Development/ Setting up of a Multi Facility Logistics Park in NCT of Delhi

Introduction

NCT of Delhi is one of the major trading hubs in the country. It has excellent public infrastructure & communication facility for promotion of business and export. Service Sector contribution is the highest in Delhi's economy and therefore major contribution comes from professional services & real estates, transport, storage & communication, hotels & restaurants etc. For higher economic growth, promotion of inclusive and sustainable industrialization and employment are the focus areas of the Government for the economic development of the state.

2. Delhi has 9 principal markets and 12 sub-markets for trading of agricultural produce. Main food trade markets are located in Narela, Azadpur, Morigate, Shahdara, Keshopur, Ghazipur, Najafgarh, and Meharauli. In addition, Delhi is famous for retail & wholesale market; Chandni Chowk (ethnic wear, jewellry, artifacts, electronic gadgets), Sadar Bazar (multiproduct), Khari Baoli (spices), Karol Bagh (Home furnishing, Electronics, Clothes), Sarojini Nagar (clothes, home furnishing, leather products), Lajpat Nagar (multiproduct), Ghazipur (flower mandi), Gandhinagar (apparel and textiles), Chawri Bazar (general utility products), Nehru Place Market (electronic and computer hardware retail market), Kirtinagar (furniture market). Upcoming shopping festivals including national and international exhibition from January 2023 will involve traders, wholesalers and shop owners from Delhi.

3. The business ecosystem for export has played a pivotal role in employment generation through growth of enterprises. Electric machinery & equipment, ready-made garments and fibres, food products, auto parts, handicrafts, basmati rice, non-leather footwear and basmati rice are major products exported to various countries from the NCT of Delhi. Furthermore, in the NITI Aayog's Export Preparedness Index of 2021, Delhi is ranked 12th in the overall export performance, as a top-performing state among other Union Territories and city-states. Despite being a landlocked state, the higher foreign direct investments, connected transport infrastructure and logistics, and suitable business environment has allowed Delhi to create a favourable ecosystem of export in the region.

4. NCT of Delhi has the highest air cargo capacity in the country with a share of 30.17%. It has warehouse capacity only 19646 MT with 97 cold storages having capacity only 1,29,857 MT (average capacity 1311.68 MT) whereas Haryana has 359 cold storages having capacity of 819809 MT, Punjab 697 cold storages and capacity 2315096 MT, Himachal Pradesh 76 cold storages and capacity is 146769 MT. Notably, there is a lack of suitable warehouses within the Delhi state, and hence warehouses in the NCR area (Gurgaon, Sonipat, Noida/Ghaziabad, Faridabad) are being used to store goods to be sent to Delhi or transit through Delhi. Transportation from these warehouses to Delhi or through Delhi to other states further increases the cost and time. Key trends of industrial and logistic market in Delhi NCR shows that third party logistics and e-commerce sectors are driving the major demand in logistic sectors in NCR followed by fast moving consumer goods/ durable goods (FMCG/FMCD), retail and

manufacturing products. Omnichannel retail i.e. online/ offline hybrid model will continue to drive new warehousing requirements.

5. Logistics park can play a vital role in Delhi's economy, as it connects different trades/sectors, businesses and consumers through storage and transport of goods. Delhi remains a high-density center in terms of freight movement in India, where large corporations, MSMEs principally use roads and rail transportation to maintain and strengthen supply chains. The existing network of freight transports and transportation infrastructure facilitate movement of goods inside the National Capital Territory (NCT) of Delhi and other states.

6. Logistics and supply chain sector is one of the priority sectors mentioned in the Rozgar Budget 2022 -23 of NCT of Delhi. This sector has enormous potential to create new green jobs and it has been chosen for creating of new jobs in next five years. Efficient logistic ecosystem is considered to act as a catalyst in enhancing competitiveness of all the sectors of a State economy. Acquisition, storage, transportation and delivery of goods along the supply chain are main business operations of logistics and supply chain sector.

7. The higher cost of transport and duration of transport movement due to traffic congestion in Delhi indicate structural and infrastructural inefficiencies in the existing logistics sector. The overemphasis of the logistics ecosystem on road transport, underdeveloped storage infrastructure, inefficient fleet mix of transport vehicles and fragmented institutional structure remain major challenges in unlocking the full potential of the logistics sector in NCT of Delhi.

