

Golden Quadrilateral

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Abstract: The obstruction which would help India realize its growth and reduce poverty is infrastructure gap. Although India is having one of the most extensive transport network in the world where still accessibility and connectivity are limited accounting to only 20% of the national highway which is responsible to carry 40 percent of the traffic is four lane and one-fourth of the rural population does not have access to an all-weather road. The Golden Quadrilateral project has increased the level of quality as well as width of 5,846 km of roads in India. Not only has it increased the quality but has also helped spread economic activity to moderate density districts and intermediate size cities. The Golden Quadrilateral (GQ) project upgraded a central highway network in India. Manufacturing activity saw a boost along the network.

Index Terms – allocative efficiency, economy, development, central highway.

I. INTRODUCTION

Problem

Every year large amount of resources is spent on improving the infrastructure and transportation in developing countries. Road transport accounts for 65% of freight movement and 80% of passenger traffic in India. National highway contributes 1.7% of road network carrying 40% of the total traffic. At the end of 1990s India's highway lacked design as well as space with only 4% having four lanes which lacked in connecting the major economic centers and also 25% of these highways were considered to be in poor surface condition.

Solution

In order to improve this situation India Government came up with a solution of launching the National Highway Development Project in 2001. The goal of this project was to improve the condition and performance of national highways. The first phase of the project involved the construction of the Golden Quadrilateral (GQ), a 5,800 km highway connecting the four major metropolitan areas via four- and six-lane roads. The four metropolitan centers that were connected are Delhi, Mumbai, Chennai, and Calcutta. The project aimed at increasing the number of lanes as well as adding additional features which increased the highway quality. These features include grade separators, over bridges, bypasses and underpasses. The cost of the project was initially to be around 600 billion rupees which is roughly around \$13.4 billion in 2006. The project was announced by then Prime Minister Atal B. Vajpayee in 1998 as the largest public infrastructure project in the country. The GQ network connects the four major cities of Delhi, Mumbai, Chennai and Kolkata and is the fifth-longest highway in the world. The GQ upgrades began in 2001, with a target completion date of 2004. To complete the GQ upgrades, 128 separate contracts were awarded. In total, 23% of the work was completed by the end of 2002, 80% by the end of 2004, 95% by the end of 2006 and 98% by the end of 2010.

II. METHODOLOGY

A. Economic Benefits:-

With the help of Golden Quadrilateral project a central highway network was developed in India. GQ promoted manufacturing activity which grew vastly along the network. This study shows how development of GQ led to substantial increase in manufacturing activity. The growth included higher entry rates, incumbent productivity expansion, adjustments in sorting of industries and also improved allocative efficiency in manufacturing industries located along network.

India aimed at building a highway system similar to those of the US highway system built in 1920s and 1950s which improved the transportation of goods and services and also brought an economic development of isolated areas and free movement of people. The construction gave in employment opportunities which in turn increased the sector by 12.6 percent by the end of March 2008. Manufacturing jobs were created by the expansion of highway. One such example is Hyundai which employed around 5,400 people for the automobile production which fulfilled the Indians desire for cars. Just like Hyundai many other companies on the GQ created industries and jobs around it to supply the necessary parts required such as windshields, headlights, rear-view mirrors etc. And these companies need truck drivers, warehouse workers, and record keepers which in turn brought in more employment. Indirect supply of steel and cement required for construction gave the economic sector a boost. Truck transportation sector had an advantage with the construction of this project and witnessed a rise throughout India. GQ upgradation increased manufacturing output by 15-19%.

B. Development of Firms:-

Firms in cities which were affected by Golden Quadrilateral highway project saw reduction in their average stock of input inventories by between 6 and 12 days of production. Firms in cities which were affected by Golden Quadrilateral highway project saw reduction in their average stock of input inventories by between 6 and 12 days of production.

The context of Indian business groups, specifically, using a recent large-scale highway development project came as a shock to local investment opportunity. We find that business group affiliated firms invest more than standalone firms in response to upgraded highway connectivity. We show that the investment behavior of standalone firms is affected by the density of business groups in the local area. On the financing side, we find that the presence of business groups makes it harder for other standalone firms in the local economy to raise external finance. This business group externality works through the banking sector, when the banks associated with standalone firms share lending relationships with, and have large exposure to, firms affiliated with business groups.

C.Change in Allocative Efficiency:-

As compared to China it is seen that India has too much employment in plants which have a low efficiency and too little employment in plants with high efficiency levels. Allocative efficiency accounts for 7.4% of the manufacturing sector gains. Allocative efficiency is a property of a market whereby all goods and services are optimally distributed among buyers in an economy. The importance of allocative efficiency varies greatly across states, and can account for up to 18% of the overall gains (real income, manufacturing sector) in some states. The remaining welfare gains are accounted for by changes in labor income, productive efficiency, and average markups that affect states terms of trade.

D.Promote Agriculture: -

GQ helped in improving the transportation of agriculture from remote areas to cities. With the help of paved roads which led from villages to secondary highways and from secondary highways to the GQ gave a boost to the agriculture sector. GQ also gave an opportunity to farmers to conduct trade with distant partners and also helped them open up new markets for their goods nearby towns and villages which promoted the sector. Automobile helped in cutting down the amount of time required to transport goods to markets and also helped in smoother movement of people.

The project gave an impetus to industrial and job developments in smaller towns through access to markets and also farmers got an opportunity due to improved transportation and also easy movement from agricultural hinterland to major cities to ports to export through lesser wastage and spoils.

E.Drawback:-

GQ network hardly benefited for the districts located within 10-50 kilometers with less than 10% initial output levels. The GQ upgradation had no effect on the 236 districts that are 50 kilometers beyond the network.

Firms on GQ witnessed a change in supplier who provided them with their primary input saying they had a choice of re-optimizing the choice of supplier after better highways were constructed. Consistent on their words firms with improved highway quality and width faced decreased transportation obstacles for production.

III.CONCLUSION

The Golden Quadrilateral highway project of India upgraded the quality and width of 5,846 km of highways linking four major hubs in India. In the process, this upgrade improved the connectivity and market accessibility of districts lying close to the highway compared to those more removed. Golden Quadrilateral has added to GDP, created efficiencies in transportation, provided jobs and improved rural development through enhanced connectivity. The GQ upgrades led to a substantial increase in manufacturing activity. This growth included higher entry rates, incumbent productivity expansion, adjustments in the spatial sorting of industries and improved allocative efficiency in the manufacturing industries initially located along the GQ network.

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