



LOGISTICS – THE WAY FORWARD

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Important Industries

Chemical and Logistics

INDIA is aiming to cross
ECONOMY with
USD 5 Trillion
this year.



GDP Contribution

- The Indian chemical industry is one of the most important components of our economy and **contributes around 7% to the nation's Gross Domestic Product (GDP)**
- In FY 2023, exports of major chemicals and petrochemical products stood at **USD 23.8 Billion**



GDP Contribution

- Country is aiming to cross Economy with USD 5 Trillion this year.
- Asian Development Bank (ADB) said that India's economy is expected to remain robust over the next two years even though heading **growth in the country's GDP is forecasted to slow from 7.6% to 7% this year before improving to 7.2 In the year 2025-26**



Chemical

- The market size of Chemicals & Petrochemicals sector in India is around \$215 Bn; expected to grow to \$300 Bn by 2025.
- The **Indian chemicals industry** is a major player in the global market, ranking 6th in production and 14th in exports.



Chemical

- Specialty chemicals, especially agrochemicals, dyes, and pigments, account for over 50 percent of exports from India
- Imports across the sector have increased steadily in recent years, with petrochemical intermediates accounting for over 30 percent of total imports

Chemical

- India is seeking to increase imports of technologies to aid local chemical manufacturing used in the production of lithium-ion batteries.
- The Indian government is also implementing a PLI scheme in the chemicals sector to drive adoption of new technologies and boost domestic manufacturing and exports

Role of Logistics

- Logistics is the backbone of every industry.
- Whether it is chemicals, pharmaceuticals, agriculture, manufacturing, or simply moving goods, it is hard to imagine an economy without adequate logistics and transportation.
- Logistics play a critical and a crucial role in promoting trade and ensuring smooth operations.



Current modes

- Air
- Ocean
- Rail
- Road
- Multi-modal



Air Transport

- Expensive but faster way for the international deliveries
- Freighters having capacities which reduce costs when transporting goods over long distances.
- Possibility to deliver all international airports
- Transportation of oversized cargo



Freighters Capacity

- 747 / 128 mt.
- 777 / 100 mt.
- 737 / 23 mt.
- 767 / 52 mt.
- 330 / 70 mt.
- IL 76 / 40 mt.



Ocean Transport

- A cost-efficient, Economic way of cargo delivery over the long distances.
- LCL and FCL
- Multiple Equipment's Like 20' /40' / 45' / Refer / ISO / FR / FB /
- Transportation of bulk cargo



Shipping Lines

Today, about **90% of non-bulk cargo worldwide** is transported by container, and modern container ships like **MSC Irina** can carry over **24,000 TEU**



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Shipping Lines.

Vessels	Capacity
Ultra Large Container Vessel (ULCV)	14,501 and higher
New Panamax (or Neopanamax)	10,000–14,500
Post-Panamax	5,101–10,000
Panamax	3,001–5,100

Rail Transport

- Highly demanded transportation mode being most economical option over long distances.
- Possibility to use special wagons, platforms and containers,
- Possibility of transshipment to any ICD- CFS Across India for customs clearance
- With upcoming freight corridor the international business TAT will increase



Road Transport

- A universal and economical way of delivery of such sensitive cargo.
- Connectivity depends on the schedule of arrival in ports, railway stations or airports and is carried out almost around the clock.



Multi-Modal Transport

- Combination of two or more modes of transport
- Reduce transit costs and delivery lead times.



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Handling Of Chemical & Hazardous Goods

- Requires specialised handling
 - Due to Highly critical nature of Chemical and
 - Potential danger posed by these goods

Direct impact on Health, Safety, Security, and the Environment (HSSE)



Steps For Handling Hazardous goods



9 Classes of Dangerous Goods:

- Explosives.
- Flammable Gases.
- Flammable Liquids.
- Flammable solids.
- Oxidizing.
- Toxic & Infectious.
- Radioactive.
- Corrosives.
- Misc. Dangerous goods