8. In addition, issues of air pollution particularly caused by vehicular emission and traffic congestion caused due to frequent freight transport in the city within limited permissible time are aggravating surrounding environment of the State. Neighboring states Haryana, Punjab, Uttar Pradesh have dedicated logistic policy and robust institutional mechanism for logistics which facilitates the logistics sector development in these states including financial assistance from the state government. Delhi also needs to implement initiatives to capitalize logistics sector opportunities.

9. Therefore, a draft proposal is developed to address logistics issue which includes potential solution for overcoming vehicle pollution and traffic congestion as much as possible, reduce road accidents, create green jobs and contribute to State economy. The proposal utilizes advances in the information and communication technology at present scenario and take the opportunity to reform the logistics infrastructure in the state. The State would perform better in ease of doing business and export preparedness index as an outcome of implementation of the proposal.

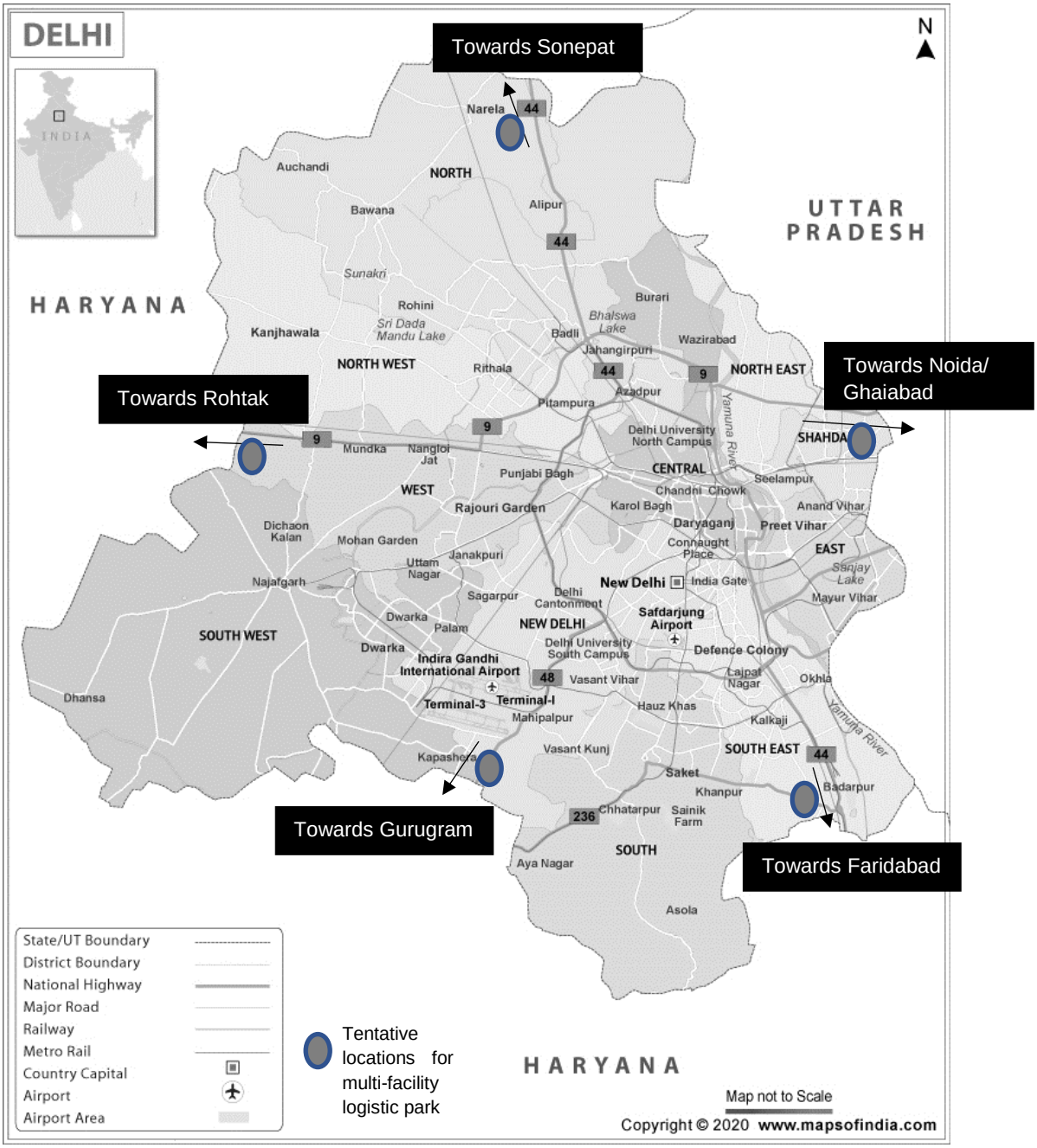
Proposal

The idea of developing a multi-facility logistics park in NCT of Delhi is consistent with the various initiatives taken by Delhi govt. and policies initiated by the central government to

improve the performance of logistics ecosystem in the country. The Logistics Efficiency Enhancement Program (LEEP) of 2017 offers a framework for building multimodal logistic parks in cities with the largest freight flows, including Delhi. The draft National Logistics Policy of 2019 attempts to integrate logistics sector with the broader scope of economic growth through the development of an efficient system of goods transport. The PM Gati Shakti Mission launched in 2021 brings a holistic perspective to integrate multi modal connectivity with a National Master Plan. Along the similar lines, the proposed multi-facility logistics park in Delhi will aim to reduce logistics costs of businesses, decrease time of goods movement and provide modern warehousing facilities. The park also will intend to decongest the