

Industrial Corridors – The New Paradigm for Economic Development in India

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Abstract – This paper examines the emergence of new models of industry led economic development in India such as Special Investment Regions and Industrial Corridors. As the Indian policymakers push for this Model for economic transition challenges related to Governance & planning, Land Acquisition and Funding emerge.

Keywords – Industrial Corridors, Economic Development, Investment, Opportunities etc.

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1. INTRODUCTION

1.1 Since the liberalization of the Indian Economy in the early 1990s, India has been on the road to rapid growth brushing aside its Hindu Growth Rate. The need thus arises to create a structure which taps these economic opportunities and perseveres with the desired economic growth. With the contribution of agriculture sector declining in the overall GDP, the challenge remains to boost the manufacturing sector which creates job opportunities for the unskilled labour migrating from the agriculture sector. These initiatives are vital both from the view point of sustaining the high growth rate as also for ensuring that growth is inclusive.

1.2 While India's service sector has anchored both economic growth and job creation in recent decades, it is now time for India's manufacturing sector to be an engine of growth and jobs. In many ways, India's manufacturing sector has been and continues to be well-poised to play this role. As stated above, there is an abundant supply of unskilled & semi-skilled labor, which may be required for a diversified and dynamic manufacturing sector. This may be seen not only in terms of the sheer range of manufactured products produced in the country, but also in terms of India's manufacturing export basket, which includes relatively sophisticated chemical, pharmaceutical, and auto component products.

1.3 It is dismaying that the contribution of the manufacturing sector to the Indian economy has remained stagnant at around 15% of

gross domestic product (GDP). Compare this with various South East Asian countries like the People's Republic of China (PRC), Malaysia, Thailand, and Vietnam, which are primarily manufacturing economies. The Indian manufacturing sector is generally concentrated in in-efficient small-sized, informal sector enterprises where productivity, earnings, low and wages are a norm.

1.4 Recognizing this incongruity, the Government of India came out with the National Manufacturing Policy (NMP), which aims at increasing the share of manufacturing sector in the national GDP to 25% and creating employment opportunities for around 100 million workers by 2022. For this purpose, the NMP aims at rationalization and simplification of business regulatory process like creation of Single Window clearance mechanism; reformed Labour Policies for adjusting employment levels in response to market conditions without compromising the income security of the labour force; financing for small & medium-sized enterprises; creation of supportive infrastructure facilities; and encouraging cluster development by setting up National Investment & Manufacturing Zones (NIMZs).

1.5 Development of Economic & Industrial Corridors provides a unique opportunity to achieve the goals defined under the NMP. These corridors have the potential to provide the necessary ecosystem to spur India's manufacturing sector and generate employment opportunities besides ensuring

that India's manufacturing sector achieves its potential.

- 1.6 The Government of India's "Make in India" initiative also identifies Industrial corridors as policy instruments to spur manufacturing and overall economic growth.

2. OBJECTIVES OF THE PAPER:

- 2.1 This paper examines the emergence of new models of industry led economic development in India such as Special Investment Regions and Industrial Corridors. As the Indian policymakers push for this Model for economic transition challenges related to Governance & planning, Land Acquisition and Funding emerge.

