Logistics for India’s Global Trade Ambitions

This editorial is based on “A key driver of India’s economic ambitions,” published in The Financial Express on 20/05/2025. The article underscores the critical role of logistics efficiency in bolstering India’s global trade competitiveness, particularly in light of evolving US tariffs and India’s aspirations to achieve USD 2 trillion in exports by 2030.

For Prelims: **Unified Logistics Interface Platform (ULIP)**, **PM Gati Shakti National Master Plan**, **Logistics Data Bank (LDB)**, **Special Economic Zones (SEZs)**, **Radio Frequency Identification (RFID)**, **HSN Code**, **National Manufacturing Mission.**

For Mains: **Strategic Importance of Logistics in Global Trade**, **Challenges in India’s Logistics Ecosystem**, **Measures to Enhance Export-Led Growth through Logistics Reforms.**

India’s **logistics sector** stands at a critical juncture as the **nation aspires to transform into a global manufacturing powerhouse** and achieve its **ambitious export targets of USD 2 trillion by 2030**. In a world reshaped by geopolitical uncertainties, shifting trade dynamics, and supply chain realignments, **logistics efficiency** has emerged as a non-negotiable pillar for trade competitiveness. The **urgency to fortify India’s logistics ecosystem** through rapid modernization, infrastructure integration, and policy coherence has intensified, driven by the need to **align domestic capabilities with global market demands.**

While initiatives like the **PM Gati Shakti National Master Plan**, **Unified Logistics Interface Platform (ULIP)**, **and Logistics Data Bank (LDB)** have laid a robust foundation, challenges such as **fragmented multimodal connectivity, underdeveloped port-led industrial zones, and skill gaps in tech-driven logistics operations persist.** Strategic interventions ranging from sector-specific logistics parks for **electronics** and **textiles** to AI-powered customs systems are **essential to bridge these gaps** and capitalize on **emerging global trade opportunities.**

What is the Strategic Importance of Logistics in Global Trade?

- **Boosting Trade Competitiveness:** Efficient logistics systems directly enhance a **country’s trade competitiveness** by reducing costs, improving reliability, and speeding up delivery times.
  - According to the **World Bank**, **improving logistics can boost trade by up to 15% in developing economies**.
  - For example, **Abu Dhabi’s logistics sector contributes over 10% to its GDP** and **supports more than 100,000 jobs**, demonstrating how robust logistics drive economic growth and global market access.
- **Enabling Export Growth:** As trade volumes rise, **building logistics capacity**, such as sector-specific logistics parks and upgraded port operations, becomes essential.
  - India’s logistics sector, valued at USD 338 billion in 2023 and **projected to reach USD**

800 billion by 2030, is a cornerstone for achieving its export targets.
    - Initiatives like the **Jawaharlal Nehru Port SEZ in Mumbai, which integrates warehousing and transport,** have streamlined export processes and reduced turnaround times.
- **Leveraging Advanced Technology:** Integrating advanced technologies like **AI, IoT**, and real-time tracking has transformed logistics by increasing speed, transparency, and efficiency.
    - The **World Trade Organization (WTO) estimates that digital trade facilitation can cut trade costs by 14.3%**.
    - Companies such as Amazon and JusLink use predictive analytics and automation to optimize inventory and reduce delays, leading to faster and more reliable deliveries.
- **Strengthening Infrastructure:** Investments in **multimodal transport networks, logistics parks, and port-led industrial zones** are critical for reducing logistics costs and supporting manufacturing growth.
    - India's government allocated USD 132.85 billion for logistics infrastructure in 2024–25, focusing on highways, railways, and warehousing.
    - **China's port-industrial cluster model, replicated in India's Sagarmala program,** has shown how **integrating ports** with manufacturing hubs can lower export costs and improve efficiency.
- **Building Skilled Workforce & Innovation:** A **digitally skilled workforce** and a strong innovation ecosystem are essential for **managing modern, technology-driven logistics.**
    - **India's initiative to skill 2 million youth in logistics over five years** aims to meet industry demand for digital and technical expertise.
    - Globally, logistics startups and **public-private partnerships** are driving innovation in automation, predictive analytics, and supply chain optimization.

