International Journal of Humanities and Social Science Research
www.socialsciencejournal.in
ISSN: 2455-2070
Received: 02-05-2022, Accepted: 18-06-2022, Published: 04-07-2022
Volume 8, Issue 4, 2022, Page No. 15-19

The impact of Pradhan Mantri Gram Sadak Yojana (PMGSY): An Indian rural perspective

Suman[1], Babli Devi[2]
[1] Assistant Professor, B.P.S.I.T.T.R, BPSMV Khanpur Kalan, Sonipat, Haryana, India
[2] Kurukshetra University Kurukshetra, Haryana, India

Abstract
The purpose of this article is to examine the impact of the Pradhan Mantri Gram Sadak Yojana (PMGSY) in Indian rural perspective. On December 25, 2002, the central government of India introduced PMGSY as part of its poverty reduction plan. The PMGSY is intended to help the Government of India's aim of poverty reduction in rural regions by fostering economic growth and providing access to essential amenities that can improve the rural poor's quality of life. It also allows the poor to participate more completely in the economy and benefit from the benefits of growth. The goal of PMGSY was to connect rural residents to the city's central business district. The article is an attempt to explain how rural road connectivity has resulted in increased agriculture product, increased employment generation, and a rising number of industries. Furthermore, the impact of PMGSY on other domains such as health, education, transportation, urbanization, and poverty alleviation is addressed in depth.

Keywords: PMGSY, rural roads, and rural connectivity

Introduction
The Pradhan Mantri Gram Sadak Yojana (PMGSY) was launched by central government on 25th December 20001 to provide all-weather access to unconnected habitations by 2022. This project was a 100% centrally sponsored schemes. For these schemes, the Union Government bears 90% of the project cost in respect of projects sanctioned under the scheme in North-Eastern and Himalayan States, whereas for other states the Union Government bears 60% of the cost. In this context, Rural Road Connectivity is not only a key component of Rural Development in India; it is also recognized as an effective Poverty reduction Programme. Rural roads play 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. Policy maker have been given great importance to road connectivity for rural poor remedies. PMGSY aims at providing connectivity by means of properly laid all-weather surfaced roads (with necessary culverts and cross drainage structures) to all unconnected habitations. The mandate of PMGSY has been subsequently widened to include new interventions. PMGSY-II was launched in the year 2013, with a target to upgrade 50,000 kms of the existing rural road network to improve its overall efficiency as a provider of transportation services for people, goods and services. Road Connectivity Project for Left Wing Extremism Affected Areas (RCPLWEA) was launched in the year 2016 for construction of strategically important roads chosen in the 44 worst affected LWE districts and adjoining districts in the 9 States of Andhra Pradesh, Bihar, Chhattisgarh, Jharkhand, Orissa, Telangana and Uttar Pradesh. PGMSY-III was launched in the year 2019 for consolidation of 1,25,000 Km Through Routes and Major Rural Links connecting habitations, inter-alia, to Gramin Agricultural Markets, Higher Secondary Schools and Hospitals. Jain, P (2014) [28] study outcomes inferred that after the construction of PMGSY roads, an improvement in the employment situation in terms of more job opportunities was observed. A lot of housewives were mentioned that they have started small scale industries like making, pickle, papad, bidi, sivai, jhadu etc. Further study revealed that rural roads have reduced the rapid growth rate of poverty and have improved the participation of people in the state's development process. Samanta (2015) [37] study results showed that rural roads are the wealth of a nation, a tool for social inclusion, economic development and environmental sustainability. Rural roads link communities and their agricultural fields to the main transport system and markets. Improving rural roads reduces transport cost and stimulates marketing. This results in increased production and productivity, crop diversification and increased profitability. Ministry of Rural Development (2015) [32] study showed that significant improvements were found in increased employment and income amongst households engaged in other occupation than their own farms. In the habitations where roads have not been maintained a marginal decrease in the gains achieved due to better

