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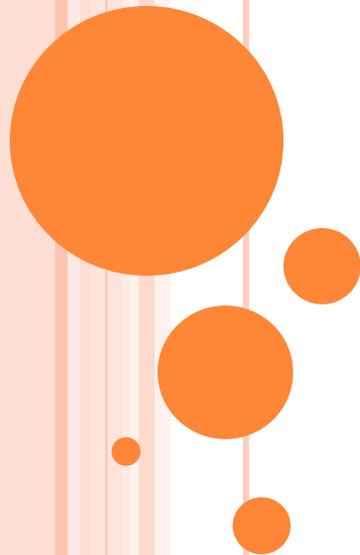
RURAL CONNECTIVITY THROUGH PMGSY IN INDIA

By

Dr. Rabindra Kumar Kar, Associate Professor, IGIT, Sarang

&

**Miss Manaswinee Kar, Research Scholar, Civil Engg.
Department, IIT, Roorkee**



INTRODUCTION

- More than 300,000 out of 825,000 habitations of India in the year 2000 remained without any all-weather road access.
- To address this issue, Government of India launched the Pradhan Mantri Gram Sadak Yojana (PMGSY) on 25th December, 2000 to provide all-weather connectivity to habitations with population of 500 and above in plain areas, 250 and above in hill states, tribal and desert areas.
- Subsequently, habitations in Left Wing Extremism (LWE) Blocks with population 100 and above were also included in the programme.



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- Consolidation of the existing Rural Road Network to improve its overall efficiency as a provider of transportation services for people, goods and services was taken up in 2013 by selecting upgradation of existing rural roads based on their economic potential and role in facilitating the growth of rural market centres and rural hubs.



STEPS INVOLVED

- Core Network
- District Rural Roads Plan (DRRP)
- Manuals, Specifications, Guidelines etc.
- Trainings
- DPRs
- Tenders
- Execution
- Online Management, Monitoring and Accounting System (OMMAS)



CORE NETWORK AND DRRP

- The first stage was preparation of Core Network and District Rural Roads Plan (DRRP). The DRRP is a compendium of the existing and proposed road network system in the district which clearly identifies the proposed roads for connecting the yet unconnected habitations to already connected habitations or all-weather roads, in an economically efficient way.
- While selecting the connectivity to the unconnected habitation by single all weather road, optimization principle was applied through Utility Value and Road Index for linkage of the selected habitation with an already connected habitation.



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- A Core Network is the network of roads that is essential to provide single all-weather road connectivity to each habitation in any district. The identification of the Core Network was done after examining the suggestions/proposals received from elected representatives, Panchayats and local beneficiaries.
- The Core Network was prepared after data was collected on all the habitations and an inventory of rural roads were prepared as per guidelines prescribed. The roads were classified as through routes and link routes providing new connectivity and upgradation of existing roads.



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- The DRRP was updated to include roads built under PMGSY and other schemes. Population data of 2001 was used for new connectivity as well as upgradation. Later, for consolidation of existing road network population data of 2011 was used in the DRRP including the Growth Centres, to help determine the candidate DRRP roads for purposes of upgradation.



MANUALS, SPECIFICATIONS & GUIDELINES

- Rural roads manual, operation manual, books of specifications and rate analysis, guidelines for design of flexible pavement and rigid pavement, expert group recommendations to achieve economy, guidelines for use of new materials and technology, rural roads safety manual, quality assurance handbooks, maintenance management plans, format for DPR preparation, standard bidding documents etc. were developed for execution and maintenance of rural roads under PMGSY.



TRAININGS

- All the personnel involved in the implementation of PMGSY were imparted proper Training before and during execution to achieve success in the program.
- Workshops and Training programs were held at regular intervals to update the PIUs and other SRRDA personnel, STAs, PTAs, SQMs, NQMs etc.



DPRs

- Detailed Project Reports (DPRs) for the candidate road based on manuals, specifications, guidelines, codal provisions etc. were prepared by the Project Implementation Unit (PIU) and submitted to the State Technical Agencies (STAs) for scrutinisation.
- STAs are the academic institutes of the concerned state appointed by the ministry of rural development on the recommendation of the concerned State Govt.
- Principal Technical Agencies (PTAs), mostly national level institutes, make a sample check of the DPRs before it goes for sanction by the Central Govt.



TENDERS & EXECUTION

- After sanction of the DPRs by the Central Govt., the concerned State Govts. invite tenders and award the work.
- Once the work is awarded, the work is executed by the contractor as per the construction program under the supervision of PIUs.
- A citizen information board, stating the details of the road, prior to construction is installed at a suitable place near the starting point of the road. The maintenance information board after completion is also installed.



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- A three tier quality monitoring is in place during execution, the first tier being the PIUs, the second tier at the level of State Quality Monitors (SQMs) and the third tier at level of National Quality Monitors (NQMs).
- Prescribed Norms for appointment of SQMs and NQMs are in place on the basis of which the concerned state appoints the SQMs and the NQMs are appointed by the Central Govt.
- There is a mandatory provision for maintenance of each road for five years by the concerned contractor after completion of the work.
- The state ensures the maintenance expenditure for each road after its completion.

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- An Online Management, Monitoring and Accounting System (OMMAS) is in force starting from the preparation of core network till the completion of the work, both physically and financially, followed by maintenance.
- The observations of the SQMs and NQMs on the work are uploaded in the OMMAS followed by action taken reports (ATRs) on their observations by the state, making everything transparent.



