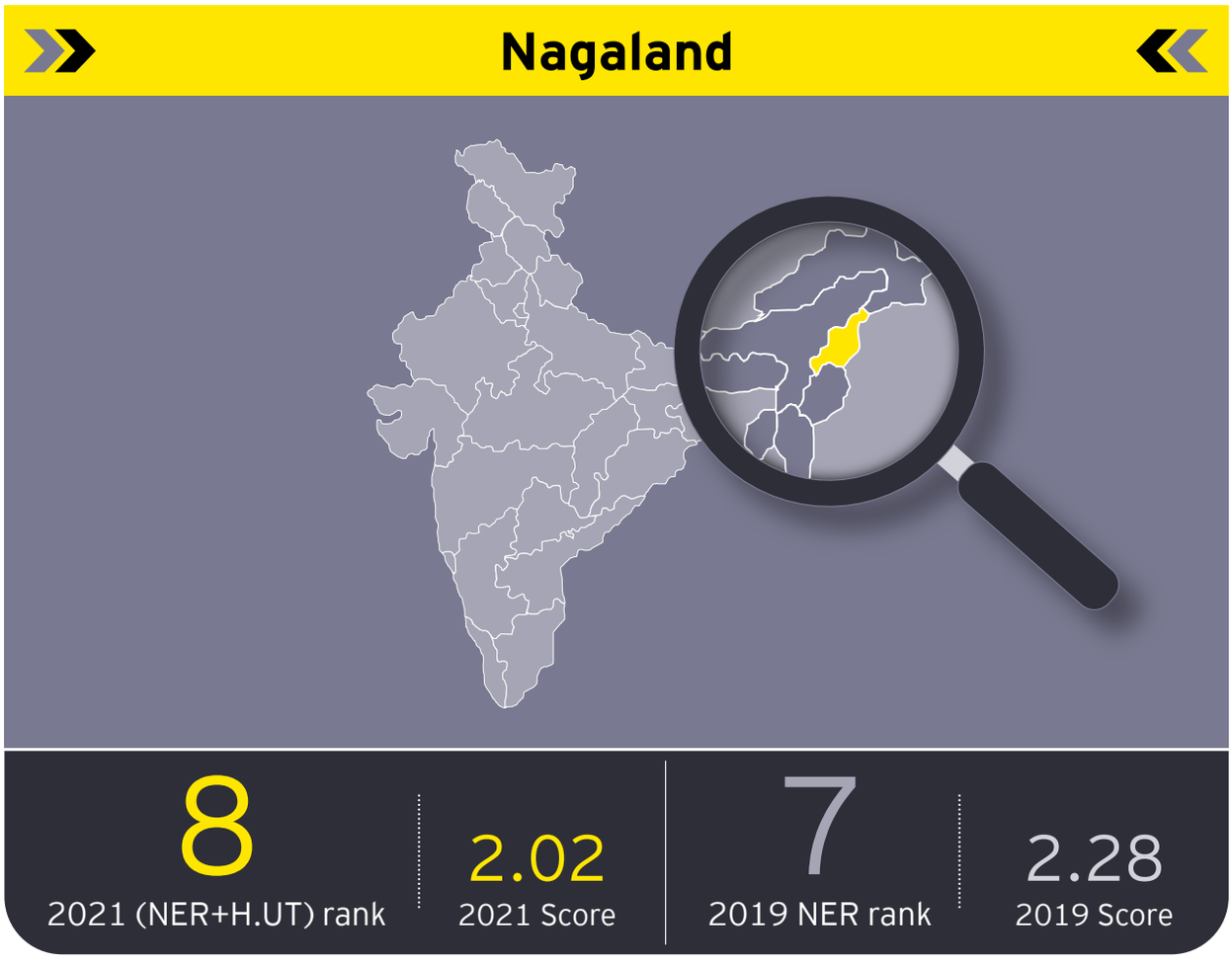






Note: It is important to check the confidence interval (CI) of a States' indicator scores before making any judgement on its performance.

Quality of Road Infrastructure and Multi Modal Terminal Infrastructure are perceived to be poor as compared to other North Eastern States. Similarly, Availability and Reliability of Logistics Services specifically Reasonableness of Road Freight Rates is perceived to be lower. Perception regarding Operating and Regulatory Environment is poorest amongst all other North Eastern States.



Note: Owing to the change in statistical methodology and classification between 2019 and 2021, a direct rank and score comparison is not recommended.

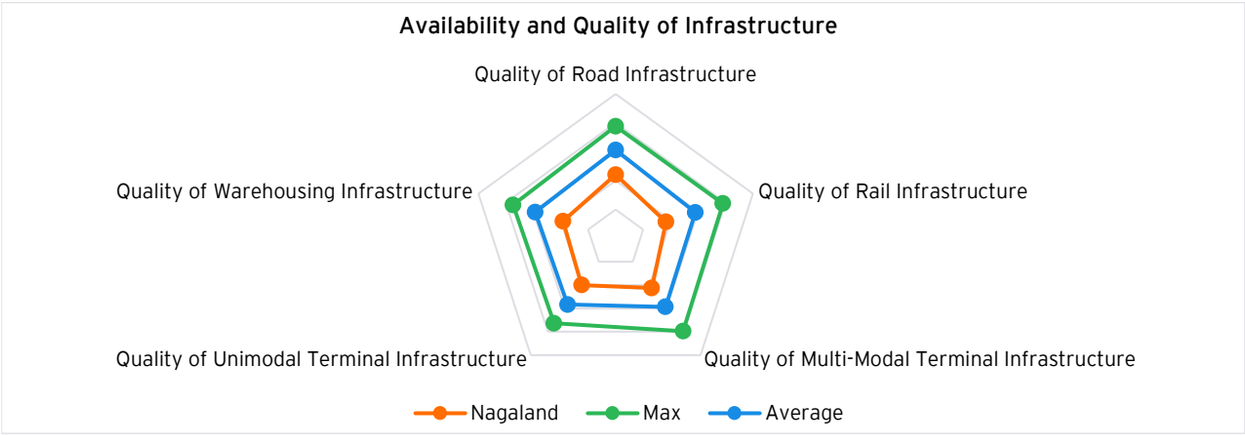
Nagaland – a brief logistics profile

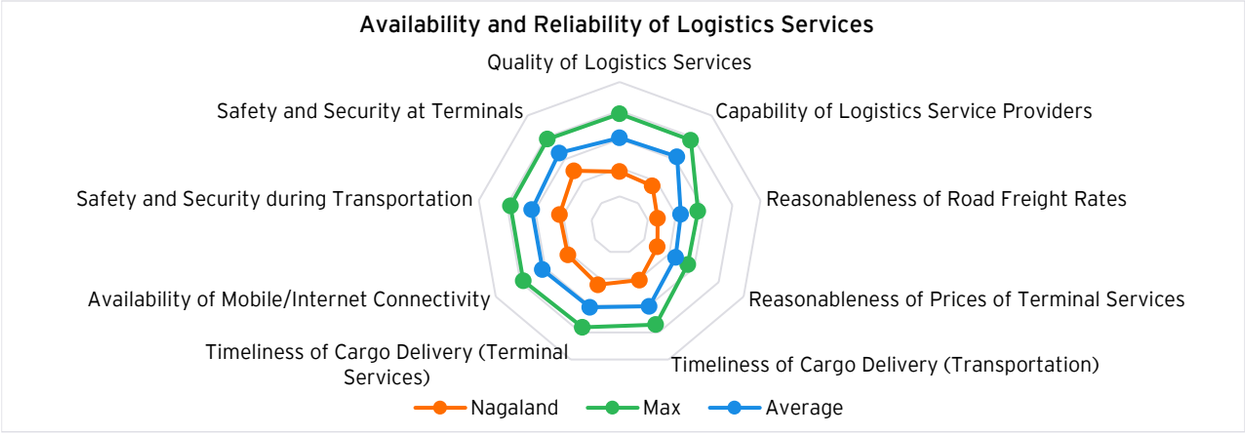
Brief overview of the logistics profile of the State is provided in the exhibit 72 below.

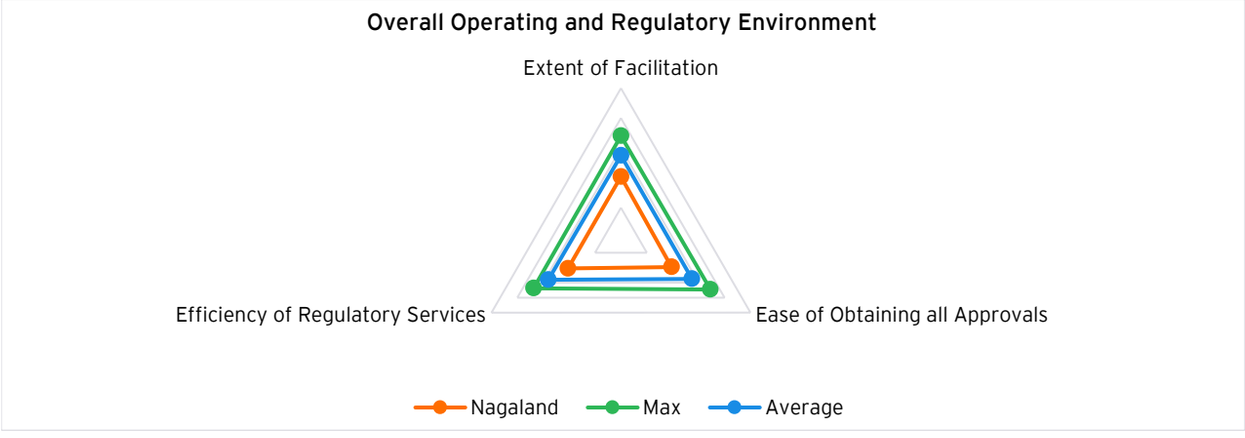
Exhibit 72: Logistics profile of Nagaland

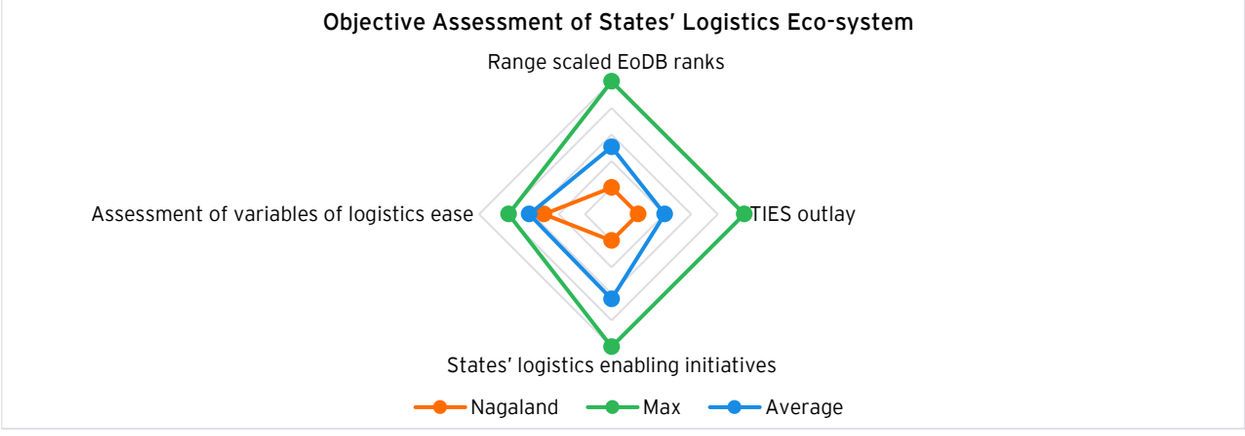
Parameter	Unit	Value	Year	Source
Road length	km	NH=1,548	2020-21	MoRTH/NHAI
Railway track	Track-km	23	2019-20	MoR
Air cargo terminals	nos.	1	2020-21	AAI
Rail goods sheds	nos.	6	2019-20	MoR
Cold storage capacity	MT	7,150	2020-21	MoCAF&PD
Logistics training centres	nos.	1	2020-21	MoSDE
No. of individuals trained in logistics	nos.	60	2020-21	MoSDE

Exhibit 73: States' LEADS indicator score and ranking









Note: It is important to check the confidence interval (CI) of a States' indicator scores before making any judgement on its performance.

