



# Whitepaper



## Key Infrastructure Challenges Facing The Logistics Industry

Over the last couple of years, India has successfully blossomed into a booming economy through successes in the retail, agricultural, manufacturing, and export/import sectors. As the country grows in stature, a demand for world-class logistics and warehousing services has also arisen. However, poor infrastructure facilities have prevented the logistics sector from completely spreading its wings.

The Government of India has been keen to ensure that the country grows at a double-digit rate but is faced with one major issue – poor infrastructure. There is a genuine feeling among citizens and business houses alike that the infrastructure available in the country is inadequate.

What is the reason for the poor infrastructure scenario in the country? This situation does not arise due to lack of financial allocations or political will but lack of project execution. There are several bottlenecks at the operational level that include delays caused due to land and environment clearances.

Poor infrastructure facilities are prevalent across the country in the form of bad roads, inadequate air and sea port capacity and poor road connectivity. The infrastructure bottlenecks have resulted in costs per transaction in the Indian logistics sector being very high compared to those in the developed markets.

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## Logistics Sector Overview:

Logistics is a unique sector that plays a major role in India's booming economy. In 2010, the logistics industry was valued at \$125 bn and is expected to grow at this rate for the next 3-5 years.

The Indian logistics sector employs around 45 million people, which is far greater than the number of employees in the IT and ITES sector combined (a total of 4.3 million people). This is an indicator of the booming logistics sector and its role in India's growth.

The primary goal of a logistics company is to supply goods across the supply chain, from raw materials to finished products for use by consumers and companies alike. Usually, logistics companies use four modes of transport to move freight – road, sea, air and rail.

In reality, India continues to portray the image of a backward player in the global logistics arena with barely any multimodal logistics centers. Indeed, despite its strategic location, the country has been unable to evolve into a hub for international freight.

Poor infrastructure facilities have brought into focus two crucial areas that require immediate attention in developing India's logistics chain. They are logistics costs and value-added services. Logistics costs, which include transportation, warehousing, inventory management, packaging and administration-related costs are estimated at 13 to 14% of GDP, which is high compared to other developing nations' figures of 6 - 8%.

Customers in India pay much higher than their counterparts in other countries for freight services. They are also faced with significantly higher delays in freight services, which give the Indian logistics sector a sluggish and unreliable appeal. Very often, customers have to track the progress of their consignment to ensure it reaches its destination on time.

## Road Freight

Roads are the most popular mode of transportation in the logistics sector with 65% of total goods transported using this mode of transport. With a total length of 3.3 million kilometers (Economic Survey 2007-08), India boasts of the second largest road network in the world. It is interesting to note that National Highways forms only 2% of the road network but carry about 40% of the total road traffic!

There are several challenges facing road freight services, the foremost being miserable road conditions. For several years voices have been raised against the dismal state of roads in the country. Along with citizens, the logistics sector is severely hit by this scenario. The average speed for trucks in India is 30-40 km per hour (kmph) compared to 60-90 kmph in other countries. As a result, the daily average distance a commercial vehicle travels in India is 240-280 kilometers compared to 680-700 km in other developing countries. Moreover, 12% of trips by commercial trucks are empty trips without load.

### Challenges facing Road Freight:

- Badly maintained roads
- Low average speed for commercial trucks: 30-40km
- Low daily average distance for commercial trucks: 240-280 km
- Issues with octroi persist

The logistics industry is staunchly against the way octroi is collected and for a long time has been demanding that it be abolished. There is a general feeling among industry members that octroi does not comply with the current policy of liberalization.

### Conclusion

Roads in India have to deal with innumerable demons in the form of encroachment, potholes, lack of maintenance and gigantic traffic. Luckily, the Government of India has realized the importance of good roads to provide a better infrastructure. In the 12th Five Year Plan, investments of Rs. 2,64,000 cr have been mooted in the road sector. The National Highway Authority of India (NHAI) has proposed to invest Rs. 87,000 crore while the remaining investment of Rs. 1,77,000 will be done through the private sector.

According to a recent Goldman Sachs report, India will need to spend \$1.7 trillion on infrastructure projects over the next decade to boost economic growth. Currently, several projects have been undertaken to expand the road network nationwide. This will help in providing connectivity in both the rural and urban areas. The Golden Quadrilateral Project is one such example of these initiatives. The 11th Five Year Plan saw an investment of Rs. 3,141.5 bn in the roads sector.

The World Bank is providing \$2 bn for building 24,000km of all weather roads in Himachal Pradesh, Jharkhand, Meghalaya, Punjab, Uttarakhand and Uttar Pradesh. This loan was approved in January 2011 under projects carried out by Prime Minister Gram Sadak Yojana (PHGSY) to build 3,75,000km of new roads at an estimated cost of \$40 bn.

## Ocean Freight

Ports form the lifeline between ocean and land-based transport. India's long coastline is blessed with 13 major ports that are managed by the Port Trust of India. These ports are Kandla, Mumbai, JNPT, Mormugoa, New Mangalore, Kochi, Tuticorin, Chennai, Ennore, Vishakhapatnam, Paradip, Port Blair and Kolkata. Apart from these, there are 200 non-major ports of which only 66 are operational.

