

**PILOT PHASE 2**

**CITIZEN  
MONITORING  
OF RURAL ROAD CONSTRUCTION  
UNDER PRADHAN MANTRI  
GRAM SADAK YOJANA (PMGSY)**

In Seven states -  
Meghalaya, Jharkhand, Rajasthan, Assam,  
Uttarakhand, Orissa and Karnataka

Submitted to  
National Rural Road Development Agency  
(NRRDA)  
by





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**BY**



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## **Report on Citizen Monitoring of PMGSY Roads**

Report on “Citizen’s Monitoring of Rural Road Construction under Pradhan Mantri Gram Sadak Yojana (PMGSY) in seven states - Meghalaya, Jharkhand, Rajasthan, Uttarakhand, Assam, Orissa and Karnataka” is prepared by Public Affairs Centre - PAC that is funded by National Rural Development Agency (NRRDA).

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Public Affairs Centre (PAC) is a non-profit organisation established in the year 1994, is dedicated to improving the quality of governance in India. The focus is mainly in areas where citizens and civil society organisations can play a proactive role in improving governance. In this regard, PAC undertakes and supports research, disseminates research findings, facilitates collective citizen action through awareness raising and capacity building activities, and provides advisory services to state and non-state agencies.

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## **1. BACKGROUND**

The Pradhan Mantri Grameen Sadak Yojana (PMGSY), a flagship programme of the Union Ministry of Rural Development is being implemented across India by the National Rural Roads Development Agency (NRRDA) since 2000. NRRDA has established a three-tier quality control mechanism – National Quality Monitors (NQM), State Quality Monitors (SQM) and District Project Implementation Unit (DPIU) to assess the quality and quantitative aspects with periodicity. NRRDA has also established Online Management Monitoring and Accounting System (OMMAS) that augments the three-tier quality control mechanism. The PMGSY has thus inbuilt monitoring mechanisms establishing transparency and accountability, two of the three pillars that promote good governance/implementation. The third pillar – Citizen Participation/Social Accountability, the logical process that is built around transparency & accountability to promote democratic governance, is now an accepted and established element in several branches of government. NRRDA intends to introduce this mechanism into PMGSY and fulfill all the necessary elements to promote good governance and achieve best implementation results.

Towards fulfilling this goal of institutionalizing Citizen Participation/Social Accountability in PMGSY implementation, NRRDA assigned Public Affairs Centre (PAC – [www.pacindia.org](http://www.pacindia.org)), the project - “Citizen’s Monitoring of road construction under the PMGSY in seven states – Meghalaya, Jharkhand, Rajasthan, Uttarakhand, Assam, Odisha and Karnataka” with the objective of Citizen Empowerment to monitor the PMGSY roads in their respective localities and provide an authentic citizen feedback to the system. The NRRDA and PAC signed a MoU with an objective of PAC facilitating citizen monitoring of 140 PMGSY roads in 7 states.

During the course of implementation of the Pilot Phase 1 Project, PAC gained insights from the CMATs, from PMGSY institutions and from the field experiences on the adequacy of tools & techniques and ways of constructive engagement. The outputs were shared in three separate state level meetings. The discussion provided basis for evolving a draft a model process of citizen engagement that includes citizen empowerment, evidence generation, presentation and engagement with the local/state/national units for outcomes, to be situated in the Panchayat Raj System. This process/methodology becomes the basis for the Pilot Phase 2 to test and evolve a model for citizen monitoring.

## **2. GOAL - PROJECT PILOT PHASE - 2**

To create and empower a self-sustaining Citizen Monitoring and Evaluation (Social Audit) platform in PMGSY.

### **2.1 Project Objectives**

1. To evolve Took Kit, test and validate; to evolve data collection instruments, make them compatible with statistical software, test and validate; to evolve citizen-training modules, develop prototypes, AV/IEC content. Maximize Citizen Volunteer training outcomes.
2. Develop and synchronize GPS enabled Digital CRC (Citizen Report Card) with OMASS to augment/strengthen Citizen Monitoring process.
3. Evolve, test and validate a „model citizen monitoring process/methodology“ that can be replicated/institutionalized in PMGSY implementation.
4. Put together a team of Master Trainers in each state, who would facilitate Citizen Monitoring of all PMGSY roads in respective State.

### **3. PROJECT SCOPE**

PAC in collaboration with identified State Level Partner Organizations (SLPOs) will identify PMGSY roads – both under construction and completed.

For every 1 km of the road, three stretches (both sides), one stretch of 300 metre in the MIDDLE (starting at 400 meter stone), one stretch of 100 metre which is GOOD, another stretch of 100 metre which is BAD and another stretch of 100 metre which is AVERAGE. And wherever there is a junction, 100 metre of average stretch can be left out, instead, from the junction 100 meter on either side (left and right side of the road) should be monitored for data collection.

This stretch will be citizen monitored for specific details of the road like potholes, shouldering, thickness and width, heavings, undulations etc., Maximum of 5 kms of the road OR 20 stretches will be covered under this process in each road. Also the entire road will be monitored for general aspects such as furniture, drainage, culverts and other related aspects of the road.

Roads under construction, select a 200 meter stretch per Km length where construction work is ongoing and both sides of the work are covered for observations and testing will be monitored based on the construction stage of the road. A maximum of 5 stretches (5km) roads will be monitored. Depending upon this, the quantity and quality of construction materials and overall quality of the road being constructed will be monitored for that particular stretch. SLPOs/Citizen volunteers will involve people living near the chosen roads during the audit thus the rural people will be part of the road construction and maintenance as they will be able to derive a sense of ownership over the process of road construction and maintenance.

#### **3.1 Scale for Pilot Phase 2:**

<b>State</b>	<b>No. of Ongoing Roads</b>	<b>No. Of Completed Roads</b>	<b>Total No. of Roads</b>
Meghalaya	10	10	20
Rajasthan	10	10	20
Jharkhand	10	10	20
Uttarakhand	10	10	20
Assam	10	10	20
Orissa	10	10	20
Karnataka	10	10	20
<b>TOTAL</b>	<b>70</b>	<b>70</b>	<b>140</b>

#### **4. PROJECT ACTIVITIES CARRIED OUT**

1. Improved the tool kit, data collection tools and training module.
2. Developed a prototype of the road section with furniture to visualize the PMGSY road in a classroom setting.
3. Developed Manual for Citizen Monitoring to be used as Hand Book, detailing the components of PMGSY road for the common citizen and methodology to monitor.
4. Develop Digital CRC platform, test and synchronize with OMASS 7. Test and validate the above outputs, share with NRRDA, State RRDA and PIUs for feedback/inputs. Final deployment.
5. Identified State Level Partner Organizations (SLPO) to anchor the project in each state.
6. Identified the roads to be monitored. Get the BOQ for each road.
7. Selected Citizen Volunteers.
8. Organized and conducted CMAT training of volunteers with stress on hands-on experience by PAC, SLPOs and State RRDA/PIUs.
9. Training report prepared and submitted
10. Organized „PMGSY Awareness Gram Sabhas“ to sensitize on
  - a. The PMGSY scheme
  - b. Roles and responsibilities of citizen
  - c. Project details (BoQ of the particular road)
  - d. Citizen monitoring process, dates
  - e. Expected outcomes with participation from State RRDA/PIUs.
11. Independent first round citizen audit of roads using the audit tools prepared in consultation with the technical partners(RASTA & RVCE) and finalized in consultation with NRRDA
12. Data inputting and interpretation of data.
13. Preparation and submission of First round audit report which includes debriefing with the CMATs.

14. Sharing of first round findings/audit report and debriefing reports with NRRDA, State RRDA/PUIs/PRI.
15. Training of Master Trainers: 49 CMATs selected from the volunteer base from each state and are trained intensively for 5 days in Bangalore (2 days in-house theory, 1 day in-house practical and 2 days on the field practical training by RASTA/PAC/Technical resources).
16. Continued creation of awareness in regular Gram Sabhas
17. Independent second round citizen audit of roads & capturing road conditions.
18. Data inputting and interpretation of data.
19. Second audit report (Draft Final Report)

## **5. ACCOMPLISHMENT**

1. Renewed Tool kit, Data capturing and analyzing tools.
2. Educational documentary – 4 Films
3. Prototype model
4. IEC leaflet and awareness posters for rural citizen booklet
5. Handbook - Manual for Citizen Monitoring of PMGSY Roads
6. Reinforced hands-on citizen volunteer training module.
7. Volunteer workshops where over 450 citizen volunteers and 70 SLPO personnel are trained.
8. 7 Master Trainer in each state (49 in all the 7 states)
9. PMGSY gram Sabhas where rural citizen are empowered with total information on PMGSY roads.
10. Reports
  - a. Volunteer training completion report.
  - b. First round audit report.
  - c. Second round draft final audit report
  - d. A qualitative report – Road-wise and State-wise with evidence (photos)

## 6. OUTPUTS

The following are the key outputs from the Phase 2 Project which did evolve with the progress of the project, and again; would be put to test in the next phase:

1. **Methodology of selecting SLPOs and Citizen Volunteers:** The key to successful implementation is the integrity and accountability of people involved. The basic criterion of field experience is in the selection of SLPOs; minimum education, spirit of volunteerism and mix of both gender with CMATs helped establish a balance between knowledge and action. These combination augers well for the smooth implementation and lay the strong foundation on which all other activities revolve around. At the end of the project we have 420 well trained CMATs and 49 Master Trainers, who are experienced, articulate citizen volunteers as a nucleus of the project; who are potential trainers for the future who will monitor road construction on a constant basis.
2. **The citizen data sheets (Annexure1):** A bilingual data sheets were designed with the help of technical partners and finalized based on the feedback from NRRDA made available to the CMATs. The data sheets themselves are quite comprehensive and capture both quantitative and qualitative aspects of a road from the citizen perspective. CMATs are comfortable with the version. With little modifications and standardization, the versions would be tested in the coming phase.
3. **A simple citizen friendly tool kit:** The kit consisting of seven „citizen road engineering“ tools are appreciated by the CMATs for their simplicity in application and capturing data. During the implementation need for two additional tools – a screw driver or equivalent to dig soil at the PMC seams to check depth/thickness of formation layers and an Industrial thermometer to check temperature of the bitumen while being used which is critical for the top layer were added to the tool kit in this phase 2 PMGSY Roads monitoring process.



