

Facility Administration Manual

Project Number: 40423-013

Loan Number: XXXX

February 2012

India: Rural Connectivity Investment Program

Contents

ABBREVIATIONS

I.	PROGRAM DESCRIPTION	1	
	A.	Program's Rationale, Location and Beneficiaries	1
	B.	Impact and Outcome	2
	C.	Outputs	2
II.	IMPLEMENTATION PLANS	5	
	A.	Project Readiness Activities	5
	B.	Overall Project Implementation Plan	6
III.	PROJECT MANAGEMENT ARRANGEMENTS	7	
	A.	Project Implementation Organizations – Roles and Responsibilities	7
	B.	Key Persons Involved in Implementation	8
	C.	Program Organization Structure	12
IV.	COSTS AND FINANCING	15	
	A.	Investment and Financing Plans	15
	B.	Periodic Financial Request (Tranche 1)	18
	C.	Allocation and Withdrawal of Loan Proceeds	20
	D.	Detailed Cost Estimates by Year	22
	E.	Fund Flow Diagram	23
V.	FINANCIAL MANAGEMENT	24	
	A.	Financial Management Assessment	24
	B.	Disbursement	27
	C.	Financial Accounting and Auditing	28
VI.	PROCUREMENT AND CONSULTING SERVICES	29	
	A.	Procurement Capacity Assessment of RCIP states	29
	B.	Advance Contracting and Retroactive Financing	29
	C.	Procurement of Goods, Works and Consulting Services.	30
	D.	Procurement Plan	31
	E.	Consultant's Terms of Reference	32
VII.	SAFEGUARDS	33	
VIII.	GENDER AND SOCIAL DIMENSIONS	35	
IX.	PERFORMANCE MONITORING, EVALUATION, REPORTING AND COMMUNICATION	39	
	A.	Design and Monitoring Frameworks	39
	B.	Monitoring	39
	C.	Evaluation	41
	D.	Reporting	41
	E.	Stakeholder Communication Strategy	42
X.	ANTICORRUPTION POLICY	43	
XI.	ACCOUNTABILITY MECHANISM	44	
XII.	RECORD OF FAM CHANGES	44	
	ATTACHMENTS	45	

Attachments to FAM:

- A: Procurement plan
- B: TOR for PIC
- C: TOR for TSC
- D: TOR for RCTRC rollout consultant
- E: TOR for RRNMU support consultant (CDTA)
- F: TOR for RCTRC setup consultant (CDTA)
- G: Design standards for RCIP
- H: Technical Bid Evaluation Report (summary form)
- I: Financial Bid Evaluation Report (summary form)
- J: Report on contract award form
- K: TA Cost Estimates and Financing Plan

Facility Administration Manual Purpose and Process

The facility administration manual (FAM) describes the essential administrative and management requirements to implement the project on time, within budget, and in accordance with Government and Asian Development Bank (ADB) policies and procedures. The FAM should include references to all available templates and instructions either through linkages to relevant URLs or directly incorporated in the FAM.

The Ministry of Rural Development and National Rural Road Development Agency (Executing and Implementing Agencies at the central level), and the Governments of Assam, Chhattisgarh, Madhya Pradesh, Odisha and West Bengal through the respective Project Executing and Implementing Agencies (at the state level) are wholly responsible for the implementation of ADB financed projects, as agreed jointly between India and ADB, and in accordance with Government and ADB's policies and procedures. ADB staff is responsible to support implementation including compliance by Executing and Implementing Agencies with their obligations and responsibilities for the implementation of the Rural Connectivity Investment Program in accordance with ADB's policies and procedures.

At Loan Negotiations, India and ADB shall agree to the FAM and ensure consistency with the Framework Financing Agreement (FFA) and the Loan Agreement of the first project. Such agreement shall be reflected in the minutes of the Loan Negotiations. In the event of any discrepancy or contradiction between the FAM and the FFA and the Loan Agreement, the provisions of the Loan Agreement shall prevail.

After ADB Board approval of the Investment Program's Report and Recommendations of the President (RRP), changes in implementation arrangements are subject to agreement and approval pursuant to relevant Government and ADB administrative procedures (including the Project Administration Instructions) and upon such approval they will be subsequently incorporated in the FAM.

Abbreviations

ADB	=	Asian Development Bank
AFS	=	audited financial statements
CDTA	=	capacity development technical assistance
CPF	=	community participation framework
DMF	=	design and monitoring framework
DPR	=	detailed project report
EA	=	executing agency
EARF	=	environmental assessment and review framework
ECOP	=	Environmental Code of Practice
EIA	=	environmental impact assessment
EMP	=	environmental management plan
FAM	=	facility administration manual
FFA	=	framework financing agreement
FMA	=	financial management assessment
GDP	=	gross domestic product
IA	=	implementing agency
ICB	=	international competitive bidding
IEE	=	initial environmental examination
IPP	=	indigenous people plan
IPPF	=	indigenous people planning framework
LIBOR	=	London interbank offered rate
MORD	=	Ministry of Rural Development
MFF	=	multitranches financing facility
NCB	=	national competitive bidding
NGOs	=	nongovernment organizations
NRRDA	=	National Rural Roads Development Agency
OMMA	=	online management, monitoring, and accounting system
OSRRA	=	Odisha State Rural Road Agency
PAI	=	project administration instructions
PFR	=	periodic financing request
PIC	=	project implementation consultant
PIU	=	project implementation unit
PMGSY	=	Pradhan Mantri Gram Sadak Yojana
PRI	=	Panchayati Raj Institution
QCBS	=	quality- and cost based selection
RCIP	=	Rural Connectivity Investment Program
RCTRC	=	rural connectivity training and research center
RRNMU	=	rural road network management unit
RRP	=	report and recommendation of the President to the Board
RRS	=	rural road sector
SBD	=	standard bidding documents
SOE	=	statement of expenditure
SPS	=	Safeguard Policy Statement
SPRSS	=	summary poverty reduction and social strategy
SRRDA	=	State Rural Roads Development Agency
TA	=	technical assistance
TOR	=	terms of reference
TSC	=	technical support consultant

I. PROGRAM DESCRIPTION

A. Program's Rationale, Location and Beneficiaries

1. The Rural Connectivity Investment Program (RCIP) will construct or upgrade to the all-weather standard about 9,000 km of rural roads connecting around 4,200 habitations in the states of Assam, Chhattisgarh, Madhya Pradesh, Odisha, and West Bengal (RCIP states). The roads will be constructed or upgraded to a single lane standard. For the investments in physical infrastructure to be effective and sustainable, the investment program will also focus on improvement of institutional arrangements, business processes and associated capacity building, especially in relation to design, operation, safeguard, financial, road safety, and asset management matters.¹

2. Absence of all-weather road connectivity is one of the urgent problems in rural India making communities inaccessible for up to 90 days a year. Poor road infrastructure affects economic growth in rural areas. It impacts negatively on domestic and local trade, on the final cost of goods, competition and competitiveness, logistics in general, movement of people, inward investment opportunities, and ultimately on employment. Poor road connectivity has a strong link to poverty.

3. The Government is redressing this problem through the implementation of a nationwide rural road investment program, Pradhan Mantri Gram Sadak Yojana² (PMGSY), aiming to provide all-weather road connectivity to currently unconnected eligible habitations in India's rural areas. To maximize the impacts of the investment under PMGSY, the Ministry of Rural Development (MORD) established strategic criteria to give priority to habitations with a larger population first and gradually expand to cover smaller habitations over time. PMGSY has originally identified 79,487 unconnected habitations in RCIP states requiring new road connectivity investments for about 211,580 km.

4. PMGSY is in its 12th year of implementation and has constructed, in RCIP states, 108,637 km of rural roads connecting 39,721 habitations to a greater transportation network. Construction of additional 32,158 km of roads is ongoing. According to the latest program update, PMGSY is yet to construct 85,690 km to connect all remaining eligible habitations in RCIP states.³

5. The latest estimate for the remaining PMGSY financing requirement to achieve its goal over the next five years in RCIP states is about \$7.95 billion,⁴ while available PMGSY funding (with the major portion coming from the excise tax on high-speed diesel oil) for the same period is estimated to reach around \$5.04 billion. Accordingly, currently available funding sources will come short of the PMGSY needs. Specifically, additional \$2.91 billion will be needed to achieve PMGSY goal over the next 5 years in RCIP states. While exploring the possibilities of domestic borrowing to close the financial gap, the Government has approached ADB for providing funding of \$0.8 billion under the proposed investment program to assist with the implementation of the PMGSY in RCIP states.

¹ The Asian Development Bank (ADB) provided project preparatory technical assistance. ADB. 2009. *Technical Assistance to India for Preparing Rural Road Sector III Investment Program*. Manila.

² Means Prime Minister's Rural Roads Program.

³ As of June 2011.

⁴ Based on exchange rate of \$1.00=Rs 45.00.

6. The proposed investment program will provide support to the PMGSY to achieve its targets over the next 5 years. The investment program is consistent with the strategic objective set out in the Country Partnership Strategy (CPS) 2009-2012 and is included in the Country Operations Business Plan (COBP), 2011-2013.

7. Apart from the need to provide all-weather road connectivity to currently unconnected eligible habitations in India's rural areas, the states included in the investment program need support in the improvement of business procedures, and strengthening of capacities. Specifically, while the emphasis is currently shifting from construction to the operation and maintenance of the rural road network,⁵ the capacities remain at the same level. There is also a discrepancy between the extent of the rural road network (around 80% of the total road network) and supply of skills, as the training of civil engineers, technicians and site supervisors is currently oriented at high category roads.

8. These challenges are pronounced in Assam, Chhattisgarh, Madhya Pradesh, Odisha, and West Bengal included in the investment program. PMGSY identified these states among the 10 states with large rural population that lack adequate coverage in terms of all-weather road connectivity. The poverty head count rates in these states are among the highest in India. Chhattisgarh and Madhya Pradesh have already been provided with an ADB Loan in the amount of \$400 million to finance RRS-I (closed in 2009), under which 9,757 km of all-weather roads connecting 3,207 habitations have been constructed. Under the ongoing MFF financing RRS-II (to be closed in 2012), ADB is providing financial assistance to construction of PMGSY roads in Assam, Chhattisgarh, Madhya Pradesh, Odisha, and West Bengal. The total amount of RRS-II is \$750 million and 5 loans provided will fully utilize the MFF amount. The proposed investment program will provide a continuation for RRS-I and RRS-II.

B. Impact and Outcome

9. The long-term impact of the investment program will be reduced poverty and deprivation, and inclusive socioeconomic growth in the communities served by the investment program roads. The immediate outcome will be improved and sustainable connectivity of rural communities in the investment program states to markets, district headquarters, and other centers of economic activity.