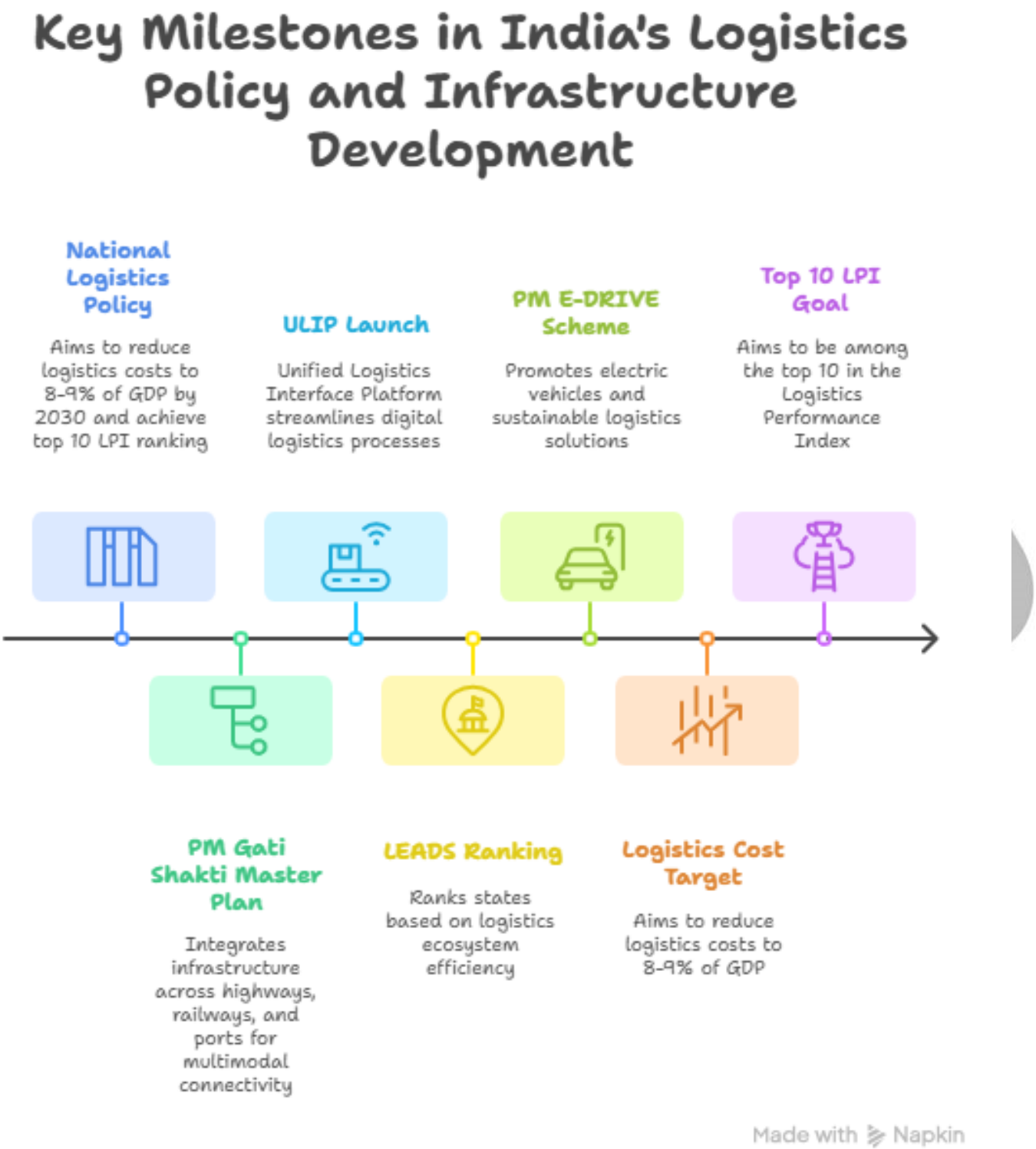
State of Logistics Sector in India

- **Economic Significance & Employment:** India's logistics sector **contributes about 14.4% to the GDP** and **supports the livelihoods of over 22 million people**.
    - **Market Size & Structure:** In 2019, the **logistics sector was valued at Rs. 15.1 lakh crore (USD 190 billion),** with 99% of it being unorganised, including small truck owners, brokers, warehouse owners, and freight forwarders.
    - **Progress & Digitalization:** India's logistics improvements are reflected in its rising scores on **UNESCAP's Global Survey on Digital and Sustainable Trade Facilitation, from 63.4% in 2015 to 90.3% in 2021,** indicating enhanced trade facilitation and technology adoption.
    - **Sector Composition:** The sector **comprises 37 export promotion councils,** 40 Participating Government Agencies (PGAs), 20 government agencies, handles 10,000 commodities, and involves 500 certifications.

What Fuels the Growth of Logistics in India?

- **Growing Export-Import Trade:** India's expanding role in global trade is evident with merchandise imports **rising 16.51% to USD 714.24 billion** and exports growing 6.03% to USD 447.46 billion in 2022-23.
    - Initiatives like the **India-Middle East-Europe Economic Corridor** are significantly **boosting demand** for advanced maritime and multimodal logistics services.
- **National Logistics Policy (NLP):** Launched in September **2022, the NLP aims to reduce logistics costs from 13-14% of GDP** to the **global average of 8% by 2030.**
    - This policy seeks to streamline regulations, foster collaboration, and promote technology adoption across the sector.
- **Infrastructure Development:** Massive investments under projects like the **PM Gati Shakti National Master Plan, Dedicated Freight Corridor (DFC)** and the **National Infrastructure Pipeline (NIP)** (Rs. 111 lakh crore allocated for FY 2020-25) have enhanced connectivity by improving highways, railways, ports, and airports, thereby reducing transit times and costs.

