

## SBF Project Implementation Monitoring Report

### India: Madhya Pradesh Rural Connectivity Project

#### 1. Project Information

Project ID:	000020	Investment Number:	L0020A
Member:	India	Region:	Southern asia
Sector:	Transport	Sub-sector:	Roads (non-urban)
AIB Financing Type:	Loan: 140 USD million	Co-financier(s):	WB (IBRD)- lead financier
E&S category:	B	Borrower:	Republic of India
Red Flags Assigned:	0 (Q1: 0)	Monitoring Regime:	Regular Monitoring
Implementing Agency:	Madhya Pradesh Rural Road Development Authority (MPRRDA)		
Project Team Leader:	Mehran Avini		
Project Team Members:	Bernadette Ndeda, Procurement Specialist Chee Wee Tan, Environmental and Social Specialist Rui Xiang, Financial Management Specialist Anne Ong Lopez, Investment Operations Specialist - Transport Chang Tian, Project Assistant		
Completed Site Visits by AIB:	Aug, 2018  Feb, 2019  Mar, 2021 Virtual mission with WB (lead financier): March 15-19, 2021		
Planned Site Visits by AIB:	Virtual mission in Nov./Dec. 2021		

#### 2. Project Summary and Objectives

The objectives of the project are "to improve durability and enhance resilience to climate changes of the gravel surfaced rural roads in Madhya Pradesh while building the capacity of the state to manage its rural road network and road safety". These objectives are expected to be achieved by upgrading the gravel surfaced roads to a sealed surface standard; providing additional road linkages to villages with potential for economic growth; enhancing the rural road asset management system; developing a road accident data management system and road safety improvement program; and supporting road design, construction/implementation, and road asset management. The objectives are aligned with the Bank's priorities of enhancing economic growth and sustainability through infrastructure investment.

#### 3. Key Dates

Approval:	Apr. 11, 2018	Signing:	Jun. 24, 2018
Effective:	Jul. 17, 2018	Restructured (if any):	
Orig. Closing:	Mar. 15, 2023	Rev. Closing (if any):	

#### 4. Disbursement Summary (million)

Currency:	USD		
a) Committed:	140	b) Cancellation (if any):	
c) Disbursed:	95.772	d) Most recent disbursement: (amount / date)	0.61, Sep. 23, 2021
e) Undisbursed:	44.228	f) Disbursement Ratio(%) <sup>1</sup> :	68.4

<sup>1</sup> Disbursement Ratio is defined as the volume (i.e. the dollar amount) of total disbursed amount as a percentage of the net committed volume, i.e.,  $f = c / (a - b)$

#### 5. Project Implementation Update

The project progress remains satisfactory with respect to the provision of physical connectivity i.e., progress in Component A. The second half of the Project Development Objectives (PDO) which relates to institutional strengthening and road safety is dependent on timely completion of activities under Component B and C. The progress will need to be stepped up by the implementing agency to complete the procurement and finish ongoing activities within the remaining 14 months in the project's implementation period. Overall, the likelihood of achievement of the PDO remains satisfactory. Ninety seven percent of the civil works contracts have been awarded and activities for procuring the remaining contracts are underway.

