

Impact on Rural Infrastructure in India

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ABSTRACT

The majority of India's poor lives and works in its villages. Rural development is seen as a catalyst for economic transformation. The strategy focuses on improving agricultural productivity; promoting the production and exportation of non-traditional products (processed gold, salt, handicrafts, etc.); generating gainful employment and increasing output of small-scale enterprises. Infrastructure is the key in transforming low productive economy into a fast-growing agro-industrial economy. Construction of rural roads, electricity distribution facilities, and telecommunication networks can provide the rural poor with access to a vast range of economically gainful activities and markets. Irrigation facilities can increase agricultural productivity, reduce vulnerability to drought, and stabilize yields. Provision of warehouses and godowns can ameliorate food security concerns

1. INTRODUCTION

Infrastructure plays an essential role for but not just in the country's economic growth but also its progress in human development. Rural areas account for a larger part of the geographical area in India. Census 2011 reports that there are 6.4 lakh villages in India, which shelter more than two-third of the country's population. In the basic infrastructure facilities for this large section of the population spread across 3.28 million square kilometer of the country's geographical area has been a major challenge.

Indian economy is dependent on agro based activities and industrial development. Over 70% of the population living in rural areas is dependent on agriculture for their livelihood. A majority of these families have spent over the 90% of their earnings on basic needs such as food, fuel and health care. Over 50% of the rural families who are not able to meet even these essential needs fall under the category of the poor. Industrial development and adoption of modern technologies are likely to generate additional employment in urban areas and pay rich dividend to elite and rich investors of infrastructure. The turn might widen the gap between in the urban and rural as well as the rich and the poor with respect to wealth accumulation, resulting in further hardship to the poor. Therefore, we need to address the problems of the poor to ensure social justice and better quality of life.

Rural development also deserves priority for maintaining self-sufficiency in food supply. Our food security is under severe threat because of the growing population. No doubt, India has tripled her food production over the last four decades, to reach the present level of 200 million tons/year. However, with over 1.8% annual birth rate, our growing population is bound to raise the annual demand for food to 250 million tons by 2010 A.D. As food security is a pre-requisite for economic progress, agro based rural development deserves attention.

Rural development may be defined as structural changes in the socio-economic situation to achieve improved living standard of low-income population residing in rural areas and making the process of their development self sustained. It includes economic development with close integration among various sections and sectors: and economic growth specifically directed to the rural poor. In fact, it requires area based development as well as beneficiary oriented programmes. That's why rural development is one of the main and important tasks of development planning in India.

PROBLEMS OF THE RURAL POOR

The rural development programme should be identify the problems of the poor and address of the local needs, instead of forcing them to accept pre-conceived plans. There should be equal opportunity for the weaker sections of the society and women. The programme should be facilitate sustainable management of natural resources and environmental protection and lead to better quality of life of rural poor. The reasons for rural poverty can be attributed to lack of resources, confidence among the poor and management for implementing the development programmes.

LACK OF RESOURCES

Most of the rural families are dependent on agro based activities for their livelihood, where land is the limiting factor. Over the 75% of the farmers own less than two ha land. As only about 28% agricultural land is under irrigation and the rest under rainfed areas, a large number of people are seasonally employed, causing severe underemployment for over 250 days in a year. Even with good quality land and assured source of water, many farmers are not able to invest in necessary inputs to optimise their agricultural production. Lack of improved germplasm, inadequate nutritional supplement and poor plant protection are the other reasons for lower crop yields. The average crop yield in India is 1.9 tons as compared to the world average of 2.5 tons/ha and 4 tons/ha in China. Motivation of farmers to adopt improved crop management practices with timely supply of critical inputs can boost the agricultural production by several folds.

LACK OF CONFIDENCE AMONG POOR PEOPLE

Our natural resources although scarce, are not optimally utilised due to lack of education, awareness and confidence. This has resulted in neglect of various development schemes which were introduced for sustainable use of these resources. Presently, about one half of the geographic area is categorised as wastelands. Over 70% of the rain water flows back to the sea causing flood and soil erosion. About 80-85% of the livestock population is unproductive causing undue pressure on forest resources, while about 50-60% of the rural population is underemployed. It is feasible to make sustainable use of these natural resources through application of appropriate technology and use of idle labour. For ensuring success, it is necessary to support the beneficiaries with an appropriate technology package with critical inputs and build a strong infrastructure at various levels to provide necessary services.