C. Outputs

10. Specific outputs working towards achieving the outcome will include: (i) selected priority rural roads are constructed/upgraded into all-weather standard; (ii) quality of design of investment program roads is improved; (iii) maintenance of investment program roads is improved and sustainable; (iv) road safety measures are incorporated into the lifecycle of investment program roads; (v) qualification and skills of PMGSY engineers, technicians, site supervisors, concerned staff of Panchayati Raj Institutions (PRIs),⁶ design consultants and contractors in RCIP states is improved and maintained; and (vi) effective project management is provided.

⁵ Specifically, more than 65,000 km is currently on 5-year post-construction maintenance, and the length of roads beyond 5-year post-construction maintenance will increase from around 17,000 km to more than 80,000 km within the next 5 years.

⁶ A panchayat is an institution of self-government constituted for rural areas under Article 243-B of the Constitution of India. The three levels of panchayat comprise gram panchayat at village level, intermediate panchayat at block level, and zilla panchayat/parishad at district level. These panchayats collectively called "panchayati raj institutions."

11. The investment program will have Road Infrastructure Development Component and Institutional Strengthening Component:

(i) Road Infrastructure Development Component.

12. The investment program will construct to the all-weather standard⁷ about 9,000 km of rural roads in RCIP states. Civil works will include constructing/upgrading rural roads to a full single-lane cross section having 3.75 m wide carriageway and a 7.5 m formation width,⁸ strengthening of culverts and bridges, realignments as necessary, constructing of new bridges and cross-draining structures, and providing road furniture. Design standards for RCIP are in Attachment G.

(ii) Institutional Strengthening Component.

13. The investment program will support the establishment of Rural Connectivity Training and Research Centers (RCTRCs) and pilot Rural Road Network Management Units (RRNMUs) in RCIP states. One RCTRC and around 6 RRNMUs will be established in each RCIP state at the end of the implementation of the investment program. One pilot RRNMU will be established in each RCIP state during the first year of implementation, and the rest will be established during the third year. The support will include construction of modern facilities including laboratories and providing all necessary state-of-the art equipment, system and tools.

14. Support to RCTRCs will also include consulting services to assist staff in rolling out systematic and large scale training oriented at rural roads. The training will be provided in the innovative apprenticeship mode where over the period of three years the training will be conducted by the RCTRC consultant together with the concerned RCTRC staff, with increasing responsibility given to RCTRC staff. Consulting services will also support RCTRCs in research and compiling best practices and experiences in rural roads and using that material in the training and development of MORD/NRRDA guidelines and manuals

15. Assistance to the MORD/NRRDA and state governments to comply with administrative requirements inherent to ADB-assisted projects, and additional support in operation, monitoring, evaluation and risk management will be provided through the engagement of Project Implementation Consultant (PICs) engaged and financed by the Government of India, and technical Support Consultant (TSC) engaged by NRRDA and financed by ADB.

16. The Institutional Development Component will be supported by Capacity Development Technical Assistance (CDTA) for Institutional Development for Rural Roads Asset Management. This CDTA will support the piloting of RRNMUs and the establishment of the RCTRCs.⁹ Support for RRNMUs will include: (i) developing rural road network management policies, business procedures and associated tools; (ii) providing advisory support in design and procurement process for RRNMU facilities; (iii) providing dedicated rural road network management training; (iv) supporting RRNMUs with the implementation of rural road network management tasks; and (v) monitoring and analysis of RRNMUs performance and lessons learned. Support for RCTRCs will include (i) formulation of the concept, organizational structure, funding mechanisms,

⁷ Includes both new construction and upgrading to the all weather standards.

⁸ This standard is relaxed to 6.0 m formation for link roads and all roads in hilly areas; and 3.00 m carriageway width for such roads if daily motorized traffic is below 100.

⁹ Detailed TORs for each component of the CDTA are in Attachments E and F to the FAM accessible from the list of linked documents in Appendix 2.

business procedures, and staffing requirements of RCTRCs; (ii) providing advisory support in design and procurement of RCTRCs facilities; (iii) providing dedicated training to RCTRC staff; (v) developing operational plan for the rollout of RCTRCs; and (vi) assistance in recruiting the loan-financed RCTRC consultant.

II. IMPLEMENTATION PLANS

A. Project Readiness Activities

17. The project readiness activities, and estimated timeframe are as follows:

Year	Month	Advance Procurement Activities		
		Civil Works (roads)	Technical Support Consultant	Project Implementation Consultant
2009	October		▶ Advertise Request for EOI	
	November			
	December			
2010	January			
	February			
	March		▶ Shortlisting	
	April		▶ Issue RFP	▶ Advertise Request for EOI
	May			
	June		▶ Submission of proposals	▶ Shortlisting
	July			
	August			▶ Submission of proposals
	September			
	October			
	November			
	December			▶ Technical and Financial Evaluation
2011	January			
	February			
	March			▶ Contract signing
	April			
	May		▶ Contract signing	
	June			
	July			
	August			
	September			
	October	▶ Draft bidding documents prepared		
	November			
	December	▶ DPRs for batch 1 finalized		
2012	January			
	February	▶ Bidding documents finalized		
	March	▶ Invite bids		
	April			
	May	▶ Bid submission		
	June	▶ Technical evaluation		
	July	▶ Financial evaluation		
	August			
	September	▶ Contract signing		
	October	▶ Commencing of works		
	November			
	December			

B. Overall Project Implementation Plan

18. Project implementation chart recording key implementation activities on a quarterly basis is provided below. It will be updated annually and submitted to ADB with contract and disbursement projections for the following year.

Item	2010				2011				2012				2013				2014				2015				2016				2017				2018-2022								
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Y1	Y2	Y3	Y4	Y5				
	MFF Availability Period:				Year 1				Year 2				Year 3				Year 4				Year 5				Year 6																
A. Project Preparation																																									
Loan processing and approval by ADB																																									
Loan signing and Effectiveness																																									
B. Road Infrastructure Development																																									
Procurement (civil works, roads)																																									
Construction (roads)																																									
Maintenance and defect liability period (roads)																																									
C. Institutional Development																																									
Procurement (civil works, RCTRCs)																																									
Construction (RCTRCs)																																									
Procurement (civil works, RRNMUs)																																									
Construction (RRNMUs)																																									
D. Goods																																									
Procurement and installation of equipment (RCTRCs)																																									
Procurement and installation of equipment (RRNMUs)																																									
E. Consulting Services																																									
Recruit Consultants (TSC)																																									
Execution of Consulting services (TSC)																																									
Recruit Consultants (PICs)																																									
Execution of Consulting services (PICs)																																									
Recruit Consultants (RCTRC rollout)																																									
Execution of Consulting services (RCTRC rollout)																																									
F. TAs for Capacity Development																																									
Recruit Consultants (RCTRC setup)																																									
Execution of Consulting services (RCTRC setup)																																									
Recruit Consultants (RRNMU support)																																									
Execution of Consulting services (RRNMU support)																																									

TSC= Technical Support Consultant, PIC=Project Support Consultant, RCTRC=Rural Connectivity Training and Research Center, RRNMU=Rural Road Network Management Unit.

III. PROJECT MANAGEMENT ARRANGEMENTS

A. Project Implementation Organizations – Roles and Responsibilities

Project Stakeholders	Management Roles and Responsibilities
Executing agency (EA)	<p>Ministry of Rural Development (MORD) at the Central Level Governments of Assam, Chhattisgarh, Madhya Pradesh, Odisha and West Bengal</p> <ul style="list-style-type: none"> • overall coordination of project implementation • financial oversight • interagency coordination • policy decisions (RRNMUs and RCTRCs) • counterpart funding (MORD: capital works) • maintenance funding (RCIP states) • provide land and cover design costs, staffing and running costs for RRNMUs and RCTRCs (RCIP states) • ensuring project sustainability during post implementation stage • consolidation of the withdrawal applications received from State Rural Road Development Agencies (SRRDAs) and submitting consolidated withdrawal applications to ADB. • coordination with SRRDAs and submitting reports, including the annual report and financial statements to ADB.
Implementing agency (IA)	<p>State Rural Road Development Agencies¹⁰</p> <ul style="list-style-type: none"> • detailed design and bidding documents • consultant recruitment and procurement of works • preconstruction activities • day-to-day project management • quality assurance of works and services of consultants and counterpart staff • submission of withdrawal applications to NRRDA. • withdrawal applications • submission of project progress reports and other reports as required to NRRDA • submission of the annual report and financial statements to NRRDA. • maintaining project accounts and loan financial records • keeping supporting documents for project financial statements and project accounts.
ADB	<ul style="list-style-type: none"> • monitor and review overall implementation of the project in consultation with the EA/IA including: the project implementation schedule; actions required in terms of poverty reduction, environmental impacts, and social mitigation measures applicable; timeliness of budgetary allocations and counterpart funding; project expenditures; progress with procurement and disbursement; procurement and performance audits; statement of expenditure when applicable; compliance with particular loan covenants; and the likelihood of attaining the project's immediate development objectives. • post on ADB web the updated project information documents and safeguards documents as per disclosure provision of the ADB safeguards policy statement. • timely process withdrawal applications and release eligible funds

¹⁰ The functions of SRRDA are carried out by State Road Board in Assam, State Rural Roads Agency in Odisha, State Rural Development Agency in West Bengal, and Rural Roads Development Authorities in Madhya Pradesh and Chhattisgarh.

B. Key Persons Involved in Implementation

RCIP Coordination Committee (Central Level)

Name	Position	Agency	Role in the Committee
Dr. P.K. Anand	Joint Secretary (Rural Connectivity) & Director General (NRRDA)	MORD	Chairman
Mr. Y.S. Dwivedi	Director (Rural Connectivity)	MORD	Member
Mr. P. Agarwal	Deputy Secretary (ADB)	DEA	Member
Mr. N.C. Solanki	Director (Projects-I)	NRRDA	Member
Mr. K. C. Hazarika	Chief Engineer (Roads)	PWD, Assam	Member
Mr. S. Agarwal	Chief Executive Officer	CGRRDA	Member
Ms. A. Upadhyaya	Secretary and Chief Executive Officer	MPPRDA	Member
Mr. S. Chakrabarti	Additional CEO	WBSRDA	Member
Mr. S.N. Tripathi	Principal Secretary, Rural Development Department	Odisha	Member

RCIP Coordination Committees (State Level)

State-level Coordination Committee will be headed by the Secretary of the Project Executing Agency or Chief Executive Officer of the IA.