core areas of the city and curb the air pollution caused due to the freight movement. The multi-facility logistics park proposes to transition from the current freight ecosystem, which is costly, polluting and inefficient, to a cost-effective, clean, and operationally efficient model that can be replicated to other cities in India.

The key features and facilities which will be provided at the park are given below –

- **Location –** The logistics and warehousing centers in Delhi that were once planned few decades before on the peripheries of the city are now located within densely populated areas, e.g., Inland Container Depot at Tughlakabad or Sanjay Gandhi Transport Nagar. The new multi-facility logistics park need to be built outside of the city limits near the major highways such as the Eastern and Western Peripheral Expressways (these expressways complete the largest ring road around Delhi), the Dwarka Expressway (it connects Mahipalpur in Delhi to Gurugram in Haryana which will complete by end of 2022) and the under-construction Urban Extension Road II (UER II). This will redirect the freight movement through large trucks from arterial roads in the city to large highways and help to decongest Delhi while reducing the transport time for businesses. The park's location will also be close to major railway lines to ensure a seamless landing and transportation to other modes of goods transportation. The location can be refined further by linking it to existing road infrastructure initiatives like as the Delhi-Mumbai Industrial Corridor (DMIC).



- **Multimodal Integration –** The multifacility logistics park would have facility for the integration of different modes of freight transport in Delhi. The inter linkages with the road and rail will be further supported the connectivity of the logistics park with the Indira Gandhi International Airport. This will result in more efficient connectivity of land and air cargo and logistics, as well as a reduction in the cost of intermodal transport of goods in Delhi.

- **Change the Logistics Model –** The current model of logistics relies on point-to-point freight movements that originates from production sites and terminate at the