**Picture:** Present tool kit

4. **Citizen training module (Annexure 2):** A comprehensive **THREE day** hands-on training module with presentations and movies is put together to stimulate interest and learning, both inside the class room and outside on the field. Experience while conducting a total of 21 days of workshop, its expression/implementation/data sheets generation by the volunteers and feedback during the follow up sessions has reinforced the vigor and methodology of the module. The feedback provided has also indicates scope and need, considering the socio-economic-educational background of volunteers, to enhance the audio-visual and hands-on components in the module to enrich the learning experience.
5. **Citizen training workshops (Annexure 3):** A **detailed report on CMAT training** Workshops is enclosed as Annexure. In all the workshops local SRRDA engineers and PIU officers/Engineers actively participated to impart knowledge in local language. At the end of the project period we have a group of empowered citizen volunteers in each state, who are capable of building on the intervention and taking the engagement to the next level.
6. **Debriefing Report (Annexure 4):** A debriefing report for each of the 7 states were prepared based on the meeting had with the CMATs immediately after 1<sup>st</sup> monitoring and recorded their observations and suggestions on each road monitored by CMATs. The same was shared with the SRRDAs to take certain actions.
7. **Interim report (Annexure 5):** The interim report captured the realities from citizen perspective after their first round of monitoring of selected PMGSY roads. This was shared with the State Units and PIUs by NRRDA for corrective actions.
8. **Draft Final report:** This captures the progress on the ground over the interim report and based on the 2<sup>nd</sup> round monitoring with the real time evidences on each road has been prepared and being shared with NRRDA.
9. **Citizen Awareness Documentary**  
The documentary was initially made in Kannada in Karnataka and then dubbed into Hindi & English so as to enable to use by all the States selected. As suggested by NRRDA, **FOUR different outputs of** filming of the documentary has been done by PAC which is briefed below:
10. **Four different films produced are as follows:**
  - i. A 4 minute video whose audience would be corporate, prospective and current funders of PAC etc. This will give a brief of the activity undertaken.
  - ii. A 16 minute video whose audience are the citizens. The aim here is to create awareness about Citizen monitoring of roads.
  - iii. A 24 minute video for training the CMATs, one is on “Completed Roads” and

- iv. Another one on “On-going Roads”. This will be an elaborated one with details of how to monitor the road. This will be an additional tool for training. to be used by Master Trainers

## 7. NUMBER OF ROADS MONITORED STATE WISE

NAME OF THE STATE	DISTRICT	COMPLETED	ONGOING	TOTAL
Assam	Lakhimpur	5	5	10
	Sonitpur	5	5	10
<b>Total</b>		<b>10</b>	<b>10</b>	<b>20</b>
Jharkhand	Deogarh	6	4	10
	Giridh	6	4	10
<b>Total</b>		<b>12</b>	<b>8</b>	<b>20</b>
Karnatka	Vijapur	8	2	10
	Chikmagalur	9	1	10
<b>Total</b>		<b>16</b>	<b>4</b>	<b>20</b>
Meghalay	Jaintia hills	5	3	8
	Ri Bhoi	5	5	10
<b>Total</b>		<b>10</b>	<b>8</b>	<b>18</b>
Odisha	Puri	7	3	10
	Rayagada	5	5	10
<b>Total</b>		<b>12</b>	<b>8</b>	<b>20</b>
Rajasthan	Bikaner	7	3	10
		6	4	20
<b>Total</b>		<b>13</b>	<b>7</b>	<b>20</b>
Uttarakhand	Nainital	5	5	10
	Tehri	5	5	10
<b>Total</b>		<b>10</b>	<b>10</b>	<b>20</b>
<b>Total</b>		<b>83</b>	<b>55</b>	<b>138</b>

**\*Important Note: 2 Roads in Meghalaya state are not in a condition to be monitored. These both are ongoing roads in Jaintia Hills District. The names of these roads are Lakshein Leh and Thruk Molhoi. Please refer to Qualitative Report of Meghalaya state to see the condition of these roads**

## 8. OUTCOMES

Capacity building of CBOs, communities, grassroots organizations through targeted training, who are empowered to monitor PMGSY and similar projects in their area.

Selected volunteers from CMATs have been trained as Master Trainers (49@7/state, including women volunteers) by PAC for 5 days at Bangalore, who will facilitate citizen road monitoring in respective states on a constant and continuous basis, establish linkages with the Panchayats, strengthen Gram Sabhas, empower village citizens through knowledge sharing, thereby creating responsible ownership.

First hand citizen data on PMGSY roads is made available to the system for corrective measures on a constant basis so that the roads remain in good shape at all times.

The intervention brought about direct changes/improvements in the road condition due to corrective measures. These changes are the impact of continuous follow up by the volunteers and the SLPOs after presenting the first round analysis.

*The following are the number of roads where improvement has been undertaken by the authorities as on end of May, 2016:*

Name of the state	Roads where action taken place		Total Roads Where Action Taken
	On-going Roads	Completed Roads	
Uttarakhand	10	10	20
Karnataka	10	10	20
Rajasthan	01	03	04
Jharkhand	01	05	06
Odisha	03	02	05
Meghalaya	05	00	05
Assam	01	00	01
<b>Total</b>	<b>31</b>	<b>30</b>	<b>61</b>

The road-wise details are given below:

### **State-wise and Road-wise Details:**

**Uttarakhand:** Action taken in all the 20 roads.

**Karnataka:** Action taken in all the 20 roads.

**Odisha:** Except certain roads where there are real difficulties, action has been carried out in other roads.

**Rajasthan**

SR NO.	NAME OF THE ROAD	TYPE	DISTRICT	STATE
1	Tapu to Meghwalo ki Dhani, Bhilo ki Dhani	Ongoing	Jodhpur	Rajasthan
2	Ghattu to Puniyo ki Dhani	Completed	Bikaner	Rajasthan
3	Salundiya to Mehlaee nadh ki dhaniya	Completed	Bikaner	Rajasthan
4	Ompura to Hanuman Sagar Musalman ki Dhani	Completed	Jodhpur	Rajasthan
<b>Total 4 Roads in Rajasthan: 1 on-going &amp; 3 completed roads</b>				

**Jharkhand**

SR NO.	NAME OF THE ROAD	TYPE	DISTRICT	STATE
1	Andhrigadar to Chabbelbadiya	Completed	Deogarh	Jharkhand
2	Baswariya to Neiyadih	Completed	Deogarh	Jharkhand
3	Devipur to Joramoo	Completed	Deogarh	Jharkhand
4	Kothia to Lakra	Completed	Deogarh	Jharkhand
5	Rajasar to Raidih	Completed	Deogarh	Jharkhand
6	Siktiya to Mahuwatard	Ongoing	Deogarh	Jharkhand
<b>Jharkhand: Total 6 roads 5 in Completed and 1 in ongoing</b>				

**Odisha**

SR NO.	NAME OF THE ROAD	TYPE	DISTRICT	STATE
1	Narendrapur to Benakera	Completed	Puri	Odisha
2	Jagadapur jatani Pipli	Completed	Puri	Odisha
3	Bhawanpur to Paral	Ongoing	Puri	Odisha
4	PWD Road to Ghatneli	Ongoing	Rayagadha	Odisha
5	Seriguma to lamberi	Ongoing	Rayagadha	Odisha
<b>Odisha: Total 5 roads in Odisha. 2 completed and 3 ongoing.</b>				

**Meghalaya**

SR NO.	NAME OF THE ROAD	TYPE	DISTRICT	STATE
1	Ummat-Umlatdoh	Ongoing	Jaintia Hills	Meghalaya
2	Lakadong-Madanpohhkseh	Ongoing	Jaintia Hills	Meghalaya
3	207 <sup>th</sup> of NH 40 E-Lognoh.	Ongoing	Jaintia Hills	Meghalaya
4	3 <sup>rd</sup> Us Road to Nartap and Sohlaitem	Ongoing	Ri Bhoi	Meghalaya
5	SOS to Lumsopetbneng	Ongoing	Ri-Bhoi	Meghalaya
<b>Meghalaya: Total 5 Roads ongoing.</b>				

**Assam**

SR NO.	NAME OF THE ROAD	TYPE	DISTRICT	STATE
1	Gubarisali to Gubarisali No.1	Ongoing	Lakhimpur	Assam

Again, though small in numbers, these positive outcomes reflect the direct effect of citizen involvement. The idea of citizen monitoring has indeed influenced the outcome in many ways. Next Phase will endeavor to full fill this ultimate goal to its fullest extent with renewed transparent, accountable and participatory process. The biggest outcome of the project is the process of monitoring of PMGSY roads by empowered citizen volunteers. They now know the road building process, speak with confidence and persevere with authorities. Their technical knowledge is more than enough to involve with information, ask and push the system, bring a positive change. Significantly few women, particularly in states like Assam, Meghalaya, Rajasthan and Jharkhand were also involved and this gives rise to the hope that in the future, empowering women could become real. The project now has a core group of 420 CMATs as volunteers and 49 Master Trainers in 7states.

A citizen friendly toolkit was developed that could be used by ordinary citizen with minimal training to test various basic parameters of a road. PAC initiated the process in Tamil Nadu and later in Karnataka and Orissa. The tools were tested on the field and the process was modified accordingly. The process was then implemented on select roads in Rajasthan, Meghalaya and Jharkhand. With further improvements to the process, citizen monitoring is currently used in seven states namely Assam, Meghalaya, Uttarakhand, Odisha, Jharkhand, Rajasthan & Karnataka. The process has evolved over the years and currently involves identifying volunteers through organisations with a presence at grass root level in states after cross checkings their credential to ensure that their credibility is above board, training them, collecting the report on roads through them and presenting the findings to NRRDA and the various State Rural Road Development Agencies (SRRDAs) who thereafter act on the findings.

## 9. GENERAL FINDINGS

A second round of monitoring has also been undertaken to study the improvements, if any that have been made on these roads.

### 9.1 IMPROVEMENTS ON ROADS:

- The length, breadth and thickness of most of the roads were almost as per the estimate in BOQ.
- Camber, which plays a critical role in draining off the water from the road surface, was not as per the prescribed norms.
- The maintenance of the shoulders was generally found poor and badly damaged and less width as per norms.
- In most of roads, furniture was maintained poorly.
- The drainage system of most of the roads was not as per the prescribed norms and drains were blocked with mud, shrubs, trees and debris etc. and seems periodical cleaning has not been taken up.

### 9.2 SENSE OF OWNERSHIP

Throughout the process, a sense of ownership is instilled among the local community towards their village roads and a „buy-in“ is created among the villagers regarding their role in monitoring the construction and maintenance of „their“ roads. In addition to technical knowledge through CMAT training and training of Master Trainers, awareness is also created regarding avenues for grievance redressal, putting up posters, screening of documentary films and Gram Sabhas. The larger objective is to fine tune and put in place a robust and sustainable process for citizen monitoring of PMGSY roads that could be implemented across the nation using the citizens of a village to continuously monitor their own roads.

### 9.3 POLICY IMPACT

PAC firmly believes that the right knowledge in the right places can do wonders. A success of the programme has been that the implementing government agency has been in partnership with PAC in the pilot stage and owing to the success of the pilot projects, the government is considering a policy shift to include the citizen monitoring component within the PMGSY guidelines. A policy change should not limit itself to inputs from intellectuals but should also be based on evidence from the grass root level.

**Note: A “QUALITATIVE REPORT”** on the selected roads with photographs as an evidence has been submitted to NRRDA and respective SRRDAs

The Phase II pilot study has identified instances where a) contractors have taken up and completed roadwork that were idle for months, b) trained volunteers (CMATs) were contacted by villagers from the neighbouring villages to monitor the roads, c) engineers from implementing agencies came with project proposals and provided

reasons as to why some work was inappropriate and what action had been initiated.

Due to these incidences the volunteers have been instilled with a confidence that their voice matters and that they can create change. Citizen monitoring is an idea whose time has come.

## **10. MODEL TEMPLATE FOR NEXT PHASE**

The following process could (subject to discussion, modification and acceptance in the system) form the model template for next phase for testing:

### **10.1 Sharing the Bill of Quantities (BoQ) of selected roads in simple format:**

This should be officially made available to all stakeholders (NRRDA, State Units, PIUs, PAC and SLPOs) on the selected roads in advance. When this is made available to the citizen volunteers prior to the training, provides an opportunity to prepare well for the training and the training becomes much more enriching.

### **10.2 Training of Citizen Volunteers at District Level:**

Based on the feedback received and PAC's observation, it would be ideal to conduct CMAT training at the district level for 3 days. This will certainly result in enhanced women participation as volunteers as these women, though they are interested, finding it difficult to travel a long distance and stay away from family for 4 to 5 days including the travel days if the training is conducted at the State level. This time the training was conducted in a remote place in Rajasthan.

### **10.3 More time required to organize Gram Sabha:**

More time is required to organize gram Sabhas in order to create more awareness and make it more effective with the help of a documentary film made during this phase. This documentary screening will help the villagers to understand the importance of rural roads, its economic impact, and their right to monitor the roads under construction and its maintenance after completion. The occasion is also used to educate the people about the PMGSY, their responsibilities towards PMGSY roads (Do's and Don'ts) and the process of monitoring.