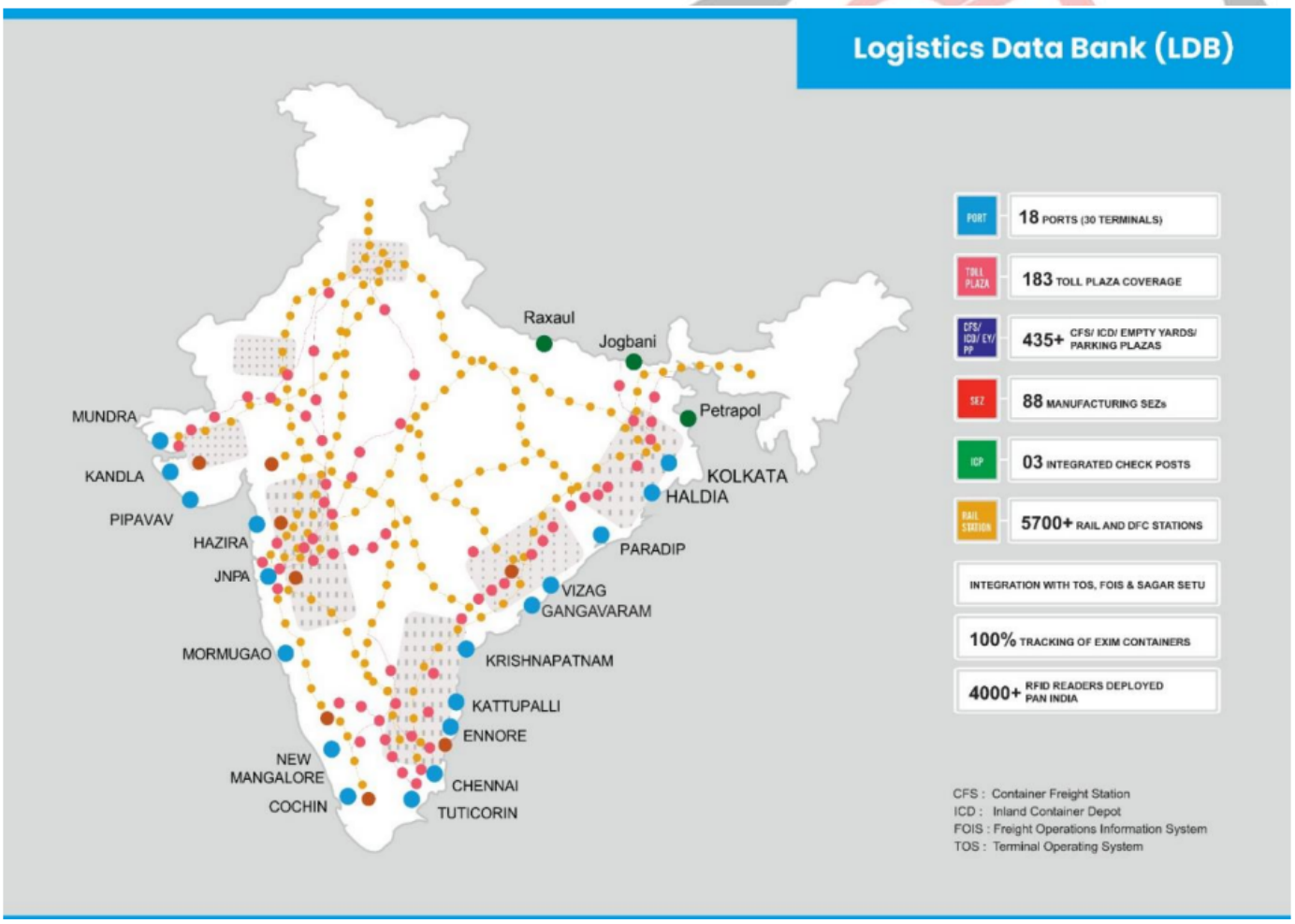
- **Unified Logistics Interface Platform (ULIP):** ULIP acts as a digital gateway **integrating over 30 government logistics systems**, enabling real-time consignment tracking and HSN code-level commodity flow visibility.
    - It supports the development of **standardized nationwide applications that improve** supply chain efficiency, production planning, and last-mile delivery.
- **Logistics Data Bank (LDB):** With nearly 3,000 RFID readers installed across major road and rail routes, including dedicated freight corridors, LDB **captures detailed container movement data.**
    - Analytics derived from LDB **inform port dwell times, transit speeds, and performance benchmarking across states,** helping identify bottlenecks and guide infrastructure improvements.
- **E-commerce Boom and Last-Mile Delivery: India's e-commerce market is projected to grow at a 27% CAGR, reaching USD 163 billion by 2026,** fueling strong demand for efficient last-mile delivery.
    - This surge has led to the emergence of specialized logistics firms and tech-driven solutions, with companies like Delhivery thriving amid accelerated online shopping trends post-**Covid-19.**
- **Technology Adoption and Digital Transformation:** Digitalization is transforming India's logistics sector **by boosting efficiency, transparency, and innovation** through **AI, IoT, blockchain, and data analytics** for route optimization, predictive maintenance, and real-time tracking.
    - **Rising demand for digitally skilled workers** in transport, customs, and tech management is driving growth opportunities for startups and IT providers **specializing in automation and supply chain visibility.**



What are the Key Challenges in India’s Logistics Ecosystem?

- **Infrastructure Gaps:** India’s logistics suffers from poor last-mile connectivity and underdeveloped transport networks, causing delays and higher costs.
    - Projects like **Dedicated Freight Corridors** and **Multi-Modal Logistics Parks** face slow progress due to **land acquisition, environmental clearances,** and bureaucratic

