“Performance Evaluation Of Pradhan Mantri Gram Sadak Yojana In Marathwada Region.”

7
Conclusions and Suggestions

“Mahatma Gandhiji’s dream of a prosperous rural India and the pledges given by successive leaders can be realized only if transport and communications are improved. Other physical and social infrastructure would follow automatically, paving the way for business and industry to thrive. With devolution of powers to zillas, taluks and villages, conditions may improve in the next few years”

• Summary.
• Conclusions.
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**Summary:**

After Sixty years of Independence, India has made tremendous progress with respect to its transport system. The accelerated growth rate in the economy has helped the nation to bridge distance. The architect of the change is the development of thousands of km of world class roads, dedicated freight corridors and improvement in rural roads. Immediately after Independence; India did not have the luxury of well networked roadways. The British had left behind only 4 lakh km of roads that linked major cities and the rural heartland. So the government then formulated a two pronged strategy-improve connectivity and provide infrastructure that stimulated economic growth. Unfortunately resources were meager and the government was finding it difficult to sustain progress. As a result the quality of roads was poor and would often deteriorate after the monsoons. The establishment of the National Highways Authority of India in 1988 dramatically changed the future of roadways in India. The NHAI brought about standardization in terms of quality and management became more efficient.
Rural roads have been constructed under various rural road development programmes, which are mainly conceived for employment generation and poverty alleviation. In such programmes serious efforts were not made to build sustainable all-weather roads. Roads were never considered to be engineering structures and these not designed to the required specifications. The roads built under these programmes, without back-up system or facility to sustain them with engineering inputs for repair and maintenance, have disappeared in no time. Many of the technical aspects of road making i.e. adequate compaction of sub-grade, roadside drainage, required cross drainage etc. were seldom given due importance in rural road construction. Development of rural roads is essential for bringing agricultural products to mundies for their marketing. Crores of rural people have to go to cities and mundies daily for seeking employment and purchasing essential commodities. Thus rural roads have special significance in Indian economy.

On the recommendations of the National Rural Road Development Committee, Government of India has undertaken a dedicated programme known as ‘Pradhan Mantra Gram Sadak
Yojana on the 25th December 2000 to provide rural connectivity to all habitations under the Ministry of Rural Development. The primary objective of PMGSY has been to provide ‘last mile connectivity’ to all eligible unconnected habitations; it also includes an up-gradation component in order to ensure ‘farm to market connectivity’. It is pertinent to mention that the rural road component of the Bharat Nirman programme is actually embedded in the PMGSY with the target for the connectivity to habitations with 1000 or more population. Bharat Nirman envisages a massive scaling up of the programme in terms of habitation connectivity coverage, construction targets and financial investment. It targeted to provide connectivity to all habitations having population of 1000 and above (500 and above in hilly, desert and tribal areas) by 2009 and also aimed to upgrade the existing rural roads for overall network development, which is a more objective approach. Rural roads have been proved to be catalytic for economic development and poverty alleviation in rural areas; this objective should be pursued further with more vigor. In future, the target should be to connect all habitations with all-weather rural roads instead of fair weather roads which were done earlier.
In spite of launching of a number of rural development programmes on massive scales by Government of India since 1952, the proportion of people below the poverty line does not seem to have improved significantly. ‘Pradhan Mantri Gram Sadak Yojana’ is one of the biggest programs of the poverty alleviation package, which is in program lies in poverty identifying beneficiaries and providing employment and income for them. Seven faces of the scheme were to be completed. Actually tenth plan period is over and it is necessary to made evaluation and performance of the scheme. Crores of Rupees provided by Central Government for the scheme from its inception. So it is the need of time to find out proper utilization of the funds is to be done or not. This study will take an overview of the scheme and its useful ness for the purpose of rural development. It is with this point of view that this study has been undertaken.

