

Review of Impact of Pradhan Mantri Gram Sadak Yojana On Various Sectors

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Abstract – India is a country where 70% of its population lives in rural areas. For such a large country and as a developing and emerging economy, road network plays a very crucial role.

Also, the agricultural sector is important for India's growth. Therefore, aiming to connect all the villages of India by all-weather road network, PMGSY was launched by the central government lead by Mr. Atal Bihari Vajpayee in December 2000. PMGSY has resulted in tremendous success and positive impact on population benefitted from the scheme. 82% of planned villages are connected by all-weather roads by Dec 2017. This review paper focusses on summarizing the impact of this scheme on sectors like Agriculture, HealthCare, and Education Sector.

Key Words: PMGSY, Impact Assessment, Healthcare, Education, Agriculture.

1. INTRODUCTION

Pradhan Mantri Gram Sadak Yojna was launched by the Central Govt. of India on 25th December 2000. The scheme aims to provide all-weather road connectivity in rural areas of the country. It is fully funded by central govt. which was later announced as funded by 60 % (central govt.) And 40 % (State Govt.). The PMGSY aims for new construction and up gradation. Specific standards for construction and up gradation have been specified under PMGSY. The first priority is providing connectivity to the unconnected Habitations. PMGSY aimed towards 2, 15,143 habitations, with a road length of 4, 70,858.50 km, and an expenditure of Rs. 140, 09,348.60 lakhs.

PMGSY-II was introduced to consolidate the existing rural road network. This proposed to cover during the 12th five-year plan period, 50,000 km road length by up gradation of existing roads at an estimated cost of Rs 33,030 Cr. The costs were to be shared between the Centre and States/UTs on 75:25 for the plains and 90:10 basis for the special areas. With effect from April 1, 2015, the costs of construction of all PMGSY roads are shared between the central government and the states. While center: state ratio is 90:10 in respect of NE states and hill states of Himachal Pradesh, Jammu & Kashmir, and Uttarakhand, it is 60:40 for other states.

1.1 Objectives

Our objective is to summarize the various impact assessment carried out by govt. and standalone researchers. On a single platform.

2. Impact on Agriculture Sector

2.1 Accessibility to Agricultural markets.

According to the study, PMGSY has resulted in better and quicker access to nearby markets. It has been observed that a significant reduction in travel time and cost has happened.

State-Sample	Before the road		After the road		Saving in travel time (% reduction)
	Average Distance (KM)	Average Travel Time (HH:MM)	Average Distance (KM)	Average Travel Time (HH:MM)	
Bihar	18.60	02:02	20.40	00:55	54.92
Jharkhand	9.30	01:03	8.40	00:29	53.97
Rajasthan	16.30	02:11	16.90	01:04	51.15
Uttar Pradesh	17.00	02:13	14.25	00:52	60.90
All	16.10	01:58	15.42	00:52	56.27

Table -1: Saving of Travel Time.

2.2 Shifts in crop pattern

The study has revealed that the percentage of cropped area under cereals has been reduced by 0.73% on average in the states in which this study was conducted. Jharkhand has seen the most significant change of 3%. These states have shown an increase of 5.26% in percentage cropped area under fruits and vegetables due to connectivity and ease of access to nearby markets. Other than this, a reduction of 12.53% cropped area under pulses has been shifted to cotton and onions.

2.3 Usage of Fertilizers and Improved Seeds.

The study has revealed that one-fourth of farmers interviewed has increased the use of fertilizers. The highest change was of 47% in U.P.

Almost 15% of farmer household reported having increased the use of improvising use of seeds. PMGSY has resulted in a shift of trend to increased use of fertilizers and seeds which has ultimately resulted in more yield.

2.4 Access to Facilities and Services.

Better roads have helped farmer's access important services and facilities. The results prove this claim when compared to control habitation which lacks the road infrastructure.

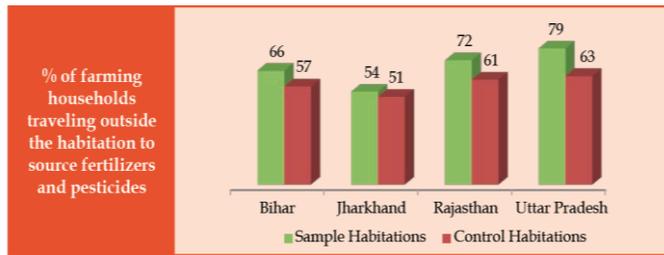


Table -2: % farmers traveling outside.

3. Impact on HealthCare Sector.

3.1 Reduction in travel time to reach the nearest facilities in case of maternal emergencies

In the study conducted, 92% sample habitations has reported the saving in travel time to nearest facilities. 43% have reported a reduction in time up to 30 minutes. 28% has reported a reduction of 30 to 60 minutes and 23% has reported a reduction of more than 60 minutes.