connectivity was noticed. The savings in travel time to the place of employment was found higher in case of sample habitations where the roads are maintained as compared to control habitations. Better availability of transport facility had an impact and poor maintenance of roads has adversely impacted them. Ghosh (2017) [22] study showed that "Among various infrastructure indicators, electricity, irrigation and roads have been most important for agricultural productivity and output growth, poverty reduction and human development in terms of improvements in health and education. Access to the quality of roads in bringing socio-economic changes in rural areas is more important than the quality of roads." Biswas, and Anwaruzzaman (2018) [13] study results showed that there is a positive impact on employment generation by the PMGSY road as 78% respondents affirmed responded and about 22% respondents say that it has no impact". Fatima and Salam (2019) [21] study analysis of the progress of these schemes will draw a conclusion of the impact that the utilization of the allocated fund has over the construction of houses and roads respectively. This study will be beneficial for the academicians as well as government officials to understand the importance of rural infrastructure programs, not only on the development of rural areas, but also on the overall economy of India. Itewar and Anand (2019) [26] result of this study shows that PMGSY have a significant impact on increasing the employment and income opportunities of the people. This study will contribute the role of the road in the study of rural employment and income opportunities. J. Balamurugan (2020) [11] study outcomes shows that PMGSY have a significant impact on increasing the employment and income opportunities of the people. This study will contribute the role of the road connectivity in the rural employment and income opportunities.

PMGSY's Unique Characteristics

The PMGSY's unique characteristics are shows in following figure:

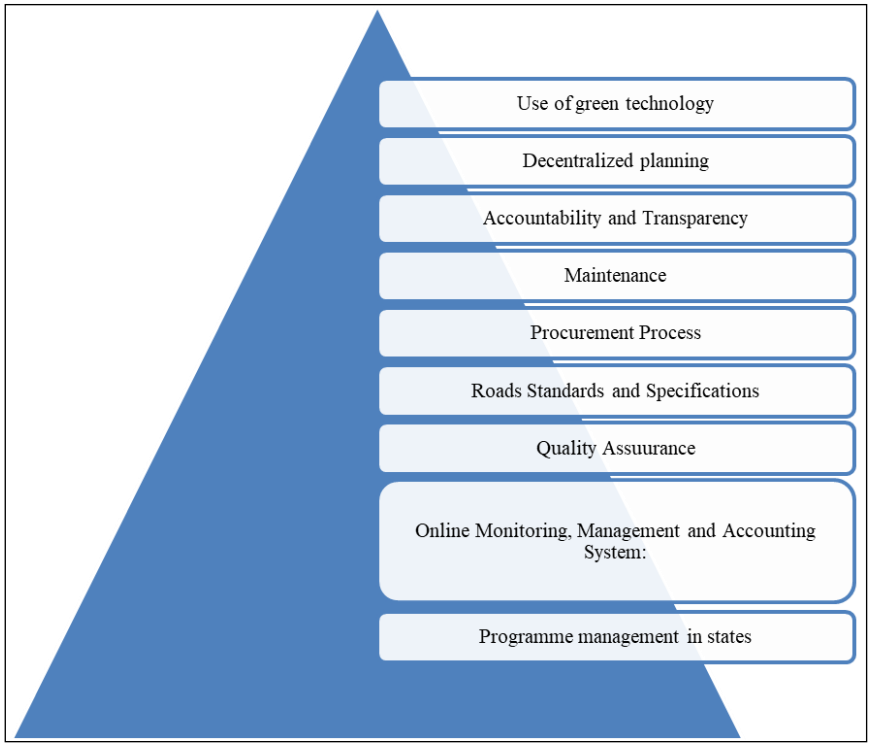

Fig 1: shows the characteristics of PGMSY

The following are explanations of the PMGSY's distinguishing characteristics:

- **Employing eco-friendly technologies:** For climate-resilient roads in PMGSY, the use of non-traditional, locally available building materials (waste plastic, cold mix, fly ash, jute, and coir Geo-textiles, iron and copper slag, cell-filled concrete, paneled cement concrete, etc.) and "Green Technologies" has been encouraged. Employing eco-friendly technologies (Green technology), a record length of 6,313 kilometers was built during the fiscal year 2017-18.

- **Decentralized Planning:** For planning purposes, each district has established a Core Network of Roads. Out of the Core Network, all routes covered by PMGSY will be prioritized. According to the Guidelines, the district Panchayat is completely involved in the selection of road works under the program.

- **Accountability and Transparency:** Through the Meri Sadak App, the scheme has implemented a Citizen Feedback mechanism. This provides direct interaction with residents, and the G2C platform allows individuals to submit real-time input on the PMGSY program's implementation.

- **Maintenance:** Roads constructed under PMGSY are required to be maintained by the State Governments. The Scheme envisages Performance Guarantee for five years by the Contractor backed by a 5 year maintenance contract.

- **Procurement Process:** The works are tendered as per the State is Standard Bidding Document approved by NRRDA. Projects will be completed within 9 months except in case of Hilly States where the duration of the project will be for 18 months. Cost escalation, if any, due to overruns or tender premium will be borne by the State Governments.

