

Rural Road Connectivity: *the artery of the economy*¹

Introduction:

Rural Connectivity is the nerve centre of the economy. The linkage between urban and rural areas is possible through rural roads so rural roads are the arteries of any civilization. The importance of rural roads for agricultural development has been emphasised in the literature by various authors (Buys et al. 2006; Donngos et al. 2007; DFID 2008). A country's rural road network is often made up of tracks, trails, footpaths and earth roads that link rural villages and towns. In many cases they connect to secondary roads by allowing the residents to access products, factor markets, and social services that are not provided by their own communities. Rural Connectivity is a critical component in the socio-economic development of rural people as it provides amenities like education, health, marketing etc. Always, there has been skewed development of the rural road network in country. Some States provided cent per cent connectivity while some others did not have enough financial resources at their disposal and consequently rural connectivity remained at low levels. There were also problems of inadequate funds for maintenance, upgradation and renewal of existing rural roads.

Problems arising due to lack of proper connectivity:

Agriculture is an important sector of the Indian economy, accounting for 14 percent of the nation's GDP, about 11 percent of its exports, about half of the population still relies on agriculture as its principal source of income and is a source of raw material for a large number of industries. Accelerating the growth of agriculture production is therefore necessary not only to achieve an overall GDP target of 8 per cent during the 12th Plan and meet the rising demand for food, but also to increase incomes of those dependent on agriculture to ensure inclusiveness (State of Indian Agriculture, 2012-13). Physical access further plays an important role in reaching a number of the Millennium Development Goals (Barret et al. 2001). Rural roads play a role in the provision of physical access. The benefits of improved access can be short lived if the rural roads are not managed and maintained. One of the ways to make services more accessible is by making people more mobile through roads. Accessibility defines how easy or difficult is it to get to a place.

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Agriculture and Rural Roads:

Rural roads and transport are essential for sustaining agricultural development. Many rural Indians still suffer from poor access to markets, health, schooling, and high transport costs. Inadequate rural roads make it hard for farmers to produce more and to transport any surpluses after harvest. Traffic on most rural roads still consists mainly of pedestrians often carrying head loads (DFID 2008). Rural infrastructure cannot be created by peasants themselves; because most villages have no businesses or enterprises and have no money to spend. Agricultural production by small-scale farmers in India has its final destination to main centres of the country, where it is distributed to various local markets. About 3/4 of the rural roads in the country are in poor conditions and need to be repaired. The lack of adequate rural infrastructure in the country has affected food production and distribution drastically. This in return can create food shortages in the main centres, where food demand is very high. Poor and inadequate rural roads have been the main concern by both small producers and consumers. Urgent response to this problem would be:

- (i) To improve the state of the existing rural roads, and
- (ii) To construct new rural roads in places where basic infrastructure is desperately needed. That is, to construct rural roads between farms and markets to increase connections between producers and consumers (BIDS 2004).
- (iii) The state of the existing infrastructure is generally very poor because many governments are unwilling to spend the amount of money required to keep roads in basic repair. This compounds the high poverty and low food security levels in most the states, impairing the distribution of food, farmer connections to market, information exchange, and intra-trade. In turn, poverty in these areas is increased because of isolation caused by lack of infrastructure (Corral and Reardon 2001; Easterly 2001; Deichmann et al. 2006).

Why Rural Connectivity is needed for Agricultural Prosperity:

Rural road connectivity is imperative for the country where 69 percent of population is rural. On the basis of study conducted by Ministry of Rural Development on socio-economic impact of PMGSY in Assam, Himachal Pradesh, Madhya Pradesh, Mizoram, Orissa, Rajasthan, Tamil Nadu, Uttar Pradesh and West Bengal (MORD 2004), the major findings were:

- Construction of the PMGSY roads has substantially *benefited the farmers*. Prior to the construction of the PMGSY roads, farmers found it difficult to sell agricultural goods in the bigger markets located far away from their villages.
- PMGSY road connectivity has led to a *better transport system* during all seasons. Farmers mentioned that the problem of not being able to access the markets during monsoon has been solved by the construction of the roads. This impact has been greatly felt in the states of West Bengal, Himachal Pradesh, Mizoram, Assam etc.
- The PMGSY roads have made it easier to transport agricultural inputs to villages which led some farmers to switch from food crops to cash crops (such as ginger, jute, sugarcane, sunflower).
- An increase in the number of families rearing goats/sheep for commercial purposes was mentioned by beneficiaries in states of Rajasthan, Himachal Pradesh and Uttar Pradesh reported.
- Many families had bought cycles after the construction of the road to be able to carry dairy products for sale to nearby towns.