Executing Agency (Central level)

Ministry of Rural Development	Officer's Name	Dr. Pramod Kumar Anand
	Position	Joint Secretary (RC)
	Telephone	91-11-23383553
	Email address	anandpk@nic.in
	Mobile	91-9818404066
	Web	http://www.rural.nic.in
	Office Address	Ministry of Rural Development, Krishi Bhawan, New Delhi

National Rural Roads Development Agency (NRRDA) (Central Level)	Officer's Name	N.C. Solanki
Ministry of Rural Development	Position	Director (Projects-I)
	Telephone	91-11-26179555
	Mobile	91-8826240404
	Email address	nc.solanki@pmgsy.nic.in
	Web	-
	Office Address	5 th . Floor, 15-NBCC Tower, Bhikaji Cama Place, New Delhi-110066

National Rural Roads Development Agency (NRRDA) (Central Level)	Officer's Name	H. Bhardwaj
Ministry of Rural Development	Position	Assistant Director (Projects-II)
	Telephone	91-11-26716930 Ext. 108
	Mobile	91-9899364495
	Email address	hbhardwaj.2007@rediffmail.com
	Web	-
	Office Address	5 th . Floor, 15-NBCC Tower, Bhikaji Cama Place, New Delhi-110066

Executing Agency (Government of Assam)

Public Works Roads Department	Officer's Name	M. C. Boro
	Position	Commissioner and Special Secretary cum CEO
	Telephone	0361-2261678
	Email address	as-guw1@nic.in
	Web	http://www.assampwd.in
	Office Address	Assam Sachivalaya, Dispur, Guwahati-6

Executing Agency (Government of Chhattisgarh)

Panchayat and Rural Development Department	Officer's Name	Vivek Dhand
	Position	Principal Secretary
	Telephone	0771-4080317
	Email address	vivekdhand@nic.in
	Web	-
	Office Address	Room No. 317, DKS Bhavan (Mantralay), Raipur

Executing Agency (Government of Madhya Pradesh)

Panchayat and Rural Development Department	Officer's Name	Ms. Alka Upadhyaya
	Position	Secretary and CEO
	Telephone	91-755-2571114
	Email address	ceorrda@rediffmail.com
	Web	-
	Office Address	5thFloor, B-Wing, ParyawasBhawan, Bhopal (MP) -462004

Executing Agency (Government of Odisha)

Rural Development Department	Officer's Name	S.N. Tripathi
	Position	Principal Secretary
	Telephone	91-674-2536740; 9437255500
	Email address	rdsec.or@nic.in ; snt1@nic.in
	Web	Odisha.gov.in/RD
	Office Address	Rural Development Dept., Govt. of Odisha, Sanchivalaya Marg, Bhubaneswar

Executing Agency (Government of West Bengal)

Panchayat and Rural Development Department	Officer's Name	Saurabh Kumar Das
	Position	Principal Secretary and Chief Executive Officer, WBSRDA
	Telephone	91-33-22424422
	Mobile	91-9903931373
	Email address	secy-prd@nic.in , saurabhdas136@gmail.com
	Web	-
	Office Address	Dept. of Panchayats & Rural Development, Jessop Building (1 st . Floor), 63 N.S. Road, Kolkata - 700001

Implementing Agency (Assam)

Assam State Road Board	Officer's Name	K.C. Hazarika
	Position	Chief Engineer
	Telephone	0361-2660079
	Mobile	91-9435032233
	Email address	as-guw2@nic.in
	Web	http://www.assampwd.in
	Office Address	PWD (Road), Assam, Chandmari, Guwahati -781003

Implementing Agency (Chhattisgarh)

State Rural Roads Development Agency	Officer's Name	Sudhir Kumar Agrawal
	Position	Chief Executive Officer
	Telephone	91-771-2424275
	Email address	cg-itno@nic.in ; cg-ceo@nic.in
	Mobile	9425209697
	Web	http://www.cgrrda.gov.in
	Office Address	Vikas Bhawan, Civil Lines, Raipur

Implementing Agency (Madhya Pradesh)

State Rural Roads Development Authority	Officer's Name	Alka Upadhyaya
	Position	Chief Executive Officer
	Telephone	91- 755-2572207
	Mobile	91-9753973001
	Email address	ceomprda@gmail.com ; mp-cexo@nic.in
	Web	www.mprda.com
	Office Address	5 th Floor, Block II, Paryavas Bhavan, Arera Hills, Bhopal (MP) - 462004

Implementing Agency (Odisha)

State Rural Roads Agency	Officer's Name	Banshidhar Behera/P.K. Pradhan
	Position	Chief Engineer-III/Chief Engineer-I
	Telephone	91-674-2393418
	Mobile	91-9437255366/91-9437255444
	Email address	crew_bbsr@yahoo.com ; banshidhar.behera@yahoo.com /prabir.pradhan@yahoo.com
	Web	
	Office Address	Chief Engineer, Rural Works (Odisha), Madhusudan Nagar, Unit-IV, Bhubaneswar-751001

Implementing Agency (West Bengal)

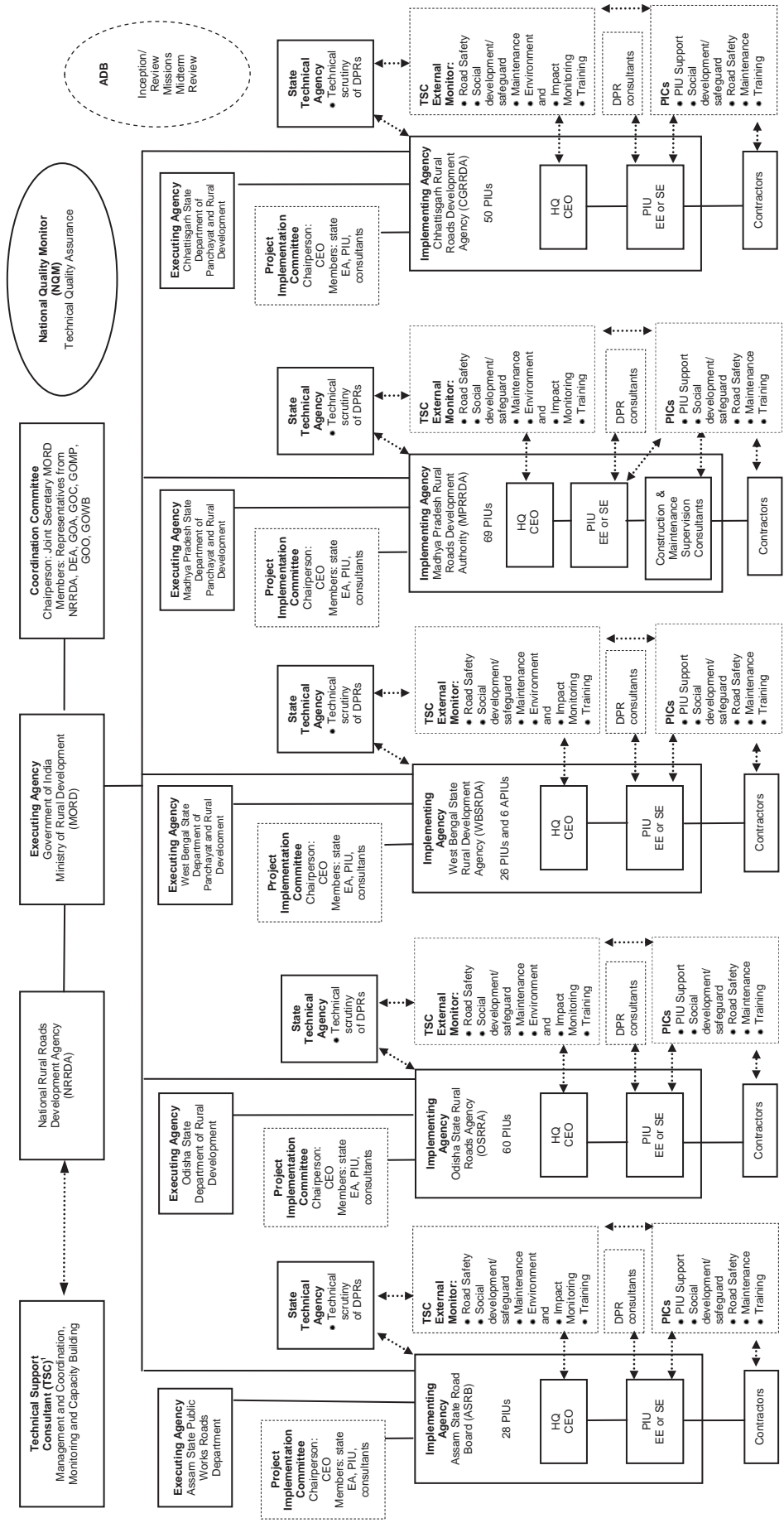
State Rural Development Agency	Officer's Name	A. S. Chakrabarti
	Position	Additional CEO
	Telephone	91-33-22438720
	Email address	wbsrdacal@yahoo.co.in , wbsrdacal@gmail.com
	Web	-
	Office Address	West Bengal State Rural Development Agency, 63, Netaji Subhas Road, Kolkata - 7001001

ADB

Staff Name	Sri Widowati
Position	Director
Telephone No.	+632 6326794
Email address	swidowati@adb.org

Staff Name	Oleg Tonkonojenkov
Position	Senior Transport Specialist
Telephone No.	+632 6326307
Email address	otonkonojenkov@adb.org

C. Program Organization Structure



ADB=Asian Development Bank, ASRB=Assam State Road Board, APIU= Additional PIU (supplements main PIU, but has no financial powers), CEO=Chief Executive Officer, CGRRDA= Chhattisgarh Rural Roads Development Authority (CGRRDA), DEA= Department of Economic Affairs, DPR=detailed project report (road design), EE=Executive Engineer, GOA=Government of Assam, GOMP=Government of Madhya Pradesh, GOO= Government of Odisha, GOWB=Government of West Bengal, HQ=headquarters, MOF=Ministry of Finance, MORD=Ministry of Rural Development, MPRRDA=Madhya Pradesh Rural Roads Development Authority (MPRRA), NRRDA=National Rural Roads Development Agency, OSRRA=Odisha State Rural Roads Agency, PIU=program implementation unit, PIC=project implementation consultant, PMC=project management consultant, SE=superintending engineer, STA=State Technical Agency, TSC=Technical Support Consultant, WBSRDA=West Bengal State Rural Roads Development Agency.

1 Existing under Loan 2018-IND: Rural Roads Sector I Project.

D. Staffing and Functions of the RRNMUs

19. During the first year of implementation of the Investment Program, one PIU in each RCIP state will be converted to the Rural Road Network Management Unit (RRNMU) and 5 more PIUs in each state will be converted to RRNMUs during the third year. Establishment of RRNMUs will be supported by the services of the TA Consultant financed by ADB on the grant basis. The services of the RRNMU consultant will be in three phases: (i) preparatory, including developing business processes, operations manuals, and supply and installation of systems and tools required for RRNMU operations; (ii) carry out day-to-day operations of the RRNMU conducted in apprenticeship mode together with RRNMU staff; and (iii) support RRNMU operations on as needed basis once PRAMC operations are fully taken over by PRAMC staff.

