

*Report*

*On*

***Rural Road Construction***

*AT*

***ANGUL, GAJAPATI & PURI***

*For*



***P&C DEPARTMENT, GOVT. OF ODISHA  
ODISHA SECRETARIAT***

*by*



***NATIONAL PRODUCTIVITY COUNCIL***

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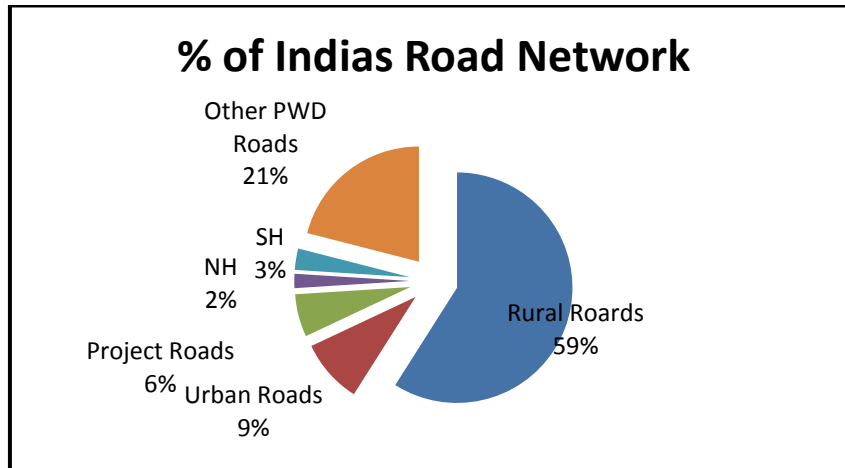
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## 1.0 Introduction:

Rural roads are the tertiary road system in total road network which provides accessibility for the rural habitations to market and other facility centers. During the last five decades, rural roads are being planned and programmed in the context of overall rural development, and to provide all-weather connectivity. During the last 12 years Government of India had undertaken a dedicated program known as 'Pradhan Mantri Gram Sadak Yojana (PMGSY)' to provide rural connectivity to all habitations under the Ministry of Rural Development and Government of Odisha incited the program known as "Gopabandhu Gramin Yojana (GGY)". More recently, Bharat Nirman, a time bound business plan adapted to provide rural infrastructure during 2005-09, rural roads have been taken as one of the components and blended with PMGSY programme. 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.

Through Bharat Nirman program, it is also proposed to upgrade nearly 1.94lakh km length of the existing rural roads. The total investment on rural connectivity under Bharat Nirman was been estimated at Rs. 48,000 core during 2005-2009. Since 11th Five Year Plan (2007-2011) goes beyond the targeted period of the 11th five year plan was estimated based on physical targets proposed and an amount of Rs. 79,000 core was required to fulfill the targets estimated for new connectivity and up gradation. For new connectivity alone, total 1.65lakhs km length benefiting approximately 78000 habitant. The total estimated amount required for the up gradation of the existing rural roads of about 1.16lakh km require about Rs. 29,000 core during 11th five year plan period as per PMGSY norms. In addition, state Governments had to bear for the additional requirement for up gradation and as well as periodic renewal of about 1.2lakh km length of core network, which was in the order of Rs.25,00 core. For routine maintenance and periodical renewal of the core network, length of 1.4 million km was identified from the district road plans (DRRP) Rs. 1,40,000 million was requirement during the plan period for the purpose.

**Figure 1: Indian Road Scenario**

**Source:(NHAI)**

## 2.0 Types of Road Ways in Odisha:

Different types of roads mentioned below are found in the state which is:

1. National Highways(NHs)
2. State highways(SHs)
3. Major District Roads(MDR)
4. Other District Roads(ODRs)
5. Rural Roads (RRs)

## 3.0 Importance of Rural Roads:

Rural Road connectivity is a key component of rural development; it promotes access to economic and social services, thereby generating increased agricultural productivity, non-agricultural employment as well as non-agricultural productivity, which in turn expands rural growth opportunities and real income through which poverty can be reduced. Public investment on roads impacts rural poverty through its effect on improved agricultural productivity, higher non-farm employment opportunities and increased rural wages. Improvement in agricultural productivity not only reduces rural poverty directly by increasing income of poor households, it also causes decline in poverty indirectly by raising agricultural wages and lowering food prices (since poor households are net buyers of food grains).

## 4.0 Objective of The Evaluation Study:

To “evaluate the Rural Road Construction in Odisha”, this study was conducted in three districts namely Angul, Puri and Gajapati by National Productivity Council, Bhubaneswar, The feedback had been collected both from official and

also from the beneficiaries, selected on random from among beneficiaries of several selected villages. The main objectives of the study are as follows,

- To assess the extent of coverage and use of Rural Road in rural areas.
- To assess the institutional mechanism at the state and project levels and the role of line department and Gram Panchayats in Rural Road Construction.
- To evaluate the impact of Rural Road on quality of life of rural people i.e. Communication, economic condition, environment and physical security , utilization of time and productivity.
- To identify the measures taken up by the PRIs (Panchayati Raj Institutions)/CBOs (Community Based Organisation)/NGOs/Alternative
- Mechanisms /SHGs/ for improving sustainability of Rural Road at the grass root level.
- To analyse the factors responsible for success and major constraints in Implementation of Rural Road(inadequate government policies, lack of funding, fragmented institutions, unacceptable people's attitude/behaviour) and to suggest the measures for the same.