### **10.4 Correction period:**

From the date of Baseline presentation, maximum of four month period is allowed for required correction. The PIUs shall act accordingly. The state

PMGSY units and NRRDA shall track the ATBTR. At the end of four months, the Action Taken Report (ATR) is prepared and shared by the PIU and is hosted in the OMASS. The PIU shall ensure the corrections wherever is necessary. The PIU shall post corresponding pictures to support the ATR at OMASS.

#### **10.5 Validating the ATR by Citizen Volunteers:**

ATR shall form the basis for second round of survey by the citizen volunteers. A Citizen Report Card (CRC) is prepared with pictures against the ATR and presented in the Gram Sabha in the presence of the PIU for its feedback. The CRC is also hosted at the OMASS for reference and necessary follow up by the State Cell/NRRDA.

## **11. POTENTIAL FOR SCALE-UP**

It is possible to replicate this project in other areas with poor road connectivity in other states especially North and North Eastern States and in most backward districts.

The fact that the project is not based on a particular social context would help its adaptability. A similar project approach can also be adopted for other government schemes like Public Distribution System, Indira Awas Yojana, National Rural Health Mission, Sarva Shiksha Abhiyan and such like to enhance transparency and accountability in planning, implementation and monitoring. Similarly, awareness of government programs can be created by organizing meetings in villages, training community members on RTI and also tracking service delivery based on stipulated guidelines with citizens' participation.

Leveraging SMS based mobile monitoring technology by using "MERI SADAK" mobile application developed by NRRDA

## **12. OBSERVATIONS**

The Citizen Monitoring of Pradhan Mantri Gram Sadak Yojana is an exemplary process of a government programme involving citizen voices and setting the standards for accountability. The following are the observations from the project:

### **12.1 Participation**

It has been observed that if right individuals are chosen and they are provided with necessary skills, then substantial changes come into a scheme which is already into action. People who care about their responsibilities, and in case of this project, consider road as an important asset of their village, make a difference in the implementation of the scheme. The scope of this scheme looks broader and well defined because of citizen participation.

### **12.2 Change through Technology**

The citizen monitoring mechanism works through collection of data on the condition of roads, but the other added advantage is use of photo evidences to justify the condition of road. This time, the final report also uses these photo evidences to put a clear and realistic picture of the work that is being done on the ground.

### **12.3 Empowerment Of Citizens**

It has been observed that individuals who monitor the condition of roads take a sense of pride in the work that they are doing. These individuals also require some motivation and appreciation from their respective authorities to do even better. Thus Citizen Monitors recognize the fact that they are doing some meaningful work and especially when the government takes some steps after the rounds of monitoring.

## **12.4 Social Accountability**

The Citizen monitoring mechanism of PMGSY is framed in such a way that the onus of responsibility comes on all the stakeholders. It's not only, the government or the contractors who are held responsible for their work, but the citizens also have an individual responsibility of enthusiastically collecting the data and put forward a realistic picture of the ground. It's for citizens to realize that the roads are their own assets. On the other hand, the contractors know there is a strong check mechanism in place and the work needs to be of set standards. The government here also has the onus of acting on the submitted reports which takes place after rounds of monitoring.

## **13. WAY AHEAD**

### **13.1 Expansion of Project – Citizen Monitoring of PMGSY Roads**

Based on the experience and the outcomes the citizen monitoring of PMGSY roads, needs to expand to other states. There is a serious need to take up the project in states which are geographically not easily accessible to urban areas. At the same time, the work also needs to be taken to states with huge population, where every financial year, a lot of funds are allocated to build PMGSY roads.

### **13.2 Enhance Monitoring Process**

Based on the previous experiences, the civil society organization involved here, in this case Public Affairs Centre will learn from the past and improve the monitoring process. The objective here is to continuously experiment and improve the mechanism till the level it becomes the mirror for showing the current situation on ground and increase the standards for *Social Accountability and Transparency*.

### **13.3 Increasing Women Participation**

One of the important learning from previous monitoring process is to include more numbers of women in the monitoring process. It is the responsibility of both men and women to rise up to the occasion and take up the charge of the rural roads through monitoring process. It is also observed that because of travelling for training purposes, women participation is seen less. In order to involve more women volunteers, their training should be conducted near to their respective villages.

### **13.4 Importance of Involving Gram Sabhas**

Gram Sabhas are one of the most important platform for understanding the needs and problems of a village. In case of PMGSY roads, also Gram sabhas are important platform to understand the issues faced by the villagers in relation to the road. Meetings should be held before and after the construction of roads in the respective villages. This helps to understand the actual requirements of the villagers in terms of the road which is going to be or is constructed. Simultaneously, because of this platform a lot of voices will be heard and people will get an opportunity to put forward their perspective on the issues related to PMGSY road.

### **13.5 Roles and Responsibilities of Citizen Monitors**

It is also realized that apart from all the citizen monitors doing monitoring work, there should also be some division of roles among the volunteers. The Master Trainers can oversee that the other volunteers are doing the work correctly.

### **13.6 No table of contents entries found. Workshop of Master Trainers for Training Other Citizens**

Once the Master Trainers are chosen and have gone through one more round of training, a workshop can be arranged at their respective states where these master trainers are giving training to other volunteers from the villages. In order to understand skill level of Master trainers, and check the overall training happening in workshop, state partners and Public Affairs Centre can participate in the workshop and act as observers. Necessary intervention will be done when right training is not imparted or to clear some doubts.

# **ANNEXURES**

## ANNEXURE: SUMMARY OF FINDINGS

### ANNEXURE 1: Karnataka

#### Karnataka: On-going Roads

Sl. No	Name of Road	Length of road (in kms)	Estimated Cost (in lakh ruppees)	Stage of work	Availability of Citizen Information Board	Are Contractor details given	Starting and completion dates given	Details given in local language
1	Tharapur	8.00	NA	PMC	No	No	No	No
2	Sirnal to Thaddevadi	7.80	391.00	WBM II, WBM III	Yes	Yes	Yes	Yes
3	Mallanduru to uthunganalli	6.70	361.00	WBM II, WBM III	Yes	Yes	Yes	Yes

Stage of the road	No. of Roads
1 Embankment	0
2 Subgrade (Formation stage)	0
3 Granular Sub base	0
4 WBM II	1
5 WBM III	3
6 Premix Carpet	0
	4

Table 2.7 Ongoing (WBM 2 stage) roads in Karnataka - Adherence to geometry specifications as in BoQ							
Sl.	Name of the road	Right of way width (M)	Road Way width (M)	Carriage way width (M)	Layer thickness (%)	Camber on the edge (%)	Presence of details on the PMGSY board
1	Simal to Thaddevadi	8.1	3.9	2.0	55	3	Yes

Table 2.8 Ongoing (WBM 2 stage) roads in Karnataka - Adherence to quality specifications as in BoQ							
Sl.	Name of the road	No. of stretches observed	Does minimum of 9 stones pass through slot no.1 (63 mm)	Does a minimum of 9stones retain in slot no.2 (45 mm)	Does all aggregates pass through slot no.4	Does more than 6 retain in slot no.5	Gap between road top surface and bottom of straight edge
1	Simal to Thaddevadi	10	No	No	No	No	15

Table 2.7 Ongoing (WBM 3 stage) roads in Karnataka - Adherence to geometry specifications as in BoQ							
Sl.	Name of the road	Right of way width	Road Way width	Carriage way width	Layer thickness (%)	Camber on the edge	Presence of details on the PMGSY board
1	Haruvanahalli to Ranganahalli (Madugodu)	11.1	8.6	3.9	66	1.4	Yes
2	Mallanduru to uthunganalli	10.4	7.8	4.5			Yes
3	tharapur to kadni	12.9	10.8	3.9			No

**Table 2.8 Ongoing (WBM 3 stage) roads in Karnataka - Adherence to quality specifications as in BoQ**

Sl .	Name of the road	No. of stretches observed	Does minimum of 9 stones pass through slot no. 2a (53 mm)	Does a minimum of 9 stones retain in slot no.3 (22.4)	Does all aggregates pass through slot no. 4a (11.2 mm)	Does more than 6 retain in slot no. 5 (5.6 mm)	Gap between road top surface and bottom of straight edge
1	Haruvanahalli to Rangenahalli (Madugodu)	10	Yes	Yes	Yes	Yes	26
2	Mallanduru to uthunganalli	10	No	Yes	Yes	Yes	20
3	tharapur to kadhi	10	Yes	Yes	Yes	Yes	15

## 2. Status of Citizen Monitoring of completed PMGSY Roads in Karnataka

Table 4.1 Completed roads in Karnataka - Maintenance							
S.No.	Name of the road	Age of the road in years	No. of stretches monitored	No. of pot holes		% of cracked areas	No. of locations where road edges are damaged
				Depth >20mm	Depth <20mm		
1	Thignibidari to babaleshwar	5 years	20	20	31	2	4
2	Thadavalga to lingdali	5years	20	NA	NA	2	22
3	BAMANJOGI TO JALVAD	6yearch	20	NA	NA	2	NA
4	Sangapur kathral to Arjungi	5 years	20	2	2	0	7
5	Alamala to Devarnavgi	5 years	20	271	191	0	200
6	R H 13 Domanal to Galavenagar	5 years	20	31	69	1.1	227
7	Golasangi to Hangaragi Road	5 years	20	NA	NA	0.875	NA

8	Shivanagi to Aheri	5 year	20	194	105	0	158
9	Chikkapatanageri to T-05-08	4 years, 1 month	20	143	115	0.1925	431
10	Ganadalu to KM Road	01.07.2011 to 30.06.2016	20	55	166	0.2225	135
11	G.Thimmapura to Gedlehalli	6 months	20	41	71	0.1925	67
12	Jambadalla to Tarikere road	1 year, 6 months	20	53	30	0.168	36
13	Hunasaghatta gate to vittalapura	9 months	20	245	369	0.341	102
14	Baskal to aladagudde	2 years, 1 month	20	476	736	28.85	556
15	Haruvanahalli to Ranganahalli (Madugodu)	0	12	9	10	0.083	13
16	Hiresigara to T20	(5 yrs 9 months)	20	144	208	0.117	26
17	Hiremagalore to K R Pet	2 years 2 months	20	40	27	0.0025	52

Table 4.2 Completed roads in Karnataka – Transparency Specification: Citizen Information Boards & Availability of Details									
Sl No.	Name of the road	Availability of Citizen information boards	Length of road specified in kms	Contractor details given	Estimated Cost budget of the road	Start and completion dates given	Details in local language		
1	Thignibidari to babaleshwar	Yes	4.80 km	Yes	Yes	Yes	Yes		
2	Thadavalga to lingdali	Yes	5	Yes	Yes	Yes	Yes		
3	BAMANJOGI TO JALVAD	Yes	11.5	Yes	Yes	Yes	Yes		
4	Sangapur kathral to Arjungi	Yes	8	Yes	Yes	Yes	Yes		
5	Alamala to Devarnavgi	Yes	12.8	Yes	Yes	Yes	Yes		
6	R H 13 Domanal to Galavenagar	Yes	6.04	Yes	Yes	Yes	Yes		
7	Golasangi to Hangaragi Road	Yes	10.6	Yes	Yes	Yes	Yes		
8	Shivanagi to Aheri	No	10	No	Yes	No	Yes		
9	Chikkapatnagere to T-05-08	Yes	5	Yes	Yes	Yes	Yes		

10	Ganadalu to KM Road	Yes		7.42	Yes	Yes	Yes	Yes	Yes
11	G. Thimmapura to Gedlehalli	Yes		5.5	Yes	Yes	Yes	Yes	Yes
12	Jambadalla to Tarikere road	Yes		7	Yes	Yes	Yes	Yes	Yes
13	Hunasaghatta gate to vittalapura	Yes		9.50kms	Yes	Yes	Yes	Yes	Yes
14	Baskal to aladagudde	Yes		15.72KM	Yes	Yes	Yes	Yes	Yes
15	Haruvanahalli to Ranganahalli (Madugodu)	Yes		7 KM	Yes	Yes	Yes	Yes	Yes
16	Hireshigara to T20	Yes		8.26Km	Yes	Yes	Yes	Yes	NA
17	Hiremagalore to K R Pet	Yes		18.24km	Yes	Yes	Yes	No	Yes

#### **4.4 Conclusions: Completed roads in Karnataka**

The contractor is responsible for maintenance of the road for 5 years after the road is constructed. The completed roads monitored in Karnataka are from 6 months to 6 years old, but most of them are around 5 years old. Table 4.1 indicates that the quality of most of the roads (except 2 roads) are not up to the standard. It can be observed that the roads which have many potholes (as high as 740 potholes) also have cracks and edges of all these roads have badly been damaged. This could be due to poor quality construction and shoulder part of the roads have not been aligned with the PMC surface or lack of timely maintenance by the contractors.