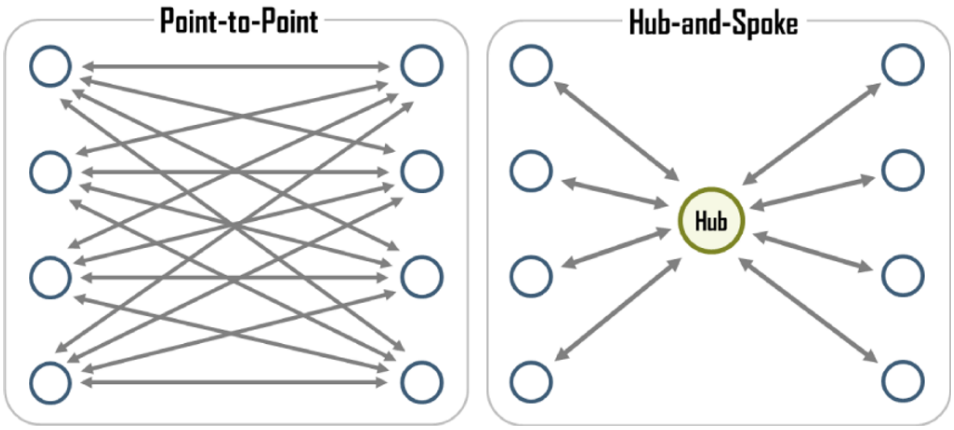


Figure 1 – The Current and Proposed Models in Freight Management Ecosystem

destination. However, the proposed logistics park will be based on Hub and Spoke Model (Figure 1) where the park will act as a hub to aggregate goods from the different production sites at one location and distribute it to smaller secondary production sites or consumers within the city. This will reduce the intra-city freight movement of large vehicles, traffic congestion in nearby markets/ mandis and improve the efficiency of the logistics supply chains. Large multiaxle goods vehicles will be utilized to connect the park to other logistics centers and industrial districts, while small electric vehicles will be encouraged to transport goods across the city as much as possible. This will ensure a right and balanced mix of freight vehicles, reducing congestion and air pollution in the Delhi NCT region.

- **Storage and Warehousing –** The current ecosystem of logistics is comprised of very limited storage facilities and warehouses with manual and inefficient operational processes. The proposed park will leverage the innovations in technology to mechanize material handling and storage. The park will also provide customized storage facilities to businesses according to the type of goods such as cold storage units, racked warehousing space, etc. Emerging technologies such as Artificial Intelligence (AI) and Machine Learning (ML) will be utilized in the park for real-time tracking and smart inventory management. This will lower the storage and handling cost of businesses while also improving the quality of goods in the supply chains.

- **Allied facilities –**As an incentive for accelerated adoption, the proposed park will offer value-added services to businesses. In order to reduce waiting time and add value to supply chains, services such as expedited customs clearances, storage management services, weighing bridge, workshop, testing facilities, pollution check and certification, fuel refilling, ATM, primary health check-up and medical facility will be planned for the park. Furthermore, the park will provide services such as sorting, packaging, labelling, and returns handling to further reduce transaction costs in the delivery of goods.

- **Integration of stakeholders –** The current landscape of logistics ignores the health and wellbeing of the warehouse workers and vehicle drivers. To address this, the proposed park will provide space for food and accommodation, recreation, and leisure activities for workers and drivers. The emphasis of the park on wellbeing of all the stakeholders will improve the quality of life of workers and consequently progress the performance of the logistics sector in Delhi and beyond.

Expected Benefits

- **Reduction in Transportation Costs –** The proposed park, with its multimodal integration plan and transition to a more efficient freight management model, will significantly drive down the transportation costs.
- **Business Growth and Revenue Generation –** The park will particularly help the business owners to build robust supply chains and improve last mile connectivity. The ensuing growth of the industrial and logistical sectors will result in additional taxes and revenue for the government, bolstering the economy of Delhi.
- **Decrease in Storage Costs –** The development of the park in the peripheries of Delhi will reduce the storage and warehousing costs for businesses. The lower rental costs, intelligent freight information management systems and mechanized warehousing operations will lower the transaction costs. Modern and real-time inventory management will also reduce handling losses and assist businesses in maintaining product quality. Furthermore, the provision of allied facilities such as fast customs clearances, sorting facilities, and returns management will result in more efficient product transport and delivery, especially for e-commerce enterprises.
- **Employment Generation and Workers Welfare –** The construction and operations of the proposed logistics park will provide thousands of new employment opportunity to Delhi's residents. The amenities targeted at promoting well-being of workers and drivers will improve their working conditions and aid in the formal integration of the underrepresented group in the logistics ecosystem.
- **Decline in Pollution –** A transition of logistics management to hub and spoke model will provide an opportunity to decrease ambient air pollution and harmful emissions (particularly PM 2.5 emissions) in Delhi. The placement of the hub outside the city limits, increased share of rail transport and introduction of electric vehicles in the fleet mix will reduce the CO_2 emissions and help Delhi in the localization of Sustainable Development Goals (SDGs).
- **Decongestion/ Traffic Reduction –**The enhancements in the fleet mix of freight vehicles will improve traffic flows in Delhi. The shift from large good vehicles to smaller, more energy-efficient goods vehicles to distribute goods within city limits and in densely populated areas will ease congestion and shorten transportation time in Delhi.