Quality and Availability of Logistics Infrastructure is perceived to be significantly inferior as compared to other North Eastern States (except Assam). Similarly, Quality of Logistics Services and Capability of Logistics Service Providers is perceived to be lower as compared to other North Eastern States (except Assam). Reasonableness of Road freight Rates and Prices of Terminal Services continues to be a challenge like all other North Eastern States.

Initiatives undertaken by the State government

Institutional mechanism for logistics

- The State has appointed nodal officer for logistics sector.

States in North East are perceived to be facing challenges across all the indicators linked to logistics efficiency. All the State in North East have scored below Assam across all the 3 key indicators related to Availability and Quality of Infrastructure, Availability and Reliability of Logistics Services and Service Providers, and Operating and Regulatory Environment. This indicates the cross-cutting challenges prevalent across the entire logistics ecosystem in the region.

Assam has taken the lead within North East region with regard to logistics and has significant influence on the overall logistics performance of the other States.

Industry perception regarding individual indicators related to Infrastructure, Services and Regulatory Environment is captured below.

Availability and Quality of Infrastructure

Availability and Qualify of Infrastructure is perceived to be a key challenge hindering logistics efficiency in North East. Logistics industry stakeholders have identified multiple infrastructure gaps across the region, some of which are:

- Poor quality of roads across the region e.g.
  - road connecting Nagaland and Manipur
  - national highway between Silchar and Imphal
  - access to Tripura from Agartala
  - Jiribam to Imphal road
- Old bailey bridges which tends to get damaged frequently
- Limited rail connectivity across the region, although network expansion is happening at certain places
- Lack of infrastructure at Agartala railway station for unloading and parking of cars
- Draft and terminal infrastructure limitations at riverine ports due to which majority of the cargo continues to move on road
- Lack of logistics facilities like CFS, ICD, Warehouses across the region. Industry is primarily dependent on the ICD in Amingaon. According to Government of Tripura, government has initiated a proposal for setting up a Logistics Park at Sabroom in South Tripura district.

These constraints in infrastructure are reflected in the low scores for all the North East States.

Availability and Reliability of Logistics Services and Service Providers

Lack of sufficient logistics service providers, as also the quality of service provision, has been identified as a key challenge by stakeholders. Along with lack of infrastructure, this is a major factor contributing to higher logistics cost for the industry. LSPs operate predominantly from their bases in Kolkata, and sometimes from Assam. Stakeholders have voiced concerns regarding high container handling charges at Amingaon ICD. Lack of sufficient logistics facilities like ICD/CFSs and warehouses leads to overdependence on Amingaon ICD as the only option. This ultimately results in congestion, increased dwell time and higher costs. Stakeholders in Meghalaya have highlighted that cargo clearance infrastructure at Dwaki Land Customs Station is a key bottleneck. Limited rail container services offered by CONCOR has also been identified as a challenge. Overall, reasonableness of road freight rates and prices for terminal services in North East continues to be a key concern for the industry.

Limited availability of mobile/internet connectivity across various transport corridors in the region has been identified as a key challenge hindering track and trace of cargo.

Operating and Regulatory Environment

Similar to the previous two themes, States in North East have scored relatively low when it comes to Operating and Regulatory Environment related indicators. Unscheduled stoppages by RTO officials has been highlighted as a key pain point across various States in the North East. In

general, plans for logistics infrastructure creation are gaining some momentum now, which will also lead all States of the North East to create an enabling facilitative institutional set-up.

Issues and Challenges common to all States in the NER as narrated by industry stakeholders

Infrastructure

- Limited density of road and rail transport infrastructure results in negative logistics score
- In Manipur, the Old bailey bridges are used to cross rivers in the State, which tend to get damaged by the passage of heavy vehicles
- In Meghalaya, the Land customs stations (LCS) at Dowki and at other locations have almost negligible infrastructure
- Road/ Rail access from Agartala to other regions within Tripura needs augmentation
- Inland waterways of the State are in a dilapidated condition, owing to the water level/draft not being maintained and even-after conducting a pilot runs, the situation has not improved.
- Unsurfaced and patchy roads in the State lead to an increase in the turnaround time
- Road transportation to neighbouring States and Countries is costly owing to the unruly informal payments. To avoid the same, truckers/ drivers tend to take a longer route, thus resulting in a high logistics cost and transit time.

Services

- Due to limited mobile/ internet connectivity, the State fares in a poor Track and Trace of transit cargo

Regulatory and operating environment

- Empty repo charges of containers for both export and import legs are being recovered from the
- customers through shipping lines ultimately making the transport cost very expensive.
- Limited availability of containers for export.
- Sporadic stoppages by RTO/ Police officials.
- Many road freight routes in the State are prone to unruly informal payments.

Disclaimer: The issues and challenges capture isolated experiences of the stakeholders and continual improvement may already have been in the process addressing the stakeholders' inputs.

Suggestions and recommendations for all States in the NER

The NER States may inspect and investigate the constraints being faced by the industry and may undertake the following measures -

- States may establish a State Logistics Cell and State Logistics Coordination Committee for the integrated development of logistics ecosystem.
- States may implement IT infrastructure for surveillance for monitoring, RFID technology or BARCODE technology to limit unwarranted stoppages and improve track and trace services.
- States may form a grievance redressal mechanism for the industry to report issues plaguing the logistics industry.
- States may prepare and formalize the State Logistics Master Plan for driving greater coordination between cross-sector implementing agencies for targeted outcomes.
- States may undertake redevelopment of LCSs at Dowki as well as at other locations where current infrastructure is outdated.
- States may coordinate with the relevant central ministries (MOR, MOCA, MoRTH, MOPSW) for undertaking a holistic development of transport infrastructure majorly in roads and inland waterways.

Delhi

1	3.36	2	3.35
2021 UT rank	2021 Score	2019 UT rank	2019 Score

Note: Owing to the change in statistical methodology between 2019 and 2021, a direct rank and score comparison is not recommended.

Delhi – a brief logistics profile

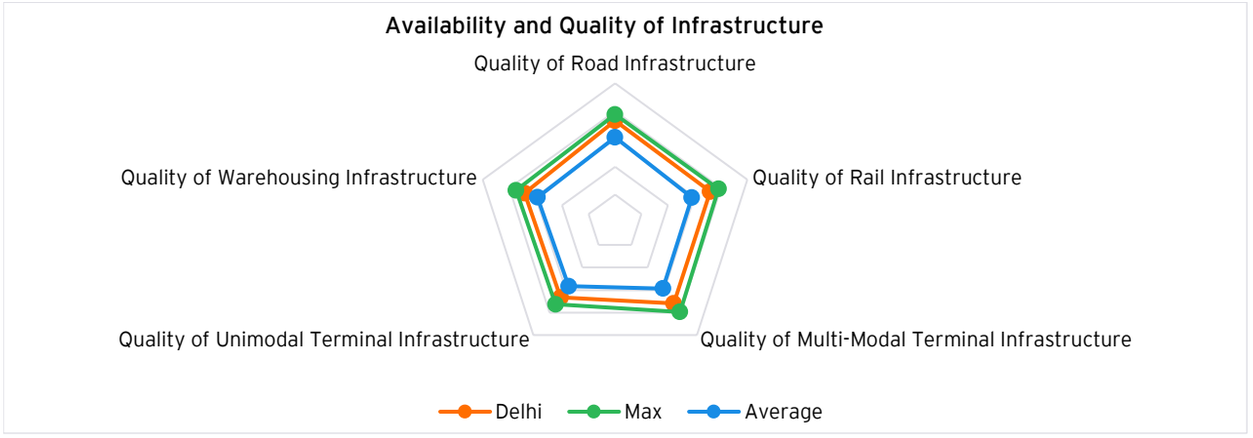
Brief overview of the logistics profile of the UT is provided in the exhibit 74 below.

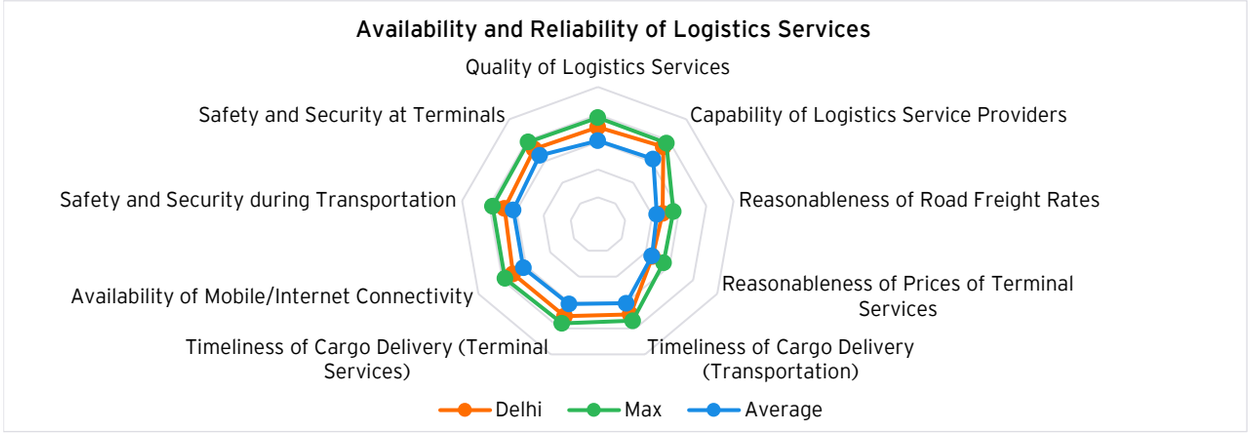
Exhibit 74: Brief logistics profile of Delhi

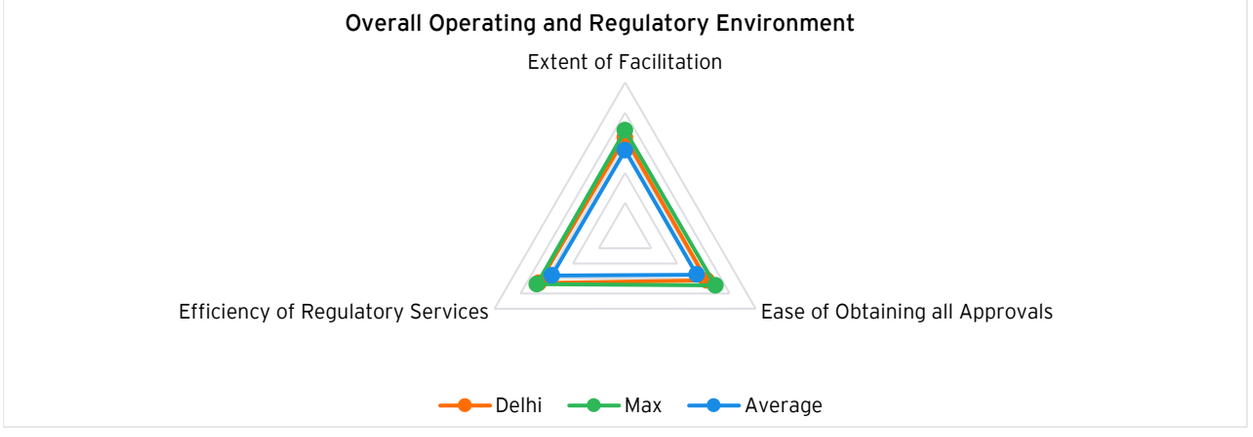
Parameter	Unit	Value	Year	Source
Road length	km	NH=616	2020-21	MoRTH/NHAI
Railway track	Track-km	706	2019-20	MoR
Integrated Check Post (ICP)	nos.	1	2020-21	LPAI
Air Freight Station (AFS)	nos.	1	2020-21	MoCA
Air cargo terminals	nos.	1	2020-21	AAI
Rail goods sheds	nos.	73	2019-20	MoR
WDRA registered warehouse capacity	MT	19,646	2019-20	WDRA
Cold storage capacity	MT	1,29,857	2020-21	MoCAF&PD
Registered Goods Commercial Vehicles (GCVs)	nos.	11,640	2020-21	MoRTH
Registered drivers of GCVs	nos.	2,166	2020-21	MoRTH
Logistics training centres	nos.	12	2020-21	MoSDE
No. of individuals trained in logistics	nos.	1,306	2020-21	MoSDE

