

Rural Road Connectivity in India

The 12th Five Year Plan (2012-17) identifies rural connectivity as one of the key priorities to achieve rural poverty alleviation and development. With over 68.8% of the Indian population living in rural areas, rural roads demand attention, not just to achieve intended targets of new road construction but also towards a more sustained connectivity of these roads. In this regard, structuring, prioritizing and consolidating the overall road connectivity, under the PMGSY scheme is an important step towards efficient rural road connectivity.

Context

Rural roads are integral to linking rural communities/habitations to health services, education, employment and markets, leading to better livelihood and improving economic conditions. Lack of basic all weather road connectivity has deprived the rural population of job opportunities, market centres and basic living conditions, thus undermining the overall rural development agenda. Despite significant investments by the government in rural roads over the last decade and half, rural road connectivity remains inadequate.

Pradhan Mantri Gram Sadak Yojana

With this effort towards poverty alleviation through agricultural growth and socio-economic improvement in rural areas, the Government of India launched the Pradhan Mantri Gram Sadak Yojana (PMGSY) on 25th December, 2000. PMGSY is a fully funded Centrally Sponsored Scheme under the Ministry of Rural Development (MoRD) which to **provide all weather road connectivity in rural areas of the country**. The programme will connect all 'eligible' unconnected habitations that have:

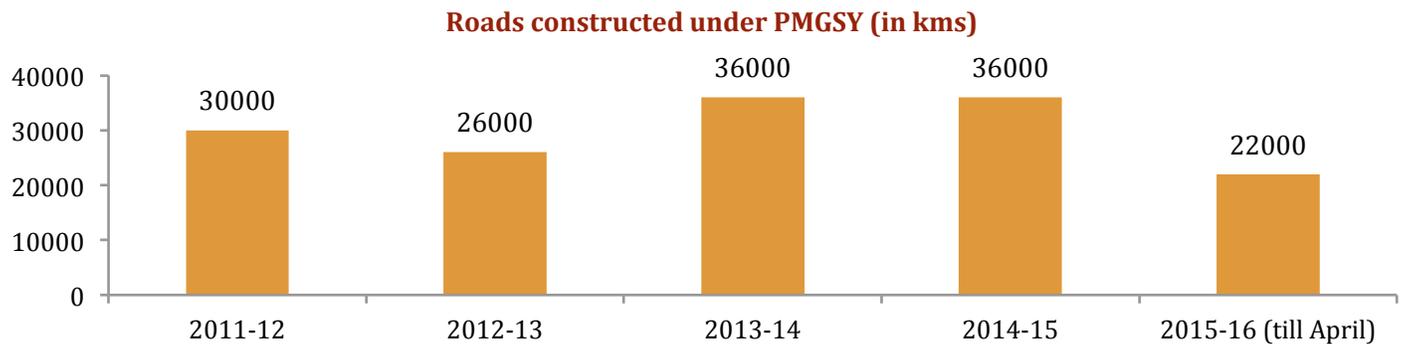
- A population of 500 people and above in plain areas
- A population of 250 people and above in special category states, Schedule V Tribal Areas , Desert areas (as identified under Desert Development Programme) and in selected Tribal and Backward Districts (as identified by the Ministry of Home Affairs)
- A population 100 and above in IAP blocks (as identified by the Ministry of Home affairs)

PMGSY provides '**new connectivity**' which refers to provision of connectivity to unconnected habitations, either by 'new construction' (cases in which any link to habitation is missing) or by '**up-gradation**', where an intermediate link, even though present, cannot be used as an all weather road. The total road length completed under the PMGSY (until Feb 2016) is **4,59,145 kms** and the total habitations benefitted are **2,03,363** in number. The programme now aims to connect the remaining 65,000 eligible habitations through 2.23 lakh kms of road by 2019.

The budgetary component of PMGSY is funded by Government of India through Central Road Fund (CRF) while the EAP component receives funding support from multilateral agencies like Asian Development Bank and World Bank for some states. As per the standing committee report (2015-16), allocation of funds towards this scheme was

reduced to less than 50% of the budgetary allocations, at the revised estimates stage particularly in years 2012-13 and 2013-14.