Requirements

- Multi-facility logistic parks would have following facilities –

- **Parking Terminal** – Parking facilities would have space for dry cargo/containers/trucks/ tractor-trailers. It would have provision for perishable and non-perishable products. Similarly, it would have space for parking of empty and stuffed containers/ trucks.
- **Storage** – There would be two type of storage facilities i.e. open warehouse and covered warehouse. Perishable, Stuffed carriers would be parked in covered warehouse; non-perishable and empty containers would be parked open and covered warehouse as per requirement.
- **Value added Facilities** - Some value-added facilities such as weather and pest proof bagging facility, cold storage, pack house for horticulture produce, segregation of goods as per freight, multimodal transport system, conveyor belt system, transporter outlets and multi-rack facility would be available in logistic park.
- **Common Facilities** – Space would be available for refreshment (saloon, toilet, dormitory accommodation/ rest room, etc.) and recreation (yoga/ meditation/ prayer hall, indoor game), eating zone (dhaba), parking bay, fuel station (petrol/diesel/CNG), electric vehicle charging station, repairing & maintenance workshop, weighbridge, security booth, primary medical facilities & pharmacy, shop for daily needs, ATM counter etc.
- **Common Infrastructures** – Approach road from highways/ expressways, 24 X 7 power back up, Wi-Fi and integrated system run on Internet on things, close circuit tv, fire station, security alarm system, water supply for drinking and non-drinking purposes, drainage, sanitation and sewage facility, water treatment plant would be developed as common infrastructure.

- **Land & Building** – Delhi has sufficient land. Overall 30 -35 acres of land would require for one multi-facility logistic park in Delhi. Approximately 25 acres of land would be required for vehicle terminal which would have a capacity for 3000 large vehicles (trailer & trucks) per day in three shifts (8 hours per shift). In addition to terminal space approximately 5 -7 acres of land would be allocated for storage facilities and small trucks movement, common facilities and value-added services would require approximately 2-3 acres of land as some of the facilities would require open space and some would be accommodated vertically in a building.

Revenue Mechanism

The cost of land for setting up of one multi-facility park is estimated as Rs. 500 - 525 Crore @ Rs. 14 - 15 Crore per acre and construction cost of multi-facilities in the multimodal park is approximately Rs. 40 - 50 Crore. The State Govt. may need to invest approximately Rs. 550 -575 Crore for one multifacility logistic park project.

During interaction with transport association and from secondary information it has been observed that daily around 80,000 trucks ply on Delhi Roads to transport around 9.5 lakh MT of freight. Approximately 25,000 trucks originate from Delhi carrying goods to other parts of country, 20,000 trucks pass through the city and 25,000 trucks are destined for national

capital. 40% of these vehicles coming to Delhi are of essential commodities and remaining carries other goods. Primarily 3-4 land areas need to be identified for vehicles coming from Ghaziabad (Gazipur Border), Palwal & Manesar (Tikri border), Chandigarh (Singhu border) areas.

It has been discussed with the association that parking facilities would be on high demand being safe and secure within a close circuit vigilance by security personnel. There would be a parking fee for the logistics park which would include parking for 8 hours in demarked space for parking and usage of lavatory, drinking water, wi-fi/ internet, mobile charging, other general arrangements without paying any extra cost. Extra fees would be charged for extra parking hours. Drivers, helpers and other persons related to particular freight could available other facilities (i.e. rest rooms, foods, health check-up, workshop, saloon etc.) as per their requirement on charge/ payments. Parking facilities could generate 25-30 % revenue for the park. Storage and value-added services would generate 70 -75% revenue for the logistic park.

AT Haryana borders, private players charge vehicle/truck parking Rs. 150 – 170 without proper facility of refreshments, internet, general arrangements. The drivers, helpers park vehicles there, have food from nearby dhabas and take rest in the vehicles. Generally, the vehicles park there for 6-8 hours. In the proposed multifacility logistics park in Delhi, approximately Rs. 18 Cr parking fee (@ Rs. 200 parking charge per 8 hours per vehicle/ trucks, i.e. Rs. 250 x 8 hrs x 1000 vehicles/ trucks per shift x 3 shifts x 300 days) could be earned from one multi-facility logistic park in a year assuming full occupancy for 300 days.