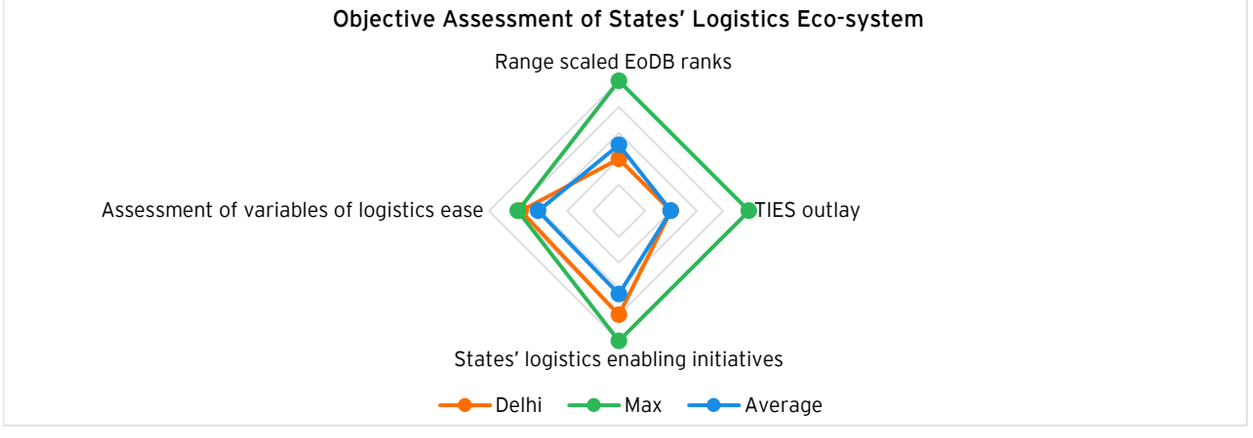
Delhi has the highest air cargo capacity in the country with a share of 30.17%

Exhibit 75: States' LEADS indicator score and ranking









Note: It is important to check the confidence interval (CI) of a States' indicator scores before making any judgement on its performance.

LEADS ranking of Delhi is increased by one place to the top among "other UTs" in this year's LEADS exercise. The UT is perceived above the composite average for all the indicators related to Availability and Quality of Infrastructure. The UT is perceived above the composite average for most indicators related to Availability and Reliability of Logistics Services. The UT is perceived above the composite average for all indicators related to Operating and Regulatory Environment. It's score for Efficiency of Regulatory Services coincides with the maximum composite score. Although the UT is ranked first among "other UTs" the respondents have highlighted critical constraints such as safety of cargo at terminals as well as during transit, sub-standard road connectivity to industrial areas, unfavorable entry timings for commercial vehicles and high turnaround time at Tughlakabad ICD. The UT is perceived above the composite average for all the indicators related to Objective Assessment of States' Logistics Ecosystem except Range scaled EoDB ranking. This highlights that the UT has sufficient logistics infrastructure available.

Issues and challenges as narrated by industry stakeholders

Infrastructure

- There is a lack of suitable warehouses within the Delhi UT State borders, and hence warehouses in the NCR area are being used to store goods to be sent to Delhi. Transportation from these warehouses to Delhi further increases the cost and time.
- Road connectivity to Industrial areas in Okhla is in sub-standard condition.

Services

- Handling and transportation rates at Tughlakabad (Major ICD in the Delhi/NCR area) are very high.
- Customers using Delhi airport for freight movement are liable for the demurrage even if delays are caused by carriers and terminal operators.
- CONCOR Terminal in Delhi levies exorbitant local handling charges and increases their tariff without due communication.
- Critical delays in clearances of long-standing import and export containers.

Regulatory and operating environment

- NGT's Green tax is a big issue in Delhi. It is around INR 2500-2600 on the loaded container and INR 1300 on the empty container.
- On every cargo container movement or truck entering the Delhi border, MCD entry charges are levied, which increase the cost of movement.
- As heavy commercial vehicles are not permitted within city limits, smaller commercial vehicles to transport cargo within the city are used, and the cost increases manifold.

Disclaimer: The issues and challenges capture isolated experiences of the stakeholders and continual improvement may already have been in the process addressing the stakeholders' inputs.

Suggestions and recommendations

The State may inspect and investigate the constraints being faced by the industry and may undertake the following measures -

- A dedicated Logistics Policy may be prepared to provide regulatory support, guidelines, requisite approvals, incentives, and clearances for the logistics sector.
- Implementation of digital initiatives to decrease the number of physical checks of commercial vehicles by enforcement officers.
- The UT may identify dedicated parking spaces to prevent congestion and safety issues.
- UT may consider rationalising the MCD (Municipal Commission of Delhi) entry fees for heavy vehicles and examine ways to reduce the NGT tax on commercial vehicles.
- Rationalization of charges can also be considered at ICD/TKD in coordination with CONCOR.

- To eliminate the constraint of lack of enough warehousing space, the UT may examine the possibility to provide expedited clearance for approvals through a single window system.

Initiatives undertaken by the State government

State policy for logistics

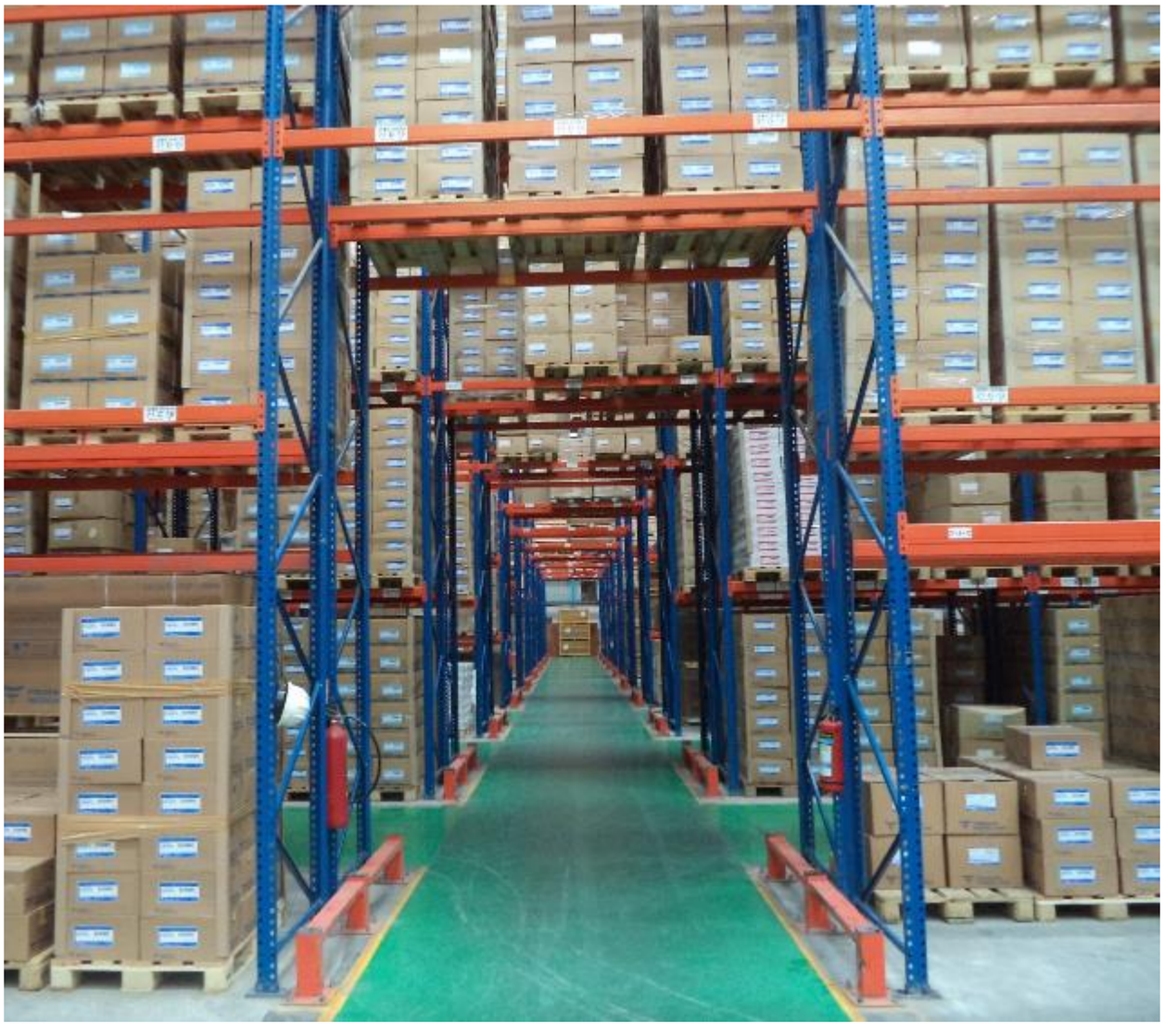
- The Logistics Policy of the State is under preparation.

Institutional mechanism for logistics implementation

- The State has set up a robust institutional mechanism for logistics – appointed nodal officer for logistics, constituted State logistics cell and State Logistics Co-ordination Committee.

Key initiatives under the regulatory regime

- As per Delhi Master Plan, 2021 Integrated Freight Complexes have been recommended to integrate goods movement by road and rail.
- The UT has a single-window mechanism for processing approvals for logistics facilities
- Delhi EV Policy 2020 incentivizes the conversion of light commercial vehicles (used as suitable carriers) into the electric vehicle



Chandigarh

2021 UT rank	2021 Score	2019 UT rank	2019 Score
2	3.06	1	3.45

Note: Owing to the change in statistical methodology between 2019 and 2021, a direct rank and score comparison is not recommended.