delays.
    - **Roads handle 66% of freight, causing congestion**, while cheaper, greener modes like inland waterways are underused.
- **Regulatory and Approval Delays:** Complex and **overlapping regulations across multiple ministries** create hurdles in logistics park development. Businesses must comply with numerous acts and face varying inter-state rules, increasing delays and costs.
    - Though PM Gati Shakti **aims to improve coordination, regulatory fragmentation** still causes 20–25% of logistics delays.
- **Digital Integration Complexity:** Data and system integration across agencies is **fragmented, limiting real-time visibility** and supply chain efficiency.
    - Only about 5.5–6% of the market is organised and tech-enabled. Small players lack access to tools like RFID, IoT, and blockchain, reducing overall productivity.
- **Skill Shortages:** A majority of the logistics **workforce is unorganised** and lacks training in modern technologies and **Environmental, Social, and Governance(ESG)** practices.
    - This leads to low productivity and poor working conditions. The **sector needs an additional 4.3 million skilled workers by 2030**, especially in states like West Bengal, Tamil Nadu, and Maharashtra.
- **Fragmented Supply Chain Coordination:** Poor coordination among manufacturers, transporters, customs, and warehouses **causes inefficiencies and delays**.
    - **Heavy reliance on roads and weak multimodal integration** limit cost savings and sustainability. **MSMEs** are hit hardest due to high logistics costs and complex compliance burdens.



What are the Measures to Enhance Export-Led Growth through Logistics Reforms?

- **Accelerate Development of Logistics Parks:** Fast-track **Multi-Modal Logistics Parks**

(MMLPs) near manufacturing hubs for sectors like electronics, textiles, and footwear.
    - These **parks should integrate warehousing, packaging**, inland container depots, customs clearance (**via platforms like ICEGATE**), and multimodal connectivity (rail via freight corridors and roads via Bharatmala).
    - **Co-locating with SEZs** and freight villages (e.g., Jawaharlal Nehru Port Authority SEZ) will **enhance cargo aggregation** and economies of scale.
- **Integrate Support and Skill Development:** Include skill centres aligned with the **National Logistics Workforce Development Mission** within logistics parks.
    - Provide modular training in digital logistics, multimodal handling, and ESG compliance to **build a capable workforce,** especially **upskilling informal sector workers.** Incorporate trade facilitation and innovation hubs to foster operational excellence.
- **Adopt Advanced Technology:** Implement **AI-powered customs clearance systems** and digitise logistics operations through platforms like ULIP and E-Logs.
    - **Develop unified digital platforms** for real-time cargo tracking and a **national e-marketplace** for logistics services, enabling small and medium operators to optimize routes and consolidate shipments via ONDC.
    - Ensure robust **cybersecurity** and **data privacy** to build stakeholder trust and enable predictive analytics.
- **Improve Infrastructure and Connectivity:** Address critical gaps in last-mile connectivity to ports and airports, **leveraging Bharatmala and Sagarmala projects.**
    - **Enhance rail and inland waterway freight capacity** by electrification and terminal expansion, fully utilising dedicated freight and coastal corridors.
    - These upgrades will **reduce transit times and support Make in India** and the National Manufacturing Mission.
- **Promote Port-led Industrial Zones and SEZs:** Expand multi-product SEZs and port-led industrial zones under Sagarmala, facilitating manufacturing, warehousing, and transshipment activities.
    - **Prioritise strategic nodes through PPPs,** co-located with **logistics hubs for scale advantages.** Use **geospatial analytics in collaboration with ISRO, NIC, and MoRTH** to optimize network planning and manage congestion.

Conclusion

By integrating digital platforms, sector-specific parks, and skilled workforce development, **India can reduce logistics costs from 14% to 8% of GDP**, aligning with global standards. With focused implementation, **these reforms can enhance India's ranking in the Global Logistics Performance Index** and drive the **Viksit Bharat goal of a USD 32-trillion-plus economy by 2047.**

Drishti Mains Question:

Efficient logistics is central to India's strategy for becoming a global manufacturing and export powerhouse. Comment.

UPSC Civil Services Examination Previous Year Question (PYQ)

Q. The Gati-Shakti Yojana needs meticulous coordination between the government and the private sector to achieve the goal of connectivity. Discuss. **(2022)**

Q. National Urban Transport Policy emphasises on 'moving people' instead of 'moving vehicles'. Discuss critically the success of the various strategies of the Government in this regard**. (2014)**