The high logistics costs in India as compared to those in countries that have similar business environments and are going through the same stage of growth is a matter of serious concern for both the country’s manufacturing sector and its comprehensive development as a whole. Several reasons are cited for the high logistics costs in India. These include an unfavourable policy regime, lack of a multimodal transport system and the consequent heavy reliance on road transport, fragmented storage infrastructure, the presence of multiple stakeholders in the entire transport and storage value chain, poor quality of road and port infrastructure, and the absence of technology intervention in storage/transportation and distribution activities. These high logistics costs inevitably have an adverse effect on the country’s competitiveness in the globalised world.

Before making any policy intervention, it is imperative to estimate the overall logistics costs, including the various associated components/elements in order to understand and identify the problem areas and their corresponding solutions. In this context, the Logistics Division, Ministry of Commerce, has commissioned NCAER to undertake interlinked studies for addressing these issues (see Box 1).

In view of the absence of secondary information on the bottlenecks/barriers faced by the logistics players in India in both domestic and external trade, the team at NCAER has interacted extensively with the key players to acquire an in-depth knowledge of the challenges they face in their day-to-day business and to identify the remedies that policymakers may implement for reducing logistics costs. Following is a delineation of the key points that have emerged from these interactions.

**Box 1. Scope of NCAER’s Work on Logistics**

- **Route Study: Cost analysis of cargo movement on major routes**
  This pertains to the time and cost analysis of cargo movement on the major selected routes to understand the differences in cost as well as efficiency across the following areas:
  a) Modes of transport (road, railways, air and waterways);
  b) Type of products (containerised/non-containerised, perishable/non-perishable); and
  c) Nature of logistics operations (first party/second party/third party logistics players).

- **Estimation of logistics costs in India as a percentage of the GDP using primary and secondary data.**

- **Organisation of a policy roundtable among stakeholders.**
  The purpose is to create a forum at NCAER to undertake brainstorming events in which the key stakeholders of logistics services in private and public sectors would interact with policy-makers for exchange of ideas and identifying challenges faced by this sector.
Regional Implications of Logistics Costs

The imbalance of cargo loads is a serious issue when the logistic firms deliver cargo to states in East/North-East India and Nepal. More often than not, they have to bring back their trucks completely or partially empty after delivering the cargo as these nodes are basically consumption centres and have no major industries for various reasons. Notwithstanding this limitation of the routes taken by the trucks, the fact remains that these trucks have to ply empty on the return journey, which contributes to an escalation in logistic costs in India.

Improvements in the Logistics Processes

- The logistics players assert that both short-term and long-term process management and its efficient implementation is the key to a reduction in logistics costs. The overarching message is that the government must adopt a step-by-step approach wherein it focuses on one thing at a time to create tangible success stories before moving on to the next step. For example, infrastructure creation is receiving adequate attention and being manifested through the building of new ports, among other things. However, there is also a need to streamline the process of establishing effective connectivity for ensuring the smooth flow of goods.

- Prospecting for the opinions and suggestions of industrialists is not always advisable because their sole aim is to maximise profits and minimise costs, as a result of which they will always ask for tax benefits and other self-centered gains. The lowering of tariffs is not a long-term solution as achieving zero tariffs will not lead to any substantial gains. Moreover, even if the benefit of low tariffs is being provided, it must also be ensured that these benefits reach the consumer.

- One of the pertinent issues raised by stakeholders in the industry is the problem faced by truck drivers at the ports. One of them cited the example of the Jawaharlal Nehru Port Trust (JNPT) port in Mumbai, where even the basic infrastructure facilities like washrooms, and waiting/resting rooms are missing. Since the drivers usually have to wait at these ports for two or even more days in many cases, there is an urgent need to provide such basic facilities. This problem is common to most ports in India.

- Another issue faced by the drivers is the lack of information at the ports. Here too, the JNPT port was cited as an example, as drivers passing through this port have to stand in line for hours and sometimes even days for their turn due to the lack of a token system. Logistics players point out that implementing a token system does not require a large investment, only a strong will on the part of the port officials.