Table 4.2 reveals the presence of citizen information boards for each road under PMGSY with various information with a view to keep the public informed of the facts, which shows PMGSY's adherence to transparency specifications on the quality and quantity of PMGSY roads. In all the roads, the citizen information boards are present and most of the information has been presented in the respective local language.

From Table 4.3 we notice that the sign boards have been erected in all the roads monitored by CMATs. The culverts, both the slab and pipe culverts constructed are found to be in a good condition. The above table indicates that 80 percent of the pipe culverts constructed were in a good condition. It also says that kilometer stones and boundary stones have been fixed and kept colour washed. About 60 percent of the roads do not have circular shaped mandatory signboards is a point to be taken seriously.

With regard to the dimensions of the road, except the width of the Right of Way which falls short in all the roads, all the other dimensions such as width of the Road way, carriage way, shoulder width and camber of PMC as well as shoulder are almost same as specified in the BOQ.

## ANNEXURE: SUMMARY OF FINDINGS

### ANNEXURE 2: Odisha

#### Odisha: On -going Road

Sl. No	Name of Road	Length of road (in kms)	Estimated Cost (in lakh rupees)	Stage of work	Availability of Citizen Information Board	Are Contractor details given	Starting and completion dates given	Details given in local language
1	PWD Road to Mundapai	3.40	127.82		Yes	Yes	Yes	Yes
2	PWD Road to Ghatneli	10.15	477.49		Yes	Yes	Yes	Yes
3	RD Road to Korapadi	7.00	263.52		Yes	Yes	Yes	Yes
4	RD Road to Laxmipur	6.60	704.72		Yes	Yes	Yes	Yes
5	Seriguma to Tariguda	10.50	506.62	Embankment	Yes	Yes	No	Yes
6	Bhawanipur to Paral	1.67	122		Yes	Yes	Yes	Yes
7	RD Road to Kahniepur	1.30	69.71		Yes	Yes	Yes	Yes
8	Narendrpur to Benakea	3.15	189.38	Subgrade, GSB	Yes	Yes	Yes	Yes
9	NH to Tentulia	4.50	273.28	Subgrade	Yes	Yes	Yes	Yes

Stage of the road	No. of Roads
1 Embankment	4
2 Subgrade (Formation stage)	4
3 Granular Sub base	0
4 WBM II	0
5 WBM III	0
6 Premix Carpet	0
	8

**Table 2.3 Ongoing (Emb/SG stage) roads in Odisha - Adherence to geometry specifications as in BoQ**

Sl .	Name of the road	Right of way width	Road Way width	Carriage way width	Layer thickness (%)	Cross-slope (camber) (%)	Presence of PMGSY board
1	Bhawanipur to Paral	7.5	5.5	3.7	1.5	2.1	Yes
2	NH to Tentulia	8.8	6.8	3.7	2.4	1.6	Yes
3	PWD Road to Ghatneli	7.3	5.2	2.8	1.82	2.5	Yes
4	PWD Road to Mundapai	8.3	6.3	2	3.45	2.1	Yes
5	RD Road to Kahnipur	8.6	6.7	3.8	2.6	2.5	Yes
6	RD Road to Korapadi	9.3	6.5	3.6	2.3	1.4	Yes
7	RD Road to Laxmipur	9.3	7.3	3.7	4.1	1.5	Yes
8	Seriguma to Tariguda	25.8	20.1	12.3	5.68	1.3	Yes

**Table 2.4 Ongoing (Emb/SG stage) roads in Odisha - Adherence to quality specifications as in BoQ**

Sl.No	Name of the road	No. of stretches observed	Quality of soil used is good	Any rolling marks observed	Any depressions observed
1	Bhawanipur to Paral	2	Yes	No	No
2	NH to Tentulia	5	Yes	No	No
3	PWD Road to Ghatneli	1	Yes	Yes	No
4	PWD Road to Mundapai	4	No	Yes	No
5	RD Road to Kahnipur	2	Yes	No	No
6	RD Road to Korapadi	1	Yes	Yes	No
7	RD Road to Laxmipur	2	No	No	No
8	Seriguma to Tariguda	1	No	No	Yes

## 2. Completed Roads Status of Citizen Monitoring of PMGSY Roads in Odisha

Table 7.1 Completed roads in Odisha - Maintenance							
S.No.	Name of the road	Age of the road in years	No. of stretches monitored	No. of potholes		% of cracked areas	No. of locations where road edges are damaged
				Depth >20mm	Depth <20mm		
1	RD to Lekhapai	0	4	10	15	7.5	14
2	Seriguma to Lamberi	0	19	14	11	1.6	4
3	PWD road to Patraguda	2yr. 3 months	13	17	0	0	8
4	PWD road to Rengalpadu	2 years, 6 months	8	42	72	12	22
5	RD Road to Badakasipadu	2yr. 6months	16	0	0	0.75	6
6	NH to Sadanandapur	2yr. 1 months	4	NA	NA	0	0
7	Sarangajodi to Torania	1yr. 7 months	15	0	0	0.7	10
8	Jagadalpur/JataniPipili	0	20	396	382	35	263
9	RD Road to Deulapada	1year 6 months	14	62	74	29.6	66
10	RD Road to Anua	10 months	10	95	105	28.5	42
11	RD Road to Sanaanla	11 moths	16	73	90	21.5	6

**Table 7.2 Completed roads in Odisha – Transparency Specification: Citizen Information Boards & Availability**

Sl No.	Name of the road	Availability of Citizen information boards	Length of road specified in kms	Contractor details given	Estimated Cost budget of the road (Rs.in lakhs)	Start and completion dates given	Details in local language
1	RD to Lekhapai	Yes	12	Yes	NA	No	Yes
2	Seriguma to Lamberi	Yes	4.7	No	209.87	No	Yes
3	PWD road to Patraguda	Yes	3.3	Yes	115.88	Yes	Yes
4	PWD road to Rengalpadu	Yes	2	Yes	628.36	Yes	Yes
5	RD Road to Badakasipadu	Yes	5.5	Yes	245.59	Yes	Yes
6	NH to Sadanandapur	Yes	1.02	Yes	46.94	Yes	Yes
7	Sarangajodi to Torania	Yes	3.85	Yes	180.58	Yes	Yes
8	Jagadalpur.JataniPipili	No	10.5	No	NA	No	No
9	RD Road to Deulapada	Yes	3.35	Yes	162.95	Yes	Yes
10	RD Road to Anua	Yes	2.5	Yes	180.71	Yes	Yes

**Table 7.3 Completed roads in Odisha – Status on Road Furniture**

Sl. No.	Name of the road	Km stones present, painted and details visible (Yes in %)	Boundary stones are fixed & colour washed (Yes in %)	Triangular shape (cautionary) sign boards erected (Yes / No)	Traffic circular shape sign boards erected (Yes / No)	No. of slab Culverts (% in good condition)	Pipe culverts	
							No.of culverts	No.in good condition)
1	RD to Lekhapai	100	No	No	No	0	0	NA
2	Seriguma to Lamberi	100	No	Yes	No	0	1	1
3	PWD road to Patraguda	100	No	Yes	No	0	1	1
4	PWD road to Rengalpadu	100	No	Yes	No	2 (100%)	1	1
5	RD Road to Badakasipadu	100	No	Yes	No	0	1	1
6	NH to Sadanandapur	25	No	Yes	No	0	0	NA
7	Sarangajodi to Torania	100	No	No	No	0	1	1
8	Jagadapur/JataniPipili	NA	No	No	No	1(0%)	6	2
9	RD Road to Deulapada	0	No	No	No	0	1	1
10	RD Road to Anua	0	No	Yes	Yes	0	0	NA

### **Conclusions: PMGSY roads in Odisha**

The roads monitored in Odisha are between 10 months to 2.5 years old. Table 7.1 indicates that these are not very old, not more than two and a half years old after completion. Table 7.1 indicates that the maintenance of the roads is not up to the expectation considering the age of the roads. Almost all the roads have started developing potholes, cracks and edges have also been damaged. As these roads are still under contractor's maintenance, it could have been in a better condition. This could be due to lack of timely maintenance by the contractors and lack of involvement of local government.

Table 7.2 reveals the presence of citizen information boards for each road under PMGSY with various information with a view to keep the public informed of the facts, which shows PMGSY's adherence to transparency specifications on the quality and quantity of PMGSY roads. In all the roads, the citizen information boards are present at the starting point of the roads and the information has been presented in the respective local language including the details like length of the roads, contractor, cost estimate and starting and completion dates. From Table 7.3 shows that kilometer stones have been fixed and maintained with colour washed in 60 percent of the roads, but none of the roads have boundary stones and the authorities should take a serious note of this lapse. It is same in the case of signboards both triangular shaped and circular mandatory signboards where the sign boards are missing. It was observed that the pipe culverts are being maintained in a good condition.

With regard to the dimensions of the road, the width of the Right of Way which falls short or more than the specified measurements of 7 meters in all the roads. Other road dimensions such as width of the Roadway and carriageway, which are measuring around 7 and 3.75 meters respectively, are matching with the BOQ specifications. The camber is the problem in all the roads, which is around 1.5 meters, which is slightly short of the BOQ specified measurements.