The study covers the financial and physical progress of PMGSY in the district of Marathwada region. It is revealed that during the study period Rs. 965.91 crores projects are cleared, out of this investments 1,369 roads construction works (5,016 KM.) are completed and 1,686 habitations are connected to state or district
highways. As far as district comparison in concerned highest amount invested in Jalna district (Rs. 162.50 crores) while lowest amount (Rs. 83.62 crores) is cleared in Hingoli district. Out of the amount cleared in this projects the work completed data showing different result that highest in the Beed district i.e. 836.08 KM (16.67 %) road construction works are completed and lowest work completed in Osmanabad district i.e. 467.26 KM (9.31 %).

A total of 400 respondents living in habitations in and around the 16 PMGSY roads were interviewed as part of the beneficiary feedback survey at the rate of 25 respondents per road. The respondents were chosen from 16 villages distributed across 8 districts, two each from the district of Marathwada. The respondents were selected on a first contact- first interview basis and the sample, therefore, does not reflect demographic trends of the general population. 373 (93.25%) respondents were male and 27 (6.75%) were female. In terms of occupational background they were agriculturist, agricultural labour, Traders, Serviceman, Housewife, etc.
Villagers expressed their strong feeling that PMGSY scheme has done good and also improved their socio-economic life. Central Government funds were released in time and the state government also completed the road works in time. It was observed that they have followed the guidelines of PMGSY. The Panchayat Raj bodies were of the view that giving works to contractors is a very good thing, as they could complete the works in time. If the same work has been executed through the department, time and the cost overruns would be much more. It was observed that due to better road connectivity, transport access and market access are also improved in rural Marathwada region.

- **Conclusions:**

*Following conclusions were drawn from the study:*

- As regards the physical performance at district level, some of the districts (Aurangabad, Jalna, Nanded, Beed and Latur) have recorded satisfying performance whereas others (Osmanabad, Parbhani and Hingoli) have shown a rather dismal performance as compared to that of its State.
• Total 9,086 habitations are benefited in Marathwada up to the year 2007. Nanded District records highest numbers i.e. 1,819 habitations while 657 habitations in Hingoli district are connected by PMGSY road. Out of total habitations 46.78 per cent habitations are more than 1,000 populations, 29.88 per cent habitation are from 500-999 population group, 13.69 per cent habitations are 250-499 population and 9.65 per cent habitation are up to 250 population. *(Table No. 5.02)*

• Out of the total sample respondents 143 (35.75 %) respondents are using PMGSY road from last three year, 111 (27.75 %) respondents are using the road since last two years, 19.50 per cent respondents using the road from last four years, 37 respondents using the PMGSY road from one year and 31 (7.75 %) respondents are using the road from last more than five years. *(Table No. 5.08)*

• Out of total respondents 362 (90.50 %) respondents are told that they had seen PMGSY board on the road while 9.50 respondents are not seen or aware about the PMGSY information board. *(Table No. 5.09)*
- It is observed that the highest number of respondents i.e. 109 (27.25 %) are leaving within 0.5-1 km from PMGSY road followed by 105 (26.25 %) respondents are leaving within the 0-1 km. area, the distance of 79 (19.75 %) respondents home from PMGSY road is 1-2 km., and 61 (15.25 %) and 46 (11.50%) respondents just walk 2-3 km. for connected to the PMGSY road constructed near the village. (Table No. 5.10)

- Out of the total respondents selected for the study 317 (79.25 %) respondents told that the PMGSY road construction is benefited them (Household) whereas 56 (14 %) respondents give negative answer.

- Out of the total respondents 234 (58.50 %) respondents are using the road daily, 84 (21 %) respondents are using it alternate day, 52 (13 %) respondents are using the road once in a week, while 30 respondents (7.50 %) are using the road rarely. (Table No. 5.13)

- 321 (80.25 %) respondents opined that the PMGSY road is very useful factor for the village development, whereas 51 (12.75 %) respondents are not agreed. (Table No. 5.15.)
Rural connectivity is the key component for village and agricultural development. The researcher formulates a hypothesis for the study that ‘**PMGSY is the useful program for the rural and agricultural development**’. The data shows in Table No. 5.15 and Graph No. 5.09 that 80.25 per cent respondents told that PMGSY is very useful for overall village development and 63 per cent of the total respondents are expressed (**Table No. 5.16**) that the PMGSY road is very much useful for agricultural development. On the basis of the finding the study concludes that the PMGSY road is very useful for agricultural and rural development in the Marathwada region hence **the hypothesis selected for the study is accepted**.