This led to huge reduction in state allocations under PMGSY resulting in large pending construction/up gradation of rural roads under the scheme. However, there has been a very significant increase, **more 200%** in the current budget allocation (FY 2016-17) towards the PMGSY scheme. A total of **Rs 13, 995 crore** (excluding EAP funding) has been allocated to this scheme as against Rs 3,058 crore in revised estimates for FY 2015-16.



Source: PMGSY Citizen Portal

Despite the scheme being operational since 2000, and progressively amended from time to time, there are several factors that remain a challenge for maximizing output and efficiency of the scheme:

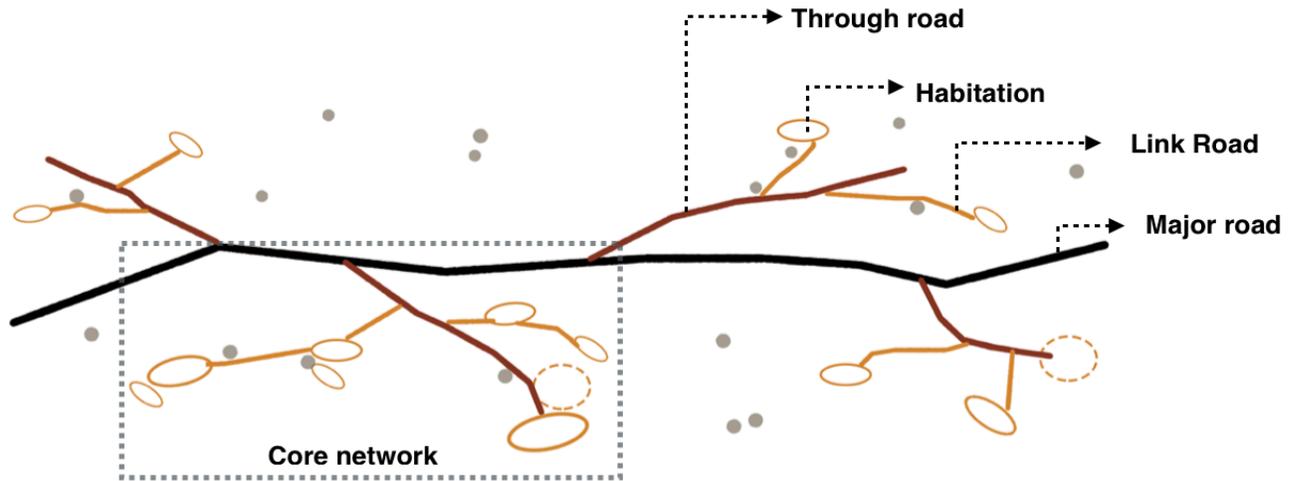
- Inefficiency in planning and preparations of DPRs
- Poor quality of road construction and maintenance
- Inconsistent maintenance

Prioritizing the Connectivity for Effective Planning and Execution

The concept of '**Core Network**' has been put to operation, defined as the minimal network of routes (roads) that are essential to provide basic access to the socio-economic needs and services to the eligible unconnected habitations of rural India. The core networks are instrumental in prioritizing the construction and allocation of funds for maintenance, and are decided based on:

- Population of the habitations
- Suggestions of the MPs and MLAs
- Incidental connections the network may potentially provide to other habitations