### Findings of the Economic Survey 2010-2011:

- The average turnaround time at major Indian ports have risen to 4.38 days in 2009-2010 from 3.87 days the previous year
- The average pre-berthing waiting time has risen to 11.67 hours in 2009-10 from 9.55 hours the previous year
- Facilities at existing ports for cargo handling, stevedoring, pilotage services, bunker services and warehousing facilities need to be upgraded.
- Different levels of tariff for different types of vessels/cargo should be implemented

India will be looking forward to unite the country's 13 main harbors into integrated freight hubs. Many of these harbors do not have the rail and road connections needed to handle the transport volume of ships. Containers have to frequently wait for weeks in the harbor before they can be transported. Lack of good connectivity, equipment and technology has contributed to significantly higher logistics costs for this mode of transportation. Some major issues affecting ocean freight include:

Congestions are a regular feature at Indian ports. One of the main reasons for this is increased berthing time, persistent rains, yard congestion and rail/road delays. This creates havoc on schedules, resulting in indefinite delays for transactions. Furthermore, lack of coordination between the customs authorities and ports delays quicker dispatch of documentation and goods.

### Challenges facing Air Freight:

- Only major airports have infrastructure to handle air cargo
- Waiting time 50 hours for export cargo
- Waiting time 182 hours for import cargo
- Infinite delays in transactions
- Poor warehouse infrastructure

Indian ports have outdated infrastructure with outdated mechanized systems to handle cargo. Bigger ships find it difficult to approach ports with access channels not having the required depth. Moreover, night navigation is almost absent with ships having to wait for daylight to begin operations. There is an urgent need to increase port capacity and number of berths. This will ensure smoother movement of goods movement through ports.

The congestion period is particularly long at Haldia (7/8 days), Kandla (8/12 days), Paradip (4 days), Vizag (5/6 days), Tuticorin (2 days), Nhava Sheva (5 days) and Goa (2/3 days).

### **Conclusion**

There are huge opportunities for port development. Petroleum products, coal, steel and iron ore containers will require over 1600 million tonnes by 2025. For FY12, the Government is likely to award 23 PPP projects worth Rs 16,700 cr in 2011-12, adding 230 million tonnes to India's yearly cargo handling capacity.

As the country is beset with severe infrastructure niggles, several logistics companies have wisely invested in setting up Container Freight Stations (CFS) at strategic port locations across the country. These state-of-the-art facilities provide excellent warehousing capabilities, inventory management, cargo packaging and scope for container parking/repairs.

## Air Cargo

Over the last couple of years, air freight has gained prominence for the logistics sector. Even though the air cargo business has picked up steadily, basic infrastructure still lags behind. It is a fact that five major airports – Bangalore, Delhi, Kolkata, Chennai and Mumbai – account for close to 88% of the total air cargo handled in India. Air cargo in India accounts for only 6-7% of total freight in terms of tonnage but 35 per cent in value.

The lack of onsite storage facilities is one of the biggest challenges facing providers of air cargo services. There is an urgent need to improve India's airport infrastructure and more dedicated cargo terminals should be introduced. Even though air cargo provides a clear advantage over other forms of freight services, it is severely hampered by poor warehouse infrastructure.

India has 67 airports in a country that has an area of 3.3 million sq. km. This is woefully inadequate and works against the cause of air cargo development. On the contrary, the number of airports in the USA exceeds 15,000.

There are often huge delays resulting in severe losses, especially in the case of perishable goods. In export cargo, airport waiting time is 50 hours compared to a global average of 12 hours. Similarly, for import cargo, airport waiting time in India is an astonishing 182 hours compared to 24 hours in other countries. Moreover, average charges at Indian airports are 78% higher than those offered in other countries.

### Conclusion

Apart from the major airports, the remaining ones are underutilized and will require massive infrastructure spending. The current 11th Plan envisaged the development of 35 non-metro airports that did not have proper terminals, lounges and modern equipment.

It is anticipated that air cargo activity shall expand from metro airports to non-metro airports after necessary infrastructure has been put in place.

## Rail

In India, freight trains travel on the same tracks as passenger trains, thus causing considerable delays in transportation of goods. A slow average speed of 25 kmph has now encouraged several logistics players to shift from rail to road to ensure faster delivery of goods.

The rail logistics sector is mainly dependent on the Indian Railways and port terminal operators to function smoothly. There are several issues that need to be looked into such as stability of rakes, service guarantee and dedicated freight corridors.

Also, the cost of transport per tonne per kilometer is very high in India when compared with other countries such as China, the US and the UK. A dedicated freight corridor is capable of boosting rail logistics in India to a very great extent by reducing the cost of transportation and inventory.

### Conclusion

Dedicated freight corridors are essential because it will bring about the establishment of industrial corridors and logistic parks along its alignment. Two freight corridors – the Western DFC and Eastern DFC- spanning a total length of about 3300 route km are currently being built.

The Eastern Corridor will traverse through the states of Haryana, Uttar Pradesh, Bihar and terminate at Dankuni in West Bengal. The Western Corridor will traverse the distance from Dadri to Mumbai, passing through the states of Delhi, Haryana, Rajasthan, Gujarat and Maharashtra.



## Summary

The Indian Government has understood the plight of the logistic players in the country and is focusing on overcoming infrastructure-related issues in a big way. This will help logistics players provide better value-added services to the customer.

Businesses are bound to benefit from an enhanced logistics industry and this will, in turn, boost the economy. It is important to integrate different modes of transport into a seamless network so that costs delays are kept to a minimum.

India has a lot of catching up to do with other countries that offer far superior logistics services. Even though the Government has begun the process of infrastructure development, it is crucial that policies and regulations favoring the logistics industry are also passed to ensure a bright and secure future for this.

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