## 5.0 Existing Rural Road Facilities in Odisha:

Rural connectivity is needed for socio economic development of the state. The state had 3,752 nos of rural roads of 28159 km length by the end of 2011-12, of which 17,430 km (61.9%) are blacktopped and 2,365 km (8.4%) are cement concrete roads. Pradhan Mantri Gram Sadak Yojana (PMGSY), Rural Infrastructure Development Funds (RIDF), constituency wise allotment (CWL), Finance commission award works (R&B) and special repair scheme are the major rural connectivity programme which are under implementation in the state. Roads are considered the most important component of infrastructure, to which nation's economy either directly or indirectly connected. The State is connected to other neighboring states like West Bengal, Andhra Pradesh, Chhattisgarh, and Jharkhand through all weather high standard roads. Major roads of the state are covered by Pradhan Mantri Bharat Jodo Pari Yojana (PMBJP). The approaching roads to the main roads have qualitatively improved. In recent years the internal roads connecting villages, hamlets have become R.C.C roads.

Odisha state can be divided into two major types i.e. Coastal terrain and Hilly terrain. Most of the roads are unparallel from each other. In so called developed areas such as coastal belt, still most of the roads are muddy during the rainy season and it affects the transport and communication of the rural people. While in hilly and tribal areas; roads are in patches (non-continuous) then coastal area, therefore it creates a problem to connect a village road with another villager road in the Coastal areas of Odisha. In Odisha there is less connectivity among state highways with district roads and also district road with Gram panchayat or village roads. It creates an adverse impact on rural habitants on their livelihood, education, agriculture and communication facility. Due to lack of proper road communication facilities, it takes more time to reach from one place to another thus maximizes the transportation and inventory cost. During bad weather, road create a negative impact on the rural people in their economic activities.

Most of the roads in rural area in Odisha are under the schemes of GGY and MGNREGS. Through GGY schemes the State Govt. initiate a step towards additional development of Rural Connectivity and Quality of rural life change. This Scheme is not implemented in all 30 District its only works on following 10 nos. districts. They are i) Angul, ii) Balasore, iii) Bhadrak, iv) Cuttack, v) Jajpur, vi) Jagatsinghpur, vii) Kendrapara, viii) Khurda, ix) Nayagarh, and x) Puri. The

MGNRGS Schemes are carried out for all the District of Odisha. The main objective of the schemes is to provide best job guaranty to all through developmental works in rural. It helps the rural individual to improve the buying power. This Program provide a legal guarantee for one hundred day occupation in every financial year to mature associates of any rural family willing to engage in public work.

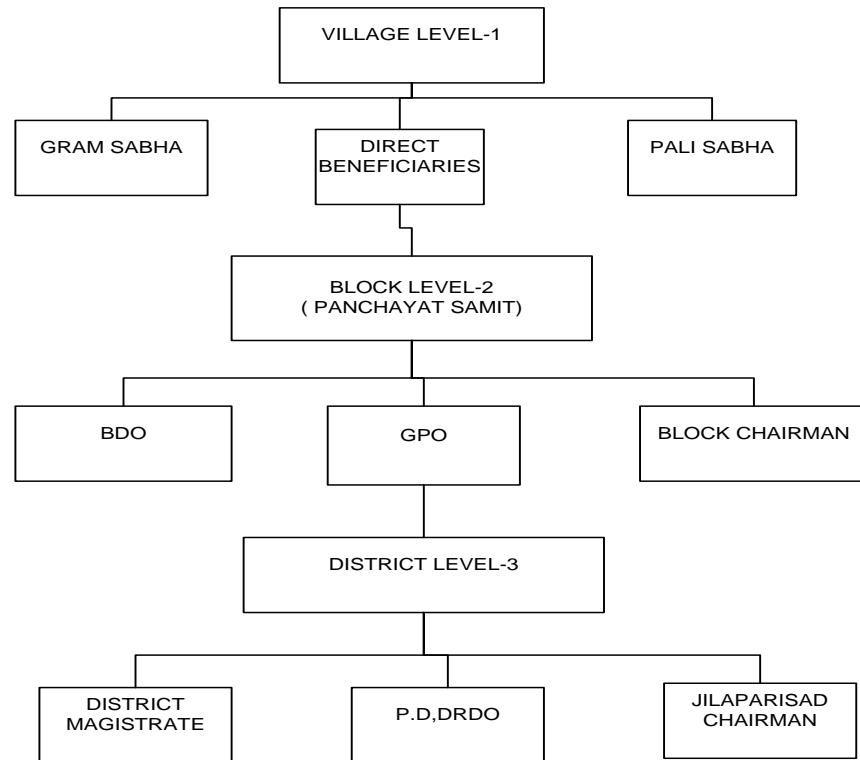
#### **6.0 Data Collection:**

To “evaluate the construction and quality of the rural road of Odisha”, this study was conducted for three districts namely Angul, Puri, Gajapati by National Productivity Council, Bhubaneswar. The study has been made in respect of rural roads connecting in Gumma block of Gajapati, and Chendipada block of Angul and Nimapara of Puri The feedback has been collected both from official and also from beneficiaries, selected on random from among beneficiaries of several selected villages.

