

Connectivity Status of Pradhan Mantri Gram Sadak Yojana: An Inter-State Analysis



Madhukar Itewar

Research Scholar,
Deptt. of Economics,
Dr. Harisingh Gour University,
Sagar, Madhya Pradesh



Utasav Anand

Assistant Professor,
Deptt. of Economics,
Dr. Harisingh Gour University,
Sagar, Madhya Pradesh

Abstract

An effective transport system is essential for sustainable economic development and modernization; There is no doubt that transport plays an important role in the overall development of the country's economy. This is not only the main infrastructure for the development process but also plays an important role in maintaining national integration. A high rate of growth will definitely indicate high transport demand. It is believed that the growth of GDP and transport sector have a positive relationship. Through the Pradhan Mantri Gram Sadak Yojana programme in 2000, the Government of India has endeavored to intensify the rural economy. The success of this effort will be achieved when all the villages are well connected with all-weather roads. To know the status of connectivity, this study is designed. The objective of this research paper is to understand the connectivity status of Pradhan Mantri Gram Sadak Yojana in India. Quantitative analysis has been done using secondary data. Percentages and correlation are calculated using SPSS.

Keywords: Pradhan Mantri Gram Sadak Yojana, Rural Development, and Rural Connectivity.

Introduction

The government and the welfare institution of the world are strived to build infrastructure for achieving rural development. Energy, telecommunications and transport are the major in the infrastructure of rural development. A large part of the government budget is spent in the development of these infrastructures. The government has continued to promote investment on the development of the lifeline 'transport' of the rural economy. The government encourages rural economy by investing in the 'blood vessels' means 'Roads' of the rural economy, which connects the door to the door. Rural road plays an important role in creating employment for unskilled workers and social awareness. Effective transport system is essential for sustainable economic development and modernization; there is no doubt that transport has an important role in the overall development of the country's economy. This is not only the main infrastructure for the development process, but also plays an important role in maintaining national integration. High rate of growth will definitely indicate high transport demand. It is believed that the growth of GDP and transport sector is a positive relationship.

By the Nagpur Plan (1943–61), Bombay Plan (1961-81), Lucknow Plan (1981-2001) need for a proper road network for India's development was understood earlier. Keeping in view the fact that road connectivity is a major contributor to the quality of rural life, many steps have been taken to improve accessibility to rural areas in India. In the year 2000, it was seen that despite the efforts of the State Governments, almost 40 percent of the country's habitations could not be connected by all weather road. With the aim of improving road connectivity in the rural areas, the Government of India launched the Pradhan Mantri Gram Sadak Yojana (PMGSY) in 2000.

Pradhan Mantri Gram Sadak Yojana

Pradhan Mantri Gram Sadak Yojana is 100 percent centrally sponsored scheme. For this program, 50 percent cess has been levied on high-speed diesel and PMGSY is one of the largest infrastructure development initiatives in the country for the development of rural roads, with the establishment of National Rural Road Development Agency (NRRDA) to support the programme through advice on technical specifications, project appraisal, and the appointment of part-time Quality

Control Monitors, Management of Monitoring Systems and submission of Periodic Reports to the Ministry of Rural Development. This agency is considered as a compact, professional and multi-disciplinary body Objectives of Pradhan Mantri Gram Sadak Yojana are:

A. Most important objective of the PMGSY is to provide Connectivity, by All-weather Road, to the eligible unconnected habitations in the rural areas.

B. The PMGSY will permit the Upgradation of the existing roads in those Districts where all the eligible Habitations of the designated population size have been provided all-weather road connectivity.

Research Methodology

This study is based on secondary data which is collected on the criteria on completed road length, connected and balance unconnected habitation, upgradation, and benefited populations of rural India by the Pradhan Mantri Gram Sadak Yojana. The whole data were collected from the source; *omms.nic.in., NRRDA.*

As the objective of this study is to show the correlation between numbers of work done and benefited habitation by PMGSY, road length as an independent variable, and coverage habitation and benefited population is considered as a dependent variable. Data analysis was done in percentage and correlation using SPSS version 16. The parameters used are listed here -

1. Total habitations records in each state,
2. Unconnected Habitations of each state,
3. New connectivity,
4. Upgradation,
5. Balance unconnected habitations

Objective of the Study

The objective of this study is to understand the connectivity status of Pradhan Mantri Gram Sadak Yojana in India.

Review of literature

Ministry of Rural Development, "PMGSY (13December2018)" Mention that "As reported by the State Government, out of 1, 78,184 eligible unconnected habitations, 1,58,013 habitations have been sanctioned by the Ministry and 1,44,398 habitations have already been provided connectivity. Further, States have provided connectivity to 16,310 habitations under their own schemes."

