



NEED AND IMPORTANCE OF INFRASTRUCTURE DEVELOPMENT IN RURAL AREAS IN INDIA

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Abstract

India is the second largest populous country in the world according to 2011 census with 121 crore population. Nearly 70% of the country's population lives in rural areas. Rural areas play major role in economic growth of the country. Economic development of the country depends on both rural and urban areas where in maximum role is played by rural areas. Development of infrastructure in rural areas is as important as in urban areas but still there is unavailability of sound infrastructure in many parts of the country.

Rural development mainly concentrates on achieving the sustained improvement in living standards of rural population. Infrastructure development which forms a foundation for economic and social progress consists of physical infrastructure and social infrastructure. Physical infrastructure includes roads, railways, airports, telecommunication and power. While social infrastructure includes primary health, education, water supply sanitation etc. Development of infrastructure in rural areas results in diminishing the differences between rural and urban areas.

Currently there are many under- developed areas to be concentrated which do not even avail basic needs and services. Rate of process of migration can be reduced due to rural development. There are many welfare schemes and programs introduced and implemented by central and state governments including private partnership but they could not achieve the estimated goals in many of the targeted areas. These are the some of the programs and schemes introduced by ministry of rural development, a branch of Government of India:

Schemes and programs:

- 1. Bharath Nirman.*
- 2. India Awas Yojana(IAY).*
- 3. Pradhan Mantri Gram Sadak Yojana(PMGSY)*
- 4. Swarnajayanti Gram Swarozgar Yojana(SGSY).*

Keywords: *Rural Development, Economic growth, Migration, Rural areas, Urban areas, Sound infrastructure.*

Introduction

It is a known fact that economic development of the country depends primarily, on the availability and adequacy of sound infrastructure in both rural and urban areas. It is infrastructure, which is treated as an engine of growth and provides a basic framework for economic development and social progress. In the context of accelerating the overall growth rate, development of the rural economy through creation of adequate rural infrastructure, assumes crucial importance as more than 70% of the population live in rural areas and nearly two-thirds of the work force derive their livelihood from agriculture. Even if the agriculture sector is excluded, more than half the jobs are in rural areas.

Rural infrastructure is not only a key component of rural development but also an important ingredient in ensuring any sustainable poverty reduction programme. The proper implementation of infrastructure development programs in rural areas improves rural economy. It improves the quality of life of rural people. It promotes better productivity, increases agricultural income adequate employment. In addition to providing employment, the implementation of rural infrastructure development projects has been able to create a positive impact on the rural economic scenario. Rural infrastructure comprises rural roads, rural housing, rural electrification, rural telecommunication, water supply, hospitality, quality education, etc.

The need for continuously increasing investment the rural infrastructure can hardly be over emphasized, more so to bridge the gap between urban and rural India. Several schemes and programmes have been initiated and implemented by the central and state Governments for infrastructure development in rural areas in India.



Year wise allocation of union budget toward Rural Infrastructure Development Fund

S. No	Year	Allocation of Funds(in Rs. crores)
1	2013-2014	20000
2	2012-2013	20000
3	2011-2012	18000
4	2010-2011	16000
5	2009-2010	20500

Source: NABARD

The Allocated funds for infrastructure development in rural areas are increasing year by year in India. indicating its increasing concern towards rural development. In Financial year 2016-2017 there is 24% increase in amount spent in improving rural development schemes.

Objectives of Study

The main aim of the paper is to study

- The need and importance of rural infrastructure development in rural areas in India.
- To review the financing pattern for rural infrastructure development and allocation of funds.
- To offer few suggestions for effective implementation of various schemes and programmes by central and state Government.

Research Methodology

Considering the importance of infrastructure development in the sustenance of economic growth of our country, the government of India formulated several programmes and strategies to fill the existing infrastructure gap in the country. It launched several schemes and programmes for rural infrastructure development in rural areas in India.

Several schemes/programmes have been initiated by the central and State Governments

S. No	Scheme	Sector	Provisions
1	Pradhan Mantri Gramin Awaas Yojana	Housing and rural	Creation of scientific storage capacity with allied facilities in rural areas to meet the requirements of farmers for storing farm produce, processed farm produce and agricultural inputs. Improve their marketability through promotion of grading, standardization and quality control of agricultural produce.
2	Integrated Rural Development Program	Rural development	self-employment program to raise the income-generation capacity of target groups among the poor and The scheme has been merged with another scheme named Swarnajayanti Gram Swarozgar Yojana (SGSY) since 01.04 1999.
3	Bharath Nirman	Rural Development	This is an Indian business plan for creating and augmenting basic rural infrastructure
4	Mahatma Gandhi National Rural Employment Guarantee Act	Rural wage employment	Legal guarantee for one hundred days of employment in every financial year to adult members of any rural household willing to do public work-related unskilled manual work at the statutory minimum wage of Rs. 120 per day in 2009 prices.
5	National literacy mission programme	Education	Make 80 million adults in the age group of 15 – 35 literate.
6	Pradhan Mantri Adarsh Gram Yojana	Model village	Integrated development of Schedule caste majority villages in four states