#### **7.0 Planning Process:**

Construction of Rural Road at village level is a participatory approach of the beneficiaries. Planning policy always made at village with the individual’s view of the beneficiaries for the community. All the infrastructural planning is made by three levels, through the existing panchayat raj system as shown in Figure-2.



**Figure 2: Planning Process for Rural Road Construction****Level-1:**

Gram sabha is a forum for discussion of all the beneficiaries for taking their decision, the local representative (Sarpanch, Ward Member) and Panchayat secretary attend the Gram sabha/palli sabha and discuss about their developmental work. Finally the decision is taken on simple majority and the resolution confirming the list of projects is sent to BDO for decision at his level.

**Level-2:**

In the level-2, planning, decision for the construction of rural road at G.P level made by the block chairman, GPEO, and BDO.

**Level-3:**

In this level the decision of constructing rural roads at block level is taken by the district planning committee/ planning board by the associate members like, district magistrate, Zilla Parisada chairman, P.D. DRDO. Then allocations of funds are made with the recommendation of the district planning board.

## **8.0 Critical Observation on Construction of Rural Road:**

### **8.1 Redundancy in work:**

#### **8.1.1 Redundancy of work in MGNREGS Schemes:**

Construction of rural road in different phase manner (construction/completion of incomplete work) takes 1-3 years to complete. It's understood from the study that the rural roads (Kaccha Roads) constructed under MGNREGA at the hilly terrain of Gumma, Gajapati requires a regular improvement in every 2-3 years. Hence it necessitates further budget allotment towards the repair & maintenance work. It's evident from the study approximately equal amount of funds, labour, materials utilized for the repair maintenance work. Certain times, the repair and maintenance could not complete in time due to non availability of funds and/or delay in project selection due to the priority level of other projects. This stalls the economic activity of the village due to the non connectivity and logistic failure between the villages with the outer world. The cost towards the repair & maintenance (labor, materials) could be utilized for any other productive civil. This was observed for all 3nos. sample districts.

Under MGNREGS, large sums of public investments are being made and nearly 30 % of total funds are being utilized in rural connectivity. It has been observed during field visits that most of the rural connectivity works are not being planned/ structured and executed as per convergence guidelines and existing guidelines and norms of PMGSY. If convergence between MGNREGS and PMGSY are made systematically and properly, the quality of works carried out for rural connectivity to provide all weather access under MGNREGA will be better.

### **8.2 Costing and Budget allocation:**

The hilly terrain has inherent constraints of the transportation of materials required for construction work. And also the materials to be procured from the nearby urban, sub-urban areas involve a transportation cost which is comparatively higher than in the plain areas. Further the rural road projects being the small budget works thus the materials requirement are comparatively less thus the cost of materials including the transportation cost gets higher due to the economy of scale of purchase. That apart certain raw materials like sand,

brick are to be procured from distant far locations as the same is scarce commodity in the hilly terrain which adds up the estimated cost of materials.

Further there is requirement for revision in the costing as practiced under the provision of OPWD code. The efficiency of the labor has gone down drastically which not match with the present norms sets under the code.

This execution of the projects with the existing norms becomes difficult which results in the poor quality of the work.

### **8.3 Training and Capacity Building:**

Construction of rural road under MGNREGA is supervised by the Village Labour Leader (VLL) who is a local representative of that village and is selected by the Gram Sabha with no specific skill sets, qualification prescribed. The VLL are not technically trained for supervision of civil works, thus needless to mention it hampers the quality of construction along with affects the time & cost overrun of the project. So the regular monitoring by the VLL is not professionally managed.

The Village Labor Leader (VLL) executes all construction work below 5lakhs under MGNREGA project in the village. The VLL is a village representative or is selected by the Palli Sabha and Gram Sabha. However, the VLL does not hold the necessary skills and competencies to supervise, monitor & execute the civil works. In civil construction works, it's important that the work to be completed in time with no cost overrun and thus this requires a regular supervision and monitoring. However, the VLL are not trained to supervise the civil construction work and thus affects the project cost & time.

### **8.4 Quality Assurance:**

Periodic and/or random quality check of construction materials and work is imperative to ensure the quality of construction which is quite prevalent in R&B, NHAI, PWD etc. However in case of civil works under Panchayati Raj dept. has no establishment for assessing the quality of work neither at Block nor at district level. Thus it becomes difficult for the Junior Engineer and Asst. Engineer to ensure the quality of the construction work in absence of these technical aids. Although provisions have been made in the guidelines for GGY for Quality, the same has not been adhered by the department due to the above mentioned reasons.

**8.5 Poor Participation of Contractors:**

Rural works being smaller budgetary civil works where the civil work locations sometimes inaccessible and/ or semi accessible areas thus discourages the civil contractors to take up. It also the variable cost like transportation, inventory management are high which leaves a narrow profit margin for the contractors to operate. In the above context, thus in Gumma the contract finalization is delayed and in turn the work gets delayed substantially.

**8.6 Monitoring and supervision:**

Monitoring at block/ district level is not so systematic due to shortage of technical staff at both Block and district level.