- 311 (77.75%) respondents from the study area think that the village development process started from the construction of PMGSY road whereas 14.75 per cent respondent reported negatively. 30 respondents are not opined about this. (**Table No. 5.17**) 

- Out of the 400 respondents selected, highest number of respondents i.e. 127 (31.75%) are ranked “**Good**” quality of
PMGSY road construction, 106 respondents (26.50 %) are ranked “Better” quality, 86 (21.50 %) respondents are given the “Best” quality while as per the opinion of 81 (20.25 %) respondents the quality of PMGSY road is “Bad”. Near about (31.75+26.50+21.50= 79.75%) 80 per cent respondents are rated “Good” quality and 20 per cent respondents are rated “bad” quality. On the basis of finding the study concludes that the road construction under PMGSY in Marathwada is rated as good quality. The hypothesis selected by the researcher that “The quality of roads constructed in PMGSY has generally good rated” is accepted. (Table No. 5.18)

- All (400) respondents told that no any PMGSY road having divider, 50 respondents told that there are side walls constructed outside of the road and bridges, 245 respondents reported that there are road signs available on the road, 298 respondents told that side shoulders are completed, 274 respondents are told that drainage is completed and it is in the good condition, Only 52 respondents are told that there are streetlight available on the road. (Table No. 5.19)
A maximum respondent (87 %) which is selected for study are reported that they faced problems of restriction of movement to the nearest road as the main problem (Ranked First). Another major problem faced by 74 per cent respondents while the ongoing road construction is -Disruption of essential services (Ranked Two), Dust, Noise and Smoke (Ranked Third, Fourth and Fifth) (Table No. 5.21)

87 per cent respondents told that bad road surface seen on the road after some years of construction. 74 per cent respondents ranked second to bad patches and cracks on the road. 69 per cent respondents told that the road are suffered by flooding during normal rains. 57 per cent respondents are expressed that the road is good quality but side drains are not available on the road and due to this problems they suffered in rainy season. 41 per cent respondents think that low quality material used for the road construction. (Table No. 5.22)

83.50 per cent of the respondents perceived that PMGSY roads would be safe to travel while about 16.50 per cent respondents reported that the road is not safe for travelling and transportation. (Table No. 5.23)
321 (80.25%) respondents told that no accidents problems are suffered on the PMGSY road while 19.75 per cent respondents are faced the problems related with the accidents on the road due to non-availability of sigs board, bad patches on the road, etc. (Table No. 5.24)

Out of the total respondents selected for the study 227 (56.75%) respondents told that they are not lodged any complain about the PMGSY road to any authority while 173 (43.25%) respondents complained about the road with the Gram Panchayat. (Table No. 5.25)

After the construction of PMGSY roads, an improvement in the employment situation in terms of more job opportunities, avenues for self-employment were observed. On-farm employment opportunities also increased due to shift from grains to cash crops and also multiple cropping in the Marathwada region. More people are going to nearby towns and villages for 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. Respondents reported that the
pottery and brick making industry has benefited from the PMGSY roads. Cottage industries and agro industry is also benefitted from rural road connectivity. 317 (79.25 %) respondents told that due to PMGSY road in villages; there are number of opportunities for employment and self-employment are available, while 83 (20.75 %) respondents rejected that any opportunity available due to the construction of PMGSY road. The hypothesis fixed by researcher for the study that the **PMGSY provide employment opportunities to number of rural people.** More than 79 per cent of the respondents (317 out of 400) agree with the hypothesis formulated for the study. On the basis of Table No. 5.26 the study concludes that the PMGSY road is most useful for employment opportunity providing in the villages. *(Table No. 5.26)*

- The *Zilla Parishad* had received allocation of funds very much in time. There was no shortage of engineering staff and the quarries are very near. Hence there was no delay in executing the works. Sufficient engineering staffs are available for monitoring the works at the village level.
Market access has improved considerably due to road network in Marathwada region. Due to better road connectivity, people are not migrating from the villages to the town.

