

**GOVERNMENT OF MADHYA PRADESH**

**World Bank assisted**

**Madhya Pradesh Rural Connectivity Project (MPRCP)**

**Vulnerability Framework**

**September 2016**

**Madhya Pradesh Rural Road Development Authority**

**Department of Panchayat and Rural  
Development, MP**

## 1.0 Background and Rationale

Madhya Pradesh located at the center of India, is one of the largest and the most populous Indian states. Over 32 percent of MP's population lives below the poverty line compared to the national average of 22 percent. The per capita income of the state is approximately US\$362 compared to the national average of US\$665. Poverty rates in the urban areas are lower than in rural areas for all social groups. The proportion of rural poverty in the state has declined, but at a slower pace in relation to other states. Despite progress made in recent years, the impact of growth on poverty in MP has been one of the lowest among Indian states and inequality is increasing. MP grew at an annual rate of 3.5 percent between 1999 and 2008, compared to 8 and 12 percent during 2010-11 and 2011-12 respectively, which was accompanied with a significant 12 percentage point decrease in poverty. In terms of human development indicators, while significant progress has been made on the literacy front in the last decade, the overall relative position continues to bracket the state in the group of heartland states with relatively poorer social and economic indicators.

MP is behind most other states in terms of provision of essential infrastructures. The infrastructure index of the state is amongst the poorest in the country, well below that of even other less developed major states like Bihar, Odisha and compares only with north-eastern states. The two critical sectors where the state falls behind are roads and power. It is evident that low levels of infrastructure endowments have been one of the factors hampering the state to accelerate economic growth. Poor infrastructure would impact on the efforts to expand social opportunities as well as avenues for increasing incomes in productivity.

MP has a significant agricultural base and is endowed with vast natural resources and suitable agro climatic conditions. Agriculture provides nearly 72% of all jobs, although it only contributes 33% to the state domestic product. However, with poor transport and storage infrastructure, there is a very high level of wastage in the agricultural sector. MP's industrial base is still predominantly agricultural; manufacturing and service sectors lag behind. In many ways, MP is characterized by the typical set of institutional and development problems faced by the poorest regions of India. As a result of surplus labor, MP has a large subsistent agricultural sector that co-exists with a small modern industrial sector that is localized in specific cities, namely Indore, Gwalior and Jabalpur. The organized industry employs only 6% of the total workforce.

Habitation details in Madhya Pradesh in respect of connectivity are given below:

**Table 1.1**

| S. No. | Particular                                    | Total Nos. | Habitations with Population |         |       |      |
|--------|---|------------|-----------------------------|---------|-------|------|
|        |   |            | > 1000                      | 500-999 | 250+  | <250 |
| 1      | Habitations in Madhya Pradesh                 | 52117      | 14366                       | 16277   | 12141 | 9333 |
| 2      | Unconnected eligible Habitation upto Dec'2000 | 19346      | 5982                        | 10949   | 2415  | 1683 |
| 3      | Habitations covered in proposals              | 17960      | 5965                        | 9793    | 2202  | 1249 |

|   |   |      |    |      |     |     |
|---|---|------|----|------|-----|-----|
|   | upto Date   |      |    |      |     |     |
| 4 | Balance on connected Habitations-Eligible under PMGSY | 1386 | 17 | 1156 | 213 | 434 |

The total achievement of Madhya Pradesh for road connectivity up to June 2016 is given below:

**Table 1.2**

| Description     | No. of Roads Completed | Length Completed (in km) | Expenditure (Rs. in crore) |
|-----------------|------------------------|--------------------------|----------------------------|
| PMGSY           | 12572                  | 54176                    | 13808                      |
| ADB             | 2554                   | 11312                    | 3065                       |
| <b>TOTAL</b>    | <b>15126</b>           | <b>65588</b>             | <b>16873</b>               |
| Bridge          | 109                    | -                        | 315                        |
| <b>G. TOTAL</b> | <b>15126</b>           | <b>65588</b>             | <b>17188</b>               |

In the state, all weather BT surfaced roads already provided connectivity to population up to 500 in general blocks and up to 250 population in the tribal blocks under central government funded PMGSY Scheme. The Department of Panchayat and Rural Development under Government of Madhya Pradesh launched the “Chief Minister Gram Sadak Yojana (CMGSY)”–a Rural Road Program in year 2010 to connects with all-weather gravel standard roads to all rural habitations with population less than 500 (less than 250in tribal blocks) in the state. The program is primarily funded by the Government of Madhya Pradesh. The Roadway width and Gravel Surface carriageway of CMGSY roads are 6.00m (in few cases it could be up to 5.5m) and 3.00m respectively. About 6475 numbers of roads in 15584 km length were already constructed under CMGSY.