## ANNEXURE: SUMMARY OF FINDINGS

### ***ANNEXURE 3: Rajasthan*** **Rajasthan: On –going Road**

Sl. No	Name of Road	Length of road (in kms)	Estimated Cost (in lakh rupees)	Stage of work	Availability of Citizen Information Board	Are Contractor details given	Starting and completion dates given	Details given in local language
1	Badhala Basani to Kanji Maharaj ki gupha	6.50	127.56	GSB	Yes	Yes	Yes	Yes
2	Off JT road road from Harlaee to Roop ka Bera Brahamano Sadho ki dhani	6.50	140.72	WBM II	Yes	Yes	Yes	Yes
3	Harlaee-Samrao road 34 km to Medhjera khinchi polani Pannu ki dhani	6.00	139.00	WBM II	Yes	Yes	Yes	Yes
4	Ompura to Hanumansagar, Musalmano ki dhani	2.00	35.00	PMC	Yes	Yes	Yes	Yes
5	Tapu to Meghwalo ki dhani, Bheelo ki dhani	3.50	63.30	WBM II	Yes	Yes	Yes	Yes
6	Himmatsar to Jheelae nadi ki dhani	5.00	100.86	WBM II	Yes	Yes	Yes	Yes
7	Gattu to Puniyo ki dhani	4.50	106.59	WBM II, WBM III, PMC	Yes	Yes	Yes	Yes
8	Durgapura Jaisalsar to Dharmayat megwalo ki dhani	5.00	100.57	GSB	Yes	Yes	Yes	Yes
9	Salundiya to Mehlaee nadi ki dhani	4.00	108.71	WBM II	Yes	Yes	Yes	Yes
10	Morkhana Athuna to Mekhalaw Talab dhaniya	3.50	78.87	WBM II	Yes	Yes	Yes	Yes

Stage of the road	No. of Roads
1 Embankment	0
2 Subgrade (Formation stage)	0
3 Granular Sub base	2
4 WBM II	5
5 WBM III	0
6 Premix Carpet	0
	7

**Table 2.3 Ongoing (GSB stage) roads in Rajasthan - Adherence to geometry specifications as in BoQ**

Sl .	Name of the road	Right of way width	Road Way width	Carriage way width	Layer thickness (%)	Camber on the edge (%)	Presence of PMGSY board
1	Badhala Basani to Kanji Maharaj ki gupha	6	4.9	3.3	125	1.2	Yes
2	Durgapura Jaisalsar to Dharmayat megwalo ki dhani	5.4	3.4	2.9	550	1.1	Yes

Table 2.4 Ongoing (GSB stage) roads in Rajasthan - Adherence to quality specifications as in BoQ					
Sl.No	Name of the road	No. of stretches observed	Quality of soil used is good	Any rolling marks observed	Any depressions observed
1	Badhala Basani to Kanji Maharaj ki gupha	7	Yes	No	No
2	Durgapura Jaisalsar to Dharmayat megwalo ki dhani	4	No	No	No

Table 2.7 Ongoing (WBM 2 stage) roads in Rajasthan - Adherence to geometry specifications as in BoQ								
Sl.	Name of the road	Right of way width (M)	Road Way width (M)	Carriage way width (M)	Layer thickness (%)	Camber on the edge (%)	Presence of PMGSY board	Presence of details on the PMGSY board
1	Harlaee-Samrao road 34 km to Meghjera khichi, Polani Panu ki dhani	7.6	6.0	3.0	110	3	Yes	Yes
2	Himmatsar to Jheelae nadi ki dhani	5.3	3.7	3.6	94	1.2	Yes	Yes
3	Morkhana Athuna to Mekhalaw Talab dhaniya	5.9	5.8	3.4	35	0.5	Yes	Yes
4	Off JT road from Harlaee to Roop ka Bera Brahamano Sadho ki dhani	8.0	6.4	3.2	89	1.07	Yes	Yes
5	Tapu to Meghwalo ki dhani, Bheelo ki dhani	5.7	5.1	2.9	122	0.67	Yes	Yes

**Table 2.8 Ongoing (WBM 2 stage) roads in Rajasthan - Adherence to quality specifications as in BoQ**

Sl .	Name of the road	No. of stretches observed	Does minimum of 9 stones pass through slot no.1 (63 mm)	Does a minimum of 9stones retain in slot no.2 (45 mm)	Does all aggregates pass through slot no.4	Does more than 6 retain in slot no.5	Gap between road top surface and bottom of straight edge
1	Harlaee-Samrao road 34 km to Meghjera khichi, Polani Panu ki dhani	6	Yes	Yes	Yes	No	10
2	Himmatsar to Jheelae nadi ki dhani	5	Yes	Yes	No	Yes	40
3	Morkhana Athuna to Mekhalaw Talab dhaniya	4	No	Yes	No	Yes	46
4	Off JT road road from Harlaee to Roop ka Bera Brahamano Sadho ki dhani	7	Yes	Yes	Yes	Yes	10
5	Tapu to Meghwalo ki dhani, Bheelo ki dhani	4	Yes	No	No	Yes	28

**Completed Roads: Rajasthan**

Table 5.1 Completed roads in Rajasthan - Maintenance							
S.No.	Name of the road	Age of the road in years	No. of stretches monitored	No. of pot holes		% of cracked areas	No. of locations where road edges are damaged
				Depth >20mm	Depth <20mm		
1	Charkadha village to Kumharo ki dhani	1 year, 4 months	16	0	265	4.6	10
2	Kakku to Jogaji ki dhani via chohano ki dhani	10 months	20	130	400	3.2	36
3	Hansasar to Godaro ki dhani	10 months	16	103	245	4	45
4	Morkhana to Kiratsar Phanta ki dhaniya	10 months	13	0	165	1.84	22
5	Charkadha to Bhakharo ki dhani	10 months	20	59	420	4.1	27
6	SH-61-KM-105 to Babu khan sindiyo ki dhani	5 month	20	118	165	0.85	7
7	Bapini station to Kumharo ki dhani, Meghwalo, Naeeyo ki dhani	7 month	20	28	980	1.05	5
8	Panchala khurd to charano ki dhani	5 month	20	132	130	2.75	30
9	Bhojiya bera KMO/500 to Dr. Bhimpal ki dhani	9 month	8	6	324	2.12	24
10	Panchala khurd to Baba ramdev ji oran	5 month	12	101	105	1.91	13

Table 5.2 Completed roads in Rajasthan – Transparency Specification: Citizen Information Boards & Availability of Details							
Sl No.	Name of the road	Availability of Citizen information boards	Length of road specified in kms	Contractor details given	Estimated Cost budget of the road (Rs.in lakhs)	Start and completion dates given	Details in local language
1	Charkadha village to Kumharo ki dhani	Yes	5	Yes	107.57	Yes	Yes
2	Kakku to Jogaji ki dhani via chohano ki dhani	Yes	8	Yes	188.89	Yes	Yes
3	Hansasar to Godaro ki dhani	Yes	5	Yes	122.98	Yes	Yes
4	Morkhana to Kiratsar Phanta ki dhaniya	Yes	3	Yes	91.05	Yes	Yes
5	Charkadha to Bhakharo ki dhani	Yes	7	Yes	130.99	Yes	Yes
6	SH-61-KM-105 to Babu khan sindiyo ki dhani	Yes	5.1	Yes	52.36	Yes	Yes
7	Bapini station to Kumharo ki dhani, Meghwalo, Naeeyo ki dhani	Yes	7	Yes	110.30654	Yes	Yes
8	Panchala khurd to charano ki dhani	Yes	6.7	Yes	142.34	Yes	Yes
9	Bhojiya bera KMO/500 to Dr. Bhimpal ki dhani	Yes	1.8	Yes	33.11	Yes	Yes
10	Panchala khurd to Baba ramdev ji oran	Yes	3	Yes	60.65	Yes	Yes

**Table 5.3 Completed roads in Rajasthan-Status on RoadFurniture**

Sl. No.	Name of the road	Km stones present, painted and details visible (Yes in %)	Boundary stones are fixed & colour washed (Yes in %)	Triangular shape (cautionary) sign boards erected ( Yes / No)	Traffic circular shape sign (mandatory) boards erected ( Yes / No)	No. of slab Culverts (% in good condition)	Pipe culverts	
							No.of culverts	No.in good condition)
1	Charakadha village to Kumharo ki dhani	100%	100%	Yes	No	No	No	No
2	Kakku to Jogaji ki dhani via chohano ki dhani	100%	Yes (0%)	Yes	No	No	No	No
3	Hansasar to Godaro ki dhani	100%	100%	Yes	No	No	No	No
4	Morkhana to Kiratsar Phanta ki dhaniya	100%	100%	Yes	No	No	No	No
5	Charakadha to Bhakharo ki dhani	100%	100%	Yes	No	No	No	No
6	SH-61-KM-105 to Babu khan sindiyo ki dhani	100%	100%	Yes	Yes	No	No	No
7	Bapini station to Kumharo ki dhani, Meghwalo, Naeyo ki dhani	100%	100%	Yes	No	No	No	No
8	Panchala khurd to charano ki dhani	100%	100%	Yes	No	No	No	No
9	Bhojiya bera KMO/500 to Dr. Bhimpal ki dhani	100%	100%	Yes	No	No	No	No
10	Panchala khurd to Baba ramdev ji oran	100%	100%	Yes	No	No	No	No

## ANNEXURE: SUMMARY OF FINDINGS

### *ANNEXURE 4: Uttarakhand* **Uttarakhand: On-going Roads**

Sl. No	Name of Road	Length of road (in kms)	Estimated Cost (in lakh ruppees)	Stage of work	Availability of Citizen Information Board	Are Contractor details given	Starting and completion dates given	Details given in local language
1	Takura to Thalari	8.00	261.00	WBM II	Yes	Yes	Yes	Yes
2	Depura to Saur	15.00	547.61	WBM III	Yes	Yes	Yes	Yes
3	Babiyar to Dudli	5.58	275.54	PMC	No	No	No	No
4	Cheedakhan to Amzad	26.00	NA	PMC	Yes	Yes	Yes	Yes
5	Hartapa to Hali Talla Ramgarh	7.00	247.83	PMC	Yes	Yes	Yes	Yes
6	Nainisain to Patwada	12.86	468.24		Yes	Yes	Yes	Yes
7	Silkani to Mathiyali	20.00	4.08	PMC	Yes	Yes	Yes	Yes
8	Gularmidath Nayi to 6 km. Chameli	9.25	90.23		Yes	Yes	Yes	Yes
9	Mungrali to Jhingwali	5.80	36.88	GSB,WBM II	Yes	Yes	Yes	Yes
10	Sarasgaon to Khola	9.75	47.00	4	Yes	Yes	Yes	Yes
11	Rampru to Shyampru	20.50	NA	6	Yes	Yes	Yes	Yes

Stage of the road	No. of Roads
1 Embankment	0
2 Subgrade (Formation stage)	2
3 Granular Sub base	0
4 WBM II	0
5 WBM III	2
6 Premix Carpet	6
	10

**Table 2.3 Ongoing (Emb/SG stage) roads in Uttarakhand - Adherence to geometry specifications as in BoQ**

Sl .	Name of the road	Right of way width	Road Way width	Carriage way width	Layer thickness (%)	Cross-slope (camber) (%)	Presence of PMGSY board
1	Hartapa to Hali Talla Ramgarh	6.4	5.2	3.6	124	2	Yes
2	Rampru to Shyampru	8.2	5.2	3.5	119	3.0	Yes

**Table 2.4 Ongoing (Emb/SG stage) roads in Uttarakhand - Adherence to quality specifications as in BoQ**

Sl.No	Name of the road	No. of stretches observed	Quality of soil used is good	Any rolling marks observed	Any depressions observed
1	Hartapa to Hali Talla Ramgarh	5	Yes	No	No
2	Rampru to Shyampru	5	Yes	No	No

Sl.	Name of the road	Right of way width	Road Way width	Carriage way width	Layer thickness (%)	Camber on the edge	Presence of PMGSY board	Presence of details on the PMGSY board
1	Devipura to Saur	5.4	4.5	3.7	75	3.7	Yes	Yes
2	Mungrali to Jhingwali	7.8	4.4	3.4	80	3.7	Yes	Yes

Sl .	Name of the road	No. of stretches observed	Does minimum of 9 stones pass through slot no. 2a (53 mm)	Does a minimum of 9 stones retain in slot no.3 (22.4)	Does all aggregates pass through slot no. 4a (11.2 mm)	Does more than 6 retain in slot no. 5 (5.6 mm)	Gap between road top surface and bottom of straight edge
1	Devipura to Saur	5	Yes	No	Yes	No	12
2	Mungrali to Jhingwali	5	Yes	No	Yes	No	16