**8.7 Insufficient budgetary allocation for schemes under GGY scheme:**

- In Angul and Puri, we have observed that Rural RCC roads are constructed under GGY scheme.
- It's understood that, the budgetary allocation (i.e. 2-3 lakhs per project) made for construction of the road is not sufficient as it covers a very limited length and this does not serve the purpose intended while the majority of the length of road remains kaccha.
- It's also understood that the constraints are the budgetary allocation as provisioned under the scheme is very less and the same is difficult to distribute amongst the villages/ GP.
- This results in construction of numerous projects having limited length rather completing a fully fledged length of the road.
- It's also understood that the overheads become more while execution of projects of smaller value.
- Sometimes it becomes difficult on the part of the JEs to supervise these small value projects as these are geographically scattered.

**8.8 Convergence for drainage provision with the Rural Road:**

- The present rural road project does not have provision for the drainage facility, the result of which the domestic waste and the logging of the rain water damage the road.
- The proper drainage system would facilitate the disposal of the water logging and/or improve the longevity of the road.

## 9.0 Scheme wise allocation of funds, Expenditure & Employment Generated:

In this section, an attempt has been made to critically examine the funds allocated, actual expenditure incurred and employment generated in 9 sample rural roads constructed in selected villages of three respective Block under MGNREGA. Related information has been presented in Following Tables.

### 9.1 Sample Study at Gumma Block:

#### 9.1.1 Details of the construction and improvement of road from Lubi to Gumma road in Gajapati:

The construction of this rural road took 2 years (2007-09) to complete where as the improvement has begun 2 years after the construction and the same was done in 2 consecutive years (2011-12, 2013-14). The work was done in four phases including two phases for constructions and two phases for improvement. A total amount of Rs, 8.5lakh was estimated for completion of work including construction and improvement in four phases. Finally Rs. 7, 46,932.00 was actually incurred. The total employment to the tune of 6,415 man days was generated during the entire period of 7 years. But the labour efficiency was only 70.67% during the first phase of the construction and even the efficiency was still less recorded only 61.42% in the second phase relating to improvement work. The road was constructed during 2007-08 & 2008-09, however the same requires an improvement during 2 consecutive years i.e. 2011-12 and 2013-14. The detail of the project is discussed in **Table-1**.

**Table 1 : Expenditure for the construction Improvement of rural road (Case-1) \***

Type of work	Phase of work	Estimated Cost (in Rs.)	Expenditure (In Rs.)	Man days Generated	General wage Rate (inRs.)	Labour efficiency (in %)
<b>CONSTRUCTION</b>	Phase-1 (2007-08)	200000	2,00,000	2,830	60	70.67
	Phase-2 (2008-09)	200000	1,60,603	1,611	70	85.45
<b>IMPROVEMENT</b>	Phase-1 (2011-12)	200000	1,50,956	572	126	125.67
	Phase-2(2013-14)	2,50,000	2,35,373	1402	164	61.42
<b>SUBTOTAL</b>		8,50,000	7,46,932	6,415	91.13	

\*The project started on dated 17/08/2007 and complete on dated 20/03/14

### 9.1.2 Details of the Construction and Improvement of Road from (KC PUR PWD to Nuasahi) at Gajapati.

Construction of this road took one and half year. This work completed in two phases including one phase for construction and second for phase for improvement. A total amount of Rs. 4lakh was estimated for completion of work. Finally Rs. 1, 66,075 was incurred to complete the work. This road was able to generate employment to the extent of 1002 man days. Labor efficiency was much more in this work even more than 200% in phase 2. The road was constructed during 2007-08; however the same requires an improvement during the year 2008-09. The detail of the project is discussed in **Table 2**.

**Table 2: Expenditure for the construction/improvement of rural road (KC PUR PWD to Nuasahi) (Case-2) \***

Type of work	Phase of work	Estd. cost (in INR)	Expenditure (in INR)	Man days enered	General wage Rate (in INR)	Labour Efficiency in %
construction	phase-1 (2007-08)	200000	92,297	771	60	119.71
Improvement	phase-1 (2008-09)	200000	73,778	231	90	212.92
SUBTOTAL		400000	1,66,075	1002		

\*The project started on dated 10/12/07 and complete on dated 31/03/09

### 9.1.3 Details of the Construction and Improvement of Road from Tanglida to Sarang in Gajapati

This rural road, from K.C Pur PWD road to Nuasahi had taken more than two years of total amount of Rs.4 lakh allotted for two phases during the entire period, Rs. 3, 91,500 was actually incurred by generating total employment of 3322 man days. The labor efficiency was 88.56 % is phase one 119.95% in phase 2. The road was constructed during the year 2007-09, however the same road completed the improvement work during the year 2008-09. The details of the project is discussed in, Table 3.

**Table 3: Expenditure for the construction/improvement or rural road (Case-3) \***

Type of work	Phase of work	Estd. cost (in INR)	Expenditure (in INR)	Man days generated	General wage Rate (in INR)	Labour Efficiency in %
Construction	phase-1 (2007-08)	200000	199879	2257	60	88.56
Improvement	phase-1 (2008-09)	200000	191621	1065	90	119.95
Subtotal		400000	391500	4322		

\* The project started on dated 30/07/07 and complete on dated 05/09/09



## 9.2 Allocation of funds, Expenditure incurred and employment generated in (Kampasala to Salakhman) road in Angul.

This rural road, from Kampasala to Salakhman was completed in 2010, however the improvement was made during 2014-15. Of total amount of Rs.14.5 lakh allotted for two phases during the entire period, Rs. 7, 69,332 was actually incurred by generating total employment of 3931 man days. The labor efficiency was 201.31% in phase 1 and 43.50 % in phase 2. The detail of the project is discussed in **Table 4**.