- **Roads Standards and Specifications:** Roads are to be built as per the specifications given in Rural Roads Manual published by the Indian Roads Congress (IRC: SP20:2002). Roads are to be properly designed based on climatic and traffic conditions. Provision has to be made for proper roadway width, shoulders and side and cross drains. Detailed Project Reports (DPR) has to be prepared in all cases.

- **Quality Assurance:** PMGSY roads are expected to be of the highest quality. A 3-tier quality control system has been envisaged. The Contractor is expected to set up a field laboratory at the work site and the DPIU functions as the first tier of the quality control. The State Quality Monitor coordinates a second, independent, tier of quality control and the NRRDA enforces a 3rd tier of quality control through National Quality Monitors who are informed senior engineers.

- **Online Monitoring, Management and Accounting System:** In view of full transparency in various aspects of programme implementation, a web-based Online Monitoring, Management and Accounting System (OMMAS) has been developed for the Programme.

- **Program Management in States:** Each State has designated a State level Autonomous Agency to maintain and operate Bank account to receive the project funds from the internet based software Ministry of Rural Development. The agency has appointed a State Quality Coordinator, Financial Controller and IT Nodal Officer to ensure management of various aspects of the programme at state level. The District Programme Implementation Units (DPIUs) headed by Superintending and Executive Engineers execute the road works in accordance with the programme guidelines.

Impact of PGMSY in an Indian Settings

The following are the effects of PGMSY in several fields:

In the context of Agriculture, PMGSY schemes including roads had a positive impact on the agricultural infrastructure as habitations are now using motorized equipment's such as tractors, threshing machines for cultivation leading to a more efficient, time saving and profitable process of cultivation. PMGSY road connectivity has led to a better transport system during all seasons as well as made it easier to transport chemical fertilizers, seeds and pesticides. Improvement in Employment Opportunities: Following the implementation of these programmes, we saw an improvement in the employment situation in terms of more work options, more opportunities for self-employment, and so on. On-farm employment prospects have expanded as a result of the move from cereals to cash crops and multiple cropping, particularly in Tamil Nadu, Madhya Pradesh, and Mizoram. More individuals are travelling to adjacent towns and villages to work odd occupations such as selling woods, vegetables, dairy goods, and locally created items such as pickles and Papad. Furthermore, road connectivity has resulted in the rise of local industries, which has resulted in the creation of new job possibilities. Improving the Health Structure: In the context of PGMSY, better roads allows for speedier all-season access to health facilities, which is crucial in the event of a health emergency. The positive impact was observed in terms of increased accessibility to preventive and curative health care facilities; better management of infectious diseases and attending to emergencies as a result of faster access to health facilities and an increase in the frequency of visits by health workers. Beneficiaries in almost all states reported an improvement in antenatal and postnatal care, resulting in fewer obstetric emergencies. Improved Education facilities: Education facilities have improved as a result of the development of PMGSY roads. This has resulted in higher school enrolment and attendance in all states. Beneficiaries indicated that the PMGSY road connectivity increased the number of females attending school in the states of Assam, Madhya Pradesh, Orissa, Tamil Nadu, and West Bengal. Social Aspects Have Improved: The development of the PMGSY road has resulted in an increase in the frequency of visits by government officials. As a result, numerous government initiatives and programmes are likely to be implemented more effectively. The visits of grassroots level functionaries such as health workers/Auxiliary Nurse and Midwives (ANMs), Village Level Workers (VLWs), and Village Aganwadi Workers (VAWs) throughout the states have increased. Women's mobility has increased as a result of improved road connectivity, as they can now travel alone in buses and cycles. Increased Transportation Facilities: The benefits of rural connectivity have been particularly seen in Mizoram and Rajasthan, where PMGSY roads have made it easier for beneficiaries to travel difficult terrain. Under this project, all states benefited from an increase in bicycle and two-wheeler ownership, as well as better public and private transportation systems in all of the states especially Assam, Rajasthan, West Bengal and Tamil Nadu under consideration. Poverty reduction: One unintended consequence of PMGSY roads has been a reduction in the economic level of the residents who benefit from

them. The roads have offered chances for agricultural and non-farm jobs, as well as self-employment, either directly or indirectly. Beneficiaries in all states reported a rise in their average household income as agricultural and non-farm work possibilities improved.