Ministry of Rural Development, "Boost to Rural Road connectivity(09 August 2018)" Mention that "95% habitations (1,69,415) have been sanctioned, of which 91% habitations (1,54,257) have been connected including 16,380 habitations connected by the States from their own resources. Against the sanctioned length of 6,58,143 km, 5,50,601 km road length has been completed. Under, PMGSY-II, against the target length of 50,000 km works of Upgradation almost 32,100 km road length have been sanctioned in 13 States, which have transited to PMGSY-II. Against the sanctions issued, 12,000 km road length has been completed up to March, 2018."

"A Performance Audit of Comptroller and Auditor General (C&AG Report 23 of 2016)" Stated in the report that PMGSY has provided road connectivity

which has led to a better transport systems during all seasons.

Dawda, Nandan "PMGSY: A successful attempt to transform rural India to Modern India, (August 2016)" Discusses how rural road connectivity has resulted in increasing agriculture product, more amount of employment generation, an increasing number of industries. Also focused on impact of PMGSY on other fields like health, education sector, transport facilities, urbanization and poverty alleviation.

RAMASAMY, S. "The Fate of Pradhan Mantri Gram Sadak Yojana (PMGSY) in India – An Inter-State Analysis, (August 2015)" Find average expenditure incurred under this scheme was not uniform across the states. States like Madhya Pradesh (MP), Uttar Pradesh (UP), Orissa, Rajasthan, and Bihar had incurred higher amount compared to rest of the states. While on the other hand, states like Kerala, Tamil Nadu had incurred significantly lowest amount. Although, the states like Gujarat, Haryana, Himachal Pradesh (HP) Jammu & Kashmir (J&K), Jharkhand, Punjab and Uttarakhand received more than Kerala and Tamil Nadu, but received significantly lesser than the other states.

Jain, Preeti with titled "Pradhan Mantri Gram Sadak Yojana: A path to Inclusive Growth of MP, (2014)" found that PMGSY is a very strong and effective policy of Central Govt. PMGSY has achieved great success in the field of road construction. Rural roads under PMGSY help to attain the overall development of the country and its citizens.

Manjunath, K. C. "PMGSY And Rural Roads Development In India : Economic, Financial And Maintenance Issues (2012)" Concluded that Central Government financing of rural roads construction through PMGSY is a huge success and the programme has been widely appreciated by public and people representatives and is likely to continue for few more years.

Data Analysis and Results

New Connectivity by the PMGSY

Most important objective of the PMGSY is to provide Connectivity, by All-weather Road, to the eligible unconnected habitations in the rural areas. Below table described interstate new connectivity.

Table1 - Highest Numbers of New Connectivity

S. No.	State Name	New Connectivity
1	Bihar	54,927
2	Rajasthan	25,490
3	Odisha	20,144
4	Madhya Pradesh	20,021
5	West Bengal	15,687

Source- *omms.nic.in, NRRDA, generated on: 02/01/2019 14:31pm*

Given above table no.1 represents the highest achieved new connectivity of top five states of India. The table clearly shows that Bihar has got the highest new connectivity followed by Rajasthan, Odisha, Madhya Pradesh and West Bengal.

Table 2 - Highest Percentage of Habitation Covered By New Connectivity

S. No.	State Name	% covered by new connectivity
1	Haryana	100
2	Nagaland	100
3	Kerala	96.79
4	Bihar	96.74
5	Jammu and Kashmir	96.7

Source- omms.nic.in, NRRDA, generated on: 02/01/2019 14:31pm

From the percentage point of view, table no.2 showing data of top five states. These five states have highest achieved percentages of new connectivity from PMGSY. Haryana has got 100 percentages. During 01-04-2000 NRRDA found that only 1 habitation is unconnected. Later for this state, remaining one connectivity was provided by the PMSGY. After Haryana, Nagaland is another state that has achieved 100 percentages new connectivity. After these two states, Kerala, Bihar and Jammu and Kashmir are three states that have achieved new connectivity at highest level.

Table3- Lowest Numbers of Habitations New Connectivity

Sr. No.	State Name	New Connectivity
1	Haryana	1
2	Goa	29
3	Nagaland	126
4	Mizoram	246
5	Sikkim	399

Source- omms.nic.in, NRRDA, generated on: 02/01/2019 14:31pm

Table, no.3 represents five states which received lowest numbers in new connectivity. Haryana received lowest numbers of new connectivity because according to NRRDA found that as on 01-04-2000 only one eligible habitation which is not connected to all weather roads. After Haryana, Goa received second number followed by Nagaland, Mizoram and Sikkim.

Table 4 Lowest Percentage of Habitations Covered By New Connectivity

Sr. No.	State Name	% covered by new connectivity
1	Karnataka	9.33
2	Uttar Pradesh	14.87
3	Goa	15.59
4	Maharashtra	24.26
5	Rajasthan	27.71

Source- omms.nic.in, NRRDA, generated on: 02/01/2019 14:31pm

Table no. 4 represent that Karnataka received lowest percents of new connectivity because as on 01-04-2000, 4459 habitations are found unconnected but only 416 habitations are connected by PMGSY. After that Uttar Pradesh, Goa, Maharashtra and Rajasthan received the lowest new connectivity.