Inspite of many success stories, most of the small and poor farmers are not confident about their ability to participate in development programmes. Neither has the confident about the appropriateness of the technologies, nor are they convinced about the capabilities of the development agencies involved in launching these projects. Poor farmers who have been

receiving financial assistance in the past from the Government and other donor agencies lack adequate motivation and training. In the absence of their felt needs, they have been misusing these inputs for unproductive purposes or for mere survival without fulfilling the project goals. In this process, many poor farmers have been developed a 'dependency syndrome' and expect outsiders to provide the means for their livelihood. They have lost confidence in themselves as well as in the outsiders.

LACK OF MANAGEMENT

Rural development projects are often implemented without adequate planning. In the absence of an integrated approach to tackle multidimensional interrelated problems, sectorial development activities may not deliver expected results. Apart from integration of various sectors, many of these projects also lack proper planning and resource mobilisation. Unlike industries, rural development projects are not implemented on sound management principles taking into consideration the required inputs, technologies, human skills and opportunities for marketing the produce.

DEVELOPMENT OF INFRASTRUCTURE

To sort out the above problems, we need to develop a strong infrastructure at various levels. Apart from mobilising people, infrastructure is also necessary to organise input supply, finance and post production processing and marketing of the produce. Inadequate marketing network is another major bottleneck in agriculture. The farmers should be oriented to make a swift forecast of the demand for various commodities and exploit the opportunities. There is good scope for setting up market outlets to reach the customers without involving too many middlemen. Such agencies can support farmers with seeds of improved varieties, finance and other critical inputs for optimizing their crop yields.

Marketing services are presently provided by the Agricultural Marketing Boards, Milk Cooperatives and Federations which are inefficient and politically oriented. Many of these cooperatives are not competent and are outdated. Very often they end up in losses because of mis-management and ignorance. In this process, the innocent farmers suffer heavily. Presently, only a few Farmers' Organisations, Sugar Cooperatives, Milk Unions, Grape Growers Cooperatives, Apple Growers Cooperatives and Tea Growers' Association, etc. The strength of these organisations can be extended to other crops in different regions. Development of village level farmers' organisations which can directly deal with reliable business houses or trade outlets should also be encouraged. Industries can play a significant role in strengthening such market oriented village level organisations.

2. OBJECTIVE

- To identify problems in rural areas
- The economic the problems of rural infrastructure in social better quality life
- To analysis infrastructure for economic growth and employment opportunity
- To suggest measure the development of infrastructure in suitable policy
- To study future planning equipment calculation resources

3. METHODOLOGY

In this paper the research is based on secondary data. The data is taken from different research report, journals, websites and research papers. The research is based on the study of various department infrastructure urban and rural areas of India.

INFRASTRUCTURE SECTOR

Infrastructure and economic growth go hand by hand. Investment in infrastructure at times through public spending is undertaken to spur up the economic growth and employment.