20. State Governments will fill 75% of all RRNMU positions with permanent staff by end of 2012, and 100% by the end of 2013. State Governments will identify suitably qualified staff for these positions and, if felt necessary, will provide them with dedicated training in their particular fields. State Governments will not transfer staff in RRNMUs for 5 years.

21. Concurrently with the establishment of first RRNMUs, each SRRDA will establish Rural Road Network Management Cells (RRNMCs) in the SRRDA headquarters to oversee the work of RRNMUs. Cells will be established by designating the existing SRRDA staff, on the existing facilities. Initially, it will comprise only core staff, but will grow over time as needed (to also include fully dedicated staff) in order to commensurate with the growth of the number of RRNMUs and mainstreaming of new business processes. The core functions and approximate ultimate staffing arrangements of the RRNMCs are shown below.

Functions and Staffing of Rural Road Network Management Cells at SRRDAs

Staff	No.	Roles
Head of Cell - Chief Engineer	1	<input type="checkbox"/> Reporting to Secretary / Principal Secretary <input type="checkbox"/> External Stakeholder Interface
Superintending Engineer (Rural Road Policy, Planning, and Programming, IT)	1	<input type="checkbox"/> Public Relations Support <input type="checkbox"/> Annual Reporting <input type="checkbox"/> Oversight of RRNMU and RCTRC pilots
Executive Engineer (Rural Road Policy, Planning and Programming, IT),	1	<input type="checkbox"/> Budgeting <input type="checkbox"/> Institutional Development <input type="checkbox"/> Rural Road Maintenance Legislation
Executive Engineer (Rural Road Maintenance, Safety and related Training)	1	<input type="checkbox"/> Rural Road Maintenance Policy <input type="checkbox"/> Key Performance Indicators <input type="checkbox"/> Rural Road Network Classification and
Rural Connectivity and Maintenance Planner (AE/AEE)	1	<input type="checkbox"/> Prioritization <input type="checkbox"/> Rural Connectivity Demand Projections
Transport Economist (AE/AEE)	1	<input type="checkbox"/> Road & Bridge Maintenance Plans and Budgets <input type="checkbox"/> Liaison with PIUs, RRNMUs, RCTRCs <input type="checkbox"/> Dissemination of results,

22. The core functions and approximate staffing of the RRNMUs are shown below. Specific staffing arrangements will vary in each RCIP state. The states will utilize staffing of existing PIUs to fill in positions of RRNMUs to the extent possible.

Functions and Staffing of Rural Road Network Management Units

Staff	No.	Activities
Management		
Executive Engineer (Head of Unit)	1	<input type="checkbox"/> Unit Management
Finance Officer (Budget and Finance)	1	<input type="checkbox"/> Annual Budget Preparation
Accounts Clerks	3	<input type="checkbox"/> Program and Expenditure Control
Computer Operator (Accounts Data Entry)	1	<input type="checkbox"/> Payments and Receipts
Computer Network Administrator	1	<input type="checkbox"/> Accounts keeping and Annual Reporting
		Computer Network Management
Road Planning		
Assistant Executive Engineer (Design Road Safety & QC)	1	<input type="checkbox"/> Road Network Referencing & Mapping
Assistant Engineer (Road Planning & Procurement)	1	<input type="checkbox"/> Road and Bridge Data Collection
Assistant Engineer (Design, Road Safety & QC)	1	<input type="checkbox"/> Road and Bridge Condition Database
Jr. Engineer (Road Planning and Procurement)	1	<input type="checkbox"/> Road Network Mapping
Jr. Engineer (Road Design) DPR, Road Safety	1	<input type="checkbox"/> Road User & Stakeholder Participation
Jr. Engineer (Lab & QC)	1	<input type="checkbox"/> Traffic Surveys and Data Collection
Jr. Engineer (Road Safety & Audit)	1	<input type="checkbox"/> Road Network Status Reporting
GIS Operator (Data and Mapping)	1	<input type="checkbox"/> Monitoring of Axle Loads
Computer Operator (Data Entry)	2	<input type="checkbox"/> Road Network Development Plans & Sub-Project Selection
		<input type="checkbox"/> Road & Bridge Maintenance Plans
		<input type="checkbox"/> Annual Work Program Preparation
		<input type="checkbox"/> Transect Walks & Community Participation
		<input type="checkbox"/> DPR Preparation and Management
		<input type="checkbox"/> Road Safety Audit
		<input type="checkbox"/> Project Preparation and Packaging
		<input type="checkbox"/> OMMS Data Updating and Uploading
		<input type="checkbox"/> Maintenance Contract and Work order preparation and packaging
Laboratory Technicians & Support Staff	4	<input type="checkbox"/> Material Testing and Quality Control
New Link & Upgradation – Construction & Maintenance		
Assistant Executive Engineer (Construction & Maintenance)	3	<input type="checkbox"/> Construction Supervision & Quality Control
Assistant Engineer (Construction & Maintenance)	3	<input type="checkbox"/> Maintenance Supervision and Quality Control
Jr. Engineer	6	<input type="checkbox"/> Contract Administration
Computer Operator (Data Entry)	3	<input type="checkbox"/> Road safety Inspection
		<input type="checkbox"/> Road Inspection and Community participation
		<input type="checkbox"/> Road Condition Monitoring and reporting
		<input type="checkbox"/> OMMS Data Updating and Uploading
TOTAL ESTABLISHMENT	36	

IV. COSTS AND FINANCING

A. Investment and Financing Plans

23. The Investment Program is estimated to cost \$1,225.30 m equivalent inclusive of civil works, consulting services, equipment, recurrent costs, social mitigation measures, taxes, duties, contingencies, and interest and other charges on the loan during construction. The investment plan is summarized in Table 1.

Table 1: Program Investment Plan
(\$ million)

Item	Amount ^a
A. Base Cost^b	
1 Road infrastructure development component	974.75
2 Institutional development component	42.00
3 Recurrent costs	19.00
Subtotal (A)	1035.75
B. Contingencies^c	148.36
C. Financing Charges during Implementation^d	39.33
Total (A + B)	1,225.30

^a Includes taxes and duties in the amount of \$51.3 million to be financed from government resources, and taxes and duties for certain goods and consulting services in the amount of \$1.0 million to be financed by ADB.

^b In mid-2011 prices.

^c Price contingencies.

^d Includes interest and commitment charges. Interest during construction for the ADB loans) is computed at the 5-year forward London interbank offered rate plus a spread of 0.4% and a maturity based premium of 0.20%. Commitment charges for an ADB loan are 0.15% per year on the undisbursed loan amount.

Sources: Ministry of Rural Development, Governments of Assam, Chhattisgarh, Madhya Pradesh, Odisha and West Bengal; and Asian Development Bank estimates.

24. The government has requested a multitranche financing facility (MFF) in an amount up to \$800.0 million from ADB's ordinary capital resources to help finance part of the Investment Program. The MFF will consist of four tranches, subject to the government's submission of related PFRs, execution of the related loan and project agreements for each tranche, and fulfillment of terms and conditions and undertakings set forth in the framework financing agreement (FFA). Progress towards achieving the outputs and expected outcomes in the DMFs for the Investment Program and individual tranches will also be decision-making criteria for financing subsequent tranches under the MFF.

25. The detailed costs estimate for the Investment Program is provided below.

Table 2: Component-wise Cost Estimate^a of the Investment Program

No.	Project Component ^b	Total Cost	ADB Financing		Government Financing ^j	
			US\$ million	Percent (%)	US\$ million	Percent (%)
A. Investment Costs						
A1. Road Infrastructure Development						
1	Civil Works (Construction and Upgradation of Roads)	970.75	776.60	80.00	194.15	20.00
2	Civil Works (Utility Shifting)	2.00	0.00	0.00	2.00	100.00
3	Social Mitigation	2.00	0.00	0.00	2.00	100.00
Subtotal (A1)		974.75	776.60		198.15	
A2. Institutional Development^e						
4	Civil Works (RCTRCs) ^c	3.00	2.40	80.00	0.60	20.00
5	Civil Works (RRNMUs) ^d	15.00	12.00	80.00	3.00	20.00
6	Consultants (RCTRCs) ^f	4.00	4.00	100.00	0.00	0.00
7	Consultants (PIC)	15.00	0.00	0.00	15.00	100.00
8	Consultants (TSC)	2.00	2.00	100.00	0.00	0.00
9	Equipment and software ^g	3.00	3.00	100.00	0.00	0.00
Subtotal (A2)		42.00	23.40		18.60	
Subtotal (A)		1016.75	800.00		216.75	
B. Recurrent costs						
10	Project Management	19.00	0.00	0.00	19.00	100.00
Subtotal (B)		19.00	0.00		19.00	
Total Base Cost (A+B)		1035.75	800.00		235.75	
C. Contingencies^h						
11	Price Contingencies	148.36	0.00	0.00	148.36	100.00
Subtotal (C)		148.36	0.00		148.36	
D. Financial Charges During Implementationⁱ						
12	Interest during Construction	39.33	0.00	0.00	39.33	100
13	Commitment Charges	1.86	0.00	0.00	1.86	100
Subtotal C		41.19	0.00		32.84	
Total Project Cost (A+B+C)		1225.30	800.00		425.30	
% Total Project Cost				65.29		34.71

PIC=Project Implementation Consultant, RCTRC= Rural Connectivity Training and Research Center, RRNMU=Rural Road Network Management Unit, TSC=Technical Support Consultant.

^a In mid-2011 prices. Includes taxes and duties in the amount of \$51.3 million to be financed from government resources, and taxes and duties for goods and consulting services in the amount of \$1.0 million to be financed by ADB.

^b In Assam, Chhattisgarh, Madhya Pradesh, Odisha, and West Bengal.

^c RCTRCs will be state-of-the-art training facilities fully equipped for the purposes of the rural connectivity-oriented training and research. RCTRCs will also include housing blocks for the trainees.