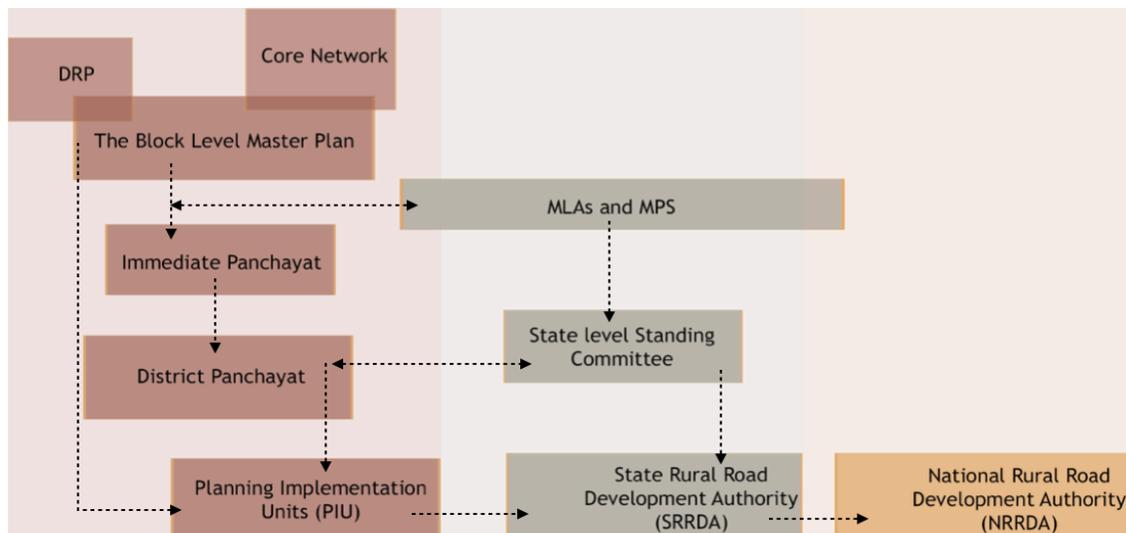
The core network comprises of '**Through Routes**' and '**Link Routes**'. Link Routes are the roads connecting a single or a group of habitations to the Through routes or District roads leading to market centres. Through Routes are primary traffic collectors, which collect traffic from various link roads or series of habitations connecting to the market centers directly or indirectly via district roads or state or national highways.



District Rural Roads Plan (DRP) and Core Network is central to the planning exercises under PMGSY. The DRP indicates the overall existing road network system of the district indicating the potential roads that are to be developed or provided for, connecting the unconnected habitations based on economics and efficiency.

The core network further identifies the potential roads that ensure all weather road connectivity for each eligible habitation. Thus, the core network consists of some existing roads along with some new roads proposed for construction. **The only exception in the mentioned criteria of prioritization for new connectivity, irrespective of the population size, is for those routes of the 'core network', which comprises of Village Panchayat Headquarters or market centres or other educational/medical services or are of touristic relevance as notified by the state.** Furthermore, a GIS- based application is proposed which will further track the benefits of the Core Network.

Towards a more transparent and efficient execution



The execution of the programme happens at three levels, District level, State level and Central level with nodal department set at each level with distinct roles.



Once the core network is identified, estimate of the road length for new construction/ up gradation is determined for each district by the Project Implementation Units (PIUs), typically the District Road Development Authority (DRDA). The DPRs are prepared by the PIUs in accordance to the rural road manual in consultation with the Gram Panchayat and local community members by the help of informal '**transect walks**'. These walks involve determination of most suitable road alignments, addressing issues of land availability and social impact. **State's allocation among districts is 80% based on road length required for connecting unconnected eligible habitations and 20% based on the road length that require up gradation.**

Towards A More Sustained Road Network

The Government of India launched **PMGSY-II**, which envisages consolidation of the existing rural road (through routes and major rural links) network to improve the overall efficiency in terms of transportation services for people, goods and services. In addition, it also covers upgradation of existing selected rural roads, based on economic potential and their role in facilitating the growth of rural market center and rural hubs. As of 2015, upgradation of 11,234 kms roads has been sanctioned as against a target of 50,000 km for 12th five-year plan. (*Lok Sabha Question 2866, 06.08.2015*).