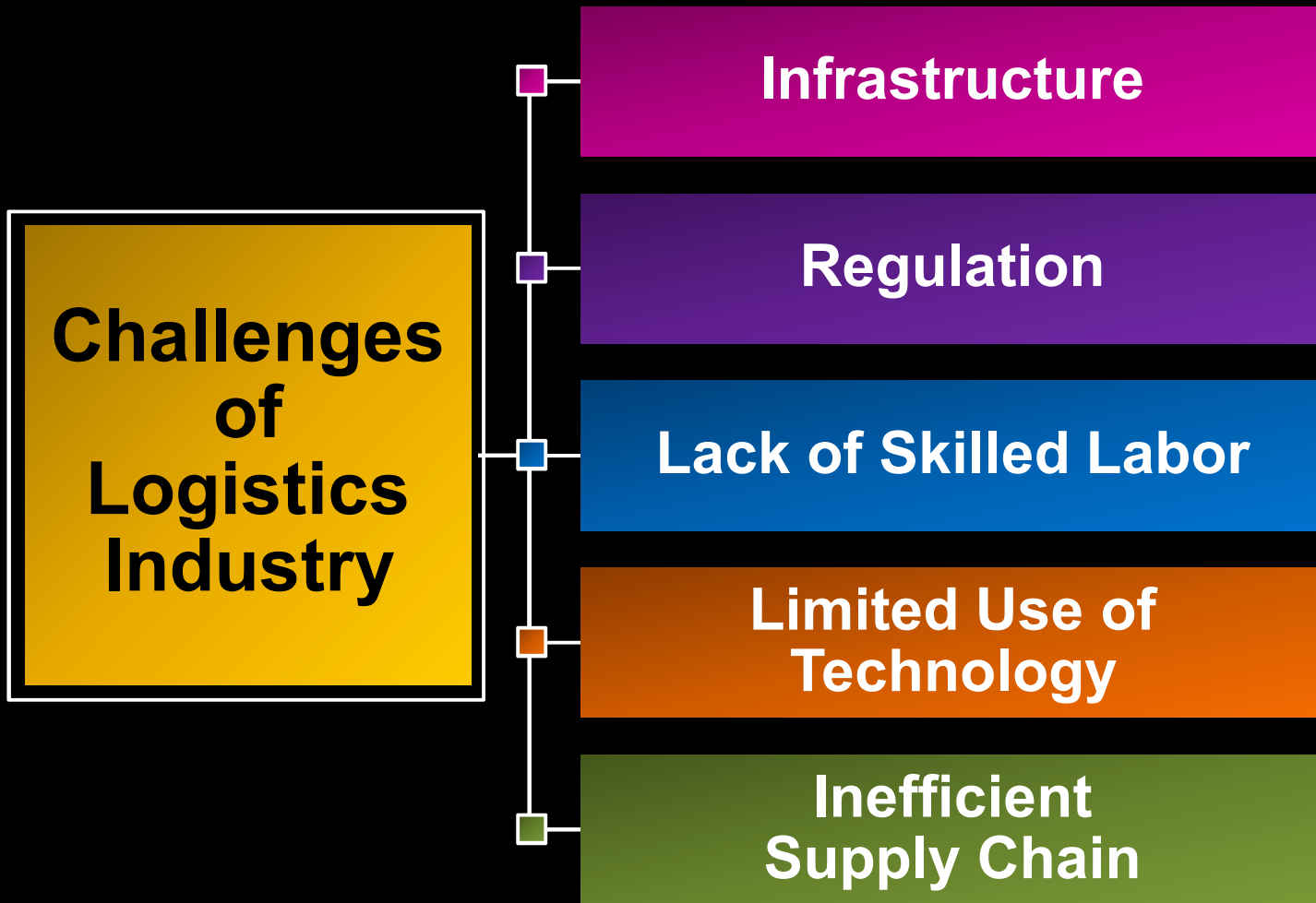


How To Handle

- Proper Classification, by knowing the consequences of inherent hazards.
- Appropriate packaging and labelling /placard as required by the IMDG for SEA mode / ICAO for Air Mode.
- Packages to be Packed , marked , Labelled and Documented correctly
- Needs to be handled by Trained and Qualified staff
- Planned risk management process
- Follow Appropriate Regulation depending on Mode.
- Keep Minimum transit points
- Keep abreast of regulatory changes
- Safety during the storage, segregation, Transportation requirements