**Table 4 : Expenditure for the construction/improvement of rural road (Case-1) \***

Type of work	Phase of work	Estd. cost (in INR)	Expenditure (in INR)	Man days generated	General wage Rate (in INR)	Labour Efficiency in %
Construction	phase-1 (2009-10)	750000	578940	2618	64	207.31
improvement	phase-1 (2014-15)	700000	190392	1313	200	43.50
Subtotal		1450000	769332	3931		



### 9.3. Allocation of funds, Expenditure incurred and employment generated in (Bahalasahi to Chhotatenuli) road in Angul.

This rural road, Bahalasahi to Chhotatenulai construction was completed in 2008, but the same was again taken under the improvement project in 2009-10. Of total amount of Rs. 8.85 lakhs allotted for two phases during the entire period, Rs 8, 64,489 was actually incurred by generating total employment of 4793 man days. The labor efficiency was decreased from 169.24 % in phase 1 and 119.95% in phase 2. The details of the project is discussed in Table 5.

**Table 5:Expenditure for the construction/improvement of rural road (Tanglida to Sarang) (Case-2) \***

Type of work	Phase of work	Estd. cost (in INR)	Expenditure (in INR)	Man days generated	General wage Rate (in INR)	Labor Efficiency in %
Construction	Phase-1 (2007-08)	385000	385600	2127	64	169.24
improvement	Phase-1 (2009-10)	500000	478889	2666	90	119.75
Subtotal		885000	864489	4793		

### 9.4. Allocation of funds, Expenditure incurred and employment generated in (Machhakuta to Dhaurakhaman) road in Angul.

This rural road, from Machhakuta to Dhaurakhaman had taken more than two years of total amount of Rs.12 lakh allotted for two phases during the entire period, Rs. 9, 74,992 was actually incurred by generating total employment of 5435 man days. The labor efficiency was 173.06 % in phase 1 and 61.95 % in phase 2. The road was constructed during the year 2007-09, however the same



road completed the improvement work during the year 2013-14. The detail of the project is discussed in Table 6.

**Table 6 : Expenditure for the construction/improvement or rural road (Tanglida to Sarang)**

Type of work	Phase of work	Estd. cost (in INR)	Expenditure (in INR)	Man days generated	General wage Rate (in INR)	Labor Efficiency in %
Construction	phase-1 (2007-08)	700000	660700	3579	64	173.06
improvement	phase-1 (2013-14)	500000	314292	1856	164	61.95
Sub total		1200000	974992	5435		

**(Case-3) \***



**9.5 Allocation of funds, Expenditure incurred and employment generated in (Brahmanpada Behera sahi to Mallik Sahi) road in Puri.**

This rural road, from Brahmanpada Behera sahi to Mallik sahi had taken more than two years. Of total amount of Rs.11.76 lakh allotted for two phases during the entire period, Rs.6,76,657/- was actually incurred by generating total employment of 2590 man days. The labour efficiency was 329 % in phase 1 and 0.004 % in phase 2. The road was constructed during the year 2009-10, however the same road completed the improvement work during the year 2013-14. The details of the project is discussed in, **Table 7**.



**Table 7 : Expenditure for the construction/improvement or rural road (Tanglida to Sarang)**

Type of work	Phase of work	Estd. cost (in INR)	Expenditure (in INR)	Man days generated	General wage Rate (in INR)	Labour Efficiency in %
Construction	phase-1(2009-10)	676000	676656	1923	64	329.88
improvement	phase-1(2013-14)	500000	0.84072	667	164	0.004
Subtotal		11,76,000	6,76,657	2590		

#### 9.6 Allocation of funds, Expenditure incurred and employment generated in (Balanga RD road Huliapada to Bamanal) road in Puri.

This rural road, from Balanga RD road Huliapada to Bamnal had taken more than 3 years. Of total amount of Rs.8.70 lakh allotted for two phases during the entire period, Rs. 2,84,596 was actually incurred by generating total employment of 1756 man days. The labour efficiency was 132.36 % in phase 1 and 53.87% in phase 2. The road was constructed during the year 2009-10, however the same road completed the improvement work during the year 2014-15. The details of the project is discussed in, **Table 8**

**Table 8 : Expenditure for the construction/improvement or rural road (Balanga RD road Huliapada to Bamanal)**

Type of work	Phase of work	Estd. cost (in INR)	Expenditure (in INR)	Man days generated	General wage Rate (in INR)	Labour Efficiency in %
Construction	phase-1 (2009-10)	620000	113096	801	64	132.36
improvement	phase-1 (2014-15)	2,50,000	1,71,500	955	200	53.87
Subtotal		8,70,000	2,84,596	1,756		



### 9.7 Allocation of funds, Expenditure incurred and employment generated in (Pipalia Rathasahi to Baku Canal Bandha road) road in Puri.