FIGURE1: PERCENTAGE SHARE OF DIFFERENT SECTORS IN PRIMARY SECTOR INFRASTRUCTURE PROJECTS

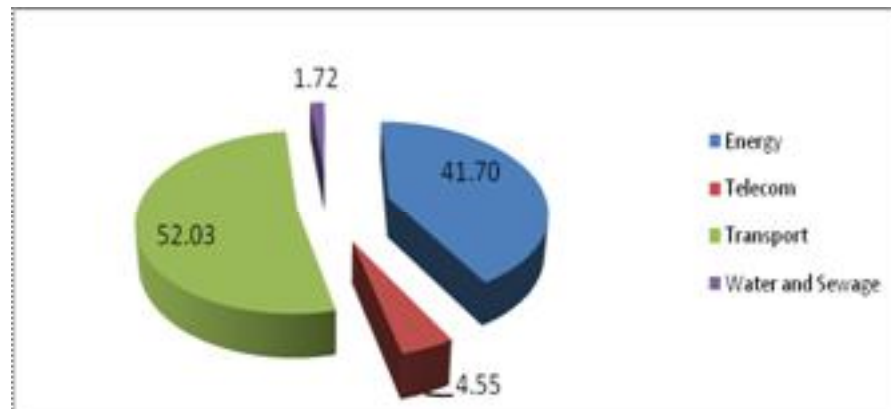
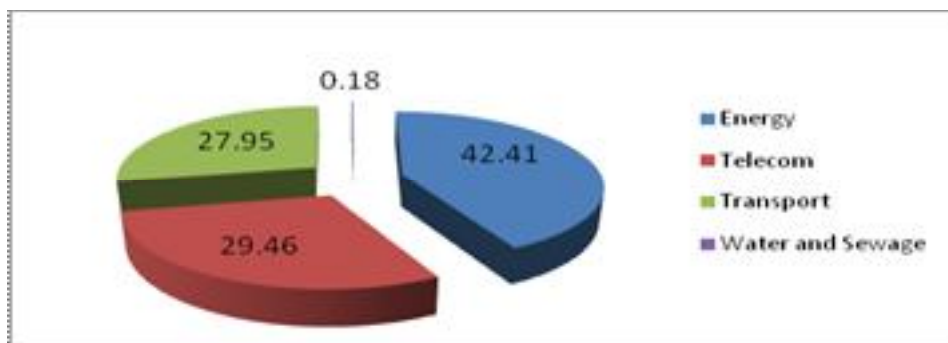


FIGURE 2: PERCENTAGE SHARE OF DIFFERENT SECTORS IN PRIMARY SECTOR INFRASTRUCTURE INVESTMENT



But years of underinvestment in infrastructure have left the country with poorly functioning transit systems and power grids that have further endangered its slowing economy. Burgeoning trade is putting pressure on India's inefficient ports, and rapid urbanization is straining the country's unreliable electricity and water networks. According to The Global Competitiveness Report 2014-15; India ranks 87th in the world in terms of infrastructure. According to World Bank data; from 1990 to 2013 only 813 infrastructure projects by primary sector have reached financial closure and 34 projects have been cancelled accounting to waste of 5% of total investment. Infrastructure and energy are two sectors that have received most attention over the years and Greenfield investment has dominated the mode of public and private partnership (PPP) investment in primary sector infrastructure. Among 813 primary sector's infrastructure projects, 423 belong to the transport sector and 339 belongs to the energy sector. Figure 1 depicts the percentage share of different sectors in primary sector infrastructure projects. The cumulative primary infrastructure investment in energy, telecom, transport and water and sewage sector is \$139060, \$96614, \$91649 and \$605 respectively.

Table 1 represents the sub-sector wise projected investment in infrastructure under 12th plan till the last financial year.

SUB SECTOR WISE PROJECTED INVESTMENT IN INFRASTRUCTURE

SUB SECTOR	TOTAL ELEVENTH PLAN	TWELFTH PLAN PROJECTIONS			TOTAL TWELFTH PLAN
		2012-13	2013-14	2014-15	TOTAL
Roads & bridges	453121	150466	164490	180415	1367658
Railways	201237	64713	78570	96884	720458
MRTS (Mass Rapid Transport System)	41669	13555	17148	22298	165828
Airports	36311	7691	10716	15233	124026
Ports (including ILW)	44536	18661	25537	35260	242316
Electricity	728494	228405	259273	294274	2230160
Non-Conventional energy	89220	31199	42590	58125	407846
Oil and Gas pipelines	62534	12211	16604	23833	211467
Telecommunications	384962	105949	136090	176489	1328861
Irrigation (including watershed)	243497	77113	87386	99178	747866
Water supply and sanitation	120774	36569	42605	49728	376093
Storage	17921	4480	6444	9599	76362
Total	2424276	751012	887453	1061316	7998941

TABLE NO 1

It is apparent from the above table that electricity, roads and bridges, telecommunication have received maximum attention from the government. The government has targeted that by the end of 2014-15 8400KM road length will be awarded and by the mid of the last financial year 3419 KM of roadways have already been awarded. The government has targeted to complete construction of 6300 KM and 1984 KM of the same have been achieved by the mid of the last financial year. Among the targeted 3730 KM highway length tolled; 435 KM have been accomplished. NHAI has already collected Rs. 3584 crore toll revenue by the mid of the last financial year of the targeted Rs. 6500 crore.