3.2 Child immunization and Health care.

Efforts towards coverage of child health immunization has a significant impact due to better roads. It was observed that children aged 5 years and below immunized was more by 11% compared to the period the road was constructed.

3.3 Medical care during sickness and accidents.

Road infrastructure is important in cases of critical sickness and accidents where immediate treatment is required and hence person has to be transported to longer distances in some cases. In the areas of the survey, it was found that only 50% of persons suffering serious injuries were being treated before the road was constructed. Now, 80% of patients suffering from critical illness and accidents been treated.

4. Impact on Education Sector.

4.1 Status of Education Facilities

New road infrastructure has contributed to setting up of new Anganwadi center in rural areas. Out of which 50% were set up after the construction of roads. Also, an increase in the number of schools in the sample states has been recorded.

State	% habitations reported increase in number of Schools	
	Sample	Control
Bihar	20	10
Jharkhand	40	20
Rajasthan	30	20
Uttar Pradesh	20	10
All	27	15

Table -3: % habitants reported in the number of schools

The Pupil-Teacher Ratio (PTR) at primary and upper primary schools has been significantly low in rural areas. It was found that there was a significant difference in the availability of a sufficient number of teaching staff in the schools in the habitations where the roads were maintained and not maintained. Though it was found that the sample habitations also have a shortage of teaching staff in the

schools therein in the control habitations the situation was found much worse. Almost all control habitations have much less than the required number of teachers and in most of the group discussions, it was reported that poor connectivity is one of the major factors for the same. 54% of the primary schools in sample habitations have a PTR of more than 30 whereas almost 80% of the schools in control habitations have a PTR of more than 30. Similarly, 25% upper primary schools in sample habitations were having PTR above 35 whereas, in the control habitations, the PTR was above 35 in almost 50% of the upper primary schools. As per a publication by National University of Educational Planning and Administration (NUEPA) and Ministry of Human Resource Development (MHRD), the overall PTR during 2013-14, at all India level was 25 students per teacher at primary level while at the upper primary level it was 17.4.

4.2 All Season Connectivity of Education Facilities.

Out of all sample areas under the study, 10% of areas are such that children have to travel to the nearby village to reach an Anganwadi. Thus, all-weather roads under PMGSY has ensured less time to travel and fewer efforts.

In one sample habitation each in Bihar, Jharkhand and Uttar Pradesh, the nearest Primary School is connected by an all-weather road, rest of the habitations have at least one Primary School within the habitation. Only in one control habitations of Rajasthan, children have to travel outside the habitation to reach a Primary School and the road condition was so bad that children have to travel on foot as there are no Vans/Buses plying on the road. 58% sample habitations and 65% of the control habitations have a Secondary School within the habitations and rests of the habitations are connected to the nearest Secondary School by an all-weather road now.

In the majority of the habitations, for higher secondary education and colleges, the students have to travel outside the habitation and except one habitation Impact on Education in Jharkhand they have all-weather road connectivity to reach these institutions.

State-Sample	Before the road		After the road		Saving in travel time (%reduction)
	Average Distance (KM)	Average Travel Time (HH:MM)	Average Distance (KM)	Average Travel Time (HH:MM)	
Bihar	6.50	0:50	6.78	00:20	60.00
Jharkhand	4.00	0:45	3.75	00:15	66.67
Rajasthan	5.50	0:60	5.38	00:18	70.00
Uttar Pradesh	3.50	0:45	3.44	00:15	66.67
All	4.88	0:50	4.83	00:17	66.00

Table -4: Saving in travel time to reach the nearest higher secondary school

3. CONCLUSIONS

- Improved road connectivity in rural areas has impacted the cultivation choices and improvements in cropping patterns and shift in trends in a positive manner.

- Roads have contributed significant saving in travel time and costs to reach the markets in habitations where roads were not maintained.
- Results indicate that places where roads were not maintained, access to sourcing inputs and services is weaker than places where roads are in good conditions.
- Increase in ownership of Assets related to agriculture seen hike due to the availability of good infrastructure.
- Access to medical and healthcare facilities have seen an increase in the number of beneficiaries after the construction of all-weather rural roads.
- Visit of doctors and health workers was found to be more frequent along with the employment of those compared to places where road infrastructure was poorly maintained.
- Increase in the number of schools after the construction of rural roads.
- Pupil-Teacher Ratio (PTR) was found to be much better in the schools where roads are better maintained.
- Reduction in travel time to schools after roads were constructed is found to be much better than their counterparts.

BIOGRAPHIES



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