Involving Panchayati Raj bodies for monitoring the rural works is a good idea. When the quality of road works suffered, local people had raised objections and immediate corrective measures were taken by the department. Thus, involvement of Panchayats for monitoring the implementation of the programmes will be a good idea.

PMGSY has been converted into a contractor driven programme in the states. The advantages envisaged under ‘large package system' in tendering works contract only to big contractors led to political corruption. Further, sub-contracting of works by big contractors is in common place. The latter became less accountable to the authorities at the bottom line who are involved in supervision and monitoring of road works.

A non-farm opportunity like opening of shops, small business, and cottage industries has increased. Besides, road connectivity has led to expansion of local industries, which in turn generated employment opportunities. However, the nature of employment
opportunities generated in the post road phase varied from district to district.

- The spin off benefit of PMGSY roads has been on the income level of the habitants benefiting from these roads. The roads, directly or indirectly have provided opportunities for on-farm and off-farm employments as well as self-employment.

- Significant relationship is visible between road infrastructure development and increase in employment opportunities in various sectors.

- Increased cultivated land and multiple crops have significantly improved the employment scenario in the villages.

- In other sectors like rural and agro industries, Government funded schemes and self-employment in terms of setting up of small enterprises also increased job opportunities.

- Due to diversification of agriculture into vegetable growing or horticulture activities the employment of on-farm activities has increase.
- Change in the pattern of employment in terms of increase in opportunities outside the villages due to greater mobility, easy access to transportation, reduction in time and cost of travel.

- Many cottage-based industries like juice making, pickle making, cottage shops, Dhabas have started in the village.

- One major impact is seen on dairy business as most of the villagers are now involved in it.

- With ample employment opportunities among the rural household income has definitely taken an upward swing.

- Rural employment opportunities also increased owing to better transportation facilities. Wages increased as a result of extra man-hours available owing to faster movement.

- An improvement in wage rate of labourer was observed as they could travel to the main areas for work where there were high wage rates per day.

- There is no perceptible impact on employment; only during road construction period some additional employment was generated. However, increase in employment opportunity outside villages has increased because of accessibility and
connectivity. People have reported that they find it easier to travel seeking work and there is greater job continuity.

- Up gradation and construction of the roads have been beneficial for petty traders and shopkeepers. The PMGSY roads have generated income opportunities for villagers who have put up a number of stalls and shops on the side of the road. Cultivators also have found an opportunity for selling vegetables and fruits on the side of the road.

- More people are now going to nearby towns and other villages for jobs as well as selling woods, vegetables, and locally made items.

- A few relatively better off villagers have started repair shops, small grocery shops etc. and in the process additional employment opportunities have come up.

- The study advocates that the present pace of road infrastructure development is inadequate in Marathwada region is affecting the trade and agriculture growth in the region.

- It was found to be effective in connecting villages with road access leading to improved ‘rural-urban linkages’. The villagers cross the river to reach markets and local trading centers in
order to purchase and sell food and other household items. This better access has opened up the door for agriculture production increases. The users have been able to grow vegetables and other crops and sell it to market in the larger volumes.

- In the villages the cycle has a multipurpose use and is helping the villagers in carrying their goods to the market and bringing it back, Number of villagers was purchases cycles during the study period, hence saving lots of time and energy.

- Time saving is an important benefit due to PMGSY road constructed in or near the village. The villagers have been utilizing saved time in other productive activities. Transport facilities have opened up new opportunities. In Hingoli district the villagers were able to bring an electricity facility in the village. Likewise, a women literacy programme also came to the village.

- Increase in agricultural production due to road facility, increase in fertilizer consumption, increase in non-agricultural activities, and better utilization of existing facilities like, school, health, banks and post offices showed that the villages located on the
main road are comparatively well developed than those away from the road.

