

THE IDEAL TRACK TO RUN INDIA'S LOGISTICS SYSTEM

The Hindu

Paper - III
(Indian Economy)

The Union Budget 2023 has doubled the PM Gati Shakti National Master Plan to States from ₹5,000 crore to ₹10,000 crore, and has announced an outlay of ₹2.4 lakh crore for the Indian Railways. The plan is a “transformative approach for economic growth and sustainable development dependent on the engines of roads, railways, airports, ports, mass transport, waterways and logistics infrastructure”.

Logistics System and Freight

The Railways offer an efficient and economic mode of logistics movement given their pan-India network, and can play an important role in enabling a coordinated and integrated logistics system. With a target of increasing the share of the railways in freight movement from 27% to 45% and increasing freight movement from 1.2 billion tonnes to 3.3 billion tonnes, by 2030, PM Gati Shakti provides the right platform to address the infrastructural challenges that have hampered the movement of freight by rail.

Convenience Over Cost

Currently, the modal mix in terms of freight movement is skewed by a considerable extent towards road transport, with 65% of freight movement by road. The effect is an increased burden on roads and, therefore, significant congestion, increased pollution, and resultant logistics cost escalations. The increased adoption of the railways as a mode for cargo movement is crucial to improve India's logistics competitiveness. A look at the comparable costs of different forms of transportation suggests that freight movement cost is the highest in the road sector nearly twice the rail cost. However, the convenience of road transport has taken precedence



over cost, and the railways in India have been losing freight share to other more flexible modes.

In 2020-21, Share of The Total Freight Movement

1. Coal (1.2 billion tonnes) – 44%
2. Iron ore – 13%
3. Cement – 10%
4. Food grains – 5%
5. Fertilizers – 4%
6. Iron and steel – 4% etc.

(Transportation of non-bulk commodities accounts for a very small share in the rail freight movement.)

Rise in Container Traffic

The convenience of moving non-bulk commodities in containers has led to an increase in containerised traffic over the last decade, growing from 7.6 million Twenty-foot Equivalent Unit (TEU)s in 2008 to 16.2 million TEUs in 2020. TEU is a unit of cargo capacity. Globally, railway systems are heavily investing in advanced rail infrastructure for quick and low-cost container movement. For example, China uses special trains to carry containers that connect significant ports to the inland, and has dedicated rail lines to move container traffic and planned double-decker container carriages for greater efficiency.

While the Indian Railways are upgrading their infrastructure (PM Gati Shakti National Master Plan), a continuous monitoring of existing projects along with identification of new priority areas will help in achieving the targets of rail freight movement. At present, these are significantly lower than other countries such as the United States and China.

PM Gati Shakti National Master Plan

- The ambitious PM Gati Shakti Yojana or 'National Master Plan for Multi-Modal Connectivity Plan' was launched on 13 October 2021 for coordinated and execution of basic infrastructure projects to reduce logistics costs.
- PM Gati Shakti - National Master Plan for Multi-modal Connectivity, essentially a digital platform to bring 16 Ministries including Railways and Roadways together for integrated planning and coordinated implementation of infrastructure connectivity projects. The multi-modal connectivity will provide integrated and seamless connectivity for movement of people, goods and services from one mode of transport to another. It will facilitate the last mile connectivity of infrastructure and also reduce travel time for people.

Vision of PM Gati Shakti

PM Gati Shakti will incorporate the infrastructure schemes of various Ministries and State Governments like Bharatmala, Sagarmala, inland waterways, dry/land ports, UDAN etc. Economic Zones like textile clusters, pharmaceutical clusters, defence corridors, electronic parks, industrial corridors, fishing clusters, agri zones will be covered to improve connectivity & make Indian businesses more competitive. It will also leverage technology extensively including spatial planning tools with ISRO (Indian Space Research Organisation) imagery developed by BiSAG-N (Bhaskaracharya National Institute for Space Applications and Geoinformatics).