Drawbacks of PGMSY Scheme

Some following drawback of this scheme, these are:

- All habitations which were provided with all-weather road connectivity earlier are not eligible even if present condition of the road is not good.
- PMGSY does not permit repairs to cement roads or black top roads even if surface condition is bad.
- Road connectivity is still lagging behind.
- Lack of efficient coordination is observed in the scheme.
- Laborers demand more wage rates for their work.
- Proper road development and water supply are still major issues in some areas.
- Quality and maintenance of roads under PMGSY scheme is not up to the mark. Maintenance cycle is not done in many areas.
- Road communication needs to be improved in remote villages.
- Social Audits are required for PMGSY scheme for integrated development.

The Role of PGMSY in Indian Rural Perspectives

India's road network is one of the world's largest and densest. However, a substantial portion of the 2.7 million km rural road network was in poor shape, and over 30% of the country's population (roughly 300 million people) lacked access to all-weather roads until the year 2000. Because of India's immense diversity, each of the eight project states has a different topography, population, and implementation capabilities, posing its own set of obstacles. The tough topography in the smaller highland states was exacerbated by the construction industries limited capacity, resulting in lower quality work and greater expenses. Furthermore, the hill states of Himachal Pradesh, Meghalaya, and Uttarakhand had unique road construction issues due to the remoteness of habitations and deep forest regions. A challenging security scenario, coupled with local capacity issues, faced substantial challenges in Jharkhand, one of India's poorest states.

Furthermore, Indians have other challenges.

- If the road is in poor shape, it will take time and damage the overall advancement of rural people in terms of health, education, and economy, among other things.
- Inadequate monitoring and evaluation of work done following the adoption of OMMAS, resulting in project failure.
- The system's execution has been irregular, resulting in inequity; and minorities are still not connected by the scheme, which may trigger social unrest.

Conclusion

According to the findings of this study, Prime Minister Gram Sadak Yojana has a beneficial impact on non-agricultural laborers' jobs and income changes. These schemes help to increase the number of employed days, the annual income of laborers, the means of transportation to the workplace, the change in primary occupation, the ease of up-and-down for the worker, and, most importantly, rural roads under PMGSY help to achieve the overall development of the country and its citizens. However, it has been found that government funds are not being utilized correctly. The money set up for improving rural infrastructure is spent in different stages. As a result, the rural infrastructure development target has yet to be met. As a result, proper steps must be taken against those implicated in the corruption process in order for the programmes' objectives and targets to be met. Rural roads also have an impact on education, health, and employment. The Comptroller and Auditor General of India found flaws in physical and financial planning, fund utilization, implementation, tendering procedure, quality assurance, and road maintenance.

References

1. Adukia A, Asher S, Novosad P. Educational Investment Responses to Economic Opportunity: Evidence from Indian Road Construction. *Working paper*, 2019.
2. Aggarwal. Do Rural Road Create Pathway Out of Poverty? Evidence from India, 2014, 1-9.
3. Aggarwal S. Do Rural Roads Create Pathways out of Poverty? Evidence from India. Journal of Economic Development,2018:133(375):95.
4. Ali R, Barra AF, Berg CN, Damania R, Nash J, Russ J. Transport Infrastructure and Welfare: An Application to Nigeria. Policy Research Working Paper 7271, World Bank, Washington, DC, 2015.
5. Alleman J, Hunt C, Michaels D, Mueller M, Rappoport P, Taylor L. Telecommunications and economic development: Empirical evidence from Southern Africa. *Paper presented at the 10th Biennial International Telecommunications Society Meeting, Sydney*, 1994.
6. Appa M, Kale, Pimplikar SS. Pradhan Mantri Gram Sadak Yojana: Past, Present & Future. International Journal of Advance Scientific Research and Engineering Trends,2017:2(1):41-44.