- ^d All necessary works to establish state-of-the-art field offices for the pilot RRNMUs (including laboratories) in Assam, Chhattisgarh, Madhya Pradesh, Odisha, and West Bengal. The field offices will be fully equipped for the purposes of the rural road network management and will have a high demonstration and replication potential.
- ^e Apart from the Loan financing, ADB will finance consulting services to support the establishment and operation of pilot RRNMUs and RCTRCs under the piggyback CDTA in the amount of \$2.3 million.
- ^f Consulting services to assist RCTRC in rolling out systematic and large scale training.
- ^g Equipment and tools for the pilot RRNMUs (such as road distance meters, data recorders, GIS devices, portable weigh stations, testing equipment, total stations, videoconferencing, satellite TV facilities to connect with RRNMUs, RCTRCs, and mobile field stations, software etc); and state-of-the-art equipment and tools for the RCTRCs, including laboratories, equipment for interactive and distance learning, videoconferencing, satellite TV facilities to connect with RRNMUs, RCTRCs, and mobile field stations, etc .
- ^h Price contingencies calculated on the project by project basis. No price escalation will be used under civil works contracts.
- ⁱ Includes interest and commitment charges. Interest during construction for the ADB loans is computed at the 5-year forward London interbank offered rate plus a spread of 0.4% and a maturity based premium of 0.20%. Commitment charges for an ADB loan are 0.15% per year on the undisbursed loan amount.
- ^j State governments will finance the cost of utility shifting and social mitigation.

Sources: Ministry of Rural Development, Governments of Assam, Chhattisgarh, Madhya Pradesh, Odisha and West Bengal; and Asian Development Bank estimates.

26. The ADB loan will finance 65.29% of the Investment Program cost. The Government has allocated its counterpart financing for 34.71% of the Investment Program cost. The financing plan for the Project is in Table 3.

Table 3: Financing Plan of the Investment Program

Source	Amount (\$ million)	Share of Total (%)
Asian Development Bank	800.00	65.29
India and States ^a	425.30	34.71
Total	1,225.30	100.00

^a State governments will finance the cost of utility shifting and social mitigation.
Sources: Ministry of Rural Development, Governments of Assam, Chhattisgarh, Madhya Pradesh, Odisha and West Bengal; and Asian Development Bank estimates.

27. **Indicative tranching plan and time-slice financing.** The MFF will finance 4 projects under the MFF. Time slicing financing of long-term contract packages for the consulting services, including services of the TSC and RCTRC consultant will be used. Table 4 below provides the indicative amount and schedule of the first and subsequent tranches.

Table 4: Summary Financing and Tranching Plan of the Investment Program

	Tranche 1	Tranche 2	Tranche 3	Tranche 4
Source	2012	2013	2014	2015
Asian Development Bank	252.00	200.00	200.00	148.00
India and States ^a	89.00	111.35	125.96	98.98
Total	341.00	311.35	325.96	246.98

^a State governments will finance the cost of utility shifting and social mitigation.
Sources: Ministry of Rural Development, Governments of Assam, Chhattisgarh, Madhya Pradesh, Odisha and West Bengal; and Asian Development Bank estimates.

B. Periodic Financial Request (Tranche 1)

28. **Amount and terms.** The request to finance Tranche 1 is for a loan of \$252.00 million from the ordinary capital resources of the Asian Development Bank (ADB) provided under ADB's London interbank offered rate (LIBOR)-based lending facility, with a 25-year term, including a grace period of 5 years, an annual interest rate determined in accordance with ADB's LIBOR-based lending facility, a commitment charge of 0.15% per year, and such other terms and conditions set forth in the draft loan and project agreements. The Government of India and each State has provided ADB with (i) the reasons for its decision to borrow under ADB's LIBOR-based lending facility based on these terms and conditions, and (ii) an assurance that these choices were its own independent decision and not made in reliance on any communication or advice from ADB.

29. **Scope.** Project 1 will include:

- (i) Roads (civil works): Assam around (342 km), Chhattisgarh (1,008 km), Madhya Pradesh (1187 km); Odisha (757 km), and West Bengal (167 km)
- (ii) RRNMUs (civil works and equipment): one facility in each state (5 in total)
- (iii) RCTRCs (civil works and equipment): one facility in each state
- (iv) RCTRCs Consultant to support large scale training
- (v) TSC for monitoring, due diligence, coordination and capacity building
- (vi) PICs for support and due diligence in safeguards, road safety and road maintenance

30. Establishment of RRNMUs and RCTRCs will be supported by a piggy-back TA in the amount of \$2.3 m for institutional development in asset management of rural roads. It will have two components: (i) support to the piloting of RRNMUs, and (ii) support to the establishment of the RCTRCs (with \$1.8 m for RRNMUs support component and \$0.5 m for RCTRCs component).

31. **Implementation period.** Project 1 is expected to be completed by 31 December 2015. Construction of 5 RCTRCs and 5 RRNMU facilities will start after the finalization of the design of the facilities, and will be fully put into operation and equipped by mid of 2014.

32. The detailed cost estimates for tranche 1 is in Table 5.

Table 5: Component-wise Cost Estimate^a of the Tranche 1 of the Investment Program

No.	Project Component ^b	Total Cost US\$ million	ADB Financing		Government Financing ^j	
			US\$ million	Percent (%)	US\$ million	Percent (%)
A. Investment Costs						
A1. Road Infrastructure Development						
1	Civil Works (Construction and Upgradation of Roads)	306.20	244.96	80.00	61.24	20.00
2	Civil Works (Utility Shifting)	0.45	0.00	0.00	0.45	100.00
3	Social Mitigation	0.45	0.00	0.00	0.45	100.00
Subtotal (A1)		307.10	244.96		62.14	
A2. Institutional Development^e						
4	Civil Works (RCTRC) ^c	2.70	2.16	80.00	0.54	20.00
5	Civil Works (RRNMU) ^d	2.70	2.16	80.00	0.54	20.00
6	Consultants (RCTRC) ^f	1.75	1.75	100.00	0.00	0.00
7	Consultants (PIC)	4.50	0.00	0.00	4.50	100.00
8	Consultants (TSC)	0.88	0.88	100.00	0.00	0.00
9	Equipment and software ^g	0.09	0.09	100.00	0.00	0.00
Subtotal (A2)		12.62	7.04		5.58	
Subtotal (A)		319.72	252.00		67.72	
B. Recurrent costs						
10	Project Management	4.20	0.00	0.00	4.20	100.00
Subtotal (B)		4.20	0.00		4.20	
Total Base Cost (A+B)		323.92	252.00		71.92	
C. Financial Charges During Implementation^h						
11	Interest during Construction	16.47	0.00	0.00	16.47	100
12	Commitment Charges	0.61	0.00	0.00	0.61	100
Subtotal (C)		17.08	0.00		17.08	
Total Project Cost (A+B+C)		341.00	252.00		89.00	
% Total Project Cost				73.90		26.10

PIC=project implementation consultant, RCTRC= Rural Connectivity Training and Research Center, RRNMU=Rural Road Network Management Unit, TSC=technical support consultant.

^a In mid-2011 prices. Includes taxes and duties in the amount of \$16.1 million to be financed from government resources, and taxes and duties for goods and consulting services in the amount of \$0.3 million to be financed by ADB.

^b In Assam, Chhattisgarh, Madhya Pradesh, Odisha, and West Bengal.

^c RCTRCs will be state-of-the-art training facilities fully equipped for the purposes of the rural connectivity-oriented training. RCTRCs will also include housing blocks for the trainees.

^d All necessary works to establish state-of-the-art field offices for the pilot RRNMUs (including laboratories) in Assam, Chhattisgarh, Madhya Pradesh, Odisha, and West Bengal. The field offices will be fully equipped for the purposes of the rural road network management and will have a high demonstration and replication potential.

^e Apart from the Loan financing, ADB will finance consulting services to support the establishment and operation of pilot RRNMUs and RCTRCs under the piggyback CDTA in the amount of \$2.3 million.

^f Consulting services to assist RCTRC in rolling out systematic and large scale training.

⁹ Equipment and tools for the pilot RRNMUs (such as road distance meters, data recorders, GIS devices, portable weigh stations, testing equipment, total stations, videoconferencing, satellite TV facilities to connect with RRNMUs, RCTRCs, and mobile field stations, software etc); and state-of-the-art equipment and tools for the RCTRCs, including laboratories, equipment for interactive and distance learning, videoconferencing, satellite TV facilities to connect with RRNMUs, RCTRCs, and mobile field stations, etc.

^h Includes interest and commitment charges. Interest during construction for the ADB loans is computed at the 5-year forward London interbank offered rate plus a spread of 0.4% and a maturity based premium of 0.20%. Commitment charges for an ADB loan are 0.15% per year on the undisbursed loan amount.

^j State governments will finance the cost of utility shifting and social mitigation.

Source: Asian Development Bank estimates.

33. The ADB loan will finance 73.90% of the Tranche 1 of the Investment Program cost. The Government has allocated its counterpart financing for 26.10% of the Investment Program cost. The financing plan for the Tranche 1 of the Investment Program is in Table 6.

Table 6: Financing Plan

Source	Amount (\$ million)	Share of Total (%)
Asian Development Bank	252.00	73.90
Government	89.00	26.10
Total	341.00	100.00

Sources: Ministry of Rural Development, Governments of Assam, Chhattisgarh, Madhya Pradesh, Odisha and West Bengal; and Asian Development Bank estimates

C. Allocation and Withdrawal of Loan Proceeds

34. Unless specifically stated otherwise, the following is applicable:

- a. Percentages of ADB Financing: Except as ADB may otherwise agree, each item of expenditure shall be financed out of the proceeds of the Loan on the basis of the percentages set forth in the table attached to Schedule 3 of the Loan Agreement (reproduced in Table 7 below);
- b. Reallocation: Notwithstanding the allocation of Loan proceeds and the withdrawal percentages set forth in the tables attached to Schedule 3 of the Loan Agreement (reproduced in Table 7 below);
 - i. if the amount of the Loan allocated to any category appears to be insufficient to finance all agreed expenditures in that category, ADB may, in consultation with the Government, (i) reallocate to such category, to the extent required to meet the estimated shortfall, amounts of the loan which have been allocated to another category but, in the opinion of ADB, are not needed to meet other expenditures; and (ii) if such reallocation cannot fully meet the estimated shortfall, reduce the withdrawal percentage applicable to such expenditures in order that further withdrawals under such category may continue until all expenditures there under will have been made, and

- ii. if the amount of the loan allocated to any category appears to exceed all agreed expenditures in that category, ADB may, in consultation with the Borrower, reallocate such excess amount to any other Category.

35. The table provided below sets forth the categories of items of expenditure to be financed out of the proceeds of the Loan and the allocation of amounts of the Loan to each such category:

Table 7. ADB Ordinary Capital Resources Loan (OCR Loan) for Tranche 1

CATEGORY			ADB FINANCING
Number	Item	Amount Allocated (\$ million)	Percentage and Basis for Withdrawal From the Loan Account
1	Works	249.3	80 percent of total expenditure*
2	Goods	0.1	100 percent of total expenditure
3	Consulting services	2.6	100 percent of total expenditure
4	Unallocated	0.0	
	Total	252.0	

* Exclusive of taxes and duties imposed within the territory of the Borrower.