Source:wikipedia.org(List_of_government_schemes_in_India)

The most important programs undertaken by Government for improving lives of the people in rural areas:-

Bharath Nirman

Government of India launched a comprehensive programme on rural infrastructure called “Bharath Nirman”. This was conceived as a time bound business plan for building rural infrastructure. It was also planned to be implemented in four years



(2005-2009). This also sought on active and transparent public and private partnership for immediate execution of various infrastructure related development projects with a mission mode. It has six vital infrastructure components-irrigation, rural water supply, rural housing, rural roads, telephony and rural electrification. This programme calls for complete involvement of the grass root level democratic institutions like Panchayati Raj institutions in the planning and implementation of various components in the programme.

Successful implementation of the “Bharath Nirman” initiative will enable rural people of the country to utilize rural infrastructure for ensuring their basic amenities and thereby raising their economic and social status. Many projects aiming at enhancing rural infrastructure are also routed through the National Bank for Agriculture and Rural Development (NABARD) which is the apex financial body for agriculture and rural credit.

NABARD

National Bank for Agriculture and Rural Development (NABARD) was set up in July, 1982 by the National Bank agriculture and Rural Development Act 1981. It plays a major role in rural development. Many projects concentrating at improving rural infrastructure are also routed through the NABARD which is the apex financial body for agriculture and rural credit. It is one of the top rural Development bank in India. It has been Working in the field of agriculture and other economic activities in rural areas in India. NABARD plays an active role in developing financial inclusion policy and is the member of the Alliance for Financial Inclusion. The initial corpus of NABARD was Rs.100 crores. NABARD includes World Bank-affiliated organizations and global developmental agencies working in the field of agriculture and rural development. This International organizations help NABARD by advising and giving monetary for uplifting of the people in the rural areas. It is the facilitator of economic growth and partner in promoting rural prosperity. It reduces the Regional Imbalances. Many operations implemented by NABARD.

Rural Infrastructure Development Fund (RIDF)

It was set up by the Government in 1995-96 for financing infrastructure projects in rural areas. The fund is maintained by the NABARD. In India, rural infrastructure was traditionally financed by the Government both at the central and states, through merger budgetary allocations and projects were decided, based on political reasons rather than developmental purpose. This led to unplanned and unscientific development of whatever infrastructural facilities are now available in rural India. RIDF has continued from year to year with the corpus being announced annually during the budget. So far, sixteen tranches have been completed and the seventeenth tranche (RIDF-XXII) will be completed in financial year 2016-17. The scheme has been continued with substantial allocations in the successive union Budgets and NABARD has partnered various state Governments in the creation of rural infrastructure. Over the year, the coverage under RIDF has been made more broad based in each tranche and at present a wide range of 21 sectors under RIDF-XXII are being financed. The Commercial banks are required to contribute deposits to RIDF equal to the shortfall of their lending under priority sector stipulation.

The list of newly sanctioned funds under RIDF

S. No	Year	Released amount	Rs. in lakhs
			Allocated amount
1	2015-16	188.61	300.00
2	2014-15	179.82	250.00
3	2013-14	590.11	430.29
4	2011-12	367.42	194.50
5	2009-10	196.00	29.00

Source: RIDF

In this scenario i will consider the released and allocated funds of Arunachal Pradesh Government.

Education and Skill Development in Rural Areas

Education is very important for each and every individual. Education and skill development plays a major role in nation's development and also it helps in achieving nation's mission and vision. It provides better life for every individual. Government should be taken care and supports education of girl child and try to implement educational and skill developmental schemes and programs in rural areas also concentrates on developing infrastructure of school, adult education, coaching and personality development programs providing scholarships.

Health and Sanitation in Rural Areas

Government should be concentrates on providing basic and quality infrastructure for health and sanitation in rural areas conducts medical camps and provides health related infrastructure in rural areas.



Conclusion

This article provides the vital information regarding the need and importance of sustained infrastructure development in rural areas in India. Infrastructure development in rural areas is very essential for economic growth of the country because 70% population of India lives in villages. Releasing funds is not enough implementation should be taken care. We have seen various programmes/schemes implemented by central and state governments show the need and importance of infrastructure development in rural areas. Both public and private sectors showing interest towards rural development. The potential infrastructure in this segment include rural roads, rural housing, rural electrification, rural telecommunication, drinking water supply, providing primary education, hospitals ,sanitation, etc. This improvement bridge the gap between rural and urban areas. Rate of process of migration can be reduced due to rural development. It improves the rural economy and quality of life. But still some rural areas have not seen that development.