7. Asher S, Novosad P. Rural Roads and Local Economic Development. Policy Research Working Paper 8466, World Bank, Washington, DC, 2018.
8. Asher S, Garg T, Novosad P. The Ecological Footprint of Transportation Infrastructure. Policy Research Working Paper 8507, World Bank, Washington, DC, 2018.
9. Asher S. The Employment Effects of Road Construction in Rural India, 2014, 1-20.
10. Aziz A. Infrastructure for economic development in rural India. The International Journal Research Publications,2015:5(1):15-21.
11. Balamurugan J. Role of Pradhan Mantri Gram Sadak Yojana (PMGSY) in Rural Development. Journal of Social Welfare and Management,2020:12(2):1-6.
12. Bell Clive, Susanne van Dillen. How Does India's Rural Roads Program Affect the Grassroots? Findings from a Survey in Orissa. Land Economics,2014:90(2):372-94.
13. Biswas R, Anwaruzzaman AK. Impact of PMGSY on Socio-Economic Development: A Case Study of ChandpurKushabaria Road, Murshidabad District, West Bengal. The Konkan Geographer,2018:19:31-39.
14. Calderon C, Serve L. Infrastructure and Economic development in Sub-Saharan Africa. Policy research working paper 4712. Washington, DC: World Bank, 2008.
15. Chand Ramesh, Srivastava SK, Singh Jaspal. Changing structure of rural economy of India implications for employment and growth. *NITI Aayog*, 2017.
16. Cuong NV. Estimation of the Impact of Rural Roads on Household Welfare in Viet Nam. Asia-Pacific Development Journal,2011:18(2):105-135.
17. Dawda N. PMGSY: A Successful Attempt of Transforming Rural India To Model India, 2017, 1-6.
18. Dercon S, Gilligan DO, Hoddinott J, Woldehanna T. The Impact of Roads and Agricultural Extension on Consumption Growth and Poverty in Fifteen Ethiopian Villages. CSAE Working Paper 2007–01, Centre for the Study of African Economies, Oxford University, Oxford, 2007.
19. Emran MS, Hou Z. Access to Markets and Rural Poverty: Evidence from Household Consumption in China. Review of Economics and Statistics,2013:95(2):682-97.
20. Escobal J, Ponce C. The Benefits of Rural Roads: Enhancing Income Opportunities for the Rural Poor. *Grupo de Análisis para el Desarrollo Working Paper*, Lima, 2002, 40-1.
21. Fatima S, Salam A. A Study of IAY and PMGSY in India: A Regression Approach. IOSR Journal of Humanities and Social Science (IOSR-JHSS),2019:24(7):16-23.
22. Ghosh M. Infrastructure and development in Rural India. Margin: The Journal of Applied Economic Research,2017:11(3):256-289.
23. Government of India. Concept Paper on Pradhan Mantri Gram Sadak Yojana-2 (PMGSY-2), 2013, 1-10.
24. Gutiérrez-i-Puigarnau E, Jos van Ommere. Labour Supply and Commuting. Journal of Urban Economics,2010:68(1):82-89.
25. Hanson S. Gender and Mobility: New Approaches for Informing Sustainability. Gender, Place and Culture,2010:17(1):5-23.
26. Itewar M, Anand U. An Impact of Pradhan Mantri Gram Sadak Yojana (PMGSY) on Non-Agricultural Labourers: an Empirical Study in Sagar District. International Journal of Humanities and Social Science Invention (IJHSSI),2019:8(02):44-49.
27. Jain. Pradhan Mantri Gram Sadak Yojana: A Path to Inclusive Growth of MP, 2013, 302-309.
28. Jain P. Pradhan Mantri Gram SadakYojana: A path to Inclusive Growth of MP. International Journal of Commerce, Business and Management,2014:13(3):302-310.
29. Kapur A. Pradhan Mantri Gram Sadak Yojana, GOI Budget Briefs 2011-12. *Accountability Initiative*,2012:*3*(8).
30. Kevin J, Walsh *et al*. Road to Effective Project Management, 2011, 1-6.
31. Khandar. Management of Construction of Road in Rural Area. International Engineering Journal for Research and Development,2015:1(5):1-4.
32. Ministry of Rural Development. Impact Assessment Study of Improved Rural Road Maintenance System under PMGSY, 2015.
33. Mishra J, Swaroop A. Review of Literature on Rural Road Improvement. International Journal of Engineering and Applied Sciences (IJEAS),2017:4(12):72-73.
34. Namdev A. Schemes for rural development launched by Government of India, 2018.
35. Parida A. Role of Rural Road Connectivity in Improving Quality of Life in Odhisa. International Journal of Innovative Research and Development,2014:3(9):67-72.
36. Sahu, Sar. Environmental Study of PMGSY Road. International Journal of Advanced Engineering Research and Studies,2013:2(2):61-62.
37. Samanta PK. Development of Rural Road Infrastructure in India. Pacific Business Review International,2015:7(11):86-93.
38. Sowmya K, Jayarama Bhat B. Performance of Pradhan Mantri Gram Sadak Yojana (PMGSY) in Rural Road Connectivity - A Study. Journal of Emerging Technologies and Innovative Research (JETIR),2021:8(7):563-569.
39. Websites:
40. www.pgmsy.nic.ac.in
41. http://www.worldbank.org.