- It is found to be very useful in transporting patients to the nearest health centers in time for treatment. They were the most efficient mode of transport for the locals as they could reach hospitals faster in emergency cases (*especially in case of pregnancy, snake bites, etc.*) with minimal charges, thus saving many lives. They were also found to have aided community health workers in reaching both patients and health services. In this way the PMGSY road have contributed to reduced maternal and infant mortality.

- It is observed in some cases that road works are sometimes held up because at the time of preparation of ‘District Road Proposals’, either actual availability of land is not investigated or local panchayat is not taken into confidence about the proposed alignment, which results in disputes subsequently. It is suggested that all the districts may hold informal consultations with Panchayati Raj Institutions to sort out issues of land availability and environmental impact well in advance.
• It has been observed that roads in rainy seasons were blocked by huge quantity of water at the slope provided in the roads for the passage of water. A small bridge is required to be built to avoid the blockage.

• **Suggestions:**

  *The following suggestions are made for rural development, better implementation and use of PMGSY road:*

  • It was observed that number of PMGSY roads was damaged and needed repair on an urgent basis. Respondents complained that the quality material is not used for the construction of PMGSY road. It is suggested that the quality material will be used for construction of PMGSY road.

  • Transportation hub created at rural places for the overall development of rural economy.

  • Pilot projects may be taken up in special backward district where the settlement are located in geographically wide spread area using the functional accessibility based on network
planning for selection of optimal links during the 11th Plan period.

- Intra-village roads should be given priority in PMGSY programme, starting with the priority to the villages having more than 1000 population.

- Low cost material and industrial waste may be promoted for rural road construction; necessary design and specifications will be developed.

- The standard construction technology should be used for ensuring quality of construction; however, wherever possible labour based construction methods also may be adopted.

- Many lower cost technologies like soil stabilization are not used often due to lack of appropriate mechanical devices; such shortcomings must be removed by appropriate developments for machineries.

- Projection of maintenance option can be examined with appropriate cost sharing basis by the State and Central Governments for PMGSY roads.
- Uniform level of service criteria for maintenance be developed and adopted across the country. Suitable computerized maintenance management system utilizing simple measurements will be adopted for rural roads.

- Since the roads are to be owned by the PRIs, a community based maintenance programme may be adopted with hierarchical arrangement with District for higher level maintenance while routine maintenance being the responsibility of PRIs.

- Scientifically based pavement maintenance management system suitable for sustainability of rural roads should be evolved based on the principles of road asset management.

- All programmes supporting construction of rural roads for all-weather connectivity must fall under one umbrella organization like ‘MSRRDA’, irrespective of funding source including the external source or borrowing or even Public Private Partnership.

- The existing cluster approach should be reviewed on the basis of ground level survey of the settlement patterns in States and consequential amendments should be made in the programme
guidelines, so that larger number of habitations becomes eligible for coverage in hill area.

- It is recommended that the State may use the resources from ‘Wage Employment Programme’ and other available sources from the State for providing connectivity to the lower order settlements.

- The planning and design standards shall remain uniform across the board and across the nation for developing only sustainable assets subject to variations in terrain, soil, traffic and environmental conditions.

- While PMGSY contemplates connectivity to habitations with 500 and above normally and 250 and above in special areas, in future connectivity should be aimed at all habitations irrespective of population sizes.

- PMGSY has been able to change the scenario in the country in terms of capacity of contracting industry, trained manpower and also the availability of modern equipments. The future Plans must utilize this capacity and enhance it for achieving higher targets of the subsequent Plans.
• Durable assets can be created by ensuring quality; this has been the prime objective of PMGSY. Very high standard of quality has been set up by this programme, which must be maintained.

• The three-tier quality control system adopted by PMGSY needs further strengthening for enhancing the capacity to meet the higher targets.

• Both in construction and quality control, modern technology should be introduced for better results.

• To achieve total quality management in rural road works the thrust of the States should start from the preparation of DPR itself.

• A method of citizens’ audit should be adopted to provide more transparency in the design and construction stages; while the planning already takes care of this aspect through their participation in various ways.

• In all developments of rural roads the environmental issues must be safeguarded. Speedy construction to be ensured by participation of authority responsible for environmental clearances.
- Afforestation along the rural roads by plantations of fruit trees etc. is systematically adopted as part of the design itself. Also for sustainability, the ownership of such plantations is transferred to the roadside land owner or the Village Panchayat.