Components	Physical Progress	Environmental & Social Compliance	Procurement
Component A: Component A.1: Road Upgrading, Construction and Maintenance (USD123.00 m)	Completed: 8,261 km (out of total targeted 10,000 km of roads).  It is expected that all remaining works will be completed by December 2022.	<p>Respirable Dust Monitoring: Dust monitoring for PM10 was carried out along 125 number of gravel roads and 75 number of BT surfaced roads. The dust concentration for the selected roads is below 100 µg/m<sup>3</sup> for PM10 which is the limit prescribed by India Central Pollution Control Board (CPCB).</p> <p>Enhancement and capacity building: Through consultation and involvement with the local communities during the execution of works, several small and local mitigation and environmental enhancement works have been implemented. They include: (i) provision of ramps/ extended approaches to utility centers; (ii) improvement of cattle troughs, wells, hand pumps, and other water sources; and (iii) safety provisions within settlements and near sensitive receptors, amongst other provisions.</p> <p>Labor generated by construction: In the period between January 2018 and February 2021, the project has provided work to 28,068 laborers comprising 17,147 males and 10,921 females. No fatalities have been reported arising from construction works.</p> <p>Indigenous people: Free, prior, and informed consultation (FPIC) was conducted for 1,644 tribal villages. The social vulnerability framework (VF) is sensitively applied and ensures that the development process generated by the project addresses the needs of the vulnerable population and enables measures to promote distributional equity among the project-affected populations (PAPs). Overall, the roads are expected to benefit approximately 100,173 persons (4,608 scheduled tribes, 4,608 scheduled caste and 20,186 others). The project traverses the exclusion of tribal people towards inclusion by enhancing their participation in developmental activities, expanding access to common facilities.</p>	<p>Total Packages: 469 Awarded Packages: 469 (9,278 kilometers) Completed: 343 packages (8,261 kilometers) The number of remaining packages will be confirmed once DPRs are approved.</p>
Component A.2: Provision of Alternate Connectivity (USD12.00 m)	Completed: 78.77 kilometers (of total 510 kms) In progress: 410.23 kilometers (of total 510 kms) Target for A2 completion is July 2022.	As above	<p>Total Packages: 73 packages Awarded: 72 packages (489 kilometers - 95.88% of total 510) In progress: 1 package - 21 kilometers (design preparation is in progress).</p>
B. Institutional Development B1: Rural Roads Asset	No original projection numbers. Seven Rural Road Network Management Units (RRMU) have been set up in Bhopal, Ujjain, Indore, Rewa, Jabalpur, Gwalior, and Sagar under	Component B1 has not effectively begun as of September 2021. No comments on E & S.	Since the gap-analysis consultant could not be mobilized due to Covid-19 pandemic and

Management System	<p>MPPRDA for regional asset management planning and monitoring.</p> <p>Software program 'e-Marg' is being used for monitoring and for maintenance works payments and is also being mainstreamed under PMGSY at the national level.</p>		<p>considering the time constraint for project closing, MPPRDA in consultation with the Bank, has agreed to merge the scope of work and a single-stage system development consultant will be engaged in the interest of time &amp; resources to undertake the gap-analysis and strengthen and upgrade the existing system to a world-class RRAMS with additional functions. MPPRDA agreed to prioritize and expedite the finalization procurement of this consultant in consultation with the Bank to ensure mobilization of the consultant by September 2021.</p>
B2: Strengthening Design, Research and Quality Assurance Capacity	<p>MPPRDA and design cell established in Walmi and Bhopal focus on training and research. Forty-three training sessions on engineering and quality aspects of rural roads have been conducted, with the end target being 300.</p> <p>Sixty staff have been trained on WB procurement policies, contract management and quality assurance, with 50 more to be trained in 2021 (Exceeding the target of 100).</p> <p>One hundred thirty-five staff have been trained on E&amp;S safeguard, exceeding the target of 100.</p> <p>Thirty-seven staff have been trained in alternative design and construction technology, exceeding the target of 25.</p> <p>In 2021, twenty-five staff are expected to be trained in design software.</p> <p>WB supported with updated RFP and ToR for further strengthening of MPPRDA, but no offer has been received. MPPRDA will coordinate with WB for further action.</p> <p>Upcoming activities include:</p> <ul style="list-style-type: none"> <li>- Procurement of Highway and Bridge design software and training by the supplier.</li> <li>- Upgradation of selected Labs.</li> <li>- MoUs with reputable institutes for providing training on highway and bridge design.</li> <li>- Deployment of Individual consultants for training on different topics as per MPPRDA's needs.</li> <li>- Establishment of a learning management system with MPPRDA.</li> </ul>	<p>Component B2 has not effectively begun as of September 2021. No comments on E &amp; S.</p>	<p>Based on limited market response for this consultancy, the mission agreed with MPPRDA to change the procurement approach and divide the consultancy into separate activities. MPPRDA has agreed to prepare proposals and procurement plans for i) Strengthening the design cell (ii) Standards and Specifications (iii) Strengthening of Laboratories (iv) Training &amp; capacity building (v) Training Plan (vi) Rural Road academy.</p>
C. Road Safety Management Capacity Development C1: Development	<p>Currently, IRAD (integrated road accident database) is under development at the national level, Madhya Pradesh has been selected for the pilot stage.</p>	<p>Component C1 has not effectively begun as of September 2021. No comments on E &amp; S.</p>	<p>The TOR for this component was developed in consultation with WB and relevant stakeholders. Following consultation with WB,</p>