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Data Analysis Using SPSS Software

Null Hypothesis: Statically there is no significant difference between Released and allocated amounts.

Data view in SPSS:

	VAR00001	VAR00002	VAR00003	VAR00004
1	S.no	Year	Type	Amount
2	1	2015-16	1	188.61
3	2	2014-15	1	179.82
4	3	2013-14	1	590.11
5	4	2011-2012	1	367.42
6	5	2009-10	1	196
7	6	2015-16	2	300
8	7	2014-15	2	250
9	8	2013-14	2	430.29
10	9	2011-2012	2	194.5
11	10	2009-10	2	29

1-Released, 2-allocated

Variable view in SPSS:

	Name	Type	Width	Decimals	Label	Values	Missing	Columns	Align	Measure	Role
1	S.no	Numeric	4	0		None	None	4	Right	Nominal	Input
2	Year	String	9	0		None	None	9	Left	Nominal	Input
3	Type	Numeric	4	0		None	None	4	Right	Nominal	Input
4	Amount	Numeric	7	0		None	None	7	Right	Nominal	Input



Output in SPSS

Level of significance-95%-0.05

T-Test

[DataSet2]

Group Statistics

Type	N	Mean	Std. Deviation	Std. Error Mean
Amount 1	5	304.39	177.679	79.461
2	5	240.76	147.053	65.764

Group Statistics here gives the information about number of observations taken in released and allocated, mean of those observations, standard deviation and standard error mean of those observations.

Independent Samples Test

		Independent Samples Test					
		Levene Test for Equality of Variances		t-Test for Equality of Means			
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference
Amount	Total salaries released	4.53	.034	617	8	.554	63.634
	Total salaries allocated			617	8	.554	63.634

- To know whether equal variances to be assumed or equal variances to be not assumed we make use of Levene's Test for Equality of variances.

As a rule of thumb, if Sig. > .05, we use the first line of t-test results.

Reversely, if its p-value Sig. < .05 we reject the null hypothesis of equal variances and thus use the second line of t-test results.

Here sig. Value is 0.534 which is greater than 0.05 so here we consider first line of T-test results.

- If the Sig. (2-Tailed) value is greater than 0.05 in the result...

We can conclude that statistically there is no significant difference between your two conditions released and allocated amounts.

If the Sig. (2-Tailed) value is less than or equal to 0.05 in the result...

We can conclude that statistically there is a significant difference between your two conditions Released and Allocated amounts.

Here Sig. (2-Tailed) value is 0.554 which is greater than 0.05 so statistically there is no significant difference between released and allocated amounts.

Result: Here there by we can conclude by T-test that there is though the difference of 63.634 lakhs between released and allocated amounts spent in rural development, statistically there is no significant difference between the two conditions



Theoretical Calculations

Null Hypothesis: There is no significant difference between Released and Allocated amounts.

X_1 = Released Amount

X_2 =Allocated Amount

S. No	X_1	X_2	$X_1 - x_1$	$X_2 - x_2$	$(X_1 - x_1)^2$	$(X_2 - x_2)^2$
1	188.61	300.00	-115.782	59.242	13405.4715	3509.6145
2	179.82	250.00	-124.572	9.242	15518.1832	85.4145
3	590.11	430.29	285.718	189.532	81634.7755	35922.379
4	367.42	194.50	63.028	-46.258	3972.5287	2139.8025
5	196.00	29.00	-108.392	-211.758	11748.8257	44841.4506
Total	$\sum X_1 = 1521.96$	$\sum X_2 = 1203.79$			$\sum (X_1 - x_1)^2 = 126279.759$	$\sum (X_2 - x_2)^2 = 86498.6611$

$$x_1 = \frac{\sum X_1}{n_1} = 304.392$$

$$x_2 = \frac{\sum X_2}{n_2} = 240.758$$

Formulae for calculating the value of t is

$$t = \left(\frac{x_1 - x_2}{s} \right) \left(\frac{n_1 n_2}{n_1 + n_2} \right)$$

where x_1 =Mean of first set of observations

x_2 =Mean of second set of observations

n_1 = No. of observations in first set

n_2 =No. of observations in second set

$$s = \text{Combined Standard Deviation} = \sqrt{\left(\frac{\sum (X_1 - x_1)^2 + \sum (X_2 - x_2)^2}{n_1 + n_2 - 2} \right)}$$

$$s = \left(\frac{126279.759 + 86498.6611}{5 + 5 - 2} \right)^{0.5} = 163.086$$

$$t = \left(\frac{304.392 - 240.758}{163.086} \right) \left(\frac{5 \times 5}{5 + 5} \right) = 0.975$$

But table value of t at 95% level of significance and $(n_1 + n_2 - 2)$ i.e., 8 degrees of freedom is 1.86. As calculated value of t is less than table value of t accept the null hypothesis.

So there is no significant difference between means of released and allocated amounts.