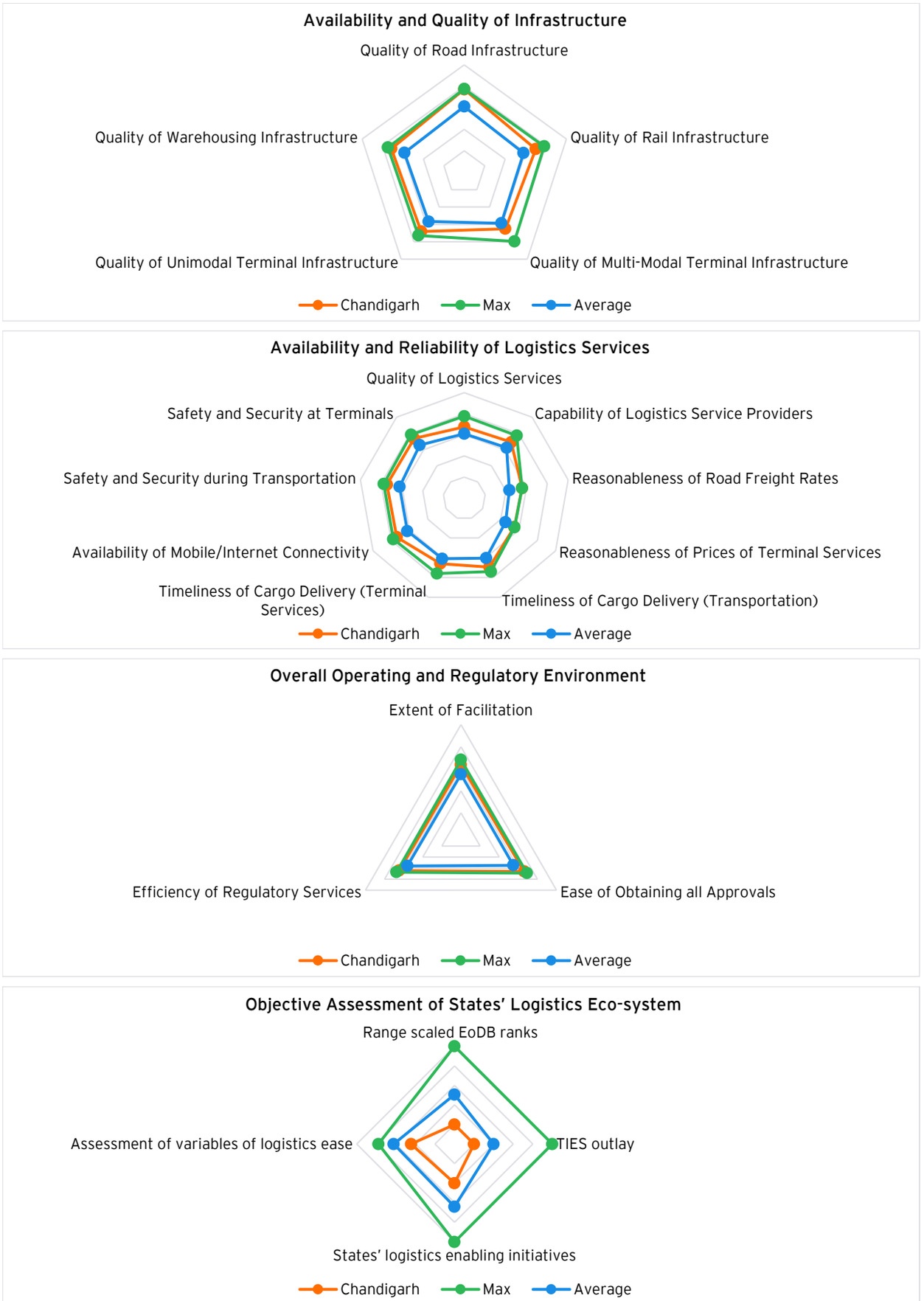
Chandigarh – a brief logistics profile

Brief overview of the logistics profile of the UT is provided in the exhibit 76 below.

Exhibit 76: Brief logistics profile of Chandigarh

Parameter	Unit	Value	Year	Source
Road length	km	NH=15	2020-21	MoRTH/NHAI
Railway track	Track-km	83	2019-20	MoR
Inland Container Depot (ICD)	nos.	1	2017-18	CBIC
Container Freight Station (CFS)	nos.	0	2017-18	CBIC
Private Freight Terminal (PFT)	nos.	0	2020-21	MoR
Air cargo terminals	nos.	1	2020-21	AAI
Rail goods sheds	nos.	2	2019-20	MoR
WDRA registered warehouse capacity	MT	10,550	2019-20	WDRA

Exhibit 77: States' LEADS indicator score and ranking



Note: It is important to check the confidence interval (CI) of a States' indicator scores before making any judgement on its performance.

LEADS ranking of Chandigarh is dropped by one place, the UT is ranked second among "other UTs" in this year's LEADS exercise. The UT is perceived to be above the composite average for all the indicators related to Availability and Quality of Logistics Infrastructure. Similarly, the UT is perceived above the composite average for all indicators related to Availability and Reliability of Logistics Services with maximum scores in Reasonableness of Road Freight Prices and Terminal Services Prices. However, the respondents have pointed out truck availability as a key constraint in the region. The UT is perceived above the composite average in all the indicators related to Operating and Regulatory Environment. The UT is perceived below composite average for all the indicators related to Objective Assessment of States Logistics Eco-system. This has also been buttressed by respondents who have pointed out low availability of infrastructure due to low cargo volumes in the UT.

Issues and challenges as narrated by industry stakeholders

Infrastructure

- There is a need for a Customs station at Chandigarh, and the cargo from the city must be transported to Ludhiana for EXIM.

Services

- The availability of right size trucks is seldom an issue in Chandigarh, which adds to cargo delays and the cost of carriage.

Regulatory and Operating environment

- The grievance redressal system is slow, and it takes lots of effort to register and complaints and seek intervention.

Disclaimer: The issues and challenges capture isolated experiences of the stakeholders and continual improvement may already have been in the process addressing the stakeholders' inputs.

Suggestions and recommendations

The State may inspect and investigate the constraints being faced by the industry and may undertake the following measures -

- State may work towards preparation of a dedicated Logistics Policy and Logistics Master Plan to provide regulatory support, guidelines, requisite approvals, incentives, and clearances for the logistics sector.
- State may prioritise implementation of digital initiatives to decrease the number of physical checks of commercial vehicles by enforcement officers.
- State may invest in creating Infrastructure in Chandigarh in partnership with an educational institution for the training of logistics personnel.
- State may Identifying peri-urban area for logistics facilities in and around Chandigarh.
- State may create ICD infrastructure to act as a transit point between Chandigarh and Ludhiana.
- State may enable a Single window mechanism and effective Grievance redressal mechanism.
- State may identify and create dedicated parking spaces on a significant route to Ludhiana, Shimla, and Ambala highway.

Initiatives undertaken by the State Government

State Policy for Logistics

- UT doesn't have a dedicated Logistics Policy. UT admin is preparing a dedicated Logistics Policy and Logistics Master Plan

Institutional Mechanism for logistics implementation

- The State has set up a robust institutional mechanism for logistics – appointed nodal officer for logistics, constituted State logistics cell, State Logistics Co-ordination Committee and City Logistics Coordination Committee

The LEADS 2021 Index ranks are presented in three separate categories namely 1) States, 2) North-Eastern States and Himalayan UTs and 3) Other UTs. Andaman and Nicobar Island, Dadra and Nagar Haveli and Daman and Diu, Ladakh, Lakshadweep and Puducherry, have not been ranked due to lack of adequate responses in respect of the Perception-based indicators in the LEADS 2021 survey. There was not enough anecdotal information to suggest relevant observations.

Suggestive initiatives for States and UTs

States and UTs have an essential role to play in bringing down overall logistics costs by having an enabling policy, regulatory and institutional mechanism in place for the logistics sector. The reduction in logistics cost impacts all the three major sectors of economic activity agriculture, manufacturing, and services. States/UTs can gain advantage by reducing overall logistics cost and making the States/UTs' products more competitive globally, increasing its share in India's trade basket. Below are some identified ways by which States/UTs can play its part in supporting integrated development of India's logistics sector. Government of India has advised States/UTs on key initiatives they should undertake to help develop logistics at the State level. The key initiatives are discussed below –

A. *Framing State Logistics policy and State Logistics Master Plan*

States/UTs can provide proactive interventions to the challenges faced by the logistics sector by framing a progressive State Logistics Policy. A State Logistics Policy can act as a guiding framework for the development of the logistics sector. On one side development of a State, Logistics Policy can help the State by boosting its economic competence across goods moved domestically or internationally. On the other side, it can help the logistics sector by providing a cohesive, sustainable, and integrated policy framework for strengthening the industry. The Government of India has also advised States/UTs to develop State Logistics Master Plan in alignment with the National Master plan considering freight flows, available infrastructure, and future requirements.

B. *Establishing a robust institutional mechanism*

The logistics sector comes under the purview of multiple agencies in the State, including the State Transport Dept, Police, RTO, State Public Works Department. This fragmented approach to logistics leads to constraints growth of the sector. Government of India has advised States/UTs to appoint Nodal Officer for the Logistics sector and constitute State Level coordination committee. The Nodal officer can help provide direction to the States/UTs' efforts in pursuing the logistics policy and enable coordinated efforts across State departments to improve logistics in the State.

C. *Implementing single-window clearance system for logistics*

Development of logistics-related infrastructures such as a Warehouse or an ICD/CFS requires a long list of operating and regulatory clearances (such as environment, CLU etc.) from the State. Delay and multiplicity is an impediment to attracting investment in the logistics infrastructure sector and for enabling efficient logistics. Streamlining the approval and clearance process helps develop localised facilities near the point of consumption/manufacture and thereby help in substantial cost reduction as the goods must be transported less.

D. *Establishing effective grievance redressal and dispute resolution mechanism*

There is need of fast-track resolution of grievances faced by stakeholders in logistics ecosystem. Such mechanism will provide a common platform for logistics stakeholders to voice their grievances and facilitate faster solution of issues. It would aid in developing a common and seamless portal for logistics related approvals/clearances and grievances redressal.

E. *Enabling skilling in logistics through State skilling infrastructure*

Lack of adequate sector-specific skilling infrastructure has become a challenge for logistics service providers as they cannot get the requisite skilled human resource. This leads to sub-standard service levels in the logistics sector, inhibiting its growth. Training of drivers and handling equipment operators can help in the reduction of breakage/spoilage of goods. Similarly, skilling at the supervisors and managers' level can help to spur innovation and ready acceptance of technological advancements. States/UTs can play a key role in skilling through the Pradhan Mantri Kaushal Vikas Yojana (PMKVY), Deen Dayal Upadhyay Grameen Kaushalya Yojana (DDU-GKY) and State skill missions.

Adopting initiatives for developing an efficient logistics ecosystem

a) States/UTs may develop first-mile aggregation points for farm produce and products from MSME Sector. States/UTs can identify the manufacturing and Agri-clusters and provide incentives and tax breaks to establish aggregation points.

b) Improper and illegal parking along the roads is a safety hazard and hinders the flow of traffic. States/UTs can identify dedicated parking spaces in peri-Urban areas to curtail illegal parking. The parking spaces may be developed with logistics parks and warehousing facilities planned in per-urban areas. This will also help in decongestion of the traffic occurring within city limits.

c) The parking spaces for trucks shall be strategically designated at places along major highways and key freight routes. Parking spaces shall have basic amenities for drivers including resting areas, drinking water facility, etc.

d) Chokepoints and bottlenecks can be mapped, and traffic solutions can be implemented to reduce congestion and enable free flow movement of freight on the road.

e) States/UTs are also required to ensure inter-modal connectivity by linking the existing or proposed terminals in the State with the major transport linkages viz. National Economic Corridor, etc. This will ensure the first mile/last mile connectivity, thus optimizing the logistics cost and operational delays.

f) States/UTs need to develop the logistics plan keeping in consideration that the last mile delivery of the commodities is ensured. This will require a detailed and rigorous traffic and transportation planning of the cities.

g) Usage of electric vehicles for last mile deliveries will warrant sustainable and environment-friendly logistics ecosystem in the States/UTs.

h) To promote minimal inspection and stoppages of trucks on the road, the States/UTs can identify and embrace technological solutions and move towards Smart enforcement of laws and statutes. This will help the logistics sector cutting down on unwanted delays and illegal costs.

i) For ensuring safety and security of cargo at terminals, modern material handling systems and facilities may be used for screening of cargo for safe management.

j) States/UTs may leverage inland waterways and railways as preferred mode for transportation of cargo as these are relatively cheaper and eco-friendly than the road transport.

k) Modernization of available logistics infrastructure of the States/UTs for EXIM movement of cargo may also be adopted by the States/UTs to reduce lead times and improve the business.

l) Various incentives may be provided to the logistics stakeholders in terms of easy facilitation of the land banks and relaxation on FAR, height, etc. for setting up of logistics facilities.

m) States/UTs may proactively enable ways for improved compliance of carriage of Goods by the Roads Act 2007. This will help the State in improved road safety and streamlining of traffic on the road.