Road Tilt and Challenges

The national transporter faces several infrastructural, operational and connectivity challenges, in turn leading to a shift of freight traffic to roads. The increased transit time by rail and pre-movement and post-movement procedural delays such as wagon placement, loading and unloading operations, multi-modal handling, etc., hamper freight movement by rail. The lack of necessary terminal infrastructure, maintenance of good sheds and warehouses, and uncertain supply of wagons are some of the infrastructural challenges that customers face. This results in high network congestion, lower service levels, and increased transit time. The absence of integrated first and last-mile connectivity by rail increases the chances of damage due to multiple handling and also increases the inventory holding cost.

A Special Entity Needed

The upcoming Dedicated Freight Corridors along India's eastern and western corridors and multimodal logistics parks will ease the oversaturated line capacity constraints and improve the timing of trains. The Indian Railways need to improve infrastructure that is backed by adequate policy tools and also encourage private participation in the operation and management of terminals, containers, and warehouses to efficiently utilise resources.

Establishing a special entity under the railways to handle intermodal logistics in partnership with the private sector will help in addressing the first and last-mile issue faced by the railways. The entity could function as a single window for customers for cargo movement and payment transactions.

PM Gati Shakti is based on six pillars

- 1. Comprehensiveness:** It will include all the existing and planned initiatives of various Ministries and Departments with one centralized portal. Each and every Department will now have visibility of each other's activities providing critical data while planning & execution of projects in a comprehensive manner.
- 2. Prioritization:** Through this, different Departments will be able to prioritize their projects through cross-sectoral interactions.
- 3. Optimization:** The National Master Plan will assist different ministries in planning for projects after identification of critical gaps. For the transportation of the goods from one place to another, the plan will help in selecting the most optimum route in terms of time and cost.
- 4. Synchronization:** Individual Ministries and Departments often work in silos. There is lack of coordination in planning and implementation of the project resulting in delays. PM Gati Shakti will help in synchronizing the activities of each department, as well as of different layers of governance, in a holistic manner by ensuring coordination of work between them.
- 5. Analytical:** The plan will provide the entire data at one place with GIS based spatial planning and analytical tools having 200+ layers, enabling better visibility to the executing agency.
- 6. Dynamic:** All Ministries and Departments will now be able to visualize, review and monitor the progress of cross-sectoral projects, through the GIS platform, as the satellite imagery will give on-ground progress periodically and progress of the projects will be updated on a regular basis on the portal. It will help in identifying the vital interventions for enhancing and updating the master plan.

Conclusion

There are two cargo wagons in each passenger train. Based on industry recommendations, introduction of an Uber-like model for one of the two cargo wagons, wherein the customer can book the wagon using an on-line application, could help in increasing the utilisation rate of these wagons. The Indian Railways may keep operating the other wagon, the way it is done currently, until the success of the proposed model is established. This could directly increase freight traffic without any additional investment in infrastructure. An integrated logistics infrastructure with first and last-mile connectivity is essential to make rail movement competitive with roads, and facilitate exports by rail to neighbouring countries such as Nepal and Bangladesh.

Expected Question

Que. Consider the following statements–

1. The PM Gatishakti Yojana has been introduced to promote multi-modal connectivity.
2. At present 65% of the country's freight movement is done through road transport.
3. Twenty-foot Equivalent Unit (TEU), is a unit of cargo capacity.

Which of the statements given above is/are correct?

- (a) 1 Only
- (b) 1 and 2
- (c) 2 and 3
- (d) 1, 2 and 3

Answer : D

Mains Expected Question & Format

Que.: How PM Gati Shakti Yojana can help in reducing logistics cost and development of coordinated and basic infrastructure in the country? discuss.

Answer Format :

- ❖ Begin the answer by explaining the Gati Shakti mission.
- ❖ Give a brief description of the current logistics system and freight movement.
- ❖ How PM Gati Shakti Yojana can tackle the challenges by promoting multi-modal connectivity.
- ❖ Conclude writing the way forward.

Note: - The question of the main examination given for practice is designed keeping in mind the upcoming UPSC mains examination. Therefore, to get an answer to this question, you can take the help of this source as well as other sources related to this topic.