**Table 2.9 Ongoing (PMC stage) roads in Uttarakhand - Adherence to geometry specifications as in BoQ**

Sl	Name of the road	Right of way width	Road Way width	Carriage way width	Layer thickness (%)	Camber (%)	Shoulder level with PMC(%)	Shoulder camber (%)	Presence of PMGSY board	Presence of details on the MGSY board
1	Babiyar to Dudli	7.4	4.8	3.1	22	2.1	Yes	2.3	Yes	Yes
2	Cheedakhan to Amzad	8	6.1	3.2	19	1.7	Yes	2.9	Yes	Yes
3	Nainisain to Patwada	7.4	6	3.2	20.1	3.2	No	3.5	Yes	Yes
4	Sarasaon to Khola	7.9	6.6	3.5	21.8	2.9	Yes	3.1	Yes	Yes
5	Silkani to Mathiyali	7.5	5.2	3.4	22.2	2.4	Yes	2.3	Yes	Yes
6	Takura to Thalari	7.6	5.5	3.2	30.6	1.8	Yes	2	Yes	Yes

**Table 2.10 Ongoing (PMC stage) roads in Uttarakhand - Adherence to quality specifications as in BoQ**

Sl .	Name of the road	No. of stretches observed	Big stones pass in 22.4 mm	Big stones retain 11.2 mm	Small stones pass in 13.2 mm	Small stones retain in 5.6 mm	Mechanical sprayer used	roller marks	Undulation found	patholes found
1	Babiyar to Dudli	5	Yes	Yes	Yes	Yes	Yes	No	No	No
2	Cheedakhan to Amzad	5	Yes	Yes	Yes	Yes	Yes	No	No	No
3	Nainisain to Patwada	5	Yes	Yes	Yes	Yes	Yes	No	No	No
4	Sarasaon to Khola	5	Yes	Yes	Yes	Yes	Yes	No	No	No
5	Silkani to Mathiyali	5	Yes	Yes	Yes	Yes	Yes	No	No	No
6	Takura to Thalari	5	Yes	Yes	Yes	Yes	Yes	No	No	No

## Completed Roads: Uttarakhand

### 1. Status of Completed PMGSY Roads in Uttarakhand

Table 1.1 Completed roads in Uttarakhand - Maintenance							
S.No.	Name of the road	Age of the road in years	No. of stretches monitored	No. of pot holes	% of cracked areas	No. of locations where road edges are damaged	
1	Nathuwakhan To Gadhgaon	7 years 1 month	20	0	0.5	11	
2	Jhanjar to Aksoda	3 Years	20	287	3.35	74	
3	Kainchi to Hartapa	5 years	20	1138	19.75	265	
4	Bhujiyaghat to Surya gaon talla	0	20	20	4.0	36	
5	Pahriyadhar to Surang	7 months	20	0	3.0	3	
6	Shivpuri To Timali	1 Year,1 Month	17	57	0	0	
7	Mulyagaon to Palethi	Not clear	20	3	1.25	0	
8	Budha Kedar to Ragasya	0	20	1036	52.5	1408	
9	Kaul to Kudarna	1 year, 7 months	20	169	13	202	

<b>Table 1.2 Completed roads in Uttarakhand – Transparency Specification: Citizen Information Boards &amp; Availability of Details</b>								
<b>Sl No.</b>	<b>Name of the road</b>	<b>Availability of Citizen information boards</b>	<b>Length of road specified in kms</b>	<b>Contractor details given</b>	<b>Estimated Cost budget of the road</b>	<b>Start and completion dates given</b>	<b>Details in local language</b>	
1	Nathuwakhan To Gadhgaon	Yes	5.00	Yes	Yes	Yes	Yes	
2	Jhanjar to Aksoda	Yes	9.00	Yes	Yes	Yes	Yes	
3	Kainchi to Hartapa	Yes	7.27	Yes	Yes	Yes	Yes	
4	Bhujyaghat to Surya gaon talla	Yes	5 .00	Yes	Yes	Yes	Yes	
5	Pahriyadhar to Surang	Yes	11 .00	Yes	Yes	Yes	Yes	
6	Shivpuri To Timali	Yes	14.89	Yes	Yes	Yes	Yes	
7	Mulyagaon to Palethi	Yes	7.78	Yes	Yes	Yes	Yes	
8	Budha Kedar to Ragasya	Yes	15.00	Yes	Yes	No	Yes	
9	Kaul to Kudarna	Yes	6.00	Yes	Yes	Yes	Yes	

Table 1.3 Completed roads in Uttarakhand –Status on RoadFurniture								
Sl. No.	Name of the road	Kim stones present, painted and details visible (Yes in %)	Boundary stones are fixed & colour washed (Yes in %)	Triangular shape (cautionary) sign boards erected ( Yes / No)	Traffic circular shape sign (mandatory) boards erected ( Yes / No)	No. of slab Culverts (% in good condition)	No of pipe culverts (% in good condition)	
1	Nathuwakhan To Gadhgaon	100 %	100	Yes	No	11 (100%)	-	
2	Jhanjar to Aksoda	100 %	100	Yes	No	21 (100%)	3 (100%)	
3	Kainchi to Hartapa	100% present, only 25% painted	100	Yes	Yes	1 (100%)	-	
4	Bhujiyaghat to Surya gaon talla	100 %	100	Yes	Yes	NA	-	
5	Pahriyadhar to Surang	100 %	100	Yes	No	14 (85%)	-	
6	Shivpuri To Timali	100 %	No	Yes	Yes	20 (90%)	-	
7	Mulyagaon to Palethi	100 %	100	Yes	Yes	NA	-	
8	Budha Kedar to Ragasya	100 %	100	Yes	Yes	NA	-	
9	Kaul to Kudarna	100 %	100	Yes	Yes	NA	-	

## **Conclusions: Completed roads in Uttarakhand**

The contractor is responsible for maintenance of the road for 5 years after the road is constructed. The completed roads monitored in Uttarakhand are from 1 to 7 years old, but most of them are above 3 years old. Table 1.1 indicates that the quality of 5 out of 9 roads are not up to the standard. It can be observed that the roads which have many potholes (as high as 1138 potholes) also have cracks and edges of these 5 roads have badly been damaged. This could be due to poor quality construction and shoulder part of the roads are have not been aligned with the PMC surface or lack of timely maintenance by the contractors.

Table 1.2 reveals the presence of citizen information boards for each road under PMGSY with various information with a view to keep the public informed of the facts, which shows PMGSY's adherence to transparency specifications on the quality and quantity of PMGSY roads. In all the roads, the citizen information boards are present and most of the information has been presented in the respective local language.

From Table 1.3 we notice that the sign boards have been erected in all the roads monitored by CMATs. The culverts, both the slab and pipe culverts constructed are found to be in a good condition.

With regard to the dimensions of the road, except the width of the Right of Way which falls short in all the roads, all the other dimensions such as width of the Road way, carriage way, shoulder width and camber of PMC as well as shoulder are almost same as specified in the BOQ.

## ANNEXURE: SUMMARY OF FINDINGS

### **ANNEXURE 5: Meghalaya Meghalaya: On –going Road**

Stage of the road	No. of Roads
1 Embankment	2
2 Subgrade (Formation stage)	0
3 Granular Sub base	1
4 WBM II	4
5 WBM III	1
6 Premix Carpet	0
	8

**Table 2.3 Ongoing (Emb/SG stage) roads in Meghalaya - Adherence to geometry specifications as in BoQ**

Sl .	Name of the road	Right of way width	Road Way width	Carriage way width	Layer thickness (%)	Cross-slope (camber) (%)	Presence of PMGSY board
1	67 km of UJ road to Mawker	8.4	7.5	3.7	125	1.2	Yes
2	SOS to Lumsohpetbneng	7.2	5.3	3.5	125	1.0	Yes

Table 2.4 Ongoing (Emb/SG stage) roads in Meghalaya - Adherence to quality specifications as in BoQ					
Sl.No	Name of the road	No. of stretches observed	Quality of soil used is good	Any rolling marks observed	Any depressions observed
1	67 km of UJ road to Mawker	4	No	No	No
2	SOS to Lumsohpelbneng	5	Yes	Yes	No

Table 2.3 Ongoing (GSB stage) roads in Meghalaya - Adherence to geometry specifications as in BoQ							
Sl .	Name of the road	Right of way width	Road Way width	Carriage way width	Layer thickness (%)	Camber on the edge (%)	Presence of PMGSY board
1	Umlatdoh-Ummat	8.7	6.2	3.7	130	3.7	Yes

Table 2.4 Ongoing (GSB stage) roads in Meghalaya - Adherence to quality specifications as in BoQ					
Sl.No	Name of the road	No. of stretches observed	Quality of soil used is good	Any rolling marks observed	Any depressions observed
1	Umlatdoh-Ummat	4	Yes	No	No

**Table 2.7 Ongoing (WBM 2 stage) roads in Meghalaya - Adherence to geometry specifications as in BoQ**

Sl.	Name of the road	Right of way width (M)	Road Way width (M)	Carriage way width (M)	Layer thickness (%)	Camber on the edge (%)	Presence of PMGSY board	Presence of details on the PMGSY board
1	209th of NH44E-Longnoh	8.6	6.6	3.9	55	3	Yes	Yes
2	Lakadong-Madanpohkseh	9.8	6.6	3.4	65	3.5	Yes	No
3	Lummiwar to Ingsaw	7.9	7.1	5.5	70	3	Yes	Yes
4	US Road To Nartap and Sohlairim	8.2	6.8	3.5	75	3	Yes	Yes

**Table 2.8 Ongoing (WBM 2 stage) roads in Meghalaya - Adherence to quality specifications as in BoQ**

Sl.	Name of the road	No. of stretches observed	Does minimum of 9 stones pass through slot no.1 (63 mm)	Does a minimum of 9stones retain in slot no.2 (45 mm)	Does all aggregates pass through slot no.4	Does more than 6 retain in slot no.5	Gap between road top surface and bottom of straight edge
1	209th of NH44E-Longnoh	4	Yes	Yes	Yes	Yes	53
2	Lakadong-Madanpohkseh	4	Yes	Yes	Yes	Yes	20
3	Lummiwar to Ingsaw	5	Yes	Yes	Yes	Yes	46
4	US Road To Nartap and Sohlairim	5	Yes	Yes	No	Yes	16

Table 2.7 Ongoing (WBM 3 stage) roads in Meghalaya - Adherence to geometry specifications as in BoQ								
Sl.	Name of the road	Right of way width	Road Way width	Carriage way width	Layer thickness (%)	Camber on the edge	Presence of PMGSY board	Presence of details on the PMGSY board
1	Synku to Paitklong	7.6	5.8	3.3	43	1	Yes	Yes

Table 2.8 Ongoing (WBM 3 stage) roads in Meghalaya - Adherence to quality specifications as in BoQ							
Sl.	Name of the road	No. of stretches observed	Does minimum of 9 stones pass through slot no. 2a (53 mm)	Does a minimum of 9 stones retain in slot no.3 (22.4)	Does all aggregates pass through slot no. 4a (11.2 mm)	Does more than 6 retain in slot no. 5 (5.6 mm)	Gap between road top surface and bottom of straight edge
1	Synku to Paitklong	5	Yes	Yes	Yes	No	40