Conclusion

LEADS is an annual exercise that assesses the logistics ecosystem of a State/UT and promotes competitive federalism. LEADS 2021 index encapsulates the perception of stakeholders and objective assessment of variables enabling logistics ease within a State/UT. The study not only aims to provide a snapshot of the existing logistics ecosystem in the State/UT, but also an opportunity to make improvements.

States/UTs are encouraged to examine and evaluate the findings of the report and formulate a suitable strategy and a prioritised Action Plan for improving logistics performance. The initiatives taken by States/UTs in response to the findings will be considered as an important parameter in the assessment of their performance in subsequent LEADS exercises.

Department of Commerce through LEADS will continuously engage with all States and UTs to support, facilitate and promote improvements in the overall logistics ecosystem. Synergies flowing from such a coordinated approach will reduce logistics costs and which, in turn, will act as significant stimulant in achieving India's vision of a 5 trillion-dollar economy over the next five years.

Annexure 1: Perception Questionnaire

For each question, please select the option that best describes your current work. All the questions are mandatory for beginning the survey.

(Disclaimer- Identity of all respondents will not be published anywhere, and all responses will be kept anonymous)

1. Name of Respondent:

2. Name of the Company:

3. Location: Town/ Village:
   City:
   State:
   Pin code:

4. Nature of market you primarily deal with:
- ☐ EXIM
- ☐ Domestic
- ☐ Both

5. Your position in your company / firm:
- ☐ Senior Management
- ☐ Middle Management (Manager and above)
- ☐ Supervisor
- ☐ Operations Executive
- ☐ Other

6. Transport mode you typically deal with:
- ☐ Road
- ☐ Rail
- ☐ Airways
- ☐ Waterway (Sea, Inland)

7. Cargo type you primarily deal with:
- ☐ Bulk/Break Bulk
- ☐ Containerized Cargo
- ☐ Perishable Cargo
- ☐ Parcel (Express/Non-Express) Cargo
- ☐ Special Cargo (Project Cargo, Hazardous, High Value Commodities, etc.)
- ☐ Controlled atmosphere/ Refrigerated cargo
- ☐ Liquid cargo
- ☐ Others: Please specify

8. Please indicate the predominant nature of your involvement in the logistics chain:
- ☐ Trader/Shipper
- ☐ Transport Service Provider (including Road Haulier, Rail Operator, Shipping Line, Airline, Inland Waterways)
- ☐ Terminal Infrastructure Service Provider (including
  ICD, CFS, PFT, AFS, Air Cargo Terminal, Port Terminal, Warehouse, Cold Store, etc.)
- ☐ Logistics Service Provider (including Freight forwarder, Customs broker, Carriage and Freight Agents, Air Cargo Agents, 3rd Party Logistics Service Provider, NVOCC, Aggregators/Consolidators)

Please select top three (3) States/UTs where you perform logistics operations and/or are familiar with ground realities of logistics

State/UT 1	
State/UT 2	
State/UT 3	

(PART A)

This part of the survey comprises of three main sections and all questions are mandatory. Please provide responses based on your perception of the entire logistics chain across the States/UTs.

Section 1: Logistics Infrastructure

A. Rate the overall availability and quality of logistics infrastructure in your chosen States/UTs

	Very Poor	Poor	Average	Good	Very Good
State/ UT 1					
State/ UT 2					
State/ UT 3					

Please State the top 3 issues faced:

1.
2.
3.

1. **Rate the quality of road infrastructure** available in your chosen States/UTs
(***Road Infrastructure*** *here refers to the road network and associated physical infrastructure such as road condition, signage, lighting, vehicle refuelling services, toll, State border points, etc.*)

	Very Poor	Poor	Average	Good	Very Good
State/ UT 1					
State/ UT 2					
State/ UT 3					

2. **Rate the quality of rail infrastructure available in your chosen States/UTs**
(***Rail Infrastructure*** *here refers to the sufficiency of rail tracks, congestion on rail networks, etc.)*

	Very Poor	Poor	Average	Good	Very Good
State/ UT 1					
State/ UT 2					
State/ UT 3					

3. Rate the **quality of multimodal terminal infrastructure** in your chosen States/UTs
(***Multimodal Terminal Infrastructure*** *here refers to ICDs, CFSs, AFSs, PFTs, MMLP, port terminals, airport terminals, logistics parks, inland waterway terminals, dry ports, Land Custom Stations, etc.)*

	Very Poor	Poor	Average	Good	Very Good
State/ UT 1					
State/ UT 2					
State/ UT 3					

4. Rate the **quality of unimodal terminal infrastructure** in your chosen States/UTs
(*Unimodal Terminal Infrastructure here refers to Road-based terminals, transport nagar, LCS/LCP etc.*)

	Very Poor	Poor	Average	Good	Very Good
State/ UT 1					
State/ UT 2					
State/ UT 3					

5. Rate the **quality of warehousing infrastructure** in your chosen States/UTs
(***Warehousing Infrastructure*** *refers to warehouses including silos/bulk storage, consolidation centres, cold storages, packhouses, etc.)*

	Very Poor	Poor	Average	Good	Very Good
State/ UT 1					
State/ UT 2					
State/ UT 3					

Section 2: Logistics Services Provision

B. Rate the overall availability, efficiency and reliability of logistics services and logistics service providers in your chosen States/UTs

	Very Poor	Poor	Average	Good	Very Good
State/ UT 1					
State/ UT 2					
State/ UT 3					

Please State the top 3 issues faced:

1.
2.
3.

6. Rate the **quality of logistics services** in your chosen States/UTs
(Logistics services *here refers to- haulage/transportation by different modes, terminal operations including handling and storage of cargo, Delivery in full and on-time, customs broking, and value-added services like consolidation, repackaging, labelling, last-mile connectivity, etc.)*

	Very Poor	Poor	Average	Good	Very Good
State/ UT 1					
State/ UT 2					
State/ UT 3					

7. Rate the **capability of logistics service providers** to serve as one-stop shop for inter-modal and/or multimodal shipments in your chosen States/UTs
*(**Logistics Service Providers** here refers to transport providers, truck drivers, freight forwarders, custom house agents, MTOs etc.)*

	Very Poor	Poor	Average	Good	Very Good
State/ UT 1					
State/ UT 2					
State/ UT 3					

8. Rate the **reasonableness of road freight rates** in your chosen States/UTs

	Very cheap	Cheap	Reasonable	Expensive	Very expensive
State/ UT 1					
State/ UT 2					
State/ UT 3					

9. Rate the **reasonableness of prices of terminal services** in your chosen States/UTs
*(**Terminal services** here is in terms of handling, storage, value-added services, last mile connectivity charges, etc.)*

	Very cheap	Cheap	Reasonable	Expensive	Very expensive
State/ UT 1					
State/ UT 2					
State/ UT 3					

10. Rate the **timeliness of cargo delivery in relation to transportation** in your chosen States/UTs
*(**Timeliness** here refers to delivery within schedule/expected time within a State/ UT)*

	Very Poor	Poor	Average	Good	Very Good
State/ UT 1					
State/ UT 2					
State/ UT 3					

11. Rate the **timeliness of cargo delivery in relation to terminal services** provided in your chosen States/UTs *(**Timeliness** here refers to reasonable time taken for terminal operations viz., time taken in stuffing up a cargo, customs broking time, dispatch waiting period, etc.)*

	Very Poor	Poor	Average	Good	Very Good
State/ UT 1					
State/ UT 2					
State/ UT 3					

12. Rate the **availability of mobile/internet connectivity on the freight routes** in your chosen States/UTs *(**Availability of mobile/internet connectivity** here refers to the ease of tracking and tracing of the cargo movement and condition)*

	Very Poor	Poor	Average	Good	Very Good
State/ UT 1					
State/ UT 2					
State/ UT 3					

13. Rate the **safety/security of cargo during transportation** to/from your chosen States/UTs *(**Safety/Security** refers to consistency in delivery without damage/deterioration/pilferage/loss of cargo due to logistics inefficiencies or accidents or thefts during transportation of goods)*

	Very Poor	Poor	Average	Good	Very Good
State/ UT 1					
State/ UT 2					
State/ UT 3					

14. Rate the **safety/security of cargo at terminals** to/from your chosen States/UTs *(**Safety/Security** refers to consistency in delivery without damage/deterioration/pilferage/loss of cargo due to logistics inefficiencies or accidents or thefts at the terminal during storage and transhipments)*

	Very Poor	Poor	Average	Good	Very Good
State/ UT 1					
State/ UT 2					
State/ UT 3					

Section 3: Operating and Regulatory Environment impacting logistics infrastructure and service provision

C. Rate the overall Operating and Regulatory Environment impacting logistics in your chosen States/UTs

	Very Poor	Poor	Average	Good	Very Good
State/ UT 1					
State/ UT 2					
State/ UT 3					

Please State the top 3 issues faced:

1.
2.
3.

15. Rate the **extent of facilitation provided by the State government/UT administration for encouraging logistics** in your chosen States/UTs
*(**Facilitation** here refers to existence and effectiveness of policies related to single window clearances, logistics/ labour, ease of availing land and ancillary facilities, maintenance of law and order, and provision of tax breaks/subsidies/access to credit, grievance redressal and dispute resolution, etc.)*

	Very Poor	Poor	Average	Good	Very Good
State/ UT 1					
State/ UT 2					
State/ UT 3					

15(a). Rate the **ease of obtaining all approvals from the States/UTs for setting up warehouse infrastructure** in your chosen States/UTs
*(**Warehousing Infrastructure** refers to warehouses including silos/bulk storage, consolidation centres, cold storages, packhouses, etc.)*

	Very Poor	Poor	Average	Good	Very Good
State/ UT 1					
State/ UT 2					
State/ UT 3					

15(b) Please provide the initiatives undertaken by the States/UTs in streamlining approvals for setting up warehouses.

Initiatives:
1.
2.
3.

16. Rate the **efficiency of regulatory processes** in your chosen States/UTs which are in purview of the State Government
*(**Efficiency** refers to speed, simplicity, transparency in processing, ease of documentation)*
*(**Regulatory processes** include those relating to pollution control, change of land use, RTOs, GST and all other such agencies)*

	Very Poor	Poor	Average	Good	Very Good
State/ UT 1					
State/ UT 2					
State/ UT 3					

17. Rank the **top five (5) issues/challenges** being faced in the logistics sector in your chosen States/UTs. (Indicate the ranks in the box as per your preference from 1 to 5).

	Lack of first/last mile connectivity
	Long haulage choke points/multiple checking points in transit
	Lack of right size/capacity of Rolling stock
	Non-Availability/Congestion at Terminals (Terminals include Ports/ CFS/ ICD/ AFS/Intermodal stations/Good sheds/Warehouses etc.)
	Shortage of warehouses/cold storages/packhouses
	Non-Availability of suitable Parking spaces/Public utilities along key freight routes (Public utilities include driver restrooms, medical facilities, truck repair facilities, 24X7 emergency helpline)
	Shortage of trained professionals and operators such as truck drivers
	Theft/pilferage of goods in transit or storage
	Lack of Mobile and Internet connectivity along key freight routes leading to low cargo visibility during transit
	Delays in obtaining/renewing commercial permits for vehicles/drivers
	Lack of digital integration between Vahaan, Sarathi, RTO, and GSTN causing multiple documentations and hassles
	Lack of Policy to provide Capital subsidy and Fiscal incentives to Logistics Infrastructure
	Lack of transparency and outdated laws leading to multiple enforcement checks and discretionary challans/fines
	Lack of Single Window (including unified grievance redressal, notified landbanks) Mechanism for logistics at State/UT level
	Lack of Unified grievance redressal and dispute resolution mechanism for logistics at State/UT level.