After providing connectivity with the gravel standard roads under CMGSY, the social, economic and development activities are increasing manifolds in the connected villages. This resulted in substantial increase in mobility of people, agriculture produce from villages to towns, which mainly includes services (like health, education etc.) / products (like agriculture equipments, machines, domestic appliances, FMCGs, etc.) to rural areas. However, fugitive dust emissions during vehicles movement causing adverse impact on human health and adjoining crops, road user’s safety, uncomfortable riding, road safety, etc. are some common concerns associated gravel roads. Therefore further connectivity to lower populated villages through BT surface is felt necessary, which will in turn provide safer, faster, dust less and more comfortable mobility to road users.

## **2.0 Project Description**

Madhya Pradesh Rural Connectivity Project (MPRCP) is mainly up gradation of rural roads under CMGSY funded by World Bank and it covers connectivity to population less than 500 and up to 150 in general blocks and less than 250 and up to 100 population of villages in tribal blocks by upgrading gravel standards to 3.00m BT wide standard roads.

**The Project Development Objective (PDO) is to improve durability and resilience of the rural roads developed under CMGSY and enhance MPRRDA's capacity to manage MP's rural roads more efficiently.**

The rural road connectivity ultimately aims to ensure–

(1) To improve the life cycle of CMGSY roads and good riding quality of existing roads to reduce travel time

(2) That public services of health, education, employment, income etc. are available to all citizens; and

(3) To improve the quality of life of under developed, disadvantaged living in rural and remote areas.

### **3.0 Project Components**

It comprises of the following three components

**Component A: Road Improvement and Mobility Enhancement (USD 672 mil, Bank financing \$282.24 m).** The component has two parts: (i) improvement of existing gravel roads developed under the CMGSY program connecting villages with a population less than 500 in general areas and 250 in tribal areas, and; (ii) provides alternate connectivity to villages that have higher potential to grow faster, given additional linkages to more economic and market centers. In this context the implementation will be carried out through two subcomponents further described as follows:

**A.1 Surface Sealing of Gravel Roads (approx. 10,000 km, \$448 m, Bank financing \$188.16 m):** This sub component supports the upgrading of 10,000 km existing gravel surfaced rural roads developed under MGSY, to a sealed surface standard with a view to improve sustainability of connectivity provided to the villages. Implementation will be in two phases of 5,000 km each to be completed over a total period of approximately 3-4 years. On completion, a total of about 5400 villages will benefit from all weather, resilient sealed road connectivity. In addition to the conventional sealing using pre-mix bituminous concrete, modified asphalt using plastic waste in the area and other surface sealing options that provide cost effectiveness and less carbon foot print will be piloted.

**A.2 Provision of Alternate Connectivity (approx. 3,000 km, \$224 m, Bank financing \$94.08 m):** This sub component supports the provision of additional links to villages which are already connected by a single road link but critically require additional connectivity to respond to the growing demand to link to more social, economic and administrative centers. A total of 3000 km of such links will be constructed benefiting XX villages. The proposed innovations in the surface sealing operations will also be applied in this sub component as appropriate.

Emphasis will be given to the use of locally available materials including for construction of boundary stones, guard stones, km stones etc. Alternative cheaper and greener sealing options such as bituminous binder blended with waste plastic, surface treatment, etc. will be explored and piloted. Given the small size of the roads, it is expected that the civil works will be packaged

and procured under NCB procedures; generally comprising of packages of Rs.– 20-100m (approx.USD150,000-750,000) in line with existing PMGSY practice.

**Component 2: Institutional Development (USD 3.5 million, Bank financing \$1.47 m)**

The institutional strengthening will focus on the following key areas: (i) developing automated web project management system (e-PMS) with a capability to collect design, construction, quality control and contract management and payment certificates data electronically on a web based platform; (ii) improving road asset management by enhancing the existing EMARG developed under MGSY with possible linkages with the Unified Road Information System developed by MPRIDC and maintenance management system developed under PMGS; (iii) reinforcing the engineering design and research unit of MPRRDA to develop capacity to review third party designs, provide support to field based staff on design problems during execution and; (iv) training of MPRRDA staff in design, procurement, contract management, road safety, social and environmental management of road projects.