D. Detailed Cost Estimates by Year

36. The table below provides year wise projections of expenditure accounts in ADB financing:

Table 8: Estimated Expenditure Accounts by Year for the Investment Program (\$ million)

No.	Project Component	Total ADB Financing	Projected Expenditures in ADB Financing by years					
			2012	2013	2014	2015	2016	2017
A. Investment Costs								
A1. Road Infrastructure Development								
1	Civil Works (Construction and Upgradation of Roads)	776.60	72.72	152.96	185.12	207.30	114.40	44.10
2	Civil Works (Utility Shifting)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	Social Mitigation	0.00	0.00	0.00	0.00	0.00	0.00	0.00
A2. Institutional Development								
4	Civil Works (RCTRC)	2.40	0.00	0.96	1.44	0.00	0.00	0.00
5	Civil Works (RRNMU)	12.00	0.00	2.40	1.20	4.80	3.60	0.00
6	Consultants (RCTRC)	4.00	0.00	1.00	1.40	1.00	0.60	0.00
7	Consultants (PIC)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	Consultants (TSC)	2.00	0.36	0.36	0.34	0.34	0.30	0.30
9	Equipment and software	3.00	0.00	0.60	0.90	1.20	0.30	0.00
B. Recurrent costs								
10	Project Management	0.00	0.00	0.00	0.00	0.00	0.00	0.00
D. Financial Charges During Implementation								
13	Interest during Construction	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14	Commitment Charges	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Cost/Projected Expenditures		800.00	73.08	158.28	190.40	214.64	119.20	44.40
% of Total Cost of the Investment Program		100.00	9.14	19.79	23.80	26.83	14.90	5.55

PIC=Project Implementation Consultant, RCTRC= Rural Roads Training and Research Center, RRNMU=Rural Road Network Management Unit, TSC=Technical Support Consultant.

E. Fund Flow Diagram

37. The following fund flow diagram shows how the funds will flow from ADB and the Government to implement project activities. The fund flow process will be the same for both road and non-road subprojects (RRNMUs and RCTRCs)

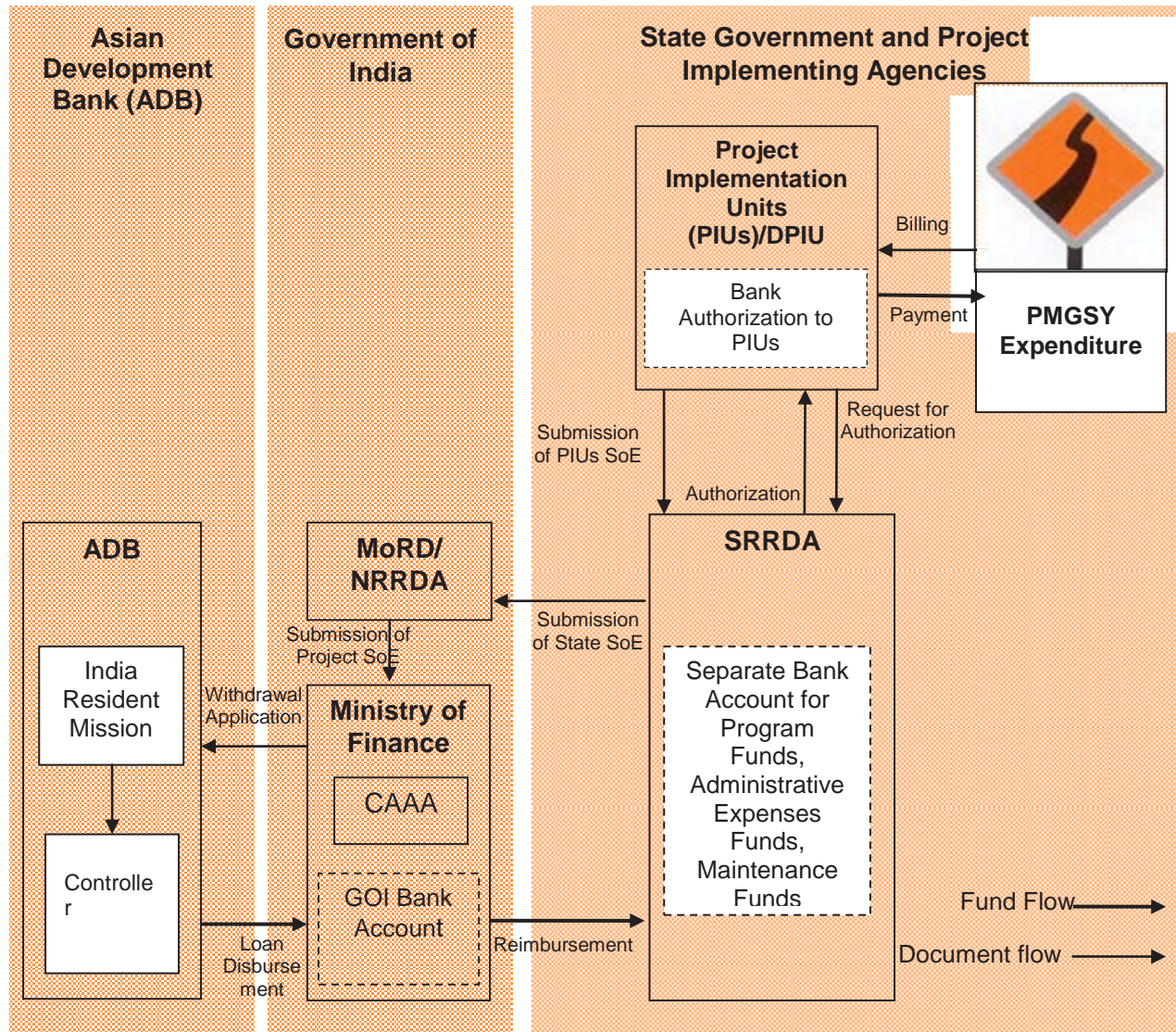


Fig.1: Fund Flow Arrangements for Rural Connectivity Investment Program

V. FINANCIAL MANAGEMENT

A. Financial Management Assessment

38. **Key findings** of the financial management assessment (FMA) undertaken for the RCIP during the investment program preparation are as follows:

A. Funds Flow Arrangements	Funds flow arrangements are reliable, predictable and secure. As per FMA, the existing arrangements of funds flow face no problem as far as Program Funds and Administrative Fund are concerned.
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B. EA/IA Experience	Assessment indicates that the EAs at the central/state level and PIUs have considerable experience in handling similar ADB funded projects.
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C. Staffing	<p>The EAs and IAs are staffed with experienced financial officers and staff. All IAs except Assam and Odisha have full-time Financial Controllers. In Assam and Odisha IAs current incumbents are holding two positions.</p> <p>Introduction of regular training/workshops/interactive sessions on financial management under PMGSY and RCIP (including such topics as PMGSY Accounts Procedures, OMMAS, ADB disbursement procedures, etc) for the concerned EA and IA staff would be beneficial, as it will keep staff regularly updated on the financial management and project accounting system as per the PMGSY Accounts Manual, and on audit observations so that any issues found are promptly and properly addressed.</p>
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D. Accounting Policies and Procedures	<p>The accounting system for PIUs is based on the public works accounting system. SRRDA is the disbursing authority that issues bank authorization for project expenditure, for PIUs. These accounting systems are documented in the PMGSY Accounts Manual and found acceptable for use under ADB funded projects.</p> <p>The Project Accounts are updated regularly so that monthly reports can be generated and forwarded to the responsible agency (PIUs to Financial Controller under the SRRDA).</p> <p>RCIP states use online management, monitoring and accounting system (OMMAS) for project accounting and reporting. OMMAS is very helpful in timely and effective project management. The records and reports are computerized and systematically updated, enabling timely and accurate reporting of financial information. In Assam, accounting module of OMMAS has not been completely implemented, as the software needs to be modified to be compatible with the centralized payment procedures followed at SRRDA. Currently, in Assam, records are updated manually as per PMGSY Accounts Manual. Assam SRRDA with the assistance of NRRDA is taking steps to make necessary modifications of the OMMAS software.</p> <p>As per PMGSY Accounts Manual, the bank reconciliation statements should be attached along with every monthly account. It is observed that SRRDAs in all RCIP states do not carry out bank reconciliations on a monthly basis. In some cases the items of differences are reported with substantial delay and even after they are time barred.</p> <p>As per PMGSY accounts manual, an Audit Committee has to be formed by the SRRDAs. WBSRDA and OSRRA have already established the Audit Committees. Other IAs have agreed to establish such committees shortly.</p>
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The records kept at the PIUs take account for all transactions like advances for mobilization, machinery advance etc. The PMGSY accounting system has its own "Chart of Accounts", modeled on the public works system. These procedures meet ADB requirements.

E. Internal and External Audits

EAs and IAs in RCIP states undertake three levels of audit: (i) a concurrent internal audit, (ii) a statutory audit by an independent firm of chartered accountants appointed by the Comptroller and Auditor General of India, and (iii) a transaction audit by the State Accountant General.

Statutory audit by an independent firm, in compliance with ADB requirements, is undertaken on an annual basis, and previous audit reports submitted under RRS-I and RRS-II have been generally satisfactory except for a few observations, which are minor and being addressed.

Internal audit is conducted at both SRRDA and PIUs levels on a half yearly basis. Previous audit reports have been generally satisfactory except for few observations which are minor and being addressed.

Regular transaction audits by the State Accountant General provide observations which are typically addressed by SRRDAs in a timely manner. Recent transaction audit by the State Accountant General provided observations concerning Assam SRRDA, like delay in preparation of annual accounts, systematic accounts, which are currently being addressed.

Based on assessment, it can be concluded that overall the audit arrangements in RCIP EAs and IAs are satisfactory, comply with ADB requirements, and conducive to ensuring moderate to negligible risks in the financial management.

F. Reporting and Monitoring

Timely reporting and quality information is essential for the smooth monitoring of the project. OMMAS prepares and generates financial reports, on a monthly and annual basis, component-wise. The reports generated by OMMAS include financial progress reports which compare actual expenditures with budgeted allocations. EAs and IAs conduct reviews for budget utilization along with physical progress on project related expenditures, including annual reviews at the end of each financial year.

Accounting and reporting systems currently in place in SRRDAs generate suitable financial reports including total project expenditure incurred, amount eligible for ADB financing and amount claimed from ADB.