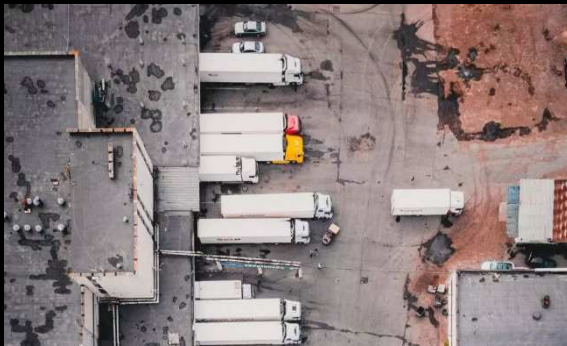


Real Challenges In Logistics Services



Infrastructure

- Inadequate infrastructure - country's roads, ports, airports and railways (Freight trains don't have priority) are often overcrowded and poorly maintained, leading to delays and higher costs.
- It negatively impacts the delivery times.



Infrastructure

Solution

Infrastructure: Government has been investing in improving infrastructure, such as building new roads and ports and modernizing existing ones. Private companies are also developing their logistics infrastructures, such as warehouses and distribution centers, to improve efficiency and reduce reliance on public infrastructure.



Regulation

- The logistics industry is highly regulated with multiple agencies involved in the movement of goods.
- There are various acts and rules related to management of logistics and chemical industry like The Customs Act 1962, The Indian Port Act, Dangerous Goods Transportation Rules etc.
- Mis-declaration of Hazardous goods
- This can lead to delays and complications in the supply chain. As a result, they miss the delivery deadlines.



Regulation

Solution

Regulations: Government has been working to streamline and simplify the regulatory process by introducing electronic filing systems and reducing the number of required permits. Private companies are also working with logistics providers that have experience navigating the regulatory landscape and can help ensure compliance. Indian Chemical Council (ICC) has come up with an initiative to establish standards for transport safety, security & emergency response to be a Member of Nicer Globe Responsible Care



Lack of Skilled Manpower

- The logistics industry is facing a shortage of skilled labour.
- Industry is also facing issue of Trained staff, like recent rule of CAT 1 certified staff should sing the DGD
- CAT 3 certified staff in the logistic companies



Lack of Skilled Labour

Solution

Lack of Skilled Labour: Logistics companies can invest in training and development programs to build a skilled workforce and the government can also provide incentives to encourage this growth.



Limited Use of Technology

- The logistics industry needs to be faster to adopt technology, which can lead to inefficiencies and higher costs.
- Customers expect visibility of their shipments. However, a lack of visibility throughout the supply chain can cause issues that can seriously hamper the flow of goods.



Limited Use of Technology

Solution

Limited use of technology: Invest in technology solutions, such as transportation management systems, to improve efficiency and reduce errors. The government can encourage technology adoption by providing incentives and tax breaks to logistics companies.



Inefficient Supply Chain

- Inefficiencies in the supply chain, such as delays and bottlenecks often plague the logistics industry. Like Red Sea issue.
- While the Russia-Ukraine conflict has triggered the recent volatility in fuel prices, transportation costs have increased over the last few years.
- In sum, transportation costs are going up univocally across the globe.
- The Suez Canal was blocked for six days by the Ever Given, a container ship that had run aground in the canal.



EFFECT OF REDSEA

Impact of Red Sea crisis

War risk premiums higher by around Rs 10-15 lakh

Over **30%** increase in container freight rates

Avg 2-week increase in shipping time

About **20%** of India's exports pass through the Red Sea-Suez route

10 navies come together to address security challenges in the southern Red Sea

Red Sea route

Alternative route: Cape of Good Hope, joining Eastern Asia and Europe through southern parts of Africa



Inefficient Supply Chain

Solution

Inefficient Supply Chain: Companies can implement lean manufacturing principles or adopting advanced planning and scheduling systems. The government can also support by investing in infrastructure and providing incentives to encourage the adoption of best practices.



Thank You
For your attention



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