- Impact of land acquisition, especially for the marginal farmers of specific states will be duly considered at the time of project development. The State Government may be required to compensate the affected person/family for the same in lieu of community objectives of the road.

- Social impacts of PMGSY programme both positive and negative will be duly accounted in project preparation.

- PMGSY has achieved a laudable level of institutional developments during the last five years. State and district level institutions developed are to be made more professional by way of qualified manpower and training.

- The ownership of the rural roads will rest with the PRI eventually, and therefore, capacity is to be built at the grass root level by qualified manpower and other training.
- Construction industry is having only a limited capacity at this time, and the PMGSY targets are finding difficult to be achieved. The targets will require a significant boost to the capacity of road construction industry.

- The sustainability of the huge asset being built under rural connectivity programmes will be dependent on the capacity of the PRIs to look after these assets which they will own. With ownership, the responsibility of their maintenance also can be given to PRI. For this, a systematic training will have to be organized for the teams to be entrusted with the responsibility.

- Research & Development is an integral part of any development activity. Although rural roads were built for last 50 years in this country, its construction as engineering structure has just began. Therefore, huge amount of research is required for these low volume roads, which must attempt for low cost construction while ensuring quality.

- Most significant areas to be researched are the means of cost cutting by choice of materials and design, and also evolving the innovative financing mechanisms for such roads. Special budget be provided in the future Plans for field trials of R&D results.
- Economy in design and specification to be pursued through performance based designs and use of locally available and marginal materials.
- Providing rural network with all weather roads throughout the Marathwada region require huge resources. Adoption of appropriate and cost effective technology using local materials, machinery and other resources is, therefore, essential. Research and development activities in the area of development of cost effective technologies have to be pursued vigorously.
- Ensuring road infrastructure development for sustained economic development with a special attention to integrating backward regions into the economic mainstream.
- Maintenance of roads to be given priority with increased emphasis on maintenance standards, so as to reduce need for frequent reconstruction.
- Association of private sector in development of road infrastructure and in provision of public transport services.
- Encourage higher capacity and better technology vehicles for movement of both passengers and goods, so that development
of road transport operations keeps pace with development of high quality roads.

- Adopt a multi-disciplinary approach covering engineering, education and enforcement of regulatory provision to reduce the increasing number of road accidents.

- Promote sustainable transport system with increased emphasis on safety, energy efficiency, environment conservation and positive social impact.

- To increase the road mileage, improve its quality, and convert a large proportion of un-surfaced roads into surfaced roads. This aim can be achieved only by allocating much larger funds.

- Side drains need to be taken care of in respect of new rural roads. Planting of trees on the banks of PMGSY roads is a neglected area. This aspect should be monitored at higher level.

- Acquisition of the land and convincing the people to sacrifice the land for road construction should be planned in advance so as to avoid delays in execution of road works.

- The Zilla Parishad played an important role in preparation of the road plan in Maharashtra. However, the other layers of panchayat are given very little importance except in an advisory
capacity. There are specific roles for PR bodies at various levels as per PMGSY guidelines. This should be followed to facilitate effective monitoring and quality assurance of road works.

- Community participation and involvement of private sector should be encouraged in road works for effective monitoring and quality up-gradation.

- In order to speed up road construction works, the PWD should be given due share of works under PMGSY as it has got necessary experience in this line of work.

- A good monitoring system to assess the progress of road works should be in place. This could be accomplished by enlisting cooperation of the villagers as well as panchayat members.

- There exists a mismatch in road connectivity and road quality in the rural areas. This gap needs to be bridged so as to ensure good connectivity and also to reduce the burden of maintenance cost on roads.

- Some of the districts may have adverse climatic conditions that cannot be the sole reason for poor performance. Some of the constraints could be - limited working season, delay in statutory clearance from forest department, non-availability of required
land, limitations of qualified manpower and contractors, over and above non-availability of dedicated personnel for the programme with streamlined institutional arrangements. States may have to look into the issues, examine critically and come out with mitigation measures to achieve the targets, as planned.