- 2.2 In the mid-2000s, the Government policies and plans started emphasizing on the need to develop infrastructure for ensuring economic growth through the manufacturing sector. This was when the concept for development of two Dedicated Freight Corridors – Western Freight Corridor from Delhi to Mumbai & Eastern Freight Corridor from Amritsar to Kolkatta – was included in one of the budgets. Following this, the Department of Industrial Promotion & Policy (DIPP), Ministry of Commerce & Industry, Government of India launched the first Corridor project - Delhi Mumbai Industrial Corridor along the Western Freight Corridor - in collaboration with the Government of Japan. The project was modelled on the Japanese Taiheiyo Belt running roughly from Tokyo to Osaka (also known as the 'Pacific Belt' or 'The Tokaido Corridor'). Subsequently, other Industrial corridors the Chennai–Bengaluru Industrial Corridor (CBIC); Bengaluru–Mumbai Economic Corridor (BMEC); Amritsar–Kolkata Industrial Corridor (AKIC); and the East Coast Economic Corridor (ECEC), India's first coastal corridor were also planned. While the DMIC represents India's first and flagship Industrial Corridor project, the Vizag–Chennai Industrial Corridor (VCIC) comprises the first phase of ECEC. This follows earlier government policies like the development of the Golden Quadrilateral and the North-South and East-West Corridors which involved building transportation infrastructure (mainly highways) that connected the four major Indian metros (Delhi, Mumbai, Kolkata, and Chennai). The industrial corridor development policy, while primarily focused on building manufacturing and industrial centres, is also an attempt to jumpstart economic development within the influence zones of such Corridors.

- 2.3 In this paper an attempt is being made to broadly understand the concept of Corridor

development and the related dynamics of spatial development. A few international corridor projects have also been studied along with such projects proposed in India. We also examine the status of various project initiatives with greater emphasis on the Delhi Mumbai Industrial Corridor project, the role of the Central & State Governments and the constraints & problems faced in case of such large scale developments – particularly relating to the availability of land & land acquisition, project financing and governance models. For the sake of convenience and greater focus, three States of Haryana, Gujarat & Maharashtra would be studies out of the six states.

2.4.1 Aim:

To investigate the success of India's industrial corridor model as a strategy for economic development.

2.4.2 Research Questions:

- Is corridor development policy a tool for economic development by way of manufacturing led development?
- What is the role play between the Central & State Governments?
- What are the challenges and how are issues relating to Governance, Funding and Land Acquisition being addressed?

3. REVIEW OF LITERATURE:

- 3.1 With the Government of India laying greater focus on indigenous industrial development, the significance of Industrial Corridors only gains importance. Seeing this potential to support the Make in India programme, the concept of Corridor development has been in vogue internationally, it is a relatively new concept in India. Accordingly, researches on this topic in India are negligible. Little published work exists with regard to Industrial Corridors in India, it being a relatively new initiative in the Country and not much studies or data exists.

- 3.2 Most of the literature with regard to spatial development, Economic/ Industrial/ Agriculture Corridor relates to the studies undertaken by various multilateral agencies like the Asian Development Bank, Southern Africa Development Council (SADC), Food & Agriculture Organization (FAO). Most of these studies relate to economic and Agriculture Corridors in Africa of East Asia. Very little research work exists in India and

that too focusing on transit-oriented development or transport projects.

- 3.3 Barring one study on Industrial Corridor, the data/ information collection for the study were collected either from the website of the National Industrial Corridor Development Corporation (Nodal Agency of the Government of India for implementation of all Corridor projects in India) or news clippings or direct interaction with the officers in NICDC & State implementing Agencies.

4. METHODOLOGY:

- 4.1 The methodology for the research work includes review existing literature/ secondary data and collection of primary data through the stakeholders including the following:

- Department for Promotion of Industry & Internal Trade, (DPIIT), Ministry of Commerce & industry, Government of India;
- National Industrial Corridor Development Corporation Limited (NICDC);
- Government of Haryana & its Agencies;
- Government of Gujarat & its Agencies;
- Government of Maharashtra & its Agencies;
- Consultancy Agencies like KPMG, EY, PWC, AECOM, Jurong, Egis Engineering etc.
- Visits to the various Project sites and offices of the DMIC Nodal Agencies would also be undertaken to understand the dynamics on the ground.

5. DEFINING CORRIDORS:

- 5.1 There exist multiple definitions for an Industrial corridor. It essentially involves a connectivity – a road or a rail network – along which industrial, business, trade or urban centres are developed withing a defined geography supported by supported by world class infrastructure, logistics/ distribution networks, and business friendly policy framework which facilitates ease of doing business.
- 5.2 Industrial corridors are expected to kick off economic development within their influence areas through the backward and forward linkages. These corridors build economic centres by providing them the necessary advantage in terms of cauterization and increasing competitiveness of the businesses through smooth access to raw material, labour & markets and reduced transportation &

logistics costs, supported by world-class infrastructure.

