Review of Rural Infrastructure under Bharat Nirman: Current Scenario and Future Perspective

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Abstract
Good quality infrastructure is critical to sustainable growth, especially for rural areas. As over 70 percent of Indian population lives in rural areas, with low levels of per capital income, there is need to impart greater attention in improving rural infrastructure. The Infrastructure sector has both backward and forward linkages with the agricultural and the Industrial sectors and therefore the development of this sector is a prerequisite for the overall development of the economy. Infrastructure in general and rural infrastructure in particular contributes to economic development both by increasing productivity and by providing amenities which enhance the quality of life. To address the issue of rural infrastructure the government launched a time-bound plan under Bharat Nirman programme (2005) and there are independent schemes to boost Roads, irrigation, Housing, water Supply, Electrification, and Telecommunication connectivity. This paper mainly focuses on progress of rural infrastructure under Bharat Nirman and provides suggestions for improvement.

Keywords: Bharat Nirman; Development; Infrastructure; Rural; Poverty; Government

Introduction
The development of rural India is an imperative for inclusive and equitable growth and to unlock the huge potential of the population that is presently trapped in poverty with its associated deprivations. The analysis of incidence of poverty across Indian States indicates that poverty is very closely linked to the absence of social infrastructure. Infrastructure has been defined as comprising those basic services without which primary, secondary and tertiary productive activities cannot function. Therefore development of rural infrastructure is important for achieving a higher rate of growth and improving the overall quality of life. The Government of India is involved in a large number of programmes in sectors/area such as education, health, labour, skill development etc. that are in the State List through operation of Centrally Sponsored Schemes (CSS) and provision of Central Assistance to State Governments. The Centrally Sponsored Schemes are operationalized by Central Ministries based on scheme specific guidelines and are implemented by State Governments or their designated agencies. Some of the important Flagship Programmes being run/ implemented by the Government of India in various States are; Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA), Jawaharlal Nehru National Urban Renewal Mission (JNNURM), National Rural Drinking Water Programme (NRDWP), Indira Awaas Yojana (IAY), Sarva Shiksha Abhiyan (SSA), Mid-Day Meal Scheme (MDM), National Rural Health Mission (NRHM) renamed as National Health Mission.

Bharat Nirman
The Government of India in recognition of the role played by infrastructure in poverty removal has taken up massive programmes for construction of rural infrastructure under different programmes in the past. The government launched a time-bound plan under Bharat Nirman in 2005 for implementation during the four-year period, 2005–09. The first half of the programme was in the Tenth Plan period and the second half coincides with the first two years of the Eleventh Plan period (2007–12). The six components included under the programme are irrigation, drinking water, electrification, roads, housing, and rural telephony. The investment proposed to be made is of the order of Rs 174000 crore during the four-year period. The objective of the Bharat Nirman Programme is to impart a sense of urgency to create rural infrastructure by setting time-bound goals under various schemes which form a part of the Bharat Nirman Programme. The Programme imposes a responsibility on the State to create these facilities in a transparent and accountable manner.

Rural roads
Rural roads are the most essential infrastructure for socio-economic uplift of the rural community. These create a congenial environment for economic prosperity and thereby ensuring healthy living conditions for the rural inhabitants. Provision of rural roads increases mobility of men and materials thus facilitates economic growth. Several studies have already established that there is a strong relationship between rural roads and socio-economic development.

Rural Roads, one of the six components of Bharat Nirman, was initiated in 2005-06 aimed at achieving the goal of connecting every habitation of 1000 or more population (500 or more in hilly, tribal and desert areas)
with all-weather roads by 2012. It was embedded in the PMGSY with a wider funding base and extended scope. The programme envisages generation of multiplier effect in the rural economy by linking sites of production to markets and services. To achieve the time bound targets of Bharat Nirman the programme envisaged to provide connectivity to 63,940 habitations, till the year 2012. Up to March 2012, projects to connect 58,387 were sanctioned. Out of this, 44,089 habitations were connected by constructing 1,41,095 kms of new roads.