### CMAT findings in Completed PMGSY Roads of Meghalaya

Table 3.1 Completed roads in Meghalaya - Maintenance							
S.No.	Name of the road	Age of the road in years	No. of stretches monitored	No. of pot holes		% of cracked areas	No. of locations where road edges are damaged
				Depth >20mm	Depth <20mm		
1	Semasi - Mynthning	0	10	5	6	15.0	12
2	DAJ road - Moosakhia	0	16	45	67	15.3	60
3	Mulait-Mukhairi	N/A	20	7	1	10.8	6
4	Shangpung-Muthlongrim	N/A	13	NA	NA	3.8	29
5	Shilliangmyntang-Thadsning	1 year	20	NA	NA	10.0	14
6	Umlaiteng	0	0	NA	NA	0.0	0
7	GS Road to Syadrit-Syadheh	12 years	8	0	43	0.0	43
8	Umkon Umshaken-Mawphru	NA	20	NA	NA	0.0	0
9	Sonidan Jait-Lamalong	Not Applicable	20	NA	NA	0.0	0
10	Mawblang-Klew	12 years	4	10	6	7.5	65

<b>Table 3.2 Completed roads in Meghalaya – Transparency Specification: Citizen Information Boards &amp; Availability of Details</b>									
<b>Sl No.</b>	<b>Name of the road</b>	<b>Availability of Citizen information boards</b>	<b>Length of road specified in kms</b>	<b>Contractor details given</b>	<b>Estimated Cost budget of the road (Rs.in lakhs)</b>	<b>Start and completion dates given</b>	<b>Details in local language</b>		
1	Semasi - Mynthing	Yes	2.80 km	Yes	193.12	Yes	Yes		
2	DAJ road - Moosakhia	Yes	4.1 Km	Yes	0	No	No		
3	Mulait-Mukhaiñ	Yes	6.2 km	Yes	449.40	Yes	No		
4	Shangpung-Muthlongrim	Yes	3.1Km	Yes	N/A	No	No		
5	Shilliangmyntang-Thadsning	Yes	5.0 km	Yes	179.90	No	No		
6	Umlaiteng	Yes	2.0 km	Yes	109.38	No	No		
7	GS Road to Syadrit-Syadheh	Yes	2.0 km	Yes	35.63	Yes	No		
8	Umkon Umshaken-Mawphru	Yes	NA	No	NA	No	No		
9	Sonidan Jair-Lamalong	Yes	9.0 km	Yes	199.52	Yes	No		
10	Mawblang-Klew	Yes	1.0 km	Yes	25.9	Yes	Yes		

**Table 3.3 Completed roads in Meghalaya – Status on Road Furniture**

Sl. No.	Name of the road	Km stones present (yes/No), painted and details visible (in %)	Boundary stones are fixed & colour washed (Yes in %)	Triangular shape (cautionary) sign boards erected ( Yes / No)	Traffic circular shape sign (mandatory) boards erected ( Yes / No)	No. of slab Culverts (% in good condition)	No of pipe culverts (% in good condition)
1	Semasi - Mynthning	No	Yes (100%)	2	2	0	1 (100%)
2	DAJ road - Moosakhia	Yes (78%)	Yes (0%)	2	2	0	17 (100%)
3	Mulait-Mukhaiñ	Yes (100%)	No	2	2	0	31 (100%)
4	Shangpung-Muthlongrim	No	No	2	2	0	4 (100%)
5	Shilliangmyntang-Thadsning	No	No	2	2	0	25 (100%)
6	Umlaiteng	No	No	2	2	0	0
7	GS Road to Syadrit-Syadhleh	Yes (25%)	No	2	2	0	0
8	Umkon Umshaken-Mawphru	No	No	2	2	0	0
9	Sonidan Jair-Lamalong	No	No	2	2	0	0
10	Mawblang-Klew	No	No	2	2	0	0

**Table 3.4 Completed roads in Meghalaya - Adherence to specifications as in BoQ**

<b>SI No</b>	<b>Name of the road</b>	<b>Right of way width (%)</b>	<b>Road way width (%)</b>	<b>Carriage way (PMC) width (%)</b>	<b>PMC camber (%)</b>	<b>Shoulder width (%)</b>	<b>Shoulder camber (%)</b>
1	Semasi - Mynthning	59	0	0	0	0	0
2	DAJ road - Moosakhia	60	0	0	0	0	0
3	Mulait-Mukhaiñ	59	0	0	0	0	0
4	Shangpung-Muthlongrim	61.66	100	77.33	0	100	0
5	Shilliangmyntang-Thadsning	56.5	100	86.4	0	61	0
6	Umlaiteng	65	100	81	0	27	0
7	GS Road to Syadrit-Syadheh	69	0	0	0	0	0
8	Umkon Umshaken-Mawphru	65	102	116	0	75	0
9	Sonidan Jair-Lamalong	65.66	102	105	0	92.22	0
10	Mawblang-Klew	81	129	111	35.56	188	42.13

### **3.5 Conclusions: Completed Roads in Meghalaya**

The Table 3.1 records the age of the roads, some are very old and some are recently completed ones. Not much of potholes are spotted in five out of ten roads and it is same in the case of damage at the edges of the road in several locations. This indicates that the local government and citizen should make themselves involved and take up responsibility to protect their roads.

With respect to transparency regime, from the Table 3.2 it is clear that there are PMGSY boards as per the numbers – a remarkable observation considering the age of the roads. But they lack in details. Most of them are not in local language is point to be noted. Table 3.3 total absence of boundary stones and sign boards in a hilly terrain like Meghalaya needs to be taken seriously. Absence of pipe culverts against the mandated in these roads also needs to be seriously considered, again in this hilly terrain, as their absence would accumulate water and deteriorate roads in no time.

## ANNEXURE: SUMMARY OF FINDINGS

### ANNEXURE 6: *Jharkhand*

#### Jharkhand: On –going Road

Table:1.0

Sl. No	Name of Road	Length of road (in kms)	Estimated Cost (in lakh rupees)	Stage of work	Availability of Citizen Information Board	Are Contractor details given	Starting and completion dates given	Details given in local language
1	DEVIPUR TO JORAMOH	2.02	60.81	PMC	Yes	Yes	Yes	Yes
2	SIKATIYA TO MAHUA TAND ROAD	3.05	89.59	WBM II	Yes	Yes	Yes	Yes
3	NAWADIH PWD ROAD TO BADIA	2.25	80.45	WBM II	Yes	Yes	Yes	Yes
4	TIKET BANDH TO SANTALI SIMRA	4.30	84.21	WBM II	Yes	Yes	Yes	Yes
5	PATWABAD PW ROAD TO BANKA	3.40	91.35	Subgrade, WBM II	Yes	Yes	Yes	Yes
6	MANJHALADIH TO MANGARTILYA	5.00	NA	WBM II, WBM III	No	No	No	No
7	TO3 TO JAMUNIA TAND	1.30	NA	WBM II	Yes	Yes	Yes	Yes
8	MANGAR TILAYIA TO CHENGDHARI	1.22	NA	WBM II	Yes	Yes	Yes	Yes
9	T3 TO DUDHANIA	1.70	NA	WBM II	Yes	Yes	Yes	Yes
10	TO3 TO BODAPAHRI	6.80	NA	WBM II	Yes	No	No	Yes

2 Subgrade (Formation stage)	0
3 Granular Sub base	0
4 WBM II	7
5 WBM III	1
6 Premix Carpet	0
	8

**Table 1.2 Ongoing (WBM 2 stage) roads in JHARKHAND - Adherence to geometry specifications as in BoQ**

Sl.	Name of the road	Right of way width (M)	Road Way width (M)	Carriage way width (M)	Layer thickness (%)	Camber on the edge (%)	Presence of PMGSY board	Presence of details on the PMGSY board
1	MANGARTILAIYA TO CHHENGHARI	7.8	3.9	3.5	65	3	Yes	Yes
2	MANJHLADIH TO MANGARTILAIYA	7.7	3.5	3	65	3	No	No
3	NAWADIH PWD TO BADIA	7.1	4.0	3	75	3.5	Yes	Yes
4	PATWABAD TO BAUNK BARATAND	7.6	3.7	3	60	3.2	Yes	Yes
5	TIKAIT BANDH TO SANTHALI SIMRA	8.0	4.6	3.5	60	3.7	Yes	Yes
6	TO3 TO DUDHANIA	5.8	3.4	3	64	3.3	Yes	Yes
7	TO3 TO JAMUNIATAND	5.4	3.2	3	63	3.4	Yes	Yes

Table 1.3 Ongoing (WBM 2 stage) roads in JHARKHAND - Adherence to quality specifications as in BoQ							
Sl .	Name of the road	No. of stretches observed	Does minimum of 9 stones pass through slot no.1 (63 mm)	Does a minimum of 9 stones retain in slot no.2 (45 mm)	Does all aggregates pass through slot no.4	Does more than 6 retain in slot no.5	Gap between road top surface and bottom of straight edge
1	MANGARTILAIYA TO CHHENGHARI	2	Yes	Yes	No	Yes	10
2	MANJHLADIH TO MANGARTILAIYA	5	Yes	No	No	Yes	10
3	NAWADIH PWD TO BADIA	4	Yes	Yes	No	Yes	10
4	PATWABAD TO BAUNK BARATAND	4	No	No	Yes	Yes	10
5	TIKAIT BANDH TO SANTHALI SIMRA	5	Yes	No	Yes	Yes	10
6	TO3 TO DUDHANIA	2	Yes	No	Yes	Yes	10
7	TO3 TO JAMUNIATAND	2	Yes	No	No	Yes	10

Table 1.4 Ongoing (WBM 3 stage) roads in JHARKHAND - Adherence to geometry specifications as in BoQ								
Sl.	Name of the road	Right of way width	Road Way width	Carriage way width	Layer thickness (%)	Camber on the edge	Presence of PMGSY board	Presence of details on the PMGSY board
1	SIKATIYA TO MAHUATAND	7.78	4.8	3.7	70	3.1	Yes	Yes

Table 1.5 Ongoing (WBM 3 stage) roads in JHARKHAND - Adherence to quality specifications as in BoQ							
Sl .	Name of the road	No. of stretches observed	Does minimum of 9 stones pass through slot no. 2a (53 mm)	Does a minimum of 9 stones retain in slot no.3 (22.4)	Does all aggregates pass through slot no. 4a (11.2 mm)	Does more than 6 retain in slot no. 5 (5.6 mm)	Gap between road top surface and bottom of straight edge
1	SIKATIYA TO MAHUATAND	3	Yes	Yes	Yes	Yes	15

**Completed Roads: Jharkhand**

Table 2.1 Completed roads in Jharkhand - Maintenance							
Sl No	Name of the road	Age of the road in years	No of stretches monitored	No of potholes	No of cracked areas	No of locations where road edges are damaged	
1	KOTIHYAROAD TO LAKRA	NA	18	0	0	10	
2	BASWARIYA TO NAIYADIH	1 year, 0 months	13	0	0	10	
3	ANDHARIGADAR ROAD TO CHABEDALBADIYA	5 YRS	12	0	0	5	
4	RAJASAR TO RAIDIH	1 year, 2 months	13	0	0	5	
5	CHANDDIH ROAD TO REHUNIYA	1 year, 1 month	5	0	0	10	
6	TO3 TO KUSUMBHA	7 months	20	0	0	15	
7	MUNDRO TO KALICHATTAN	9 months	20	0	0	10	
8	MAHURI TAND TO JARIDIAH	8 months	7	0	0	20	
9	JAMUA KODARMA ROAD TO DOGODIH	7 months	20	0	0	0	
10	KURHIVINDO TO GAMAHARDIH	20.04.2015	12	0	0	10	

Table 2.1 indicates that the completed roads which are under maintenance are fairly in a good condition as there are hardly any pot holes and cracks on these roads. But, of course, the edges of the roads are damaged in a few locations which should be rectified immediately.

