Abstract.
This paper seeks to explore the potential of the Eastern Dedicated Freight Corridor and how it can help in the industrialization of the areas. In order to reduce the disparity in economic condition of different states/regions of India, the Government of India after the Delhi Mumbai industrial Corridor has developed another high capacity freight corridor i.e. eastern dedicated freight corridor. The Eastern Dedicated Freight corridor has a span of about 1839 km connecting Amritsar in Punjab to Kolkata in west Bengal, connecting major industrial clusters and cities. This paper examines and discusses salient features of the EDFC, benefits, recent development and opportunity for investment in the EDFC regions.

Keywords:
Eastern Dedicated Freight Corridor, EDF, Dedicated Freight corridor

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Introduction.
Industrial Corridor is a rail or road corridor primarily to be used for freight movement. It supports the existing connectivity and increases mobility. Movement of goods can be done more efficiently and in lesser time. Industrial corridor is primarily to utilize the potential of a region to develop by ensuring integration of Industries and Infrastructure. This induces economic activities to grow, which boosts the economic and social development. On the other hand it also develops sound infrastructure and to meet world-class competitive infrastructure. Developing such corridors also acts as a magnet for investments in industrial and infrastructure sector also ensures potential exports in manufacturing. Overall it results in better economic condition, employment opportunities and livelihood.

Literature Study

Tokyo-Osaka industrial corridor

The concept of industrial corridor is inspired by Tokyo-Osaka corridor in Japan, started in 1964 with high-speed rail connectivity between Tokyo and Osaka. The corridor has generated an output of 80% (2007) of the total economy of Japan. Later the corridor was extended with a total span of 1200 kms. This became an inspiration to the world and corridor development started as a new model for economic development in many countries.

Delhi Mumbai industrial corridor

In India, the first dedicated freight corridor was set-up as Delhi Mumbai Industrial Corridor (DMIC), with a total length of 1483 kms between Delhi and Mumbai, covering six states. The goal was to provide the cities with world-class infrastructure and manufacturing based industries to support the DFC. The completion of the

Map 1 Alignment of DMIC with major cities, Source: delhimumbaiindustrialcorridor.com
project is expected to finish by 2017. The corridor passes through the states of Delhi, Rajasthan, Haryana, Gujarat, Maharashtra and Uttar Pradesh. Need for the dedicated freight corridor evolves, as the existing trunk routes were already functioning at par the optimum capacity and the utilization rate increased to 115% - 120%. This restricted the movement of raw materials such as coal, metals, steel etc. which became a constraint to the fast growing economy of the western states of India. The functioning of the corridor started its first phase in 2008- 2012, further the DMICDC identified various investment zones and investment regions to offer new industrial set-ups and promote growth of cities in a smart manner.

**Figure 1** Growth Rate of GSDP in Industry sector of DMIC States (2005-2013), Source: Central Statistical Organization (CSO)& compiled by author.
The figure 1 shows the growth rate of industrial sector in the states falling in the DMIC. This indicates a positive growth in the industrial sector with highest in the year 2009-10 after the initiation of the DFC. The DMIC states contributes about 45% of the total GDP of the Nation, 58% of the value of the output in industrial sector and 57% of total value of exports are generated by the same states. These statistics indicates high input of DMIC state, at the same time it indicates the concentration of growth, disparities in economic condition of states with high contribution of industrial sector.

Analysis and Discussion

Eastern Dedicated Freight corridor

The Eastern Dedicated Freight Corridor with a route length of 1839 km consists of two distinct segments: an electrified double-track segment of 1392 km between Dankuni in West Bengal & Khurja in Uttar Pradesh & an electrified single-track segment of 447 km between Ludhiana (Dhandarikalan) - Khurja - Dadri in the state of Punjab and Uttar Pradesh. GoI’s initiative to connect the existing ‘Golden Quadrilateral’ with a freight only corridor, as heavy passenger use and growth of freight corridor (50% in 5 years) has exceeded the road capacity to 100% or more. Resulted in choked railway system and resisting economic growth. Due to non-availability of space along the existing corridor particularly near important city centers and industrial townships, the alignment of the corridor takes a deviation to avoid densely populated towns such as Mughalsarai, Allahabad, Kanpur, Etawah, Ferozabad, Tundla, Barhan, Hathras, Aligarh, Hapur, Meerut, Saharanpur, Ambala, Rajpura, Sirhind, Doraha and Sanehwali. Since the origin and destinations of traffic do not necessarily fall on the DFC, a number of junction arrangements have been designed to transfer traffic from the existing Indian Railway Corridor to the DFC and vice versa. These include Dankuni, Andal, Gomoh, Sonnagar, Ganjkhwaja, Mughalsarai, Jeonathpur, Naini/Cheoki, Prempur, Bhaupur, Tundla, Daudkhan, Khurja, Kalanaur, Rajpura, Sirhind and Dhandarikalan.

Economic Condition of the EDFC states

The eastern dedicated freight corridor passes through six states with Punjab, Haryana, Uttar Pradesh in northern and Bihar, Jharkhand & West Bengal in the eastern part of India. This corridor also connects the existing Delhi Mumbai industrial corridor in Dadri near National capital region. The economic condition of these states varies vividly along the DFC. The eastern part of Uttar Pradesh, Bihar and Jharkhand are the regions with most deprived economic conditions. The per capita income of Uttar Pradesh and Bihar varies between 25000-3000 INR per annum where as the national...
per capita income is about 54500 INR. Despite of the rich natural resources and high production of agricultural products these regions suffer from low per capita income and lack of infrastructure. One of the reasons is less numbers of mega industries and manufacturing base industries. The proposed EDFC now will offer high connectivity and movement of raw materials and finished good to another part of the country as well as neighboring countries. Presently the industrial sector in the eastern Uttar Pradesh has majorly small-scale industries such as rubber and plastic products, repairing and servicing industries, and agro based industries. The contribution of secondary sector of the economy is low, the introduction of DFC in these areas enhances connectivity, with faster and cheaper mode to transport goods and raw materials will attract investors capitalizing in mega industries and logistic hubs.

**Conclusions**

The introduction of DFC acts as a backbone of industrial and infrastructural development in the areas with low investment in the industrial sector, this will help in reducing income disparity in regions as well as growth of physical infrastructure, direct employment opportunities in manufacturing based industries will be offered to millions of people also indirect employment in supporting sectors will help in better livelihood of the population.
References