- There is widespread appreciation of measures like enforcement of the goods and services tax (GST) and introduction of the E-way bill, which have significantly improved the logistics flow across the country. In a related study, a key logistics company compared the consignment delivery times over the last two years, and observed a tremendous improvement in this area after the implementation of the above policies—in just one year, the delivery time had reduced by 48 hours. This effectively implies lower inventory holding costs for the company.

- Another important logistics player also affirmed the positive impact of GST and the E-way bill system, as they had allowed for removal of...
unnecessary check posts along the routes traversed by cargo trucks, thereby leading to significant time-saving. Further, this also ensures that truck drivers are more relaxed during the journey due to the lower incidence of “check point harassments” that they faced before implementation of GST and E-way billing.

- Most logistics players also highlight the need for imparting proper training to the officials manning the various check-points. It has been observed that many of the officers at these check-points still prefer to work in a traditional manner, refusing to accept electronic documents and insisting that the truck driver supply hard copies of the documents. It is argued that introducing a well-thought-out incentive policy for such officers could do away with these glitches and smoothen the transportation process.

- Another suggestion is that digitalisation, especially point-to-point monitoring of the cargoes, would help in significantly improving the logistics process and optimising logistics costs.

Grievance Redressal Cell

Several stakeholders recommend the setting up of a logistics division that could constitute: (a) a grievance redressal cell to deal with the compliance issues between shippers and related Government agencies; and (b) a storage and transport costs monitoring cell to keep track of warehouse lease rates, freight rates, warehouse occupancy rates, and associated compliance costs.

Predictability of Travel Time

- The predictability of travel time is a key driver of logistics costs. In India, lack of predictability is one of the major causes for higher logistics costs. There is uncertainty regarding the time when the consignment will exactly reach its destination due to heavy traffic congestions and bottlenecks not only in the cities but also on major highways and expressways.

- The logistics players cited several examples of such traffic bottlenecks, especially on certain narrow bridges and roads that are vulnerable to jams caused by regular heavy traffic or impediments due to vehicular failure. Such incidences increase commercial travel time and add to the unpredictability of delivery schedules. In contrast, the roads in USA, including those built as far back as the World War era, for instance, are so well planned and built that travel time on these roads is almost perfectly predictable.

- Frequent changes in diesel prices on a daily basis also add to the variation and unpredictability in logistics costs.

Protectionism by Unions

Unionisation is an important reason for higher logistics costs in some regions of India like Himachal Pradesh, Kerala, and West Bengal. According to the logistics players, these unions have political backing and connections, and often prevent consignments from moving along the routes and stretches where they are active unless the logistics companies use their services. Since the unions charge significantly higher wages, using their services adds to the costs. This also applies to loading/unloading services due to protectionism and sometimes due to scarcity of labour, as in Srinagar.

Transportation of Hazardous Cargo

- According to a key logistics player associated with the chemicals industry, the industry is growing at a rate of 15–20 per cent, and is expected
to become a $300 billion industry by 2025. However, despite the growth of the industry per se, there have been only minimal advances in the logistics industry for storage and transportation of hazardous chemical consignments. Barring a few places, no technologically advanced warehouses have been constructed for storing hazardous cargos. It is thus imperative for the government to ensure strict implementation of that safety and infrastructure requirements by both large and small chemical firms.

- There is also a need to ensure that the drivers are properly trained and vehicles certified before they transport chemical cargos. Although a proper legal system has been put in place for transportation of hazardous material, implementation of these laws is slack. It has been observed that while multinational corporations follow these regulations stringently, small-scale chemical industries often ignore the laws!

Setting of Standards

The setting of standards and their voluntary adoption is another avenue for reducing logistics costs. This encompasses the following measures:

(a) Standardisation of truck bodies and loading/unloading docks is essential for increasing the operational efficiencies.

