P: ISSN NO.: 2394-0344 RNI No.UPBIL/2016/67980 VOL-4* ISSUE-1* (Part-1) April- 2019
E: ISSN NO.: 2455-0817 *Remarking An Analisation*

Economic Infrastructure and Socio-Economic Development in Rajasthan

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Abstract

Infrastructure plays a key role in the economic and social sector in an economy. However, the development of infrastructure in the state of Rajasthan is stymied by geographical as well as natural factor. Beside, being inadequate quantitative and qualitative growth of infrastructure there are regional variations in the availability of economic infrastructure in the state.The paper endeavours to examine these issues empirically. it is found that there are regional disparities in the development of economic infrastructure in the state. The paper also analyses the impact of various infrastructural factors on the economy and as also on the development of the state. Overall, the situation in this regard is far from satisfactory and the issue of development of infrastructure in the state must be taken up seriously if the pace of development is to be maintained.

Keywords: Infrastructure, Development, Labour, Industry, Health.

Introduction

The term 'infrastructure' is a combination of two words "infra" and "structure" which means a set of interconnected structural elements that provides the framework supporting an entire structure. It originated in 19th century in France. Infrastructure is back bone of any economy. With support of a rock solid infrastructure any state can achieve a booming economy. In economics the term is used for the structural elements of an economy which allows for production of goods and services without themselves being part of the production process. Economic infrastructure may be compared to the foundation of a building. It plays a supporting role, facilitating the multitude of productive economic activities that constitute the bulk of the economy, or gross domestic product. Broadly speaking, economic infrastructure comprises investments and related services that raise the productivity of other types of physical capital, e.g. transport, power, water systems, communication; and social infrastructure comprises investments and services that raise the productivity of human capital, e.g. education and health. A strong relationship has been observed between economic infrastructure and economic growth. This relationship between social infrastructure and economic growth is just as complex and no less important, and should be the subject of a separate analysis.

Review of Literature

A detailed review of literature was undertaken to finalize objectives of present study by identify gaps in existing research work done on the subject. A brief discussion on reviewed literature is presented below. Adam Smith (1776) in his book "An Inquiry into Nation and Wealth of Nations" stated that division of labour is the starting point of economic growth, as production due to division of labour is on large scale which increases market. So he found transport factor as the reason for growth. Transport is the power of exchange that gives occasion to the division of the labour so that extent of this division is limited by the extent of the market. Hitherto underdeveloped areas products become viable, advocates of unbalanced growth theory like Hirschman looks upon it as interior of investment in the directly productive activities in as much as when this sector expands, the other sectors respond by meeting the demand for it and vice versa.

With in Rajasthan the work of Bhattacharya, B.D. entitled as "Rajasthan Regional Development Plans And Canal." Similarly work of S.S. and B.N.R.S. Lodha (2010) "Socio-economic survey of Guda irrigation projected in Bundi district of Rajasthan." R.K. gurjar entitled "Irrigation for Agriculture Modernization" and Singh (2011) studied on socio-economic issues and water management aspect of irrigation project in a tribal belt of Rajasthan" are of great reference in the field of Rajasthan.

P.C. Tripathi (2011), K.K. Sharma (2012) "Took up studies from economic and commercial point of view. Dr. A.B. Mukharjee (2014) studied the road network structure creating, it with the level of urbanization. H.M. Saxena (2016) studied the road transport connectivity pattern and economic development in Rajasthan."

Koner, Purandare and Dhume (2017) examine the relationship between infrastructural development and socio-economic growth in India. It further tries to determine the magnitude of the impact of infrastructural investment on social and economicindicators. The study uses panel regression techniqueto measure the impact of infrastructural investment on social growth indicator, i.e., state-wise Mortality Rate per Thousand Population (MRPTP) and economic growth indicator, i.e., Per-capita Income (PCI) in Indian States. Panel regression technique helps incorporate both the cross-section and time-series aspects of the dataset. In order to analyze the difference in impact of the explanatory variables on the explained variables across states, the study uses Fixed Effect Dummy Variable Model. The conclusions of the study are that infrastructural investment has a desirable impact on social and economic development and that the impact is different for different states in India. It analyzes time series data (annual frequency) ranging from 1987 to 2008. The study reveals that the infrastructural investment significantly explains the variation of social and economic indicators.