In case an issue/challenge is not enlisted in the options below, please add the same in the remarks

Issues/challenge:

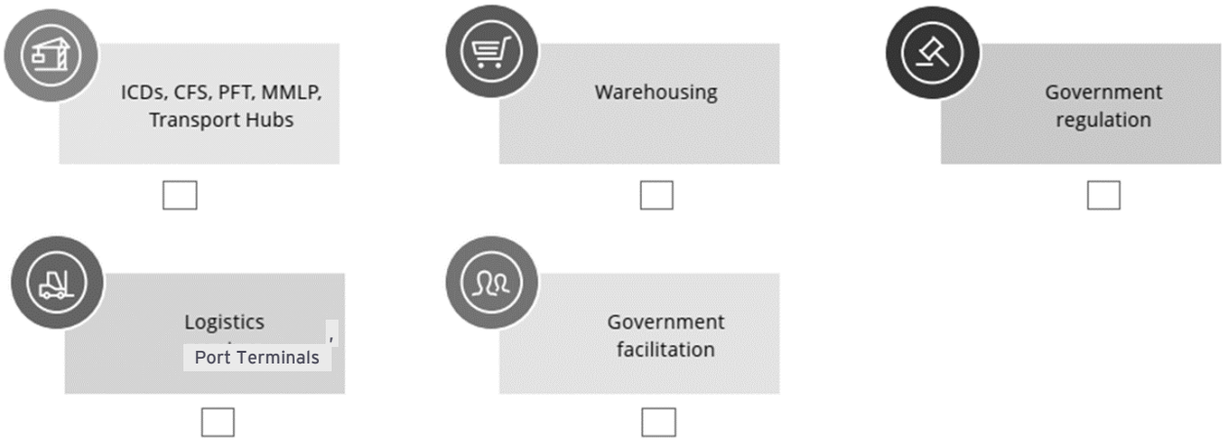
1.
2.
3.
4.
5.

(PART B)

This part of the survey is to seek your opinion on specific components of the three dimension of logistics - infrastructure, services, and operating and regulatory environment. We have categorised the questions along these dimensions.

We request you to choose the transport mode (more than one mode can be chosen), which you are most familiar with and respond to the respective questions

Additionally, we request your inputs on other dimensions (either one or more), categorised as below:



VP = Very Poor, P = Poor, Av = Average, G = Good, VG = Very Good

Please provide responses based on your chosen transport mode and dimension as per the above.

1. Rate the following aspects/dimensions related to road network and transportation for your selected States/UTs

	State/ UT 1					State/ UT 2					State/ UT 3				
	VP	P	Av	G	VG	VP	P	Av	G	VG	VP	P	Av	G	VG
a. Availability of fleet (Goods Commercial Vehicles)															
b. Availability of drivers for commercial vehicles															
c. Availability of right size and right capacity of fleet															
d. Quality of fleet															
e. Quality of road transportation services viz., delays, DIFOT or service surety. etc.															
f. Quality of road transport service providers															
g. Knowledge and competence of road hauliers															

1. Rate the following aspects/dimensions related to road network and transportation for your selected States/UTs															
	State/ UT 1					State/ UT 2					State/ UT 3				
	VP	P	Av	G	VG	VP	P	Av	G	VG	VP	P	Av	G	VG
h. Knowledge and competence of Truck drivers															
i. Extent of technology adoption (e.g., online document sharing, payments, etc.)															
j. Reasonableness of prices paid for road transportation services															
k. Timeliness of road transportation in terms of congestion delays, lack of city bypasses, etc.															
l. Awareness and enforcement regarding protruding/over dimensional cargo by the State/UT.															

2. Rate the following aspects/dimensions with respect to Regional Transport Offices (RTOs) for your selected States/UTs															
	State/ UT 1					State/ UT 2					State/ UT 3				
	VP	P	Av	G	VG	VP	P	Av	G	VG	VP	P	Av	G	VG
a. Ease of obtaining permits/licenses on time															
b. Knowledge and transparency of RTO officials															
c. Extent of technology adoption (e.g., online document sharing, payments, etc.)															

3. Rate the following aspects/dimensions of infrastructure at inter-State border check points for your selected States/UTs															
	State/ UT 1					State/ UT 2					State/ UT 3				
	VP	P	Av	G	VG	VP	P	Av	G	VG	VP	P	Av	G	VG
a. Availability of weighbridges, parking spaces, and utilities															
b. Quality of weigh bridges and utilities															
c. Extent of delays at inter-State borders															
d. Extent of digital intervention for checking processes at the border points															
e. Efficiency of enforcement method being used															

4. Rate the following aspects/dimensions related to rail network and transportation for your selected States/UTs															
	State/ UT 1					State/ UT 2					State/ UT 3				
	VP	P	Av	G	VG	VP	P	Av	G	VG	VP	P	Av	G	VG
a. Availability of rolling stock															
b. Quality of right size and right capacity of rolling stock															
c. Quality and efficiency of rail transportation services															
d. Knowledge and competence of rail operators															
e. Extent of technology adoption (e.g., online document sharing, payments, etc.)															
f. Extent of maintaining ETA/ ETD schedule or the extent of delays															

5. Rate the following aspects/dimensions of port terminal infrastructure and services for your selected States/UTs															
	State/ UT 1					State/ UT 2					State/ UT 3				
	VP	P	Av	G	VG	VP	P	Av	G	VG	VP	P	Av	G	VG
b. Access to port services															
c. Quality and efficiency of services provided at the ports															
d. Knowledge and competence of service providers at the ports															
e. Extent of technology adoption (e.g., online document sharing, payments, etc.)															
f. Reasonableness of prices paid for logistics services at the ports															
g. Extent of delays at the ports															

6. Rate the following aspects/dimensions of air cargo terminal infrastructure and services for your selected States/UTs															
	State/ UT 1					State/ UT 2					State/ UT 3				
	VP	P	Av	G	VG	VP	P	Av	G	VG	VP	P	Av	G	VG
a. Availability of air cargo terminal infrastructure															
b. Quality of air cargo terminal infrastructure															
c. Quality and efficiency of services provided at the air cargo terminal															
d. Knowledge and competence of service providers at the air cargo terminal															
e. Extent of technology adoption (e.g., online document sharing, payments, etc.)															
f. Reasonableness of prices paid for logistics services at the air cargo terminal															
g. Extent of delays at the air cargo terminal															

7. Rate the following aspects/dimensions of terminal infrastructure* and services for your selected States/UTs

**Here road and rail terminal include ICDs/CFSs/PFTs/MMLPs/Transport Nagars*

	State/ UT 1					State/ UT 2					State/ UT 3				
	VP	P	Av	G	VG	VP	P	Av	G	VG	VP	P	Av	G	VG
a. Availability of Road, Rail and IWT terminal infrastructure															
b. Quality of Road, Rail and IWT terminal infrastructure															
c. Availability of cargo and container equipment															
d. Quality of cargo and container equipment															
e. Quality of services provided at the Road, Rail and IWT terminals															
f. Knowledge and competence of service providers at the Road, Rail and IWT terminals															
g. Extent of technology adoption (e.g., online document sharing, payments, etc.)															
h. Reasonableness of price paid for logistics services at the Road, Rail and IWT terminals															
i. Timeliness in cargo handling at Road, Rail and IWT terminals															

8. Rate the following aspects/dimensions of Warehousing services# for your selected States/UTs

#Here refers to services at parcel aggregation centres/ warehouses & cold stores/ packhouses / distribution hubs

	State/ UT 1					State/ UT 2					State/ UT 3				
	VP	P	Av	G	VG	VP	P	Av	G	VG	VP	P	Av	G	VG
a. Availability of warehouses															
b. Quality of warehouses															
c. Availability of cargo and container handling at warehouses															
d. Quality of cargo and container handling equipment at warehouses															
e. Quality of services provided by warehouse															
f. Knowledge and competence of warehouse operators															

8. **Rate the following aspects/dimensions of Warehousing services[#] for your selected States/UTs**

[#]Here refers to services at parcel aggregation centres/ warehouses & cold stores/ packhouses / distribution hubs

	State/ UT 1					State/ UT 2					State/ UT 3				
	VP	P	Av	G	VG	VP	P	Av	G	VG	VP	P	Av	G	VG
g. Extent of technology adoption (e.g., online document sharing, payments, etc.)															
h. Reasonableness of prices paid for warehousing services															
i. Extent of delays at warehouses															

9. **Rate the following aspects/dimensions with respect to the services provided by Logistics Service Providers for your selected States/UTs**

	State/ UT 1					State/ UT 2					State/ UT 3				
	VP	P	Av	G	VG	VP	P	Av	G	VG	VP	P	Av	G	VG
a. Quality (Availability and efficiency) of services provided by service providers															
b. Knowledge and competence of logistics service providers															
c. Extent of technology adoption (e.g., online document sharing, payments, etc.)															
d. Reasonableness of prices paid for availing logistics services															
e. Extent of delays in logistics service provision															

10. **Rate the extent of informal payments solicited at any stage for cargo movement in your selected States/UTs**

	State/ UT 1					State/ UT 2					State/ UT 3				
	VP	P	Av	G	VG	VP	P	Av	G	VG	VP	P	Av	G	VG
a. In transit: Road															
b. In transit: Rail															
c. At terminals															
d. Inter-State crossings															
e. RTO check points															

11. Rate the following aspects/dimensions with respect to Customs/ State regulations for your selected States/UTs

	State/ UT 1					State/ UT 2					State/ UT 3				
	VP	P	Av	G	VG	VP	P	Av	G	VG	VP	P	Av	G	VG
a. Ease of obtaining approvals/clearances															
b. Consistency in implementation of regulatory provisions															
c. Extent of technology adoption (e.g., online document sharing, payments, etc.)															
d. Extent of obtaining approvals/clearances on time															
e. Rate the delay between custom clearance and loading (subject to availability of containers)															

12. Rate the following aspects/dimensions of other regulatory agencies (Participating Government Agencies) for your selected States/UTs

**Approvals/ clearances here refers to the clearances which are in purview of the State Govt. viz. regarding pollution control, change of land use, RTOs etc.*

	State/ UT 1					State/ UT 2					State/ UT 3				
	VP	P	Av	G	VG	VP	P	Av	G	VG	VP	P	Av	G	VG
a. Ease of obtaining approvals/clearances*															
b. Timeliness/ responsiveness by testing laboratories															
c. Ease of obtaining certifications/test reports															
d. Knowledge and transparency of inspection officials															
e. Extent of technology adoption (e.g., online document sharing, payments, etc.)															

13. With respect to track and trace, rate your selected States/UTs on the following:															
	State/ UT 1					State/ UT 2					State/ UT 3				
	VP	P	Av	G	VG	VP	P	Av	G	VG	VP	P	Av	G	VG
a. Real time information availability															
b. Adoption of RFID tags/GPS devices by the industry															
c. Provision of RFID readers along the routes and terminals															

14. With respect to State government facilitating trade logistics, rate your selected States/UTs on the following aspects:															
	State/ UT 1					State/ UT 2					State/ UT 3				
	VP	P	Av	G	VG	VP	P	Av	G	VG	VP	P	Av	G	VG
a. Responsiveness of administration on Law and Order services															
b. Responsiveness of Trade/Transporter unions															
c. Effectiveness of State labour policies															

Annexure 2: Objective Questionnaire

Objective-based questions on LEADS indicators

Please provide the details of the respondent:

Name of State:	
Name of Nodal Office/ Designated State Representative:	
Designation of Nodal Office/ Designated State Representative:	
Mobile Number:	
Email Address:	

This survey comprises 2 sections related to the Logistics sector in States/UTs. All the questions are mandatory.