Impact of Rural Connectivity on Agriculture, a snap shot
<p>Increases Agricultural Production and Productivity</p> <p>Reduces Cost of Production</p> <p>Increases the Regional Value Added</p> <p>Increases Social Benefits</p> <p>Increased Welfare of Producers and Consumers</p> <p>Reduction in Price Oscillation</p>

Central Government's Initiative:

Since the era of planned development in 1951, India had a reasonably good railway system, a few ports and around 400,000 km of serviceable road network. Accessibility to villages was poor as only about 20 percent of them had all-weather road links. The Government laid down a framework for accelerated growth through investments in irrigation, power, heavy industry and transport. Side by side, stress was laid on provision of social infrastructure (education and health) and integrated rural development including agriculture. For social sector development, the Central Government has set up a National Committee on Rural Infrastructure under the Chairmanship of the Prime Minister with the objective of improving rural infrastructure in a time bound manner for overall rural development. A major thrust to the development of rural roads was given at the beginning of the Fifth Five Year Plan in 1974 when it was made a part of the Minimum Needs Programme. In 1996, this was merged with the Basic Minimum Services (BMS) programmes. The works of village tracks were also taken up under several employment creation and poverty alleviation programmes of the Central and State Governments.

In addition to this, to give a boost to rural connectivity, a Rural Roads Programme known as the Pradhan Mantri Gram Sadak Yojana (PMGSY) was launched in December 2000. Unlike the earlier programmes, the PMGSY is being implemented as a 100 percent centrally funded scheme. As per the current guidelines, the PMGSY covers all habitations above 500 populations to be provided with all-weather rural roads. In case of hills, deserts and tribal areas, the threshold is relaxed and covers all habitations above 250 populations.

Targets of PMGSY

Habitations with population above 1000 (500 in case of hill, NE states, deserts and tribal areas) (Targets as per Bharat Nirman)	Year 2009-10
Habitations with population above 500 (250 in case of hill, NE states, deserts and tribal areas)	Year 2014-15
Habitations with population above 250	Year 2021-22

Pradhan Mantri Gram Sadak Yojna, (PMGSY- the Prime Minister's Rural Roads Program): The Prime Minister, Shri Atal Behari Vajpayee had announced a centrally sponsored scheme, called the *Pradhan Mantri Gram Sadak Yojana* (PMGSY), with the objective of connecting all habitations with the population of over 1,000 persons by 2003 and those with a population of 500 and above by the year 2007 through good, all-weather roads. The programme was launched on 25th December, 2000. As on 31st March, 2014, project proposals for providing connectivity to 1,44,717 eligible habitations have been sanctioned (Total Eligible Habitations 1,78,184). The total cost of sanctioned projects, including the projects for upgradation of roads under PMGSY is Rs.1,82,560 crore. Against this, Rs.1,11,141 crore has been released till 31st March, 2014 including releases to the States, administrative costs etc. As reported by the States, till 31st March, 2014, a total of 3,99,979 km roads including upgradation have been constructed and All-weather connectivity has been provided to 97,838 eligible habitations (Annual Report 2013-14).

Table 1 detail about the targets and achievements of PMGSY in India. Regarding number of habitations connected, it is seen that despite certain fluctuations between 2007-08 and 2009-10, the overall trend denotes achievement more than 100 percent. Similarly, length of roads completed also shows more than cent percent achievement, though there are few oscillations.

Table 1: Targets and Achievements of PMGSY:

Year	Target		Achievement			
	No of habitations to be connected	Length of Road to be completed (km)	No of habitations connected	No of habitations connected (% share to target)	Length of Road completed (km)	Length of Road completed (% share to target)
2005-06	7895	17454	8202	103.9	22891	131.2
2006-07	9435	27250	10801	114.5	30710	112.7
2007-08	12100	39500	11336	93.7	41231	104.4
2008-09	18100	64440	14475	80.0	52405	81.3
2009-10	13000	55000	7877	60.6	60117	109.3
2010-11	4000	34090	7584	189.6	45109	132.3
2011-12	4000	30566	6537	163.4	30995	101.4
2012-13	4000	30000	6864	171.6	24161	80.5
2013-14	3500	27000	6560	187.4	25316	93.8

Source: Annual Report, Ministry of Rural Development, GOI

Wrapping Up:

The relation between agricultural growth and rural roads are intertwined. There is no uncertainty that rural roads are vital to agro based industry and rural development, to create jobs, and to make the country's growth more broad based. With the expansion of all-weather road network through PMGSY, social and economic change is witnessed beyond expectations. Though a watertight system to maintain this vast network is not in place, it is unlikely that village community would let it fall into disuse. The level of agricultural growth rate has a positive strong correlation with the overall development in general and the agricultural development in particular; the unequal distribution of infrastructure would result in regional imbalances affecting the welfare of the individuals. Thus, for increasing the agricultural contribution to GDP and provision of proper market for agricultural produce, proper networking and government initiation is required at right time through right means. Thus, rural road connectivity is the path for inclusive development of the country.