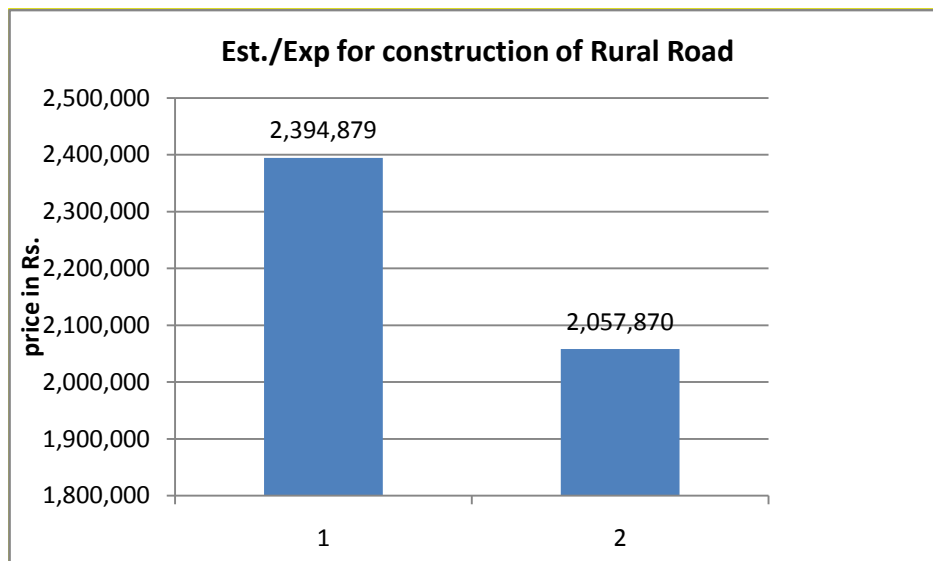
This rural road, from Pipalia Rathasahi to Baku Canal road had taken more than 3 years. Of total amount of Rs.8.70 lakh allotted for two phases during the entire period, Rs. 2,87,926 was actually incurred by generating total employment of 1293 man days. The labour efficiency was 139.57 % in phase 1 and 154.34% in phase 2. The road was constructed during the year 2009-10, however the same road completed the improvement work during the year 2014-15. The details of the project is discussed in, **Table 9**

**Table 9 : Expenditure for the construction/improvement of rural road (Balanga RD road Huliapada to Bamanal)**

Type of work	Phase of work	Estd. cost (in INR)	Expenditure (in INR)	Man days generated	General wage Rate (in INR)	Labour Efficiency in %
Construction	phase-1 (2009-10)	620000	153646	1032	64	139.57
improvement	phase-1 (2014-15)	250000	134280	261	200	154.34
Subtotal		870000	287926	1293		

### 10.0 Financial Implication Towards Construction of Rural Road:

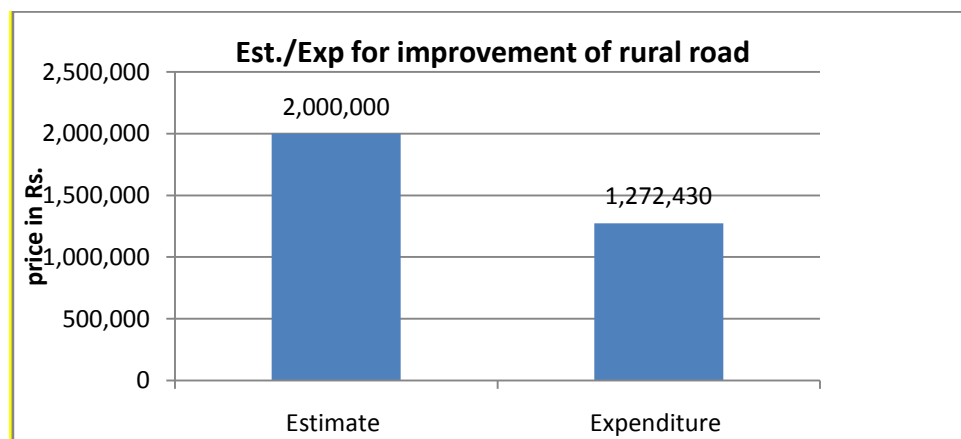
**Figure 3: Graph shows the estimation and expenditure for the improvement of rural road**



Source: (Field Study)

From the above Graph it's understood that of the sample study of 8 Rural Road construction Projects of Gumma, a total of Rs 23,94879lakhs have been sanctioned. However the expenditure as made to a Rs 20, 57,840. It's also understood that the project completion takes an average of 2 months. The labour efficiency is 95.2%.

**Figure 4 :The estimate and expenditure for the improvement of rural road**



Source(From Field study)

From the above graph it's understood that Rs.20,00,000/- have been estimated on improvement of same work. However, the expenditure made is of Rs.12,72,430/-. It is also understood that for completion of this work, it takes averagely one and half month. The labour efficiency is 88.03%.

**Observation:**

It's understood from the analysis of the sample projects that the improvement of the projects are carried out in every 2 ½ years. The analysis also reveals that an amount to the tune of half of the construction cost is incurred towards the improvement of the same project(s). An amount of Rs.2, 29,360 has been spent towards the improvement of the Projects which is 55 % of the budget expenditure towards the construction of the roads.