Section 1: Regulatory and Institutional Support for Enabling Logistics

						(Yes/ No)
Q1	Does the State/UT have a Logistics Policy?					
	If the answer to the above is "No", Does the State/UT have any plans to launch the Logistics Policy within next one year?					
Q2	Does the State/UT have a Logistics Park Policy?					
	If the answer to the above is "No", Does the State/UT have any plans to launch the Logistics Park Policy within next one year?					
Q3	If the answers to Q1 and Q2 are "No", is there any other State policy which covers logistics?					
Q4	If the answer to Q3 is 'Yes', does the Policy:					
	(a) Grants "Industry or Priority" status to logistics?					
	Provide taxes (holiday / rebate) and/or other fiscal incentives to the logistics sector?					
	(c) Earmark a dedicated fund for investment in the logistics sector?					
Q5	Does the State/UT have a State Logistics Master Plan?					
	If the answer to the above is "No", Does the State/UT have any plans to launch the State Logistics Master Plan within next one year?					
Q6	Has the State/UT appointed the Nodal officer for the integrated development of logistics sector in the State/UT?					
Q7	Has the State Logistics Cell been constituted?					
	If the answer to the above is "Yes", How many meetings of the Logistics Cell were held from its inception? (Please tick below)					
	0	1	2	3	More than 3	
Q8	Has the State Logistics Co-ordination Committee been constituted?					
	If the answer to the above is "Yes", How many meetings of the State Logistics Co- ordination Committee were held from its inception? (Please tick below).					
	0	1	2	3	More than 3	
Q9	Has the City Logistics Coordination Committee been set up for the implementation of City Logistics plans for all the identified cities of your State/UT?					

						(Yes/ No)
	If the answer to the above is "Yes", How many meetings of City Logistics Coordination Committee were held from its inception? (Please tick below).					
	0	1	2	3	More than 3	
Q10	To enable the development of Logistics Parks and Terminals does the State/UT facilitate for provision of:					
	a. Capital incentive and Interest Subsidy for setting up of Logistics Parks?					
	b. Earmark at least 30 land area in various State Industrial Development Area for development of logistics infrastructure					
	c. Deemed conversion of Change of Land Use within 30 days of application					
	d. Standard layout and design specifications for logistics parks and warehousing of different areas/sizes and fast track approvals.					
Q11	Do the majority of terminals in your State/UT have adequate first/last mile connectivity to the National/State Highways?					
Q12	Has the State/UT mapped the choke points/bottlenecks in road freight movement and undertaken measures to alleviate the bottlenecks?					
Q13	Does the State/UT have a single window mechanism for processing approvals for logistics facilities*? (*Logistics facilities include logistics terminal, transport, and warehousing infrastructure).					
Q14	Does the State/UT have grievance redressal and dispute resolution mechanism for logistics sector?					
Q15	Have the State/UT implemented technology interventions for Smart Enforcement (e.g., weighbridges, sensors, camera etc.) for minimal inspection and stoppages of truck on road?					
Q16	Has the State/UT undertaken initiatives for enforcement of the Central Motor Vehicle Rule, 2014 to restrict protruding cargo?					
Q17	Has the State/UT undertaken initiatives for identifying peri-urban areas for logistics facilities?					
Q18	Does the State/UT have an enabling policy/scheme for creation of infrastructure for training of truck drivers, other logistics personnel (loaders/unloaders, packers)?					
Q19	Does the State/UT have a policy/scheme for creation of dedicated parking spaces along major highways and key freight routes?					
Q20	Has the State/UT taken measures to create sustainable and environment friendly logistics?					

If the answer to any of the above question is 'Yes', please provide the Government notification(s) / Supporting documentary evidence(s)/Minutes of the Meeting(s), wherever applicable for the same.

Annexure 3: 27 Secondary parameters – LEADS 2021

Guiding principles:

- All the data points that were sough since the Start of LEADS 2021 exercise were exploratory in nature. An attempt to understand the periodicity, frequency and consistency of data across States
- Data has been collated from central / secondary sources available

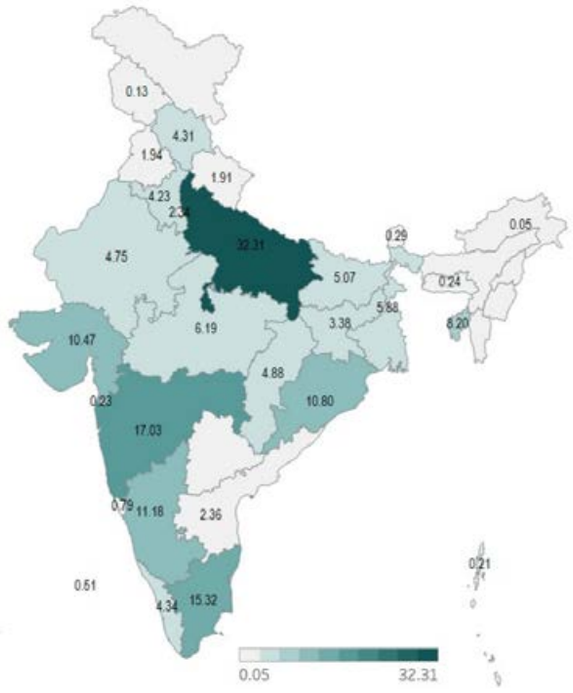
Sr. No.	Variables		Year	Source	Normalizing factor	Year	Source
Used for statistical analysis							
1	Total Length of State Highways	Replaced with proxy variable - State wise Capital Outlay on Roads and Bridges ---- Average of (2018-19, 2019-20, 2020-21)	2018-19, 2019-20, 2020-21	States/ UTs budget data	Geographical Area	2020-21	FRI Dehradun website
2	Total Length of District Roads						
3	Total Length of Urban Roads						
4	Total Length of Rural Roads						
5	Total Length of Village Roads						
6	Total no. of registered Goods Commercial Vehicles (GCVs)		2020-21	MoRTH (VAAHAN data)	GSVA goods	2019-20	MoSPI
7	No. of CFSs		2018	IMC List	GSVA goods	2017-18	MOSPI
8	No. of ICDs		2018	IMC List	GSVA goods	2017-18	MOSPI
9	No. of PFTs		2021	FOIS	GSVA goods	2019-20	MOSPI
10	No. of Railway Good sheds		2021	FOIS	GSVA goods	2019-20	MOSPI
11	Capacity of Air cargo terminals / AFSs (MT)		2019-20	MoCA	GSVA goods	2019-20	MOSPI
12	Capacity of cold storages (MT)		2019-20	MoCAF&PD	GSVA goods	2019-20	MOSPI
13	Capacity of warehouses (MT)		2019-20	WDRA	GSVA goods	2019-20	MOSPI
14	Total number of training centres for logistics		2019-20	MoSDE	GSVA goods	2019-20	MOSPI
15	Number of individuals, trained in logistics training		2019-20	MoSDE	GSVA goods	2019-20	MOSPI
16	Amount of subsidy disbursed during the year	Replaced with proxy variable - Subsidy data from TIES, State wise average of Average of (2017-18, 2018-19, 2019-20, 2020-21)	2017-18, 2018-19, 2019-20, 2020-21	MoCI	GSVA goods	2019-20	MOSPI
17	Ease of Doing Business (EoDB)		2019-20	DPIIT - Business Reform Action Plan	NA	NA	NA

Sr. No.	Variables	Year	Source	Normalizing factor	Year	Source
Used as normalizing parameter						
1	Gross State Value Added (GSVA)	2019-20	MOSPI	NA	NA	NA
2	Total geographical area of the State/UT	2020-21	FRI Dehradun website	NA	NA	NA
Used for States analysis / insights						
1	Number of road accidents during the year of Goods Commercial Vehicles	2019-20	MoRTH	NA	NA	NA
2	Total no. of registered drivers of GCVs	2020-21	MoRTH (SARATHI data)	GCV	2020-21	MoRTH
3	Traffic and capacity of Port terminals	2019-20	IPA	Traffic handled or Quay length / Berth length	2019-20	IPA
4	Total forest cover of the State/UT	2019-20	FRI Dehradun website	NA	NA	NA

Note: The four parameters viz. amount of subsidies utilized during the year, number of business applications received during the year, amount invested by the State government during the year and total hilly area of the State/UT, have not been used in the analysis due to unavailability of data.

Heat Maps for Objective Assessment of States' Logistics Eco-system

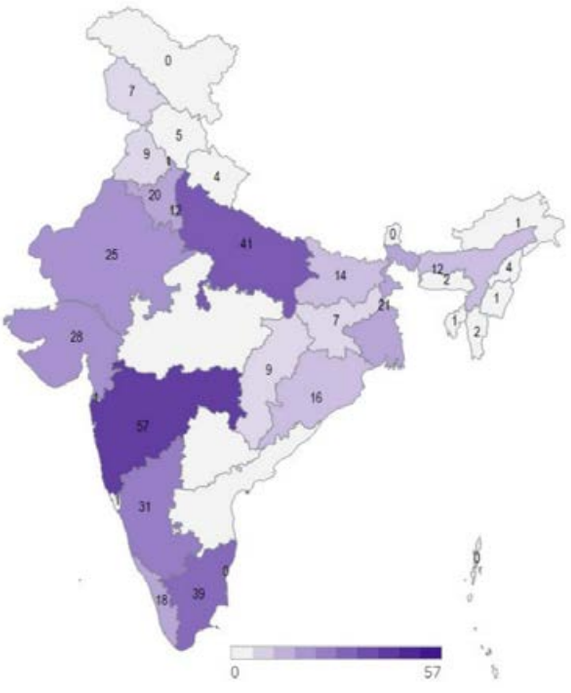
Figure 1: Capital outlay on roads and bridges ('000 INR Crores)



Note: Data is not available for Assam, Manipur, Mizoram, Nagaland, Telangana, Chandigarh, Ladakh and Puducherry

Source: States' Budget, 2021

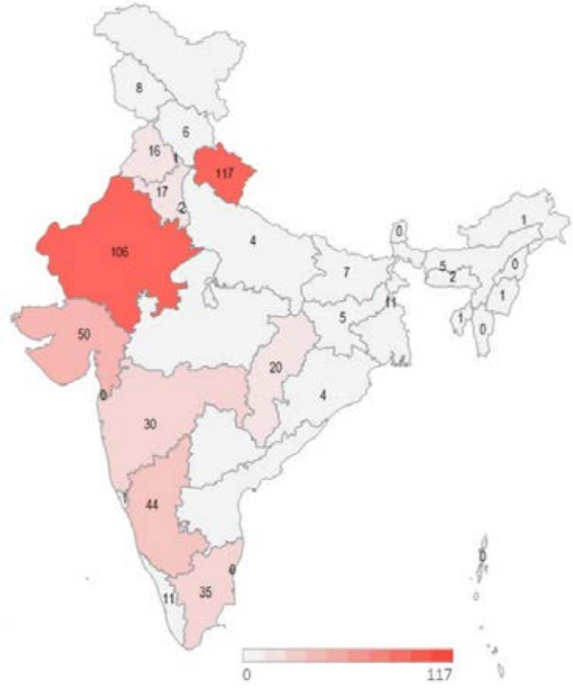
Figure 2: Registered commercial vehicles ('000 Nos.)