**Component 3: Road Safety Management Capacity Development (USD 13 million, Bank financing USD 5.46 m):** this component supports MPRRDA and other Government departments to build their capacity in managing the state's road safety program. The main elements of the component include: (i) developing a Road Crash Database Management System (RCDMS) anchored at MP traffic police but with the capability of crowd sourcing crash data; (ii) establishing MP's road safety training institute in partnership with Coca Cola India and developing a core training curriculum for drivers, mechanics, police, other road users, road safety program managers and technicians, etc.; (iii) making use of the training institution, design an annual statewide Road Safety campaign; and (iv) piloting a speed management program along high risk corridors.

Project beneficiaries include rural population i.e. farmers, village communities including, vulnerable sections such as women, Schedule Castes , Schedule Tribes who are required to access services and different facilities – educational, medical, mandis (markets). Besides, other beneficiaries would include: traders, merchants, vehicle operators to reach producers and service users' in these villages operators, staff of departments such as Police in reaching crime or accident spots; PHED in supplying water tankers for supplying water to communities in water scarce areas). Through the project, rural people will get fair price for agricultural produce through easy enable improved access to the markets, basic facilities. It will provide safer, faster, dust less and more comfortable mobility to rural road users.

#### **4.0 Need for Social Management Framework and Vulnerability Framework**

The rural roads under MPRCP are spread in various parts of Madhya Pradesh with varying geographical, topographical and socio- economic conditions. The heterogeneous characteristics at the road roads level, in terms of locations and engineering designs, warrant a mechanism to bring a homogeneous approach in the planning, design and execution of environmental management activities for such works. This has necessitated preparation of a document that will help and guide the Implementing Agency (MPRRDA, Govt. of Madhya Pradesh) in selection of appropriate technique/s to carry out planning, design and implementation of environmental management activities in line with the type and nature of civil works

proposed under the project. Therefore, although the general thrust and broad project interventions are well understood, the specific details pertaining to planning and design of the rural roads that the project envisages to support, will be completely known only later in the project cycle.

As the construction is mostly proposed along the existing gravel roads (in case of blacktopping of roads) and existing revenue tracks (in case of multiple connectivity links) the extent of potential impact in terms of land donation and acquisition is expected to be minimal. In this context the SMF ensures provision of assistance for any lost assets, of those who are directly and adversely affected. It affirms and provides for the entitlements of those who lack legal or formal ownership of affected assets to commensurate assistance.

In rural India vulnerability is characterized by social isolation and marginalization resulting from gender bias or social identities, e.g. scheduled caste and tribes. In MPRCP the rights of vulnerable population has been given priority and a separate Vulnerability Framework has been prepared. The objective of the Vulnerability Framework ('VF', or 'the Framework') is to ensure that the development process generated by the MPRCP fully addresses the needs of the vulnerable populations and enables measures to promote distributional equity among the project affected populations (PAPs).

Towards enhancing the assessment and management of environmental and social issues in MPRCP planning and implementation, this Environmental and Social Management Framework (ESMF) has been prepared based on the review of the existing safeguard instruments. The ESMF comprises of the following safeguard instruments:

- (i) Social Management Framework (SMF)
- (ii) Vulnerability Framework,
- (iii) Environmental Management Framework and
- (iv) Environmental Codes of Practice (ECoP).

This document presents the Vulnerability Framework for MPRCP and a separate document has been prepared for SMF.

## **5.0 Vulnerability**

Madhya Pradesh has been placed at the bottom of a list of states having the lowest human development index (HDI), even though the all-India index has gone up by 21%. According to the India Human Development Report 2011, Madhya Pradesh has the most chronically-wasted and under-weight children, with its rating falling well below the national average<sup>1</sup>. As far as poverty, unemployment and child labour indices are concerned, Madhya Pradesh continues to lag behind and stay below the national average of 0.467. The overall improvement in the index has been mainly attributed to the 28.5% increase in the education index across the country, including Madhya Pradesh. The human development index report tagged Madhya Pradesh with lowest human development index states of Bihar, Andhra Pradesh, Chhattisgarh, Orissa and Assam. Over 32 percent of MP's population lives below the poverty line compared to the national

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<sup>1</sup>Report by the Delhi-based Institute of Applied Manpower Research for the Planning Commission

average of 22 percent. The per capita income of the state is approximately US\$362 compared to the national average of US\$665. Poverty rates in the urban areas are lower than in rural areas for all social groups. The proportion of rural poverty in the state has declined, but at a slower pace in relation to other states. Despite progress made in recent years, the impact of growth on poverty in MP has been one of the lowest among Indian states and inequality is increasing

For the purpose of the project, vulnerability is defined in the context of *rural access index* which is the consistent basis to estimate proportion of rural population who has access to transport. In rural India apart from poverty vulnerability is characterized by social isolation and marginalization resulting from gender bias or belonging to certain groups such as scheduled caste and tribes. While these two elements are critical in ensuring social outcomes of the project, they may not be captured while computing rural access index, if cultural context is not considered in the process. Thus, given that in rural India, birth identity and gender are key determinants of social inclusion within the dominant society, the project sanctions the below framework to achieve equity in distribution of project benefits.