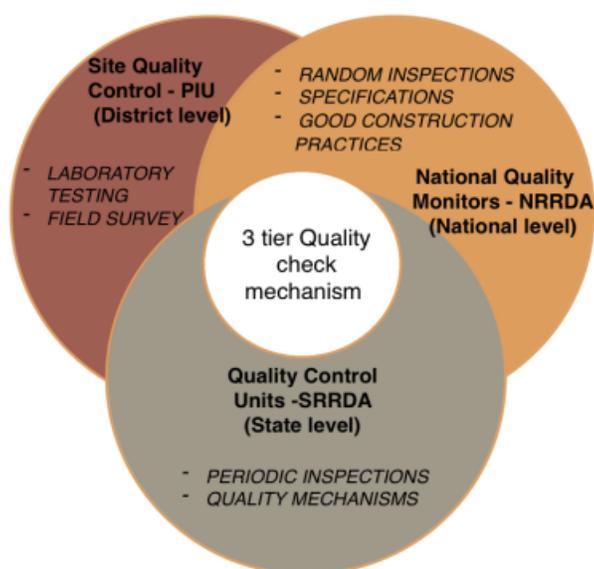
All PMGSY roads, which include main rural link roads/through routes, will now be covered by a 5-year maintenance contract along with construction contract with the same contractor, in accordance to the standard bidding contract. Budgeted by the state government, these contracts are under the SRRDA in a separate maintenance account. However, on expiry of 5-year post-construction maintenance of those roads will be under 5 year zonal maintenance contracts, funded by the SRRDA.

Indian Roads Congress (IRC) publication, IRC: SP: 20-2002, is now used as the revised **Rural Roads Manual**, which provides guidance on various aspects of rural road development, with the specific requirements of PMGSY including low cost techniques and new technologies such as waste plastic, fly-ash modified bitumen, jute, along with revised specifications.

A **three-tier quality assurance mechanism** under PMGSY lays out a more comprehensive and periodic inspection of the different stages of construction. To make the process of maintenance and more efficient is to increase transparency. The **Online management, monitoring and accounting system (OMMAS)** and **Citizen information display boards** are two significant initiatives within PMGSY launched in December 2014, which facilitate the general public to give feedback and post complaints in regard to any rural road. All registered complaints are then tracked based on this online module.

Furthermore, to make the process of monitoring and planning more **inclusive, local community members** are involved in the transect walk to fix the alignment of PMGSY roads which would take into account the gender considerations. Such walks are organized by the Assistant engineer at the time of preparation of DPRs involving the Panchayat Pradhan, local patwari, the junior engineer, Panchayati Raj Institution members and representatives of women self help groups (SHGs) (*Lok Sabha question 6180, 30.04.2015*).

Extending the Network



The 2014 amendments in the PMGSY, involved the collaborations of the Ministry of Rural Development (MoRD) with the **ILO and the World Bank** towards 'performance based maintenance contract' and 'community contracting' for maintenance. These pilot projects were carried out in Himachal Pradesh, Bihar and Uttarakhand. As of December 2010, the quality report of World Bank indicated percentage of works rated satisfactory very inconsistent, ranging from 63% to 99%. However, the satisfaction rate as on November 2015 is 95% as rated by NQM (**National Quality Monitors**).

The funds allocated through international organizations such as World Bank and ADB towards PMGSY for selected projects this year is an estimate of Rs 5000 crores as against Rs 50 crores for the past two financial years

Prominent Frameworks by World Bank under PMGSY

The World Bank has proposed the following frameworks for a holistic assessment and management of **environmental and social issues** in planning and implementation of the scheme:

- Environmental and Social Management framework (ESMF)
- Social Management (Resettlement and participation) framework
- Environmental codes of Practice (ECoP)

Based on changes notified in Jan 2015 in PMGSY (vide Circular No.P-17025/37/2013-RC), the priority of road selection for both new connectivity and up gradation projects will be as per those eligible habitations in the Gram Panchayats/villages identified by MPs under **Saansad Adarsh Gram Yojana (SAGY)**. Furthermore, development of growth centers and rural hubs under this scheme will impact and benefit the efficiency of other schemes such as **Mahatma Gandhi Rural Employment Guarantee Act (MNREGA)**.

The efforts under the PMGSY scheme can be augmented by leveraging other complementary schemes like MNREGA, which provides for taking up rural connectivity to increase the access to livelihood. The habitations excluded due to the prioritization parameters under PMGSY, such as large habitation size or proximity to the market centre can be taken up under MNREGA while complying with PMGSY standards. .

Conclusion

The Government's renewed focus on rural roads through the PMGSY is not only confined to construction of roads but also for upgradation and consolidation of rural roads. It is based on the belief that any significant improvement in the rural connectivity will reduce the rural poverty to a large extent. However, for achieving universal rural road connectivity, the PMGSY framework needs to be consolidated and expanded by converging it with other rural development schemes.