Note: Data is not available for Andhra Pradesh, Madhya Pradesh, Telangana, and Lakshadweep

Source: Ministry of Road Transport and Highways, 2021

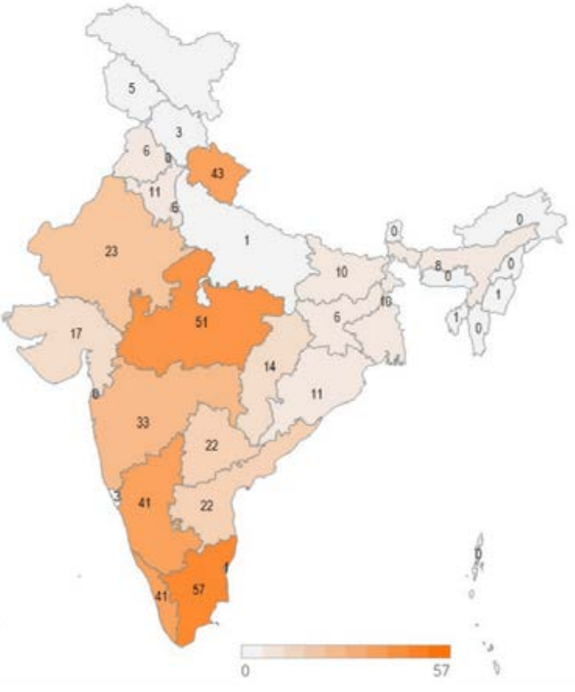
Figure 3: Registered commercial vehicles' drivers ('000 Nos.)



Note: Data is not available for Andhra Pradesh, Madhya Pradesh, Telangana, and Lakshadweep

Source: Ministry of Road Transport and Highways, 2019

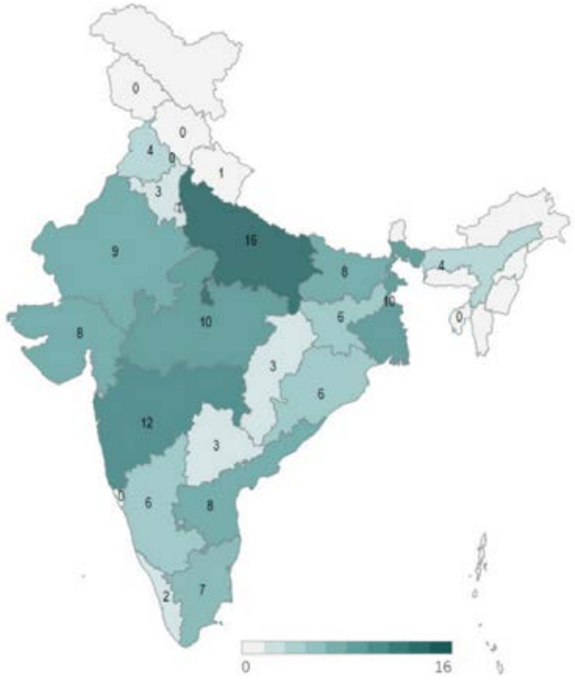
Figure 4: Road accidents due to commercial vehicles ('000 Nos.)



Note: The nos. of road accidents occurred in Ladakh are available together with the nos. of J&K

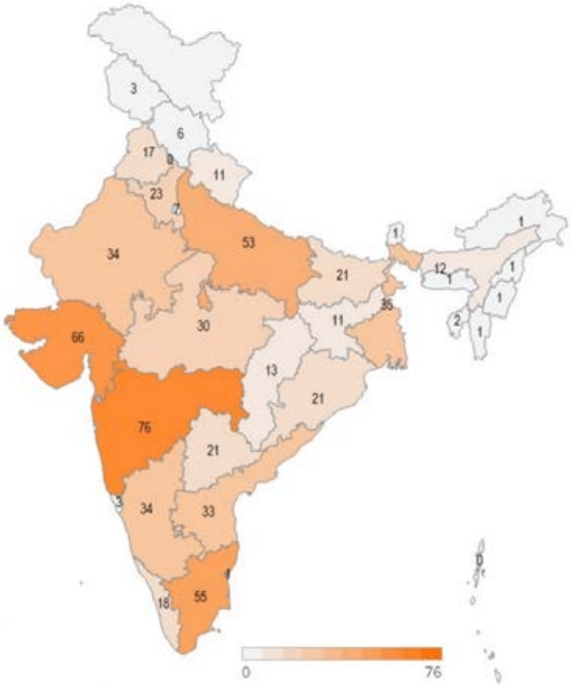
Source: Ministry of Road Transport and Highways, 2019

Figure 5: Total rail routes ('000 Track-km)



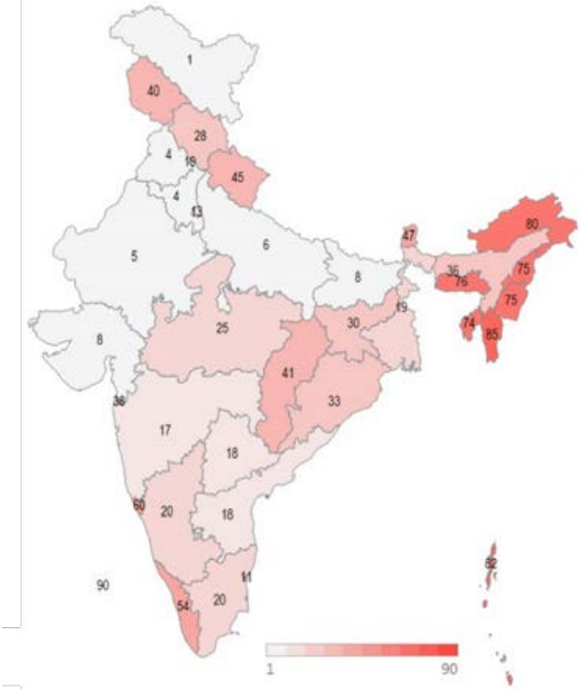
Source: Ministry of Railways, 2020

Figure 6: GSVA Goods ('000 INR Crores)



Source: Ministry of Statistics and Programme Implementation, 2020

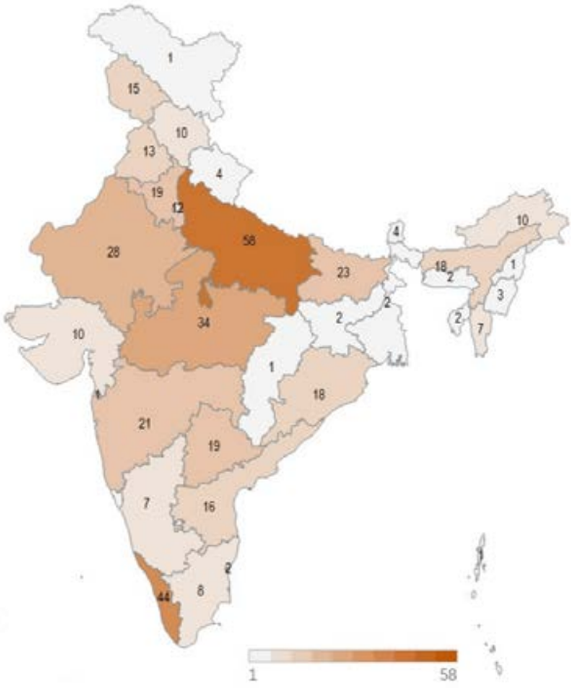
Figure 7: Total forest cover (% of geographical area)



Note: Data is not available for Arunachal Pradesh, Manipur, Meghalaya Mizoram, Nagaland, and Sikkim

Source: Forest Research Institute (Dehradun), 2020

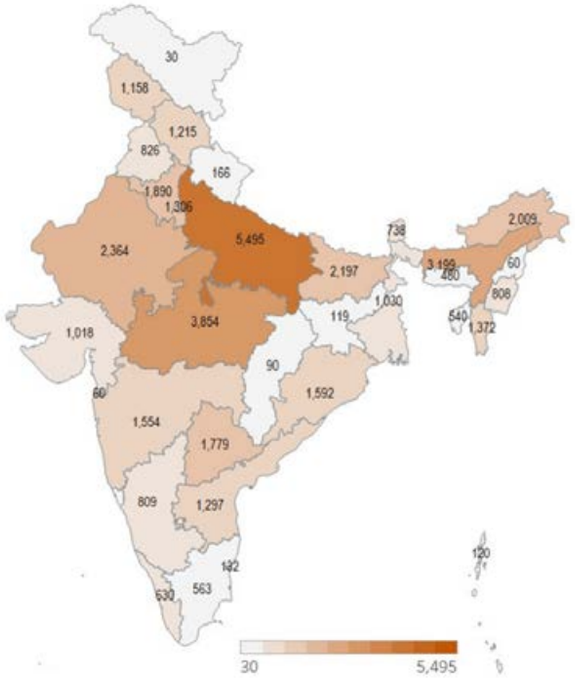
Figure 8: Total training centres for logistics (Nos.)



Note: Data is not available for DNH and DD, Ladakh and Lakshadweep

Source: Ministry of Skill Development and Entrepreneurship, 2021

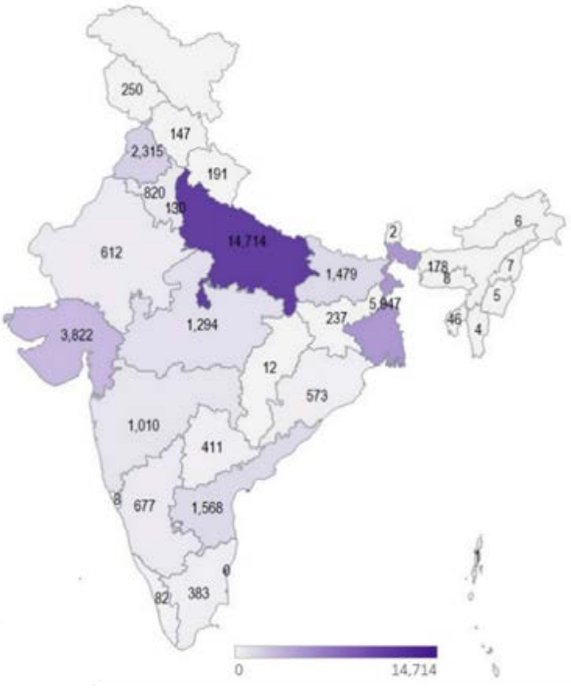
Figure 9: Total no. of individuals trained in logistics training centres (Nos.)



Note: Data is not available for Chandigarh, Goa, and Lakshadweep

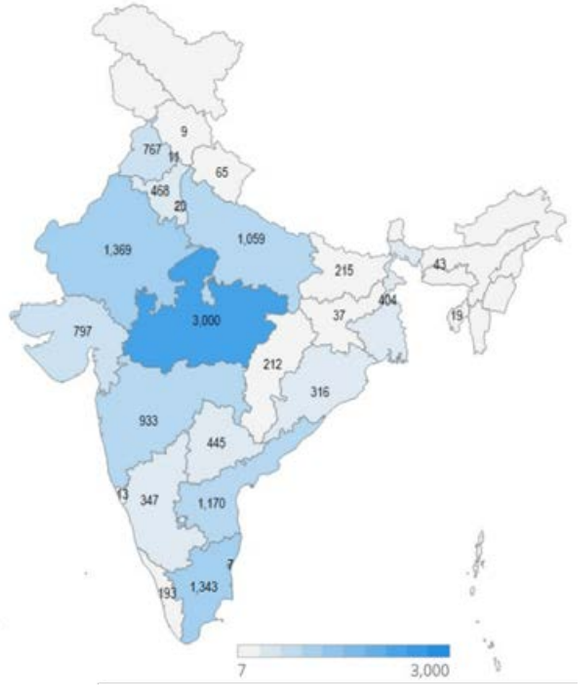
Source: Ministry of Skill Development and Entrepreneurship, 2021

Figure 10: Total cold storages capacity ('000 MT)



Source: Ministry of Consumer Affairs, Food and Public Distribution, 2020

Figure 11: Total no. of surface-based terminals



Source: Warehousing Development and Regulatory Authority, 2020

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