LESSONS LEARNT

- The planning of the network structure was not taken seriously initially. The structure of the network was not subjected to evaluation through the assessment of indices concerning accessibility, connectivity and so on.
 - Though the conceptual plans and targets had been worked out, the absence of detailed work plans resulted in a non-integrated network, with several missing links and critical bridges.
 - This invariably resulted in the loss of mobility due to discontinuities in the network and forced circuitous journeys. During the development of the roads interfaces among the hierarchical roads were not properly addressed, resulting in deficiency in the functionality and efficiency of the total network.
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ACTIONS TAKEN

- These issues during execution were later taken care of for successful implementation of PMGSY. LSBs were simultaneously taken up along with the concerned road. DRRP was updated before execution under PMGSY II.
 - During the initial stages, there was no provision for maintenance of the road assets created under PMGSY. Later, this was addressed by making mandatory provision of maintenance for five years in the DPR, after completion of the road.
 - Meri Sadak App was launched to register complaints on roads, constructed under PMGSY, by the citizens so as to enable the field staff to attend to the complaints on priority and update the status of complaint.
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PRESENT STATUS OF PMGSY

- As on 27.06.2018, 118270 roads (426403 km) providing new connectivity to 218455 habitations and 44309 roads (202626 km) under upgradation benefiting 92551 habitations at a total cost of Rs. 23,785,821 lakhs have been sanctioned under PMGSY for the 29 States and 7 Union Territories.
- Against the above sanction, 141,114 roads of 555,012 km covering both new and upgradation have been completed as on 27.06.2018. Ministry of Rural Development commissioned a series of quick assessments of socio-economic impact of PMGSY in different states and the major findings of these studies are outlined herewith.



BENEFITS & SHORTCOMINGS

- Construction of the PMGSY roads has substantially benefitted farmers. Earlier, farmers found it difficult to sell agricultural goods in bigger markets located far away from their villages. The PMGSY roads have made it easier to transport agricultural inputs to villages which have led some farmers to switch from food crops to cash crops (such as ginger, jute, sugarcane and sunflower).
- An increase in the number of families rearing goats/sheep for commercial purposes has been observed in some states. Many families have bought two wheelers after the construction of the road to be able to carry dairy products for sale to nearby towns. Improvements in the employment situation in terms of more job opportunities, avenues for self-employment, and so on have been observed.

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- On-farm employment opportunities also increased due to shift from grains to cash crops and also multiple cropping.
- More people are going to nearby towns and villages for odd jobs like selling woods, vegetables, dairy products and locally made items like pickles, papad and so on due to expansion of local industries, which in turn has generated employment opportunities.
- Pottery and brick making industry, cottage industries, handloom industries and agro industry have also benefitted from road connectivity.



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- There has been an overall improvement in access to health facilities like PHCs, sub-centres, and district hospitals in the states. Positive impact was observed on accessibility to preventive and curative health care facilities; better management of infectious diseases, and attending to emergencies and increase in frequency of visits by health workers.
- Improvement in antenatal and post-natal care was observed by beneficiaries, thereby decreasing obstetrics emergencies. Road connectivity enabled families to opt for institutional deliveries in hospitals outside the village leading to decrease in infant and child mortality.

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- There has been an improvement in the accessibility to education facilities. This has resulted in increased school enrolment and school attendance in all the states, especially, in the number of girls going to schools.
- Moreover, regular attendance of the teachers throughout the year is observed and greater willingness is evident among parents to send boys and girls for higher studies and college education outside their villages.
- The road connectivity has increased the frequency of visits by government officials and grass root level functionaries like health workers/Auxilliary Nurse and Midwives (ANMs), Village Level Workers (VLWs) and Village Anganwadi Worker (VAWs).



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- There has been an improvement in accessibility to banks, the Post and Telegraph offices, and quicker access to the police. PMGSY roads have made it easier for the beneficiaries to cope with the difficult terrain. There has been an increase in ownership of bicycles and two wheelers especially in hill states.
- Also, there has been an improvement in the public as well as the private transport systems in all the states. An immediate and direct impact of providing rural road connectivity was observed in the quality of life as cooking gas became available in villages.
- The connectivity led to sudden escalation of prices of land adjacent to the PMGSY roads.



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- With the improvement in on-farm and non-farm employment opportunities, beneficiaries in all the states reported increase in their average household income, thus, reduction in poverty.
- In spite of all the advantages mentioned above, an in depth analysis is needed to serve all the stake holders with equal weightage.
- Performance studies of PMGSY roads with the use of new materials/technology are also needed to compare with conventional materials/technology.



CONCLUSIONS

- Pradhan Mantri Gram Sadak Yojana (PMGSY) is one of the most successful programme launched by Govt. of India in 2000 with introduction of new concepts of Principal Technical Agency (PTA), State Technical Agency (STA), National Quality Monitor (NQM), State Quality Monitor (SQM), Vertical Tenders, five years guarantee after completion of road, Online Management, Monitoring and Accounting System (OMMAS) and so on.
- A huge investment is made in this programme to create road assets for rural connectivity and poverty reduction strategy.
- The core network and DRRP prepared before PMGSY I are updated as per actual field conditions and completed before implementation of PMGSY II so as to account for the deficiencies.
- The investment made in PMGSY will be worthy enough only when steps are taken for preservation of the road assets created.
- The Central Govt. and State Govts. are to share the responsibility of preparing a database of these assets. At the same time, they should also share the responsibility of maintenance of these assets to achieve the goals of PMGSY for years to come.

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THANKS