39. Proposed Interventions: SRRDA & PIUs shall take all action identified by the conducted financial management assessment, including:

- (i) Assam shall appoint a full-time Financial Controller. Assam State Roads Board has received the approval for the appointment and full-time Financial Controller will be appointed by 31st December 2012. Necessary action for the appointment has been agreed and will be taken by OSRRA senior management so that a senior Accountant General (AG) Officer is appointed, preferably before the start of RCIP. All other States already comply with this requirement;
- (ii) Assam shall ensure that OMMAS is fully operationalized at all PIUs early in the start of RCIP. Assam has assured and is taking steps to resolve the software issues before the start of RCIP, with assistance from NRRDA, Centre for Development of Advanced Computing under Ministry of Communications & Information Technology;

- (iii) RCIP states shall introduce regular training/workshops/interactive sessions on financial management under PMGSY and RCIP (including such topics as PMGSY Accounts Procedures, OMMAS, ADB disbursement procedures, etc) for the concerned EA and IA staff. Such training/workshops/interactive sessions shall be scheduled on a quarterly basis for around one-third of PIUs each month.¹¹ Financial Controller of SRRDA shall take responsibility for conducting such training/workshops/interactive sessions;
- (iv) Bank reconciliation should be carried out on a monthly basis by all RCIP states and attached along with every monthly account. The items of differences should be reduced by regular updating accounts, viz., the cheques not presented within its valid period, be recorded in accounts, soon after it becomes time barred. All SRRDAs have agreed to comply and will start regular bank reconciliation process under RCIP; and
- (v) Audit Committees shall be established in all states except WBSRDA and OSRRA, where they already exist. SRRDAs have agreed and decided to establish Audit Committees shortly. Audit Committee shall appoint the internal auditor and statutory auditor, with the terms of references provided in PMGSY Accounts Manual and guidelines thereto, issued by NRRDA. The Committee shall also take oversight of the auditor, during the audit process. The Audit Committee shall consider all audit reports (Audit Reports by Auditor General, Internal Audit Reports and Statutory Audit Reports) and place its observations and recommendations (action to be taken) before the Executive Committee of the Nodal Department of the State Government.

40. **Risk Analysis:** During the implementation phase, the IAs might face some risks that can generally be divided in two main categories: (i) country level, and (ii) organization/project level. Timely release of funds to RCIP is important since it is funded on the reimbursement basis. Financial management risks shall need to be considered and updated throughout the life of the RCIP. Risk mitigation measures shall also be updated accordingly. The Risk Assessment and Mitigation Measures are listed below:

Risk	Risk Assessment*	Risk-Mitigation Measures to mitigate risks
<i>Inherent Risk</i>		
1. Country-specific Risks	N	NRRDA shall ensure the timely release of funds. State shall ensure timely release of counterpart funds to the projects as per loan covenants since the project is on reimbursement basis. A covenant to be added in the loan agreement.
2. Entity-specific Risks	N	SRRDAs and PIUs have implemented ADB financed project in similar earlier projects. Capacity of PIUs to be enhanced by regular training/workshops/interactive meetings at SRRDAs. These interactive meeting at each SRRDA shall be scheduled, on a quarterly basis for one-third of PIUs. The responsibility of this interactive session shall be of Financial Controller of SRRDA.
3. Project-specific Risks	N	
Overall Inherent Risk	N	

¹¹ For example, for 45 PIU, 15 PIU shall be called for a meeting each month. Thus, every PIU will be trained/updated every 3 months).

Risk	Risk Assessment*	Risk-Mitigation Measures to mitigate risks
<i>Control Risk</i>		
1. Implementing Entity	M	Organizational capacity augmentation with the induction of experienced staff will support the existing organizational structure.
2. Funds Flow	M	Timely availability of counterpart funds will be ensured by implementing the proposed funds flow arrangements.
3. Staffing	M	Dedicated and qualified accounting and financial management staff at SRRDA/PIUs level shall be recruited for the vacant positions.
4. Accounting Policies and Procedures	N	The Accounting Policy and Procedures are already in place. PMGSY Accounts Manual is applied by all EAs and IAs.
5. Internal Audit	N	Internal auditor shall be appointed by all SRRDAs for the Project on a continuous basis in all the states.
6. External Audit	N	Audit of the project accounts will be done by the Auditor empanelled by Comptroller & Auditor General of India and in accordance with PMGSY Guidelines which is acceptable to ADB.
7. Reporting and Monitoring	N	NRRDA shall regularly report in accordance with ADB requirements on inherent adequate control mechanisms.
8. Information Systems	M	OMMAS, the Computerized Double Entry system is already working in RCIP with a few exceptions.
Overall Control Risk	M	

* H – High, S – Substantial, M – Moderate, N – Negligible or Low.

B. Disbursement

41. The Loan proceeds will be disbursed in accordance with ADB's *Loan Disbursement Handbook* (2007, as amended from time to time).¹² The project is funded by ADB on reimbursement basis. The statement of expenditure (SOE) procedure will be used to reimburse eligible expenditure in accordance with the Loan Disbursement Handbook and detailed arrangements agreed upon between the Borrower and ADB. SOE records will be maintained and made readily available for review by ADB's disbursement and review mission or upon ADB's request for submission of supporting documents on a sampling basis, and for independent audit.¹³ Any individual payment to be reimbursed or liquidated under the SOE procedure shall not exceed the equivalent of \$100,000.

42. Pursuant to ADB's Safeguard Policy Statement (2009) (SPS),¹⁴ ADB funds may not be applied to the activities described on the ADB Prohibited Investment Activities List set forth at Appendix 5 of SPS. All financial institutions will ensure that their investments are in compliance with applicable national laws and regulations and will apply the prohibited investment activities list to all subprojects financed by ADB.

¹² Available at: http://www.adb.org/Documents/Handbooks/Loan_Disbursement/loan-disbursement-final.pdf

¹³ Checklist for SOE procedures and formats are available at:
http://www.adb.org/documents/handbooks/loan_disbursement/chap-09.pdf
http://www.adb.org/documents/handbooks/loan_disbursement/SOE-Contracts-100-Below.xls
http://www.adb.org/documents/handbooks/loan_disbursement/SOE-Contracts-Over-100.xls
http://www.adb.org/documents/handbooks/loan_disbursement/SOE-Operating-Costs.xls
http://www.adb.org/documents/handbooks/loan_disbursement/SOE-Free-Format.xls

¹⁴ Available at: <http://www.adb.org/Documents/Policies/Safeguards/Safeguard-Policy-Statement-June2009.pdf>

43. SRRDAs will be responsible for (i) preparing disbursement projections, (ii) requesting budgetary allocations for counterpart funds, (iii) collecting supporting documents, and (iv) preparing and sending withdrawal applications to ADB. Before the submission of the first withdrawal application, the Government shall submit to ADB sufficient evidence of the authority of the person(s) who will sign the withdrawal applications on behalf of the borrower, together with the authenticated specimen signatures of each authorized person. The minimum value per withdrawal application is US\$100,000, unless otherwise approved by ADB. The NRRDA is to consolidate claims to meet this limit for reimbursement claims. Withdrawal applications and supporting documents will demonstrate, among other things that the goods, and/or services were produced in or from ADB members, and are eligible for ADB financing.

44. All disbursements under government financing will be carried out in accordance with regulations of the respective State Governments.

C. Financial Accounting and Auditing

45. (a) MORD and the States will (i) maintain separate accounts and records for the projects; (ii) prepare annual financial statements for the projects in accordance with accounting principles acceptable to ADB; (iii) have such financial statements for the projects audited annually by independent auditors whose qualifications, experience and terms of reference are acceptable to ADB, in accordance with international standards for auditing or the national equivalent acceptable to ADB; (iv) as part of each such audit, have the auditors prepare a report (which includes the auditors' opinion on the use of the loan proceeds and compliance with the financial covenants of the legal agreements as well as on the use of the procedures for the imprest account(s) and statement of expenditures) and a management letter (which sets out the deficiencies in the internal control of the projects that were identified in the course of the audit, if any); and (v) furnish to ADB, no later than 9 months after the close of the fiscal year to which they relate, copies of such audited financial statements, audit report and management letter, all in the English language, and such other information concerning these documents and the audit thereof as ADB shall from time to time reasonably request.

(b) ADB will disclose the annual audited financial statements for the projects within 30 days of the date of their receipt by posting them on ADB's website.

(c) MORD and the States will enable ADB, upon ADB's request, to discuss the financial statements for the projects with the auditors appointed by (i) MORD, and (ii) the States and will authorize and require any representative of such auditors to participate in any such discussions requested by ADB. This is provided that such discussions shall be conducted only in the presence of an authorized officer of MORD or the relevant State, unless MORD or the State shall otherwise agree.

(d) The India Team advised and ADB Team confirmed that the Comptroller and Auditor General of India (CAG) is acceptable to ADB, for the purposes of the Section in the Project Agreements. The Borrower Team stated that for purposes of audit of accounts in case of MORD CAG is the relevant auditor. With regard to the Project and Subproject accounts to be maintained by the State, the India Team stated that the PMGSY Guidelines require the States to engage chartered accountants empanelled by the CAG.

VI. PROCUREMENT AND CONSULTING SERVICES

A. Procurement Capacity Assessment of RCIP states

46. **Summary of the Procurement Assessment.** Regular procurement reviews conducted by ADB review missions throughout the implementation RRS-II in RCIP states, dedicated missions of the procurement experts, and reviews by the PPTA consultant confirm that arrangements for the procurement of civil works under PMGSY in all RCIP states are adequate and proved successful under RRS-II. The agreed procurement procedure has been followed in the implementation of Projects 1-5 under RRS-II. Procurement assessment confirmed that guidelines of NRRDA have been followed by all states for procurement of works, and fundamentals of the process are in place with some variation in each state complying to the states-specific procurement rules. E-procurement as assessed and approved by ADB is being used in all RCIP states. Adequate advertisement procedures and delineation of duties between bid evaluation, recommendation for award, and approval of contract award are in place in all states.

47. **Risks and Recommendations for Mitigation of Risks.** There are some risks associated with the introduction of changes to the Standard Bidding Document (SBD), as compared to the SBD used under RRS-I and RRS-II, and under PMGSY in general. These changes have been introduced to further improve the process as agreed between ADB and EA/IAs for RCIP implementation. Accordingly, ADB will take more proactive approach to ensure the proper uptake and understanding of modified SBD by all concerned, including prior review of SBD and first contract specific bidding documents (BD) in each state, prior reviews of technical and financial evaluation for the first 3 contracts for each state under each Tranche, and regular procurement audits at around 20%, 70% and all contract awards in each state under each Tranche. RCIP States will continue to take all necessary steps to ensure that procurement capacity built into the PMGSY program is maintained throughout the implementation of RCIP. All these measures will reduce anticipated risks to a low to negligible level. Detailed procurement process adopted under RCIP is described in section C.