The table shows that in 2012, the achievement rate in rural road is higher than the achievement in 2009 in all the components of rural roads. There is increasing Growth rate in the achievement of targets from 2005 to 2012.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Target (2005-12)</th>
<th>Achievement (cumulative)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Habitations (In Nos.)</td>
<td>63,940</td>
<td>31,924 (49%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>58,387 (91%)</td>
</tr>
<tr>
<td>New Connectivity</td>
<td>1,89,897</td>
<td>85,405 (45%)</td>
</tr>
<tr>
<td>(Length in km.)</td>
<td></td>
<td>1,41,096 (74%)</td>
</tr>
<tr>
<td>Upgradation (in kms.)</td>
<td>1,94,131</td>
<td>1,55,019 (80%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2,35,903 (122%)</td>
</tr>
</tbody>
</table>

Sources: 1) Mid Term Appraisal for Eleventh Five year plan 2) www.bharatnirman.gov.in

Irrigation
Bharat Nirman ambitiously targeted creation of an additional 10 million hectares irrigation potential by 2009-10. By the end of March 2010, the country could achieve creation of additional irrigation capacity of 73 lakh hectares, thereby leaving a gap of 27 million hectare irrigation potential. It was during the second phase (i.e. 2010-2011 and 2011-12), in which the creation of irrigation potential, suppressed the original target fixed for this component by 1.16 million hectares.

While the achievement of targets on creation of additional irrigation potential is praiseworthy, it is desired as the irrigation potential so created over the years should be fully utilised and gape between the potential created and the actual utilization narrowed. The full Utilization of irrigation potential requires actions like (i) timely completion of field channels and drains; (ii) appropriate land levelling and shaping; and (iii) involvement of farmers in taking decisions on usability of such created potential. Bharat Nirman also proposed to create an additional irrigation potential of 4.30 million hectare (mha) in the first two years. Against this, the document pointed out that only 2.587 mha had been achieved till March 2007.

Rural Water Supply
Water supply and sanitation is a critical determinant of public health outcomes, particularly in low and lower middle income countries. Rural drinking water is one of the six components of Bharat Nirman. The target for providing access to safe drinking water to identified habitations was achieved well before March 2012. Against 55,067 un-covered habitations to be covered during the Bharat Nirman period, 54,440 habitations have been covered during Phase-I. During 2009-10, 251 habitations out of 586 targeted habitations were covered. In 2010-11, all the 376 targeted habitations have been covered. This coverage includes 25 uninhabited/ unpopulated habitations in Rajasthan and 2 disputed habitations in Utarakhand. The coverage of 10 habitations in Lakshadweep is being verified. It is being counted as covered. Thus, no uncovered habitations is left to be covered. The strategy adopted under the National Rural Drinking Water Programme to ensure that the rural population gets at least 40 lpcd (and additional 30 lpcd for cattle in DDP areas) of potable water from sources lying within the village or nearby.
For the rural water supply, component of Bharat Nirman, it was envisaged that Rs. 25,300 crores would be required as Central share during 4 years. Accordingly in 2005-06, Rs. 4,098 crores and in 2006-07 Rs. 4,560 crores were utilized. In the 11th Plan period, in 2007-08, Rs.6,442.76 crores, in 2008-09 Rs. 7,298.79 crores, in 2009-10 Rs. 7,989.72 crores and in 2010-11, Rs 8,986.74 crores have been utilized. For 2011-12, Rs 8,500 crore is the Revised Estimate (RE) for rural drinking water out of which Rs 6,722.22 crore have been utilized upto 31.12.2011. However the major challenge before the Bharat Nirman project is sustainability of quality water supply to areas covered under the Bharat Nirman programme.

Electrification

Rural electrification is the backbone of rural economy and a basic input for rapid rural development. It is also the main infrastructure for ensuring speedy growth of the agriculture sector and agro based industrial structure in rural areas. As per the Eleventh Five year plan, the rural electrification programme during the first two years, the progress under both the objectives (electrification of villages and households) has registered an achievement of 34 percent and 6 percent respectively. There are however major short fall in this sector. Under the programme, the government has set a target to provide electricity to 1.25 lakh villages and 2.3 crore households living the below poverty line (BPL) during the four-year period. Some of Rural Electrification Schemes run by Government of India are:

- Pradhan Mantri Gramodaya Yojna (PMGY) 2000-2001. The scheme has been discontinued from 2005 onwards.
- Kutir Jyoti Program (KJP)
- Minimum Needs Program (MNP)
- Accelerated Rural Electrification Program (AREP) 2002
- Rural Electricity Supply Technology Mission (REST) 2002.
- Rajiv Gandhi Graminvidyutikaran Yojna

Accelerated Electrification of One Lakh Villages and One Crore Households, MNP and Kutir Jyoti have now been merged with the RGGVY. The RGGVY is the latest national RE scheme launched by the Ministry of Power to execute the vision for rural electrification. The plan was initiated in April of 2005 with the following objectives: (i) 100% electrification of all villages and habitations in the country. (ii) Electricity access to all households. (iii) Free of cost electricity connection to BPL (Below Poverty Line) households.