6. THE INDUSTRIAL CORRIDOR DEVELOPMENT MODEL: INTERNATIONAL EXAMPLES



6.1 The East West Corridor of Greater Mekong Sub region (GMS):

- The 1320 kilometers long East West Economic Corridor (EWEC) passes through Myanmar, Thailand, Cambodia, Laos, Vietnam and China. It became operational in the year 2006.



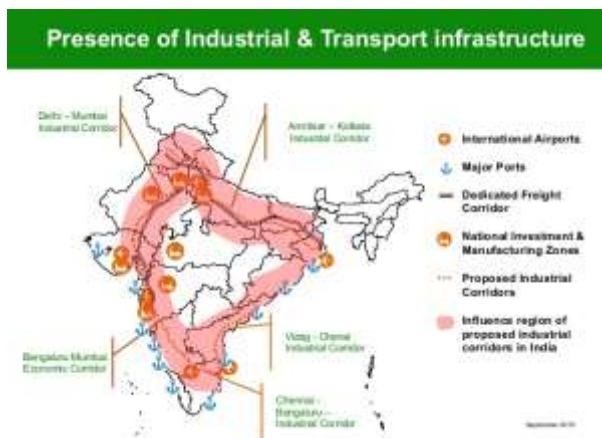
6.2 Tokyo-Osaka Industrial Corridor of Japan:

- The 2000 km long Tokyi Osaka Industrial Corridor runs along the Tokaido-Shinkansen High Speed Railway. It connects the major industrial areas of Tokyo, Osaka & Nagoya besides Kyoto, which is a major tourist destination. It was operationalized in the year 1964.

7. INDUSTRIAL CORRIDORS IN INDIA:

- 7.1 The Industrial Corridor projects have been planned with two aims. One is to develop large industrial cities to expand the country's manufacturing & services base. These Industrial Corridors are expected to emerge as global manufacturing and trading Hubs. The second aim is to provide a major impetus to planned urbanization in India with manufacturing as the key driver. The level of urbanization in the country is expected to grow and with the migration from rural areas to urban areas, these urban areas would have to be readied to cater to this influx through creation of infrastructure facilities like housing, water, power, sewage systems, mass rapid transport.
- 7.2 A number of new industrial cities or Nodes have been proposed as a part of various Industrial Corridors, which have been

conceptualized in partnership and collaboration with Governments of United Kingdom & Ministry of Trade & industry, Japan and agencies like JICA, ADB etc. The following maps details the alignments of a few important corridors that have been proposed.



7.3 The Government of India has constituted a special purpose vehicle namely the Delhi Mumbai Industrial Corridor Development Corporation Limited (DMICDC), to establish, promote and facilitate development of DMIC project. DMICDC collaborates with the participating States that fall along the various Industrial Corridors and provides the necessary project development services for various projects within the influence zones of the Industrial Corridors - Investment Regions/ Industrial Areas / Industrial Nodes & Townships. DMICDC works with the State Nodal Agencies in this regard. The States are required to identify Investment Regions and Early Bid Projects and DMICDC provides support for preparation of Master Plans, Feasibility Reports, Detailed Project Reports etc. DMICDC also acts as a funding agency for the above projects through equity participation and funds for development of infrastructure through the DMIC Trust.

7.4 Various Industrial Corridor projects being implemented by DMICDC are detailed in the following paras.

7.5 Delhi Mumbai Industrial Corridor:

- The Delhi Mumbai Industrial Corridor (DMIC) Project is the first project taken up for development. It is being developed with financial & technical support from Japan to the tune of USD 90 billion (Rs. 4,23,000 crore). The project is being developed along 1483 km long Dedicated Freight Corridor being developed by the Indian Railways between Delhi (the political capital of India) and Mumbai (the business capital of India).