According to Budget of the Railway Revenue and Expenditure of the Central Government 2015-16 gross traffic receipt of the Indian Railway has increased by Rs. 193, 602, 948 in the year 2014-15 over the previous financial year. In month of March, 2015; 14.482 Km of rail has been renewed together with 11.048 Km sleeper renewal and 25.530 Km of track renewal. A gain 10 bridges have been reconstructed as well.

Figure five depicts the fact number of coastal vehicle and Gross Register Tonnage has increased from 2013 to 2014. On the other hand the same for overseas has declined over the same time frame. Total cargo handled at major ports has increased by 7% during the first half of 2014-15 over the first half of 2013-14. Whereas the major ports have accounted for 4.1% of that growth; the non-major ports have contributed 11.1% of the same. Total market opportunity for air cargo in financial year 2014-15 has been estimated to 2.26 million tones.

In the month of January, 2015 the total installed power generation capacity of India was 258701.45 MW whereas the same had been 234601.94 MW in January, 2014. Fig 6 presents the mode wise breakup of the total installed capacity of power stations in India. It is clear from the concerned graph that coal is the prime power resource in India and most of the energy comes from thermal power stations. Table 2 depicts the projected future trend of the infrastructure spending in India under the 12th plan. According to Industry sources Indian infrastructure sector is poised to grow by 7%-8% in the present financial year. To meet the infrastructure investment gap the country needs \$1 trillion fresh investment in the concerned sector by the end of 2017.

SUB SECTOR WISE PROJECTED INVESTMENT IN INFRASTRUCTURE

SUB SECTOR WISE PROJECTED INVESTMENT IN INFRASTRUCTURE	2015-16	2016-17
Roads & bridges	198166	221000
Railways	121699	157355
MRTS (Mass Rapid Transport System)	29836	41322
Airports	21959	32116
Ports (including ILW)	49066	69256
Electricity	333470	386244
Non-Conventional energy	79075	107637
Oil and Gas pipelines	36440	59845
Telecommunications	230557	294814
Irrigation (including watershed)	112506	128186
Water supply and sanitation	58084	68333
Storage	14716	23202
Total	1285574	1589310

TABLE NO 2

The proposed 100 smart cities project will also boost the growth of Indian Infrastructure. The government has also announced to increase the outlays on roadways and railways by Rs. 14031 and Rs. 10050 crores respectively. Again by 2022 the government has promised to complete 1,00,000 KM of road along with the completion of already under construction 1,00,000 KM road. Instead of thermal power; India is now all set to embrace green energy and The Ministry of New Renewable Energy has revised its target of renewable energy capacity to 1,75,000 MW till 2022, comprising 100,000 MW Solar, 60,000 MW Wind, 10,000 MW Biomass and 5000 MW Small Hydro. Moreover the proposed land bill that is all set to acquire open forest and scrub area for setting up manufacturing hubs (a total area of 1 lakh square kilometers are required) is expected to provide added boost to the infrastructure sector.

4. CONCLUSION

The rural infrastructure challenge for India is a unique one in many respects. The technologies involved are hardly complex but users are dispersed, demand–supply gap substantial, and there are several critical implementation issues. Creation of infrastructure must be backed by reliable systems of service provision and maintenance. While the need to create rural infrastructure is urgent and excites everyone, the normal bias of the technologically equipped elite is to design systems that are top driven. India's economic growth and development is predicated to a large extent upon the development of its 700-million strong rural population. Majority of the

population lives in about 600,000 small villages and are engaged primarily in agriculture, directly or indirectly. A substantial portion of India's current agricultural labor force has to move to non-agriculture sectors for incomes in all sectors to go up. The challenge is to manage the transition of 80% of the rural population from a village-centric agricultural-based economy to a industry based economy.

Rapid infrastructure build-up is essential to sustain India's high economic growth. But infrastructure development has traditionally been carbon intensive. The challenge, therefore, is to build infrastructure with less carbon footprints without compromising poverty alleviation and energy security. This report therefore, focuses on issues and challenges of infrastructure development in a carbon smart way in keeping with India's inclusive growth objectives.

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