Rural Housing

Housing is one of the basic requirements for the survival of human beings. Ownership of a house provides significant economic security and social status for a citizen in the society. Stable, affordable and accessible housing is directly and indirectly linked to human well-being.

A Village Housing Scheme was launched as part of the Community Development Movement in 1957, in which loans to individuals and cooperatives were provided up to a maximum of Rs. 5000/- per house. However, only 67000 houses were built under this scheme by the end of the Fifth Plan (1980). In 1972-73, the Estimate Committee of the Lok Sabha in its 37th Report pointed out that "the Committee is distressed to note that although 83% of India's population lives in villages and about 73% of the rural population reside in unsatisfactory kutcha structures, the problem of rural housing has not received the close attention of the Government". Following this, certain initiatives were undertaken by Government including the launching of the House Sites cum Construction Assistance Scheme which began as a Central Scheme in the 4th Plan and was transferred to the State Sector with effect from 1.04.1974 on the recommendation of the National Development Council (NDC). Under Phase I of the Rural Housing component of Bharat Nirman, 60 lakh houses were to be constructed through Indra Awas Yojana (IAY) during 2005-06 to 2008-09. Against this target, 28.69 lakh houses were constructed. During 2009-10, as against the target of construction of 40.52 lakh houses, 33.87 lakh houses were constructed. It was proposed to double the earlier target and to construct 120 lakh houses during the next five-year period starting from the year 2009-10. Against this, 65.87 lakh houses were completed by 31st March 2012. For effective implementation of the scheme, the beneficiaries need to actively participate throughout the construction process i.e. making own arrangements for procurement of construction material, engaging skilled workmen and also contributing family labour.

Rural Telephony

India is vast country and traditionally an agrarian economy. Nearly 70% of India’s population still resides in the villages having potential in terms of economy and human resources. Connectivity is the key to harnessing its
resources. Suitably equipped, rural India possesses the potential of a catalyst in thrusting India at the forefront of the most economic effort in the direction to achieve rural connectivity.

India has witnessed a rapid expansion of the telecommunication sector in the last decade. The revolution in the field of communication has the potential in supporting the rural folk in improving their quality of life and livelihood. As in 2005, as many as 66,822 villages were without telephone connections. The Bharat Nirman Programme was expected to provide every village with telephone access by end 2007. The successful implementation of the programme has registered increased teledensity in rural areas. The rural teledensity in 2009-10 was 15.11 and rose by 17.88 percentage points to 32.99 as on 28.02.2011. As per the Eleventh Plan Document the only sector where the progress has been good is rural telephony. According to the document, 48,704 villages have been connected during the first two years itself as against the target of providing 66,882 villages with village public telephones (VPTs). It was expected that the National Optical Fibre Network (NOFN) project of the government of India would take broadband connectivity to 2.5 lakh villages by 2014.

Conclusion and Suggestions
Infrastructure development has a key role to play in both economic growth and poverty reduction. Infrastructure supply and services are particularly poor in rural areas, although urban infrastructure is also under pressure. The Investments made under the Bharat Nirman in Phase I and II would enrich the rural economy and narrow down the gap between rural and urban India by spreading growth benefits uniformly. To make this a reality a synchronized approach is required to coverage the infrastructure building initiatives of Bharat Nirman components with various other development oriented programmes already in operation like programmes for alleviating poverty, generating gainful employment, ensuring social security enhancing standard of health, hygiene, sanitation and education. Bharat Nirman has done good job but yet there are miles to go. There felt the need of improvement in rural infrastructure. Some valuable suggestions are as:

- The need is to strengthen decentralized, well-governed local institutions working at the village level, which have the potential for mobilizing and allocating local resources in enterprises for effective rural industrialization.
- Public initiatives should be encouraged in creating infrastructure and the areas that was hitherto considered to be solely in public domain.
- Small scale community based infrastructure should be encouraged.
- India would require developing a rupee-denominated long-term bond market for funding the infrastructure sector.
- There is need to reduce over-reliance on the banking system for infrastructure funding.
- The relevance of the India Infrastructure Financial Company Limited (IIFCL) set up to provide long-term financial assistance, needs to be reviewed. IIFCL is an enticing but flawed financial engineering mechanism.
- To accelerate growth, India need to create a pipeline of public private partnership (PPP) project and create long term sources of financing with pension funds flowing into infrastructure instead of only bank funds.

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