<p>of Road Accident Database Management System (RADMS)</p>			<p>MPPRDA opted for the Ministry of Road Transport and Highways' Integrated Road Accident Database (iRAD) with customization for MP.</p> <p>The mission noted the delay of 3-4 months on the roll out of the iRAD system. In the meantime, MPPRDA has decided to engage the services of a road safety management (RSM) consultant for all road safety activities including but not limited to customization of IRAD software.</p> <p>Accordingly, the mission has advised MPPRDA to expedite finalization of ToR and procurement of RSM consultancy.</p>
<p>C2: Pilot Comprehensive Road Safety Program (PCRSP) C2.1: Road Safety Engineering (Technical Assistance, Road Safety Engineering Interventions) C2.2: Enforcement (Technical Assistance, Equipment for Road safety Engineering) C2.3: Post-Crash Emergency Management (Technical Assistance, Equipment and Trauma Care Facilities) C2.4: Road Safety Education and Awareness</p>	<p>Road safety cell has been established, with three districts selected: Chhindwara, Dhar and Indore.</p> <p>The draft inception report was submitted and has been reviewed by the WB.</p>	<p>Component C2 has not effectively begun as of September 2021. No comments on E &amp; S.</p>	<p>The Community Road Safety Program Consultancy firm has been engaged and mobilized.</p>
<p>D. Design,</p>	<p>PMC is in place since June 2017, and their</p>	<p>A Project Management Consultant (PMC) has already</p>	<p>Appointment of a</p>

<p>Implementation and Project Management Support</p>	<p>services have been extended to support MPRRDA in project implementation. Project Implementation Consultant (PIC) was deployed to assist PIU and PMC for effective monitoring and enhanced coordination.</p> <p>E-Marg developed by NIC with the input of MPRRDA maintenance cell, is being used as monitoring and payment gateway for the roads under different stages of maintenance.</p> <p>The online monitoring system of GEOREACH adopted by MPRRDA for monitoring the physical and financial progress of the Project is also now fully integrated with PFMS of the state of MP for payment of contractor invoices.</p> <p>Formation of COVID Pandemic Cell at MPRRDA headquarters.</p>	<p>been mobilized and is supporting MPRRDA on the following:</p> <p>Radio program: Jahan Pade Qadam Saavdhani Har Dum, an awareness program on Road Safety and COVID 19 – Health and Safety Measures for enhancing Self Protective Behavior for the staff and workers engaged in rural road construction sites.</p> <p>Behavior change communications: Preparation of Information Education Communication material of GRC, Roles and Responsibilities of Marg Mitra, Sanitation, HIV/AIDS, COVID-19 is in progress.</p> <p>Education: Raising awareness to laborers and the communities on HIV/AIDS.</p> <p>Labor participation. Contractors were sensitized to be gender-sensitive and urged to employ females in road construction work.</p> <p>Students. Preliminary statistics show positively that MPRCP roads have provided confidence and opportunity for girls to bike to high school, in a broader spectrum it will scale up the attendance level and also inspire more girls to continue with schooling.</p> <p>Enhancements. Developed a format to consolidate data and record the incurred cost in extending the facility of convenient mobility to the village.</p> <p>Training on EHS: 150 officials (Assistant Managers/ Designated Safeguard Officers) have been trained on environmental management practices/ECOPs apart from 56 consultants working on Alternate Connectivity roads.</p>	<p>consultant for carrying out independent monitoring / assessment of safeguards is proposed for Jan 2022.</p>
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#### Financial Management:

During the mid-term review no significant control deficiencies were noted. The Project Management Unit continues to provide timely and accurate financial information on project implementation. Unaudited Interim Financial Reports are submitted monthly to facilitate frequent drawdown of funds. The audit report for the financial year ended March 31, 2021 becomes due by December 31, 2021.