Upgradation Provided by PMGSY

PMGSY will permit the Upgradation of the existing roads in those Districts where all the eligible

habitations of the designated population size have been provided all-weather road connectivity.

Table-5 Highest Numbers of Upgradation

Sr. No.	State Name	Upgradation
1	Uttar Pradesh	17,313
2	Tamil Nadu	10,239
3	West Bengal	7,847
4	Maharashtra	7,811
5	Karnataka	7,594

Source- omms.nic.in, NRRDA, generated on: 02/01/2019 14:31pm

Table-5 represents five states those received highest numbers of upgradation habitations in India by PMGSY. Uttar Pradesh is highest in upgradation followed by Tamil Nadu, West Bengal and Maharashtra.

Table-6 Highest Percentage of Habitation of Upgradation

S. No.	State Name	% covered by Upgradation
1	Punjab	27.25
2	Haryana	23.14
3	West Bengal	20.58
4	Manipur	16.59
5	Tamil Nadu	16.23

Source- omms.nic.in, NRRDA, generated on: 02/01/2019 14:31pm

Five highest percentages upgradation states are shows by the table no. 6, by the studies of this table know that Punjab got highest in percentages of upgradation. Haryana is on second and followed by the Manipur and Tamil Nadu.

Table-7 Lowest Numbers in Upgradation

Sr. No.	State Name	Upgradation
1	Mizoram	-
2	Sikkim	1
3	Assam	6
4	Gujarat	45
5	Arunachal Pradesh	64

Source- omms.nic.in, NRRDA, generated on: 02/01/2019 14:31pm

Above table no. 7 represent states with lowest numbers of upgradation in India by PMGSY. Mizoram received zero upgradation, followed by Sikkim, Assam, Gujarat and Arunachal Pradesh.

Table-8 Lowest Percentages in Upgradation

Sr. No.	State Name	% covered by Upgradation
1	Mizoram	0
2	Assam	0.02
3	Uttarakhand	0.08
4	Sikkim	0.1
5	Gujarat	0.13

Source- omms.nic.in, NRRDA, generated on: 02/01/2019 14:31pm

Table no. 8 shows lowest percentages in upgradation of five states. Among the states Mizoram is lowest India due to doesn't receive any upgradation. Assam got 6 upgradation roads which covered only 0.02 percentages. After Assam Uttarakhand, Sikkim and Gujarat received lowest percents in upgradation provided by PMGSY.

Development of Correlation

Correlation develops between habitations connected by no. of works done through new

connectivity and upgradation in States. These variables are important to know the connectivity status of India.

Table 9- Correlation

	No. of works done by upgradation	Habitations connected by upgradation	No. of New connectivity Works	Habitations connected by the new connectivity	Total No. of works New + upgradation	Total No. of connected habitations by both New and Upgradation works
No. of works done by upgradation	1					
Habitations connected by upgradation	.911**	1				
No. of New connectivity Works	.302	.348	1			
Habitations connected by the new connectivity	.113	.216	.903**	1		
Total No. of works (New+ upgradation)	.597**	.605**	.945**	.799**	1	
Total No. of connected habitations by both New and Upgradation works	.385**	.504**	.908**	.952**	.896**	1

** Correlation is significant at the 0.01 level (2-tailed).
* Correlation is significant at the 0.05 level (2-tailed).
N= 29

From the table no. 9, it is clear that there is a significant positive correlation between the numbers of upgradation works done and the habitations covered by the upgradation of roads ($r = .991$, $p < .001$). Another finding of this study from the table is a correlation between numbers of new works done and new connectivity which is also showing significant positive correlation ($r = .903$, $p < .001$). The last one finding is correlation between total numbers works done (New + Upgradation) and total connectivity provided by both connectivity types is significant positive correlation ($r = .896$, $p < .001$).

Findings

The major findings of this study is given below-

1. Through the new connectivity i.e. 221105 (51%), habitations are connected among the total unconnected habitations (as on 01-04-2000) of Indian States by the PMGSY.
2. By the upgradation 94,681 habitations are provided connectivity of rural India.
3. Total numbers of new connectivity and upgradation are 142884 and total habitations connected in India 275322.
4. By the correlation, we have found that numbers of works done (new and upgradation) and the habitations highly positive correlated, which show that connectivity provides by the PMGSY is highly benefited to the rural habitations.

Conclusion

This study represents the connectivity status of rural India by PMGSY. It is obvious from this study that the connectivity status is in good condition and providing access to rural India. Providing habitations connectivity by all-weather roads helps rural populations to access their socio-economic activities,

and this leads to rural development of India. PMGSY is a very strong and effective policy of Central Govt. PMGSY has achieved great success in the field of road construction. Rural roads under PMGSY help to attain the overall development of the country and its citizens.

Suggestions

Central government funding is a major success for the construction of rural roads through PMGSY and this program has been widely appreciated by the public and public representatives. This program should be extended for few more years.

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