B. Advance Contracting and Retroactive Financing

48. All advance contracting and retroactive financing will be undertaken in conformity with ADB's *Procurement Guidelines* (2010, as amended from time to time) (ADB's *Procurement Guidelines*)¹⁵ and ADB's *Guidelines on the Use of Consultants* (2010, as amended from time to time) (ADB's *Guidelines on the Use of Consultants*).¹⁶ The borrower, EAs and IAs have been advised that approval of advance contracting and retroactive financing does not commit ADB to finance the Investment Program.

49. Withdrawals from the loan account may be made for reimbursement of eligible expenditures incurred under the Investment Program before the Effective Date, but not earlier than 12 months before the date of signing of the Loan Agreement in connection with Works, consulting services, and equipment, subject to a maximum amount equivalent to 20% of the loan amount.

¹⁵ Available at: <http://www.adb.org/Documents/Guidelines/Procurement/Guidelines-Procurement.pdf>

¹⁶ Available at: <http://www.adb.org/Documents/Guidelines/Consulting/Guidelines-Consultants.pdf>

C. Procurement of Goods, Works and Consulting Services.

50. All procurement of goods and works financed wholly or in part by ADB will be undertaken in accordance with ADB's *Procurement Guidelines* (2010, as amended from time to time). Bidders will be post qualified by applying single-stage; two-envelope bidding procedure. Procurement of civil works for construction of RRNMU and RCTRC facilities will be following the National Competitive Bidding (NCB) procurement process based on ADB standard bidding document for Procurement of Works-Small. For the road construction or upgradation, RCIP states will be following NCB procurement process similar to the one approved by ADB for RRS-II, including advance contracting and retroactive financing provisions of the Framework Financing Agreement (FFA). Standard PMGSY bidding document (improved in agreement with ADB) and electronic mode of procurement will be used for all road construction contracts.¹⁷ Bidders will be post qualified by applying single-stage; two-envelope bidding procedure. Contracts will include civil works and post construction routine maintenance and defect liability over five years.^{18,19} Contract packaging for goods (to equip RRNMUs and RCTRCs) will be determined during the implementation of the Investment Program and will be procured through NCB if the estimated amount is between \$100,000 and \$500,000; and shopping if the estimated amount is less than \$100,000. Further details are specified in the Procurement Plan provided in the Attachment A.

51. Following approval procedures will be adopted for NCB civil works contracts for road construction intended for financing under the Investment Program:

- (i) ADB will review standard bidding document prior to the start of procurement under RCIP; and, subsequently, bidding documents for one contract package in each state prior to the start of procurement under each Tranche;
- (ii) ADB will review technical bid evaluation reports for the first three civil work contract packages under each Tranche in each state prior to the financial bid opening (summary reporting form on technical bid evaluation is in Attachment H);²⁰
- (iii) Upon ADB clearance of the technical bid evaluation reports, the SRRDA will proceed with the financial bid opening and evaluation and submit financial bid evaluation reports for the same first three civil work contract packages to ADB for clearance before the contract award (summary reporting form on financial bid evaluation is in Attachment I);²¹
- (iv) If ADB finds financial bid evaluation for the first three contract packages under each Tranche satisfactory, the SRRDA will proceed with procurement procedures and

¹⁷ Approval of e-TS for NCB in all states was granted by ADB in 2009-2011.

¹⁸ Two sets of BDs will be used: separate BD introducing detailed performance standards for maintenance and associated procedures for payments linked to the performance will be used in RRNMU districts.

¹⁹ The packaging under RCIP was done considering that (i) procurement involves construction of rural roads scattered throughout the states/districts, and in remote areas; (ii) each contract includes a 5-year road maintenance following the completion of the construction, and this will need involvement of local labor from the nearby communities. Accordingly, using around 1,970 NCB contracts for a total value of around \$990 million is deemed more economical and efficient instead of combining bids into more sizeable packages that would enable the use of the ICB mode of procurement, and reduce the number of contracts to be managed. The approach adopted to packaging under RCIP follows the common approach to packaging adopted under nationwide PMGSY being implemented in 29 states across India and proved effective over more than 10 years of implementation. Adequate number of PIUs matching the contract packaging both under PMGSY and RCIP are in place.

²⁰ Each RCIP state may start technical bid evaluation for all contract packages, but will not proceed with the financial bid opening until ADB clearance for the technical bid evaluation reports for the first three civil work contract packages under the Tranche is obtained.

²¹ Each RCIP state may proceed financial bid opening for all contract packages, but will not proceed with the contract award until ADB clearance for the financial bid evaluation reports for the first three civil work contract packages under the Tranche is obtained.

- contract award for subsequent contract packages under the Tranche without prior ADB review and approval. In these cases, the following post facto approval procedures will apply: (a) the SRRDA will retain a record of all procurement documentation, including copies of the signed contracts and the bid evaluation reports, to be available for inspection;²² (b) at the time of each contract award, the SRRDA will provide ADB with a certified summary sheet reporting on the main aspects of the bid evaluation and contract award (reporting form is in Attachment J); and (c) SRRDA will promptly inform ADB on achieving the award of 20%, and 70% of contracts under each Tranche for conducting procurement audits;
- (v) The procurement processes and contract awards under each Tranche will be audited in each state as part of the performance audit (i) upon the award of at least 20% of contracts in the state being audited, and (ii) upon the award of at least 70% of contracts in the state being audited. The latter procurement audit under each Tranche will likely be combined with procurement audits for a subsequent Tranche;
 - (vi) If any contract award is found to be unacceptable, ADB may refuse to finance the contract.

52. Procurement of civil works for construction of RRNMU and RCTRC facilities will follow the same approval process as adopted for road construction and upgradation with the following change: only one technical bid evaluation report and financial bid evaluation report will undergo prior review by ADB under in each state under each Tranche. Similar procedure will also apply to the procurement of goods.

53. Two contract packages for consulting services involving ADB financing will be required for: (i) Technical support, due diligence, impact monitoring and monitoring of the implementation of RCIP (TSC); and (ii) Support to the establishment and rollout of RCTRCs, including large scale training (RCTRC support). The terms of reference for all consulting services are referred to in Section D. Both TSC and RCTRC support consultant will be engaged following prior ADB review and using the quality- and cost-based selection (QCBS) method with a quality-cost ratio of 80:20.

54. Over the first year of the Investment Program, TSC services will be provided by the TSC consultant engaged under Projects 4-5 of RRS-II. Time slicing will be used, so that after the closure of Project 4 the financing of TSC will continue under Project 5 of RRS-II. The recruitment of a national firm to continue TSC services will start during the first year of RCIP implementation. An estimated 300 person-months national input will be provided by the TSC engaged under RCIP.

55. For the RCTRC support, an international firm in association with national firm(s) will be recruited using prior review procedures. An estimated 90 person-months international input and 120 person-months national input will be provided by the RCTRC consultant.

D. Procurement Plan

56. The procurement plan is in Attachment A and describes the threshold and review procedures of all procurement of goods, works and consulting services to be undertaken for the Investment Program. The procurement plan will be updated at least once every 18 months or whenever change in the procurement arrangements is required and agreed.

²² Original documentation on the procurement process may be kept at PIUs, however, the copies of the documentation shall be kept at SRRDA Headquarters to enable easy access for review and auditing.

E. Consultant's Terms of Reference

57. The consultant's terms of reference are provided in the following Attachments:
- (i) TOR for PIC: Attachment B
 - (ii) TOR for TSC: Attachment C
 - (iii) Draft Outline TOR for RCTRC rollout (loan financed): Attachment D
 - (iv) Draft TOR for RRNMU support (piggyback CDTA): Attachment E
 - (v) Draft TOR for RCTRC setup (piggyback CDTA): Attachment F

VII. SAFEGUARDS

(a) Social

58. **Land Availability.** The construction of rural roads will be carried out mostly within existing right-of-way, with widening and minor realignments in some cases, which will require narrow strips of land to be made available. In such cases, the voluntary land donation system will be used. The system has been widely used under PMGSY and other rural development schemes across India and proved its effectiveness. Specific procedural requirements are provided in CPF for the investment program. Surveys conducted revealed that specific impacts may include impacts on residential and commercial structures for both titled and nontitle households. Impact on structures will be minimized through minor road design modifications identified and discussed during the transect walks as per the provisions of CPF, supplemented by design reconnaissance exercise by the design consultants. Transect walks conducted under tranche 1 have confirmed the effectiveness of the adopted community consultation and social impact mitigation process. Each RCIP state will ensure that, subsequent to award of works contract under any subproject no road section or part thereof will be handed over to the contractor unless the applicable provisions of the CPF have been complied with.

59. Implementation of CPF will be monitored closely. All SRRDAs have appointed focal persons to monitor and manage social safeguards under RCIP. The internal monitoring will be carried out by PIUs with support of PICs, and external monitoring will be carried by TSC, which will review completed CPFs with site verifications for a minimum representative sample of 10% of the roads in each RCIP state under each Tranche.

60. **Indigenous people.** The social assessment of the sample subprojects identified the presence of scheduled tribes in all RCIP states, However, these groups are largely assimilated into the local population. The investment program will not have any differential impact on scheduled tribe population; they will receive similar benefits from the investment program as the non-scheduled tribe households. No significant impact will be made on their tribal and cultural identity. The assessment indicates that all-weather rural roads constructed under the investment program will benefit scheduled tribe households by providing connectivity to habitations and increasing access to better facilities in health, education, and markets. In addition, the investment program is expected to open up alternate opportunities for employment in nearby towns thereby diversifying their sources of income. The CPF identifies special provisions for all scheduled tribe households to ensure that their living standards are not adversely affected as a result of land donation or in the event of any loss of non land asset and impacts on their livelihoods. In case of any significant impacts on scheduled tribes under any subproject, the mitigation shall follow the requirements as set out in the CPF. As also laid down in the CPF, for any impact on land involving traditional and tenure rights of the scheduled tribes, the legal provisions laid down by GOI and the related RCIP state pertaining to land transfer will be followed.

61. **HIV/AIDS and other social safeguards.** The social assessments done do not anticipate any rise in the incidence of HIV and AIDS as a result of the investment program. Each State will ensure that works contracts follow all applicable labor laws and that these further include provisions to the effect that contractors (i) carry out HIV/AIDS awareness programs for labor and disseminate information at worksites on risks of sexually transmitted diseases and HIV/AIDS as part of health and safety measures for those employed during construction; (ii) follow and implement all statutory provisions on labor (including not employing or using children

as labor, equal pay for equal work), health, safety, welfare, sanitation, and working conditions; and (iii) maximize employment of females and