#### 6. Status of the Grievance Redress Mechanism (GRM)

Grievance Redress Cells (GRCs) are functional at PIUs level and all project villages have GRCs established. The project has received 219 grievances – all of which have been resolved at the PIU level itself. The general nature and type of grievances received include clogged drain, water logging, culvert, issues relating to the contractor' work, theft of caution board, community disagreements, etc. There were also suggestions received to build ramps for fields, cross drainage structure, protection wall in pond area, etc.

#### 7. Results Monitoring

The information provided is a combination of the information provided by the client as of September 30, 2021, and the Aide Memoire shared by the World Bank on August 28, 2021, for the mission conducted in March.

Baseline Year: Jul. 17, 2018 End Target Year: Mar. 15, 2023

Project Objective Indicators #1

Annual maintenance cost (\$) per km

Year	Target	Actual	Others, if any
Jul. 17, 2018	-	1000 (Baseline)	
Mar. 15, 2019	0	N/A	
Mar. 15, 2020	0	N/A	750 km or road length identified collection of data is started in Dec. 2020
Mar. 15, 2021	750	N/A	The baseline maintenance cost of the gravel road is assessed by the department based on the analysis. The sample road identified are transferred from the Panchayat department and the concerned authority has been requested to provide actual data of maintenance of these roads.
Mar. 15, 2022	750	N/A	
Mar. 15, 2023	750	N/A	

## Project Objective Indicators #2

## Roughness index (m/km)

Year	Target	Actual	Others, if any
Jul. 17, 2018	-	7	
Mar. 15, 2019	3.5	3.2-3.7	Roughness value for bituminous roads is IRI (International Roughness Index) 2.67 to 3.78.
Mar. 15, 2020	3.5	2.67-3.78	Roughness IRI values measured on 120 gravel roads in 31 districts where minimum 4.43 and maximum 14.68. Bituminous road IRI measures on the completed 58 roads were minimum 2.67 and maximum 3.78.
Sep. 1, 2021	3.5	2.67-3.78	Roughness conducted in 162 gravel roads of 34 districts where minimum 4.43 and maximum 14.68 IRI was recorded. After B.T. roughness conducted on 98 roads where minimum IRI 2.67 and maximum 3.78 was recorded.
Mar. 15, 2022	3.5	N/A	
Mar. 15, 2023	3.5	N/A	

## Project Objective Indicators #3

## Rural road asset management system developed and in use

Year	Target	Actual	Others, if any
Jul. 17, 2018	-	No fully GIS (Geographic Information System)-based network inventory data, no scientific-based maintenance prioritization, and an investment plan.	
Mar. 15, 2023	Prioritized maintenance network investment plan – approved by competent authorities	N/A	

## Project Objective Indicators #4

## Share of the state highway network (about 11,000 km SH-State Highway and 20,000 km MDR-Major District Roads) covered under RADMS-Road Accident Data Management System

Year	Target	Actual	Others, if any
Mar. 15, 2019	10	N/A	Nodal officer appointed (PWD-Public Works Department) - Basic training on the software completed, field training expected in early 2021.
Mar. 15, 2020	50	N/A	Finalization of the iRAD application in Dec-2020. Field Training is expected in early 2021. Procurement of Tablets for recording accident data to be done.

Mar. 15, 2021	80	N/A	iRAD App is developed at the National level and Madhya Pradesh was selected in Pilot State. Basic Training completed.
Mar. 15, 2022	100	N/A	

## Intermediate Result Indicators #1

## Rural Roads Constructed: Roads upgraded to bituminous surface (km)

Year	Target	Actual	Others, if any
Oct. 23, 2018	2000	4888	
Mar. 15, 2019	3500	2239	
Mar. 15, 2020	4150	921	Delayed due to COVID-19.
Mar. 15, 2021	750	350	Delayed due to COVID-19.
Mar. 15, 2022	110	N/A	
Mar. 15, 2023	10510	N/A	