- Population size and road length of a region are positively correlated. However, the proportion of roads in total road length shows negative correlation. This implies that increase in road length may result in decrease in the quality of roads constructed. In other words, resources for road works seem to get allocated uniformly while quality suffers in this process. This aspect should receive special attention from road planners so that quality and reach receive equal importance.

- In accordance with the PMGSY Guidelines, the States will provide adequate and timely funding for proper maintenance of the PMGSY roads. Any increases in the actual amounts to be provided will be met by the respective State through additional budget allocations, or other alternative sources of financing.

- The availability of allocations for achieving the targets is considered to be inadequate. For augmenting the availability of
funds for rural roads, some States are adopting the practice of levy of market fee on agriculture produce. Central Government may consider the desirability of allocating additional funds for maintenance of the roads as some of the States lack adequate resources to take care of the roads constructed under the programme.

- It is suggested that in order to ensure timely availability of land for providing new rural roads connectivity to unconnected habitations, suitable cash compensation package may be evolved under PMGSY, which would hasten the implementation process, and thereby many deserving habitations would get connectivity.

- It is suggested that process of identification of unconnected habitations, with population norms as prescribed under PMGSY, must be completed speedily so that all unconnected habitations in the country could be connected with the all-weather surfaced roads.

- In Maharashtra State that the time limits of nine months for completing the rural road projects is not adequate. The States
plead for enhancement of prescribed time limit from nine months to one year due to onslaught of monsoon.

- Deficient tendering system and lack of contractor capacity are also cited as major reasons for delay in completion of works. It is felt that the centralization of tendering process would ultimately result in reduction in time taken for execution of road works as contractors with proven ability, record of efficiency and adequate working capacity at rather competitive costs will be quoting.

- Blockage of roads by rain water, low elevation, connectivity via circulars route, connectivity not provided to important places by PMGSY roads, inferior quality roads though certified to be good, are some of the shortfalls come across during the field visit, in the execution of the programme. All these problems would not have occurred had there been proper preparation of project report. It is suggested that adequate care may be taken by executing agencies in giving approval to project proposals so that such problems do not occur in future.

- Construction of side drain and planting of trees on the road side under PMGSY have not received due attention. Efforts should
be made to translate these aspects at the ground level so that project sustainability is ensured.

- There are multiple agencies for implementing the rural road projects in the States, which creates problems in coordination, supervision and monitoring. This needs to be streamlined for improving the overall efficiency so that not only targets are achieved but also the likely cost over runs is avoided besides ensuring better coordination, supervision and monitoring.

- Staff at grass root level, particularly at Junior Engineer level, is considered to be inadequate. Besides the road projects under PMGSY, they have a number of other projects to handle simultaneously. It is suggested that in order to get the entire rural road connectivity completed in time, the staff for PMGSY should not be given any other project.

- It has been brought to the notice of the field works that contractors do not engage the local labour. This results in contraction of limited employment opportunities, likely to be generated for the local rural population. It is suggested that local population should get preference in recruitment to all
short term jobs likely to be generated in and around of a particular rural habitation.

- The cost effective technology for the construction of rural roads must be used so that within the fixed allocations, it is possible to construct additional number of roads.

- The roads constructed under PMGSY follows the set standards for designing of rural roads; it is also recommended that adoption of uniform design standards for all rural roads irrespective of the source of funding.

- The local materials which are cheaper and involve minimum haulage should be used to maximum extent feasible. There is a need to reduce the consumption of construction materials of high quality and initiative be taken to use of locally available materials which can satisfy the design requirement of rural roads.

- Rural roads are to be considered as engineering assets, they are required to be properly designed and constructed with high quality. This can be achieved only if proper use of high end equipment for bulk construction of road works.
- Road construction and maintenance using labour-based technology promises to be a good avenue for creating employment potential while building productive assets.
- There is a need to encourage reverse migration to rural areas through proper development of rural infrastructure and basic amenities by creation of income generation avenues, improving the quality of life, etc.