**11.0 SWOT Analysis:**

In this study an attempt has been made to study the Strength, Weakness, Opportunities and Threat of the construction of rural roads through Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) & Gopabandhu Gramin Yojna for the benefit of the rural people. under taken by the Department of Panchayat Raj in the state with an idea to take policy decisions to strengthen the system and also to convert weakness to opportunities. While executing the programme, proper watch to be given on the factors concerning for success of the Rural Road in the State.

**11.1 Strength**

- The construction of rural roads through Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) & Gopabandhu Gramin Yojna for the benefit of the rural people is under taken by the Department of Panchayat Raj through 314 Blocks in the states
- There is availability of qualified engineers in each block to undertake such programme
- GGY is focused in to provide all weather cc roads for rural connectivity with drainage system also.
- The project has necessary funds to provide some employment opportunities to the locals during drought period when crops are damaged as thus provide strength within the people not to migrate.
- MGNREGA supports plantation activities along the rural pathways.

**11.2 Weakness**

- There is no proper man power planning for different construction work.
- Lack of technical manpower to supervise work.
- Sometimes unproductive asset is created.
- Improper time frame for the construction work.

**11.3 Opportunities**

- Unskilled and labour categories of rural people should avail such opportunity.
- The local people get an opportunity to use the local available raw materials for developing their productive assets.
- Local people should take the Opportunity of "MGNREGA" for creating productive assets like irrigation sources, farm ponds connectivity to local market and even plantation programme etc.

### 11.4 Threat

- Due lack of technical knowledge with the village Level Leader (VLL) some unproductive assets are created.
- Local poor people are depending on MGNREGA for temporary financial support and in the process they forget to develop their own livelihood which is more sustainable.

### 12.0 Policy Recommendation

1. A quality control wing may be constituted which will randomly inspect the Rural Road works and issues observation memos regarding the quality of work to the concern department. (Refer 8.4)
2. Quality control at site for materials , Quality supervision during execution and phase wise Quality monitoring should be carried out for each work under construction. (Refer 8.4)
3. Quality checking units can be established at block headquarters for materials, effective monitoring and MIS system for the rural works. At the same time quality assessment laboratory and/or any mechanism may operate for regular assessment the quality standard of the rural works. (Refer 8.4)
4. A simplified maintenance planning and management system may be established for carrying out visual condition surveys. It is efficient and convenient to set up database on GIS platform. (Refer 7.0)
5. A particular work should not take long time to avoid duplication, reallocation for same work and even allocation funds for improvement of the same road before its completion. (Refer 9.0)
6. Time frame and quantum of labour in man days may be properly estimated much ahead of the programme implementation. Indication of higher labour efficiency may be due to less use of labour which may be avoided. (Refer 9.1)
7. The Budgetary Support needs to be increased considerably to meet the purpose. (Refer 8.2)
8. The Rural road should be convergent with other scheme where Kaccha Roads can be made to CC Road. This would be important for the reliability and longevity of the works . (Refer 8.8)
9. It should be Promoted for convergence with MGNREGA especially for maintenance of rural roads. (Refer 8.1)
10. There should be convergence between different activities planned to execute before taking decision to start a particular work. (Refer 8.1)
11. Priority index should be developed depending upon the importance of roads (access to school, medical centers, market etc.) and their condition for maintenance intervention.(Field Study)
12. VLL may be trained for supervision, improving and monitoring the quality of work. (Refer 8.3)

13. Sensitization and capacity building programme may be organised amongst the PRI members for community participation in all rural projects. (Refer 7.3)
14. Skill based training may be imparted to stakeholders involved in construction for improving the efficiency in the civil works. (Refer 7.3)
15. There should be Networking with and obtaining support of national/State level institutions and road agencies for exposure to good practice examples and technology transfer. (Refer 7.3)
16. With Rural Road facilities better opportunity can be created for self-employment; opportunities like shifting from food grains to cash crops, multiple cropping; small shops, small businesses, cottage industries, education and agro-based industries can be created. (Field Study)
17. Provision may be made in the OPWD code in deriving the cost estimation of roads for Hilly and non accessible areas, due to non-availability of certain materials nearby hilly locality. (Refer 7.2)
18. There should be a approach to develop synergies between the MGNREGA and the PMGSY project which will latter contributes to the creation of productive infrastructure and improves accessibility to social facilities like education, health care, etc. (Refer 7.2).