## 6.0 Objective of the Framework

The objective of the framework is to ensure that the development process generated by the CMGSY fully addresses the needs of the vulnerable population and enables measures to promote distributional equity among the project affected populations (PAPs). The framework endorses information sharing, consultation and collaboration as participatory techniques to develop the abilities and reinforce the capacities of the vulnerable while preserving their historical identity. While all population below poverty line are vulnerable, for the purpose of the project, framework also endorses the below as “vulnerable” given their birth identity and gender, which exacerbates the already existing poverty related vulnerability. The three categories of vulnerable are identified as:

- Women;
- Scheduled caste population; and
- Scheduled tribes.

The framework warrants inclusion of these groups of population in design, implementation and monitoring, thus empowering them from beneficiary to a primary stakeholder in the process. In particular, the guidelines stated in the framework will ensure that the above populations do not suffer any negative effects during the project that they receive gender sensitive benefits compatible with their traditions and they participate as stakeholders in planning, implementing and evaluating the Project. According to the Census 2011, and as stated in the below matrix, there are three categories of vulnerable population. While all three categories are vulnerable, each group would require targeted assistance to fully realize the benefit potential.

| State          | Total Population | No. of Women | % of women | No. of ST | % of SC | No. of ST  | % of ST |
|----------------|------------------|--------------|------------|-----------|---------|------------|---------|
| Madhya Pradesh | 72,626,809       | 35,014,503   | 48.21      | 9,155,000 | 12.61   | 15,316,784 | 21.1    |

## 7.0 Vulnerability Framework

The framework proposes the following approach to address gender, scheduled caste and scheduled tribe populations.

### Gender

The framework awards priority to women over men to overcome the cultural isolation and marginalization which are characteristic of rural India in general and also of the state of Madhya Pradesh. Starting with the planning phase, the project will follow an engendered road map to ensure women's issues are continuously considered throughout the project cycle. Specific steps to be followed include:

1. engendering DPR processes and reports to establish a gender base line;
2. disseminating project brochures at the household level to enable effectiveness in information access among women;
3. including women representatives to participate in the transect walk and enumerating number of females participating in the transect walk, consultations/FGDs, etc.;
4. molding project planning and implementation approach to suit women's cultural identity;
5. endorsing inclusion of women in road works as a criteria for awarding contracts and collaborating with NREGA to increase women's employment;
6. designing service frequency to suit women's travel needs;
7. designating an official at the PIU level as gender focal persons;
8. sensitizing and training transport staff on gender sensitive road safety techniques;
9. inclusion of females in the village level Assistance and Grievance redressal committees;
10. creating a cadre of females trained as road safety volunteers;
11. creating a cadre of females trained to undertake activities such as clearing etc. during road maintenance works;
12. undertaking random dialogue with women to ensure their voices continue to be heard;  
and
13. engendering MIS and user satisfaction surveys and reports.

### Scheduled Caste

Scheduled caste or dalits as they are often known in India, assume a critical position in the Indian development agenda, are often not fully included in the project planning or implementation, given their low level of literacy. SCs constitute nearly 13% of the total population of the state. The project will greatly optimize connectivity of all-season feeder road networks that link areas dominated by dalits in every administrative village to the highway network. Framework stipulates: including SCs in the transect walk and enumerating number of SCs participating in the transect walk, consultations/FGDs, etc.; inclusion of SC representatives in the village level Assistance and Grievance redressal committees; inclusion of SCs in road construction and maintenance works.

The project will in tandem promote transport efficiency of the road network by enhancing service frequency in these locations and employment opportunity by including them in road works. The project will also collaborate with National Rural Employment Guarantee Program to combat any gaps in promoting their employment.