## Intermediate Result Indicators #2

## Rural Roads Constructed: New road construction (multiple connectivity) (km)

Year	Target	Actual	Others, if any
Mar. 15, 2020	150	N/A	Works contracts awarded for 137 roads involving a length of 489 kms.
Mar. 15, 2021	250	170	170 km constructed and remaining in progress
Mar. 15, 2022	110	N/A	
Mar. 15, 2023	510	N/A	

## Intermediate Result Indicators #3

## Rural Roads Constructed: Length of roads on which alternative surfacing technology piloted (km)

Year	Target	Actual	Others, if any
Oct. 23, 2018	0	691	
Mar. 15, 2019	500	785	
Mar. 15, 2020	1000	1108	
Mar. 15, 2021	600	1889	cumulative, out of the target of 2100
Mar. 15, 2023	2100	N/A	

## Intermediate Result Indicators #4

## Rural population connected by all-weather paved roads

Year	Target	Actual	Others, if any
Jul. 17, 2018	-	35 Million (Baseline)	
Mar. 15, 2019	150,000	682,000	
Mar. 15, 2020	600,000	370,000	
Mar. 15, 2021	600,000	1,347,033	Total population benefited 36,347,033
Mar. 15, 2022	150,000	N/A	
Mar. 15, 2023	36.5 Million	N/A	

## Intermediate Result Indicators #5

Percentage of high school girls shifting from walking to biking to schools

Year	Target	Actual	Others, if any
Jul. 17, 2018	-	10% (Baseline)	
Mar. 15, 2023	80%	N/A	

## Intermediate Result Indicators #6

Number of Women's SHGs (Self-help Group) engaged in post construction maintenance contracts

Year	Target	Actual	Others, if any
Oct. 23, 2019	2	A tri-partite agreement is signed between PIU, SRLM (State Rural Livelihood Mission), and SHG.	
Mar. 15, 2020	5	SHGs were formed and training was completed.	
Mar. 15, 2021	5	5	MOU Finalized: A tri-partite agreement is signed between PIU, SRLM, and SHG; 5 packages awarded; Work to start once construction works are complete.
Mar. 15, 2022	5	N/A	

## Intermediate Result Indicators #7

Number of women participating in road maintenance within SHGs

Year	Target	Actual	Others, if any
Oct. 23, 2019	20	0	
Mar. 15, 2020	50	N/A	50 SHGs are formed and training has been completed.
Mar. 15, 2021	50	N/A	Will be monitored during the maintenance phase.
Mar. 15, 2022	50	N/A	

## Intermediate Result Indicators #8

Rural roads asset management system (RRAMS) developed

Year	Target	Actual	Others, if any
Mar. 15, 2017	-	No comprehensive network-based asset management system	
Mar. 15, 2018	Procurement of system definer (SD) consultant for RAMS advanced	N/A	
Mar. 15, 2019	(i) SD consultant in place and define the RAMS system requirements; (ii) Procurement of System Provider (SP) consultant is advanced	Consultant for the gap analysis of RAMS is on board.	
Mar. 15, 2020	(i) RAMS developed and data for 10,000 km of rural roads entered and RAMS tested; (ii) Procurement of data collection consultant done, and consultant mobilised	N/A	
Mar. 15, 2021	GIS-based network data and information collected for about 116,000 km of rural	Consultant for gap analysis hired but could not be mobilized due to the	



	roads	challenges of Covid-19. TOR for System Development Consultant under preparation and procurement to begin shortly.	
Mar. 15, 2023	Comprehensive network-based asset management system developed	N/A	

## Intermediate Result Indicators #9

Number of Gram Panchayats reporting on road traffic crashed

Year	Target	Actual	Others, if any
Mar. 15, 2021	100	N/A	Data will be provided by Home department accident database management system.
Mar. 15, 2022	400	N/A	

## Intermediate Result Indicators #10

Number of crash locations/ Blackspots/ junctions/ pedestrian facilities improved

Year	Target	Actual	Others, if any
Mar. 15, 2021	25	0	Consultant has been appointed. Activity yet to start.
Mar. 15, 2022	25	N/A	