The multifacility logistic park would be either developed by the state government and lease out to private players for operation and maintenance against one-time security deposit and monthly lease rent or it can be developed on public-private partnership mode. In both the options, the State Government would be owner of the land and building. Apart from lease rent the state government would receive GST on logistic and ancillary services. Considering all the above it is estimated that the State Govt. could recover its investment in 7 - 8 years.

Expected Costs

- **Land** –As location is critical to the development of the multimodal logistics park, a sizable parcel of land with direct road, rail, and air connectivity will be required. The park's location should also be accessible to other logistics parks and industrial clusters in and around Delhi, such as Gurgaon, Ghaziabad, Noida, Sonipat, and others. The DSIIDC can provide adequate land for the project or make arrangement for land acquisition to allocate sufficient space for storage, trunk infrastructure and future expansion of the park. Four such multimodal logistic park in nearby entry points of Delhi would reduce vehicle movement pressure drastically.
- **Development of Warehousing Space –**A large section of the land will be used to build a modern and functional storage and warehousing facility. The knowledge and technology about customized storage areas and mechanization will be required to plan the storage spaces. Additionally, skilled and experienced workforce will be required to run the day-to-day operations of the logistics park.

- **Development of Supporting Infrastructure -**The establishment of logistics parks should be complemented by the construction of supporting infrastructure inside and around the park. The government should understand the needs of all the stakeholders in the logistics ecosystem to plan for infrastructure such as roads, energy, waste management, water etc. The park will also include sustainability principles into its infrastructure design and planning. Additionally, space for ATM, health centre, workshop and fuel/electric charging stations can also be envisaged in the plan for a holistic growth of the park.

Financing Mechanism

The multifacility project would be developed either by the State Govt. or on private public partnership mode. In case of PPP mode, an SPV would be formed under Section 8 company which would include industry representatives, state govt. officials, technical consultants. DSIIDC would provide land for the project. The SPV would implement the project in time bound manner and would operate facilities of the park on charge basis. SPV would arrange working capital, human resource etc. to operate the park. SPV would pay charge annually to DSIIDC as lease amount for the park.

The State Govt. may consider this project to fund either by its own or under SIDBI Cluster Development Fund as it is a low-cost financing option. The State Govt. would appoint a Transaction Advisor to undertake feasibility study, select appropriate private partner and draft terms and conditions, undertake risk assessment, complete the bidding process and develop financial module for the project.

Next Steps for DSIIDC

- **Technical Assessment –** To understand the requirement and potential of the multifacility logistics park in Delhi, detailed prefeasibility study along with forecasting of the demand of freight movement and warehousing in Delhi may be conducted. The assessment will serve as a foundation to estimate and attract investments, businesses and private players in the development of the park.

- **Coordination –** To bridge the gap of fragmented institutional and governance structure of logistics, coordination between the government and different departments such as transport, industries is paramount for the planning and success of the park. The government should take a lead responsibility to create partnership and collaborations for efficient involvement of different authorities for participative and efficient planning and operation of the park.

- **Land Parcel identification –** Based on the prefeasibility study and stakeholder consultation, land parcels may be identified for the creation of the logistics park. If the land is available with DSIIDC, it can be allocated directly for the park, however, land acquisition process should be designed to consolidate land and ensuring equity of land

owners in the development of the park. Necessary permissions and clearances should be obtained by the government to expedite the development of the park.

- **Project Proposal and finances –** A detailed project report can be prepared with the help of knowledge and technical partners to incorporate modern technology and global best practices in the logistics ecosystem. The project document can also have details on financing mechanisms, transaction models and tendering process, which will serve as a cornerstone for successful implementation and development of the logistics parks in Delhi.

Conclusion

The concept note proposes development of a multi-facility logistics park to augment the capacity of current landscape of logistics in Delhi. The park is aimed at improving the efficiency of the present freight transport and warehousing while also satisfying the growing demands of the future. The park will help the industries to grow their businesses by reducing transportation and storage costs while improving the quality of goods and adding value to the supply chains. The logistics park will also generate employment, improve efficiency in delivery of products and provide additional income for the government to further expand the logistics infrastructure in Delhi. Moreover, the park will also aid in reducing emissions, air pollution, traffic congestion, and road accidents in the core areas of the city. The logistics park will add value to the economy of Delhi and support better performance in ease of doing business.