Table 2.2 Completed roads in Jharkhand - Adherence to transparency specifications as in BoQ									
Sl No	Name of the road	Citizen information boards available	Length of road specified (km)	Contract or details given	Expenditure details given	Start and completion dates given	Board in local language		
1	KOTIHYAROAD TO LAKRA	Yes	4.62	Yes	Yes	Yes	Yes		
2	BASWARIYA TO NAIYADIH	Yes	3.35	Yes	Yes	Yes	Yes		
3	ANDHARIGADAR ROAD TO CHABEDALBADIYA	Yes	2.91	Yes	Yes	Yes	Yes		
4	RAJASAR TO RAIDIH	Yes	3.10	Yes	Yes	Yes	Yes		
5	CHANDDIH ROAD TO REHUNIYA	Yes	2.06	Yes	Yes	Yes	Yes		
6	TO3 TO KUSUMBHA	Yes	5.00	Yes	Yes	Yes	Yes		
7	MUNDRO TO KALICHATTAN	Yes	12.00	Yes	Yes	Yes	Yes		
8	MAHURI TAND TO JARIDIAH	Yes	1.55	Yes	Yes	Yes	Yes		
9	JAMUA KODARMA ROAD TO DOGODIH	Yes	6.40	Yes	Yes	Yes	Yes		
10	KURHIVINDO TO GAMAHARDIH	Yes	3.17	Yes	Yes	Yes	Yes		

Table 2.2 reveals the presence of citizen information boards for each road under PMGSY with required and useful information for the citizen. This is with a view to keep the public informed of the facts, which shows PMGSY's adherence to transparency specifications on the quality and quantity of PMGSY roads. In all the roads, the citizen information boards are present and most of the information has been presented in the respective local language.

## ANNEXURE: SUMMARY OF FINDINGS

**ANNEXURE 7: Assam**  
**Assam: On-going Roads 2.0**

Sl. No	Name of Road	Length of road (in kms)	Estimated Cost (in lakh ruppees)	Stage of work	Availability of Citizen Information Board	Are Contractor details given	Starting and completion dates given	Details given in local language
1	NH-52 To Sumoni	8.5	712.53	GSB	Yes	Yes	Yes	Yes
2	Uzani Khamti Mirigaon Road	1.50 (approx)	NA	GSB	No	No	No	No
3	Alimar to Tulsijan	5.00	NA	GSB	Yes	Yes	No	Yes
4	Bahpora to Jiyamora	3.50	NA	WBM II, PMC	Yes	Yes	No	Yes
5	Guborisali To Guborisali No. 1	4.30	NA	WBM II	Yes	Yes	No	No
6	Borjaroni To Mijika Road	NA	NA	PMC	Yes	Yes	Yes	No
7	Moragaon to Nasbor Road	10.16	NA	PMC	Yes	Yes	Yes	No
8	Niz Gohpur to Howajan NH-52	3.415	107.95502	PMC	Yes	Yes	Yes	No
9	Niz Gohpur to Howajan Road	11.61	288.00	PMC	Yes	Yes	Yes	No
10	Sotia Tewaripal Road	NA	NA	PMC	Yes	Yes	Yes	No

Stage of the road	No. of Roads
1 Embankment	0
2 Subgrade (Formation stage)	0
3 Granular Sub base	5
4 WBM II	0
5 WBM III	5
6 Premix Carpet	0
	10

**Table 2.1 Ongoing (GSB stage) roads in Assam - Adherence to geometry specifications as in BoQ**

Sl .	Name of the road	Right of way width	Road Way width	Carriage way width	Layer thickness (%)	Camber on the edge (%)	Presence of PMGSY board	Presence of details on the PMGSY board
1	ALIMURE TO TULSHIJAN ROAD	11.2	6.0	3.7	125	1.2	Yes	Yes
2	BAHPARA TO JIAMURIA ROAD	11.1	6.0	3.7	125	1.2	Yes	Yes
3	GUBARISALI TO GUBARISALI NO. 1	11.3	6.1	3.8	125	1.2	No	Yes
4	NH 52 TO SUMONI	10.8	5.9	3.5	125	1.2	Yes	Yes
5	UZANI KHAMTI MIRIGAON ROAD	11.2	5.9	3.7	125	1.2	Yes	Yes

Table 2.2 Ongoing (GSB stage) roads in Assam - Adherence to quality specifications as in BoQ						
Sl.No	Name of the road	No. of stretches observed	Quality of soil used is good	Any rolling marks observed	Any depressions observed	
1	ALIMURE TO TULSHIJAN ROAD	7	Yes	No	No	
2	BAHPARA TO JIAMURIA ROAD	7	Yes	No	No	
3	GUBARISALI TO GUBARISALI NO. 1	5	Yes	No	No	
4	NH 52 TO SUMONI	12	Yes	No	No	
5	UZANI KHAMTI MIRIGAON ROAD	5	Yes	No	No	

Table 2.3 Ongoing (WBM 3 stage) roads in Assam - Adherence to geometry specifications as in BoQ								
Sl.	Name of the road	Right of way width	Road Way width	Carriage way width	Layer thickness (%)	Camber on the edge	Presence of PMGSY board	Presence of details on the PMGSY board
1	Ginzia Borjaroni to Mijika Road	10.4	5.4	3.7	45	1.5	Yes	Yes
2	MORAGAON TO NASBOR ROAD	9.4	5.3	3.6	45	1.5	Yes	Yes
3	Niz Gohpur to hawajan	10.7	6	3.7	51.7	1.1	Yes	Yes
4	Niz Gohpur to Hawajan Road	9.8	5.5	3.7	45	1.5	Yes	Yes
5	Sotia Tewaripal Road	10.4	5.4	3.7	52.5	1.5	No	Yes

**Table 2.4 Ongoing (WBM 3 stage) roads in Assam - Adherence to quality specifications as in BoQ**

Sl .	Name of the road	No. of stretches observed	Does minimum of 9 stones pass through slot no. 2a (53 mm)	Does a minimum of 9 stones retain in slot no.3 (22.4)	Does all aggregates pass through slot no. 4a (11.2 mm)	Does more than 6 retain in slot no. 5 (5.6 mm)	Gap between road top surface and bottom of straight edge
1	Ginzia Borjaroni to Mijika Road	5	Yes	Yes	No	Yes	8
2	MORAGAON TO NASBOR ROAD	5	Yes	Yes	No	Yes	8
3	Niz Gohpur to hawajan	4	Yes	Yes	No	Yes	7
4	Niz Gohpur to Hawajan Road	5	Yes	Yes	No	Yes	7
5	Sotia Tewaripal Road	5	Yes	Yes	No	Yes	8

**Table 6.1 Completed roads in Assam - Maintenance**

S.No.	Name of the road	Age of the road in years	No. of stretches monitored	No. of potholes		% of cracked areas	No. of locations where road edges are damaged
				Depth >20mm	Depth <20mm		
1	Merbil Grant to Parbatipur 2	12 month	7	15	10	0.30	1
2	NLKB to Salmari	0	6	0	0	0	4
3	Batamari to Denukhanapathar road	0	0	0	0	0	NA
4	Ghilamara Link Road	9 Month	4	0	0	0	NA
5	Hahehara to Damukial NC Road	0	6	0	0	1.00	NA
6	Bagmati to Brahmaputra Sapori	1 year 3 months	8	0	0	0	14
7	Bapujhar gereki road	0	12	11	0	0.83	4
8	Khorasimalu sadhoru road	0	8	0	0	1.25	4
9	Lowdoloni to desiri	2 years, 9 months	16	48	152	20.87	40
10	NH 52 to khutikatiya	9 MONTHS	4	0	0	0	NA

<b>Table 6.2 Completed roads in Assam – Transparency Specification: Citizen Information Boards &amp; Availability of Details</b>							
<b>Sl No.</b>	<b>Name of the road</b>	<b>Availability of Citizen information boards</b>	<b>Length of road specified in kms</b>	<b>Contractor details given</b>	<b>Estimated Cost budget of the road (Rs.in lakhs)</b>	<b>Start and completion dates given</b>	<b>Details in local language</b>
1	Merbil Grant to Parbatipur 2	Yes	3.600 km	Yes	269.834	Yes	Yes
2	NLKB to Salmari	Yes	1.4km	Yes	NA	No	Yes
3	Batamari to Denukhanapathar road	Yes	1.5 Km	Yes	92.41	Yes	Yes
4	Ghilamara Link Road	Yes	0.760 Km	Yes	38.21	No	Yes
5	Hahchara to Damukial NC Road	Yes	2.575 km	Yes	11.62	Yes	Yes
6	Bagmati to Brahmaputra Saponi	Yes	2.50 km	Yes	87.01	Yes	Yes
7	Bapujhar gereki road	Yes	2.99 KM	Yes	0	No	Yes
8	Khorasimalu sadhoru road	Yes	2.025 KM	Yes	276.66	No	Yes
9	Lowdoloni to desiri	Yes	3.900 KMS	Yes	15.87	Yes	Yes
10	NH 52 to khutikatiya	Yes	0.750KM	Yes	41.00	Yes	Yes

Table 6.3 Completed roads in Assam – Status on Road Furniture									
Sl. No.	Name of the road	Km stones present, painted and details visible (Yes in %)	Boundary stones are fixed & colour washed (Yes in %)	Triangular shape (cautionary) sign boards erected (Yes / No)	Traffic circular shape sign (mandatory) boards erected (Yes / No)	No. of slab Culverts (% in good condition)	Pipe culverts		
							No. of culverts	No. in good condition)	
1	Merbil Grant to Parbatipur 2	100	Yes (0%)	Yes	Yes	4 (100%)	1	1	
2	NLKB to Salmari	100	Yes (0%)	Yes	Yes	0	2	2	
3	Batamari to Denukhanapathar road	100	Yes (100%)	Yes	Yes	0	4	4	
4	Ghilamara Link Road	NA	No	Yes	Yes	1 (100%)	0	NA	
5	Hahchara to Damukial NC Road	100	No	Yes	Yes	2 (100%)	2	2	
6	Bagmati to Brahmaputra Sapori	100	No	Yes	No	0	2	2	
7	Bapujhar gereki road	92	No	Yes	No	5 (100%)	4	4	
8	Khorasimalu sadhoru road	100	No	Yes	Yes	2 (100%)	2	0	
9	Lowdoloni to desiri	100	No	Yes	Yes	1 (100%)	6	6	
10	NH 52 to khutikatiya	100	No	Yes	Yes	1 (100%)	4	4	

#### **6.4 Conclusions: PMGSY roads in Assam**

The completed roads monitored in Assam are between 9 months to 3 years old. Table 6.1 indicates that these roads are being maintained to a satisfactory level except in 3 roads where there is some wear and tear and started developing potholes, cracks and edges have also started deteriorating. As these roads are still under contractor's maintenance, it could have been in a better condition. This could be due to lack of timely maintenance by the contractors.

Table 6.2 reveals the presence of citizen information boards for each road under PMGSY with various information with a view to keep the public informed of the facts, which shows PMGSY's adherence to transparency specifications on the quality and quantity of PMGSY roads. In all the roads, the citizen information boards have been erected at the starting point of the roads and the information has been presented in the respective local language including the details like length of the roads, contractor, cost estimate and starting and completion dates.

From Table 6.3 shows that kilometer stones have been fixed and maintained with colour washed in all the roads, but not in the case of boundary stones where it is seen only in 3 roads. All the roads have triangular shaped signboards, but in the case of circular mandatory signboards 2 roads out of ten roads do not have it. It was observed that pipe culverts are in a good condition.

With regard to the dimensions of the road, the width of the Right of Way which falls short or more than the specified measurements of 7 meters in all the roads. Other road dimensions such as width of the Roadway and carriageway, which are measuring around 7 and 3.75 meters respectively, are matching with the BOQ specifications. The camber is the problem in all the roads, which is around 1.5 meters, which is slightly short of the BOQ specified measurements.



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