(b) Standardisation of pallet sizes is critical for achieving faster turnaround times.

(c) Minimum recommended standards need to be maintained in warehouse design and layout.

(d) The efficiency of drivers can be enhanced by offering them facilities such as air-conditioned cabins in freight trucks, convenience facilities in parking bays, and social security for drivers.

(e) Mechanisation of distribution centres and automated sortation centres must be encouraged through implementation of appropriate financial incentives. This will help improve operational and cost efficiencies.

Infrastructure and Transportation Issues

- There is a need for creating a national level blueprint on logistics infrastructure. This blueprint would map the locations and sizes of various logistics facilities, including airports, riverboats, sea ports, Inland Container Depot (ICD), Container Freight Station (CFS), Multi-Modal Logistics Hub, and warehousing clusters.

- It is essential to integrate all central/state level, public sector and private sector initiatives into this national level plan.

- Providing access to the infrastructure status for warehouse notification offers opportunities for warehouse developers to source cheaper capital. This would help in reducing the financing costs and promoting the establishment of large distribution centres as key logistics hubs.

- The development of multimodal transportation infrastructure is essential for encouraging the modal shift. Key transport hubs also need to be identified for modernisation.

- In this context, providing first mile and last mile connectivity for inland waterways is important. Investments in such infrastructure must be encouraged by providing appropriate financial incentives.

- One of the most critical components that requires special attention is
compliance cost control for realising national logistics cost efficiencies. However, the issue of logistics compliance costs is a complex one as multiple government agencies such as the Central Board of Indirect Taxes and Customs and partner government agencies such as the Food Safety and Standards Authority of India, Plant Quarantine Organisation, and Animal Quarantine Organisation, among others, are party to it. There is need for facilitating active coordination among all these stakeholders.

- Immediate action is also needed for ensuring the timely running of scheduled freight trains, and operationalisation of modern freight terminals for attracting rail freight and encouraging the modal shift.

**Pricing Issues**

1. Finally, guidelines need to be provided for handling costs in logistics terminals, including CFS, ICD, ports and air cargo terminals. The differences in guidelines and actual reported costs must also be surveyed periodically for enabling causal analysis and corrections.

2. It is imperative to institute a transparent service level commitment to ensure that shippers do not have to pay for delays and inefficiencies in the export/import process resulting from compliance requirement.
## Innovation in Logistics: Insights from Germany

Germany was ranked Number 1 in the Logistics Performance Index (LPI) for the year 2018. The LPI, generated annually by the World Bank, is based on a worldwide survey of operators on the ground including global freight forwarders and express carriers. It provides feedback on the logistics “friendliness” of the countries in which they operate and of those with which they have trade ties. The implementation of an efficient and cost-effective logistics system is one of the key pillars of Germany’s competitiveness. Following is a brief enunciation of some of the innovative initiatives through which it has ensured efficiency and controlled costs in its logistics systems. These can act as models and best practices for replication in other countries including India.

### Freight Villages

The country has set up ‘freight villages’, known as GVZ or ‘Güterverkehrszentren’ in German, which help in maximising the efficiency of the country’s distribution infrastructure. These cargo support centres, which have optimal access to long-haul networks and local delivery points, therefore, act as regional nodes in the logistics network. They also provide essential services such as customs clearance, security and vehicle maintenance.

### Artificial Intelligence

Instead of using paper lists, modern warehouses in Germany and some other parts of Europe rely on speech-based picking at the logistics centres. The introduction of this technology has facilitated a tremendous improvement in warehousing efficiency. The complete process of picking from these warehouses takes place in the form of a continual speech input and output dialogue, which requires the employee to confirm every step of the logistics procedure with the system.

### Tracking

In Germany, the logistics system tracks not only the location of the trolleys/freights, but also the time taken by the trolleys to travel from the dock to a climate-controlled storage area. For this purpose, radio frequency identification reader antennae have been installed at strategic locations, for tracking carts and trolleys as they travel between the receiving dock and storage areas.

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