Chotiaand Chaudhary (2018) analyze the disparities in infrastructure facilities across the 33 districts of Rajasthan. For latest year of data availability i.e. 2011, used Principal Component analysis method to construct the composite Infrastructure index using different criteria – Economic, Social and Physical. to examines the extent of disparities between the different districts in terms of the composite district Infrastructure Index (IFI), Per Capita Net District Domestic Product (PCNDDP) and poverty. The empirical analysis also proves that there exists a positive relationship between IFI and PCNDDP and a negative relationship between IFI and Poverty.

Aim of the Study

1. To analyze the trends and pattern of development of economic infrastructure in Rajasthan.
2. To analyze the regional disparities in development of economic infrastructure in Rajasthan.

Rajasthan Renewable Energy Corporation Ltd has actively promoted solar energy and biomass projects. As of January 2016, Rajasthan had a total installed power generation capacity of 17,783.89 megawatt (MW).Total road length of 189034 km. in May, 2011. Out of these 5724 km. are national highway, 11615 km are state highway and 7340 km are major district roads. During the year 2000 the total length was 107436 km and in the year 2007-08 it was 141000 km. The efforts to create a water-sustainable state, has turned into a people's movement. The scheme has addressed water deficit in rural Rajasthan. Rajasthan's economic backwardness in the past has been somewhat of a paradox as the state has been the home of one of India's most enterprising communities-Marwari traders. Moreover, western Rajasthan has large deposits of hydrocarbons. Infact, Rajasthan has become the second-highest crude oil producer in India (after Bombay High), generating 9 million tonnes of crude oil or 24 per cent of the total domestic crude oil production. Rajasthan also has a sizeable mining sector. The state is a top producer of polyester and the largest producer of cement in India, with a capacity of over 44 million tonnes per annum. Yet Rajasthan's industry is relatively underdeveloped, and so is urbanisation. According to the 2011 census, almost 75 per cent of the population lives in the rural areas. Only three cities have a population of over one million-Kota, Jodhpur and Jaipur. However, the Delhi Mumbai Industrial Corridor, a significant portion of which will pass through the state, is likely to transform its infrastructure.

In Agriculture sector Baran tops in two of the five parameters considered: agricultural GDP per capita (base 2004-05) and percentage of agricultural labourers in total population. It has the fifth highest net irrigated area as a percentage of net sown area and the ninth highest food grain yield for maize and wheat. Baran is followed by Bundi and Bharatpur. However Sawai Madhopur during (2001-11) has made the highest improvement in grain yield (maize and wheat) and the sixth best improvement in agricultural GDP per capita. In the remaining parameters, it ranked between 10 and 15. There seems to be no distinct regional pattern, except that Sawai Madhopur, Tonk and Karauli lie adjacent to each other and are all in the top five.

In Education sector Chittorgarh and Tonk are the top-ranked districts, Tonk has a better rank than Chittorgarh in three of the five parameters, thus getting the top spot in our final ranking. Tonk has the third highest teacher to pupil ratio, the second highest ratio of girls to boys, the sixth highest classroom to student ratio and the eighth highest number of schools per 1,000 population. Overall, the central districts and Sri Ganganagar rank high in education. During (2006-16) Sri Ganganagar registered the largest fall in the dropout rate, the third highest increase in the number of schools per 1,000 population and the fifth highest increase in the teacher to pupil ratio. The stupendous performance in these three parameters pushed the district to the top spot. Jaipur, Tonk and Ajmer, which are ranked second, fourth and fifth, form an education cluster in the centre of Rajasthan.

Industry-Rajsamand (latest data 2015-16): Industry includes mining and Rajsamand is rich in mineral resources. It is one of the main suppliers of marble, granite and other valuable stones. The Dariba and Zawar mines are the principal Indian sources of ores for zinc, silver and manganese. The population of Rajsamand is largely employed in the mining industry. Rajsamand has the highest percentage of workers engaged in industry, the fourth highest contribution of industry to its GDP and the sixth highest industry GDP per capita. These rankings

together give Rajsamand the top rank in the category. The central belt, which includes Rajsamand, Bhilwara, Ajmer, Jaipur and Alwar, is the industrial and mining hub. During (2005-14): Bhilwara saw the highest drop in kidnapping and abduction cases as a percentage of the total cognisable crimes and the third highest drop in cases of rapes as a percentage of the total cognisable crimes. It is ranked seventh in terms of the total cognisable crimes per 1,000 population and the percentage of petty crimes. Except for Bikaner, the top five most improved districts in this category lie in the southeastern part of Rajasthan.