## Intermediate Result Indicators #11

Number of MPRRDA's staff trained

Year	Target	Actual	Others, if any
Mar. 15, 2019	110	50	
Mar. 15, 2020	125	107	
Mar. 15, 2021	40	232	Two-hundreds thirty-two staff trained on engineering and quality aspects of rural roads. Training of 150 MPRRDA staff to be conducted in during 2020-21.
Mar. 15, 2022	15	N/A	
Mar. 15, 2023	300	N/A	

## Intermediate Result Indicators #12

Number of MPRRDA's staff trained: Training on WB procurement policies, contract management and quality assurance

Year	Target	Actual	Others, if any
Mar. 15, 2019	50	30	
Mar. 15, 2020	25	30	Due to COVID-19, No training was conducted.
Mar. 15, 2021	25	60	Sixty staff have been trained up to Q3 2021, 50 more staff are expected to be trained by the ned of 2021.
Mar. 15, 2023	100	N/A	

## Intermediate Result Indicators #13

Number of MPRRDA's staff trained: Staff trained on environmental and social safeguards

Year	Target	Actual	Others, if any
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Mar. 15, 2019	50	10	
Mar. 15, 2020	50	50	Up to Q3 2021, one hundred thirty-five staff trained on Environment and Social Safeguard and more will be trained.
Mar. 15, 2023	100	N/A	

## Intermediate Result Indicators #14

Number of MPRRDA's staff trained: Staff in the new design unit trained on alternative design and construction technologies

Year	Target	Actual	Others, if any
Mar. 15, 2019	10	10	
Mar. 15, 2019	15	27	
Mar. 15, 2023	25	N/A	

## Intermediate Result Indicators #15

Number of MPRRDA's staff trained: Staff trained on design software

Year	Target	Actual	Others, if any
Mar. 15, 2020	25	0	Training to take place after procurement of design software.
Mar. 15, 2023	25	N/A	

## Intermediate Result Indicators #16

Citizen satisfaction index

Year	Target	Actual	Others, if any
Jul. 17, 2018	-	0	
Mar. 15, 2019	1.5	N/A	
Mar. 15, 2021	3.5	2.33	The baseline Satisfaction survey index is 2.33 based on coverage of 100 roads covering 39 districts. Pilot Mid Term Satisfaction survey is proposed on 100 roads. A survey is completed on 65 roads. The survey will be further taken up on balance road after completion of BT works.
Mar. 15, 2023	3.5	N/A	

## Intermediate Result Indicators #17

Females satisfaction index

Year	Target	Actual	Others, if any
Mar. 15, 2019	-	1.5	
Mar. 15, 2023	3.5	N/A	

## Intermediate Result Indicators #18

Males satisfaction index

Year	Target	Actual	Others, if any
Mar. 15, 2019	-	1.5	
Mar. 15, 2023	3.5	N/A	

## Intermediate Result Indicators #19

## Design and research unit established in MPRRDA

Year	Target	Actual	Others, if any
Mar. 15, 2020	Organizational structure, staffing plan and functional manual prepared	RCTRC (MPRRA) and design cell have been established in Walmi, Bhopal.	
Mar. 15, 2021	Design unit set up and becomes operational	RCTRC (MPRRA) and Design cell has been already established -Walmi, Bhopal. List of activities for further strengthening of the design & research cell to be prepared and partner institutions to be identified.	
Mar. 15, 2023	A functional design and research unit is in place	N/A	

## Intermediate Result Indicators #20

## Dust concentration in the ambient air along the Project roads

Year	Target	Actual	Others, if any
Mar. 15, 2019	0	Baseline survey completed	
Mar. 15, 2020	0	PM10 measurement on bituminous road has been done. The end target to be fixed.	
Mar. 15, 2021	0	The baseline assessment is completed, and reports submitted. Maximum value was achieved in Neemuch 91.98, and Minimum was Khandwa 49.92 The mean value of PM10 is 66.77. PM10 measurement on BT road is being done.	

**Remarks:** The information provided is up to June 30, 2021 in the Aide Memoire for the mission conducted in March.