### Scheduled Tribe

The scheduled tribes also called as *adivasis* in rural India, are distinguished by their distinct language, script or living pattern. They have a clearly defined national legal framework and Bank policy OP 4.10 to promote their well being. In an effort to fully address the distinctiveness of adivasis, the project will follow a legal framework that endorses the stipulations as per the Indian legal policies and regulations relating to adivasi nationalities as well as the World Bank Operational Policy 4.10. According to the classification issued by Indian Constitution, there are numerous legal documents to address the subject ranging from comprehensive laws to documents dealing with specific subjects such as economic development, education, health, religion etc. The Constitution, coming into force on 19<sup>th</sup> February 2004, following its 89<sup>th</sup> Amendment, set up National Commission for Adivasis under Article 338 A, to oversee the implementation of various safeguards provided to them under the Constitution. Among the numerous duties and functions endowed by the Constitution of India on the Commission under Article 338A, the below are particularly relevant to CMGSY (MPRCP).

1. safeguard distinct language, script or culture under Article 29(i);
2. prevent alienation of tribal people from land and improve the efficacy of relief and rehabilitation measures for tribal groups displaced by development projects;
3. inquire into specific complaints with respect to the deprivation of rights and safeguards of the Scheduled Tribes; and
4. ensure full implementation of the Provisions of Panchayats (Extension to the Scheduled Areas) Act, 1996 (40 of 1996);

Also, the primary objectives of World Bank Operational Policy 4.10 on “Indigenous People” are to ensure that:

1. Opportunities are provided to participate in planning those that affect them;
2. Opportunities consider culturally appropriate benefits; and
3. Any project impacts that cause adverse impacts are avoided or otherwise minimized and mitigated.

In the project state of MP, according to the 2011 census, the population of Scheduled Tribes (ST) is 21.1% of the state population (15.31 million out of 72.62 million). Numerically, the highest tribal concentration is in Madhya Pradesh, which has 14.7% of the total tribal population of India, ahead of Maharashtra (10.1%) and Odissa (9.2%) The decadal growth rate of the tribal population during 2001-2011 is 23.7% which is higher than India’s total decadal growth (17.6%). The tribes of Madhya Pradesh are mainly concentrated in southern southwestern and eastern parts of the state

Hence, in this context, the framework warrants that any participating village where over ten percent of the total population is adivasis, the project will underscore the following to enable connectivity of adivasi dominant locations:

1. dissemination of project information in local language in a culturally appropriate manner;
2. ensuring free, prior and informed consultations are held with them;
3. representation of adivasi as a stakeholder in transect walk;

4. inclusion of adivasis in road construction and maintenance works;
5. collaboration with NREGA to enable participation of adivasis in its employment programs;
6. participation of adivasis as a stakeholder to monitor social out comes; and
7. promotion of transport efficiency in adivasi dominant locations through increased safe transport services;

Thus far, the project has selected roads for Phase I and II in tribal blocks/habitations and more roads would be identified for inclusion in the remaining phases

### **8.0 Possible adverse implications**

While the above holds good in every administrative village covered by the project, the only possible adverse impact that could arise from the project on these populations is from land requirement for road alignments, which involves donation of land. Though construction is generally proposed along the existing gravel roads and existing revenue tracks, there may be instances where additional land may be required. In order to mitigate any negative impact arising from land donation and acquisition, however negligible, project has developed a Social Management Framework (SMF). The SMF consists of land donation procedures, planning and participation framework and entitlement provisions that have been worked out to meet the project related land requirements. In the event that land donation is necessitated from the vulnerable, these provisions will be drawn upon to let the affected vulnerable optimize the socioeconomic benefits that accord with their cultural characteristic. And, in the case of adivasis/STs, the project will also ensure that the development plan underscores national laws and regulations on adivasi population and the World Bank Policy OP 4.10.

### **9.0 Project Planning and Implementation Arrangements**

Where vulnerable communities are identified to be impacted by any roads under the project, the framework envisages that Project Implementation Unit (PIU) will identify Zilla (District) level community organizations that represent women, Scheduled Caste and Tribes through stakeholder consultation. The organization thus selected, will work on a voluntary basis with village heads to lead their participation in every stage of project cycle. The PIUs in coordination with Panchayati Raj Institutions (PRIs) at the village, block and district levels will join forces with these organizations to effectively disseminate project information, carry out the consultation work, plan and implement necessary measures in a culturally appropriate manner. The selected organization will be accountable to not only ensure continuity in inclusive participation throughout the project cycle, but also to facilitate these populations and assume their critical role as stakeholders in supporting the continuity of the project benefits.

In an effort to promote sustainability of the project benefits, project proposes to get the buy in from the minority groups through the involvement of the community organizations and build the capacity of the government officials on the ways and means to effectively collaborate with the vulnerable population to meet the rural roads agenda. The modus operandi for capacity enhancement is community driven ‘on the job training’ for the PIU officials. The efforts of these organizations will be recognized upon completion of the road works through posters informing their role in the process.