During 2005-16 Churu has been ranked as the sixth most improved in terms of per capita spending, the second most improved in employment rate, the seventh most improved in bank credit per person and saw the highest reduction in the percentage of households with an annual income of less than Rs 75,000. Industry-Nagaur (2005-16): Nagaur was followed by the southern districts of Pratapgarh and Dholpur. Nagaur has the third highest improvement in the industry to GDP ratio, the ninth highest improvement in the percentage of workers employed in industry and the third highest improvement in industry GDP per capita. Infrastructure-Jaipur (latest data 2011): Top-ranking Jaipur is followed by Kota, Ajmer and Alwar. This also happens to be the industrial growth cluster of Rajasthan. Both Jaipur and Kota are urban centres with more than one million people. Jaipur has the highest percentage of pucca houses, the second highest percentage of bank branches per 10,000 population, the second highest percentage of households with electricity connection and the second highest percentage of households with a landline. According to one estimate, Jaipur, in the last five years, witnessed the highest growth in the real estate sector across the county, after the metros. Infrastructure-Tonk (2001-11): The southeastern districts are ranked higher in terms of improvement in infrastructure, with Tonk at the top. Tonk gets the honors mainly due to improvement in two parameters- the highest percentage of households with a landline and the second highest percentage of pucca houses. Overall is a composite index of the other categories. As expected, Jaipur and Kota are the top two districts. Both have the highest population, over one million. Sri Ganganagar, Ajmer and Hanumangarh compete for the top five positions in overall. In six out of the nine categories, Jaipur ranks among the top five. In eight out of the nine categories, it ranks among the top 10. Only in agriculture does Jaipur rank the second lowest, getting the 32nd position.

Conclusion

This study of Rajasthan is aimed at figuring out broad trends of economic development in the state and a district-wise ranking of performance. The evaluation has two segments: best performing district at a particular time and the most improved district over time (say, the past decade). The data was collected by research agency Nielsen from sources such as the Census and National Sample Survey and standardized. The rankings were done by the method, in which voters rank options/ candidates in order of preference. Ten categories were selected, each a composite index of parameters for which uniform, continuous data was available. The ranking varies by category. For instance, a higher concentration of households with electricity gets a higher rank while a higher incidence of crime gets a lower rank. The most recent year is used to rank the best district. The difference between the most recent category value and the value 10 years earlier is used to rank the most improved district. Over the past 20 years Rajasthan has grown faster, and achieved a greater reduction in poverty than any other low income state. This strong performance reflects broad-based efforts towards policy reform across sectors that resulted in a more productive and diversified agriculture sector, higher investments in manufacturing, and substantial improvements in public service delivery. In particular, policy reforms undertaken since 2003 succeeded in ending a growth slump from 2000-2005 and ushered in a period of strong growth. These achievements notwithstanding, Rajasthan still lags behind many other states in India. Its per capita Gross State Domestic Product continues to rank the same position it had in 1992. Moreover, while income poverty has declined significantly, social indicators remain among the worst in India and, even among low-income states, rank near the bottom. The state is also among the lower performers in women's' and girls' education and gender gaps have shown little improvement over the years.

However Rajasthan still lags behind many other states when we compare the per capita gross state Domestic Products. It still holds the same position as it did in 1992. The differences in the average income may have declined to some extent but the social indicators of the state remain among the lowest performers especially in the field of women and girl education and in efforts related to bridging of gender gaps. It still ranks as one of the low-income states in India. Alarming situation may occur and the growth in Rajasthan may take a U turn if the challenges like the stagnant social indicators, especially for women and scarcity of premium jobs are overlooked. These concerns make it essential to devise ways to improve the sustainability and inclusiveness of growth. The conditions in Urban areas is yet not conducive for rapid growth or generating jobs in the manufacturing and service sectors and may even worsen in the times to come. The unemployment thus generated, amalgamated with the differences on geographical and social spheres are in itself a great threatening to the welfare of the state this in turn will make conditions in rural areas more difficult for survival.

This research will help the planners to set their expenditure pattern on infrastructure and make effective policies to help to increase productivity in these sectors of Rajasthan economy by improving the economic infrastructure level in Rajasthan.

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