### 13.0 Findings and Policy Option:

	Findings and observations	Policy Option
<b>1.</b>	<b>Monitoring</b>	
	<ul style="list-style-type: none"> <li>➤ Periodic and/or random quality check of construction materials and work is imperative to ensure the quality of construction which is quite prevalent in R&amp;B, NHAI, PWD etc.</li> <li>➤ This execution of the projects with the existing norms becomes difficult which results in the poor quality of the work.</li> </ul>	<ul style="list-style-type: none"> <li>➤ A quality control wing may be constituted which will randomly inspect the Rural Road works and issues observation memos regarding the quality of work to the concern department.</li> <li>➤ Quality control at site for materials , Quality supervision during execution and phase wise Quality monitoring should be carried out for each work under construction.</li> </ul>
<b>2.</b>	<b>Quality and Efficiency</b>	
	<ul style="list-style-type: none"> <li>➤ There is no establishment for assessing the quality of work neither at Block nor at district level. Thus it becomes difficult for the Junior Engineer and Asst. Engineer to ensure the quality of the construction work in absence of these technical aids.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Quality checking units can be established at block headquarters for materials, effective monitoring and MIS system for the rural works. At the same time quality assessment laboratory and/or any mechanism may operate for regular assessment the quality standard of the rural works.</li> <li>➤ A simplified maintenance planning and management system may be established for carrying out visual condition surveys. It is efficient and convenient to set up database on GIS platform.</li> </ul>
<b>3.</b>	<b>Planning ,Time Frame and Resource utilization</b>	
	<ul style="list-style-type: none"> <li>➤ Improper time frame for the construction work.</li> </ul>	<ul style="list-style-type: none"> <li>➤ A particular work should not take long time to avoid duplication, reallocation for same work and even allocation funds for improvement of the same road before its completion.)</li> </ul>
	<ul style="list-style-type: none"> <li>➤ There is no proper man power planning for different construction work.</li> <li>➤ Lack of technical manpower to supervise work.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Time frame and quantum of labour in man days may be properly estimated much ahead of the programme implementation. Indication of higher labour efficiency may be due to less use of labour which may be avoided.</li> </ul>
<b>4.</b>	<b>Budget</b>	
	<ul style="list-style-type: none"> <li>➤ The budgetary allocation (per project) made for construction of the road is not sufficient as it covers a very limited length and this does not serve the purpose intended while the majority of the length of road remains kaccha.</li> </ul>	<ul style="list-style-type: none"> <li>➤ The Budgetary Support needs to be increased considerably to meet the purpose.</li> </ul>
<b>5.</b>	<b>Convergence</b>	
	<ul style="list-style-type: none"> <li>➤ The maintenance of Rural Road (Kaccha Road) which is quite redundant in every 2 years time, where budgetary allocation is spent and resources are also used.</li> </ul>	<ul style="list-style-type: none"> <li>➤ The Rural road should be convergent with other scheme where Kaccha Roads can be made to CC Road. This would be important for the reliability and longevity of the works .</li> <li>➤ It should be Promoted for convergence with MGNREGA especially for</li> </ul>



		maintenance of rural roads
	<ul style="list-style-type: none"> <li>➤ Most of the rural connectivity works are not being planned/ structured and executed as per convergence guidelines.</li> </ul>	<ul style="list-style-type: none"> <li>➤ There should be convergence between different activities planned to execute before taking decision to start a particular work.</li> <li>➤ Priority index should be developed depending upon the importance of roads (access to school, medical centers, market etc.) and their condition for maintenance intervention</li> </ul>
<b>6.</b>	<b>Training and Capacity Building</b>	
	<ul style="list-style-type: none"> <li>➤ In many cases VLL does not hold the necessary skills and competencies to supervise, monitor &amp; execute the civil works. In civil construction works, it's important that the work to be completed in time with no cost overrun and thus this requires a regular supervision and monitoring. However, the VLL are not trained to supervise the civil construction work and thus affects the project cost &amp; time.</li> </ul>	<ul style="list-style-type: none"> <li>➤ VLL may be trained for supervision, improving and monitoring the quality of work.</li> <li>➤ Sensitization and capacity building programme may be organised amongst the PRI members for community participation in all rural projects.</li> <li>➤ Skill based training may be imparted to stakeholders involved in construction for improving the efficiency in the civil works.</li> </ul>
	<ul style="list-style-type: none"> <li>➤ Lack of training programs for various categories of staff including the contractor staff.</li> </ul>	<ul style="list-style-type: none"> <li>➤ There should be Networking with and obtaining support of national/State level institutions and road agencies for exposure to good practice examples and technology transfer.</li> </ul>
<b>7.</b>	<b>Opportunity for local people</b>	
	<ul style="list-style-type: none"> <li>➤ Local poor people are depending on Rural Road construction works for temporary financial support and in the process they forget to develop their own livelihood which is more sustainable.</li> </ul>	<ul style="list-style-type: none"> <li>➤ With Rural Road facilities better opportunity can be created for self-employment; opportunities like shifting from food grains to cash crops, multiple cropping; small shops, small businesses, cottage industries, education and agro-based industries can be created.</li> </ul>
<b>8.</b>	<b>Materials</b>	
	<ul style="list-style-type: none"> <li>➤ There is requirement for revision in the costing as practiced under the provision of OPWD code specifically in hilly and non accessible</li> <li>➤ This execution of the projects with the existing norms becomes difficult which results in the poor quality of the work.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Provision may be made in the OPWD code in deriving the cost estimation of roads for Hilly and non accessible areas, due to non-availability of certain materials nearby hilly locality.)</li> </ul>
<b>9.</b>	<b>Assets Creation</b>	
	<ul style="list-style-type: none"> <li>➤ In certain cases MGNREGA supports few activities which produces unproductive asset</li> </ul>	<ul style="list-style-type: none"> <li>➤ There should be a approach to develop synergies between the MGNREGA and the PMGSY project which will latter contributes to the creation of productive infrastructure and improves accessibility to social facilities like education, health care, etc.</li> </ul>