- A band of 150 – 200 km on both sides of the Freight corridor is to be developed as the Delhi-Mumbai Industrial Corridor. It includes the States of Uttar Pradesh, Haryana, Rajasthan, Madhya Pradesh, Gujarat & Maharashtra. This project includes 24 Industrial Nodes (more than 200-250 sq. km.) and 12 Early Bird Projects (airport, multi modal logistics hubs, industrial townships, metro projects).

7.6 The Mumbai-Bangalore Industrial Corridor:

- After the success of the Delhi Mumbai Industrial Corridor (DMIC) project, two more industrial corridors between Bangalore and Chennai and Bangalore and Mumbai were proposed in the 2013-14 budget.
- The Mumbai Bangalore Economic Corridor is the proposed industrial corridor in India between Mumbai and Bangalore. The project is being implemented in collaboration between the Government of Indian and British Government with an aim to generate an investment over USD 50 billion and employment potential of 2.5 million besides contributing to about 12% of country's GDP.

7.7 Chennai Bangalore Industrial Corridor

- The other project planned is the Chennai-Bangalore Industrial Corridor Project with an aim to enhance trade & commerce between south India and East Asia by facilitating seamless movement of goods from the industrial areas to the ports around Chennai. It is to be developed along the cities of Chennai, Sriperumbudur, Hoskote and Bangalore.

7.8 Amritsar Delhi Kolkata Industrial Corridor Project:

- The Amritsar Kolkata Industrial Corridor (AKIC) is a 1839 km long greenfield corridor between of Amritsar and Kolkata along the Eastern Dedicated Freight Corridor between Ludhiana & Howrah being implemented by the Indian Railways. The corridor will also leverage the inland waterway system along National Waterway 1 between Allahabad & Haldia.
- The AKIC covers the most densely populated regions in India covering nearly 40% of India's population. Industrial cities christened Integrated Manufacturing Cluster (IMC) would be developed by each of the state along this corridor. The Perspective Planning

Report for the entire Project has been prepared by M/s Lea Associates.



7.9 Vizag–Chennai Industrial Corridor:

- The Vizag–Chennai Industrial Corridor (VCIC) has been planned under the Prime Minister's Act East Policy as a part of the East Coast Economic Corridor. The aim is to enhance the integration of Indian economy with the ASEAN countries.

8. ISSUES WITH THE INDUSTRIAL CORRIDOR PROJECTS WITH SPECIAL REFERENCE TO DMIC:

8.1 The Industrial Corridors are very vital initiatives for the Government of India to enhance its manufacturing capabilities and become the global workshop. While considerable progress has been made in various projects, but there are some issues that need greater attention and need an effective resolution. We take the example of the Delhi Mumbai Industrial Corridor (DMIC) to understand these issues and see how these could be resolved. These issues are briefly discussed in the following paras.

8.2 Land acquisition:

- The proposed industrial cities/ Investment regions proposed under the DMIC project require huge areas (more than 250-300 sq.km) for greenfield development. While bigger states like Maharashtra, Gujarat, Rajasthan, Uttar Pradesh & Madhya Pradesh have been able to provide such lands due to available Government lands and ease of acquisition, smaller states like Haryana have faced

problem in aggregating seven smaller land parcels due to smaller areas and high land prices due to proximity to National capital Delhi. Rajasthan and Uttar Pradesh have also started facing this problem to some extent due to the same reason. It is for the same reason that the Manesar Bawal Investment Region – the Investment region in Haryana – has remained a non-starter. Haryana also had to drop acquisition of land for its Logistics Hub project after the landowners started demanding too high a price for the land.

- Acquisition of land is well-nigh impossible since under the new Land Acquisition Act - Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013 - land acquisition has become a time-consuming and cumbersome process besides requiring huge financial resources. In the event of non-availability of this land, Haryana - which has been an industrial powerhouse - may lose out on the opportunity to leverage the benefits and opportunities of industrial corridor.

8.3 Uniform Policy Framework:

- Success of Industrial Corridors depends to a large extent on the seamless transfer of goods across boundaries. A uniformity in this regard – uniformity of taxes – needs to be introduced within the DMIC. The Government should take expeditious steps to implement Goods & Services Tax (GST) within the DMIC region.

8.3 Power availability:

- Reduction in the factor costs – labour, power & land – enhances the global competitiveness of an industry. Thus, availability of cheap and reliable power becomes important considering that initiatives as a part of the DMIC development are power intensive and require power on continuous basis.
- While gas based power plants had been initially proposed for each Industrial Node, however these had to be dropped due to non- availability of gas.

8.4 Operational / Management issues:

- The potential of economic spin offs from the DMIC project is enormous and so are the challenges. The sheer size and the complexities involved in the project require creation of capabilities in project management. Differential in the interest & capabilities for implementation of the project

amongst the DMIC states, has led to gaps in performance levels.

- States are experiencing delays in project execution, partly on account of difficulties arising from problems of co-ordination and other procedural and administrative problems. There is limited ownership of State in DMIC, given that the projects are undertaken by DMICDC and for the reason that the state development agenda and priorities takes precedence over DMIC project. There is another challenge of coordination because of the involvement of multiple agencies from central and state governments.

8.5 Social and environmental issues:

- The DMIC is a huge and complex project and may have significant environmental impact.
- a. Water Sustainability: Considering the huge population these new Industrial cities would cater to, huge amount of water would be required. This would require augmentation of water resources. It would adversely impact the areas where the water resources are already under distress and also create a fear that the water supply meant for irrigation may be diverted for industrial use.
- b. Food Security: Due to the change of land use from agricultural to industrial, farming will be affected which may adversely impact the food security of the country.
- c. Loss of Employment: Due to diversion of land for industrial use, there is a fear of loss of employment amongst the farmers and related workers. Although jobs are expected to be created in the industries that would come up, the process would take time and the farmer/workers may not have the requisite skills to seek employment in such industries.
- d. Labor issues- Industrial units generally employ workers on contract workers who usually have lower wages, little or no health insurance, and no job guarantee. The intended ease of doing business would require labour reforms, which may vest the industries with greater powers to hire & fire. The industries may adopt high levels of automation which may not create as many jobs as predicted.

8.6 Investment issues:

- Private investment may not materialize in the short-term in the DIMC projects. Private sector investment in these project is expected to increase once the trunk infrastructure facilities

such as roads, water and sewage pipelines, are in place.

Addressing the above issues will require active support from various stakeholders including the state, central government agencies and DMICDC

9. CONCLUSION:

- The DMIC project is a humungous initiative of the Government of India with the potential to position it amongst the top manufacturing hubs in the world. The projects aimed at enhancing this capability are well supported with the right ecosystem of hard and soft interventions. The investors both foreign and domestic are keenly watching the progress of the project and looking for the right moment to invest.
- While the State Governments are expected to set their priorities right towards implementation of the project, a greater coordination is required between the Central and State Governments in getting the contentious issues resolved. The Central Government should allow the States to dovetail their development initiatives into the DMIC Projects so as to arrive at a win-win solution.
- The States are adopting new Policies / strategies for acquisition of land for the projects outside the scope of the Land Acquisition Act like the Land Pooling, Direct aggregation through negotiations, joint development or land sale-purchase e-portals. A number of other initiatives focusing on skill development, solar power projects, Labour reforms etc. are also being taken to address the underlying issues and speed up development of the Project.
- Since these projects are yet to be fully operationalized, it becomes hard to see how these would get implemented and what impact do they have on the social and economic fabric within their influence areas. Till these get implemented and figures are collected and analysed any research study would remain inconclusive. Till the studies can focus on the pitfalls/ difficulties in the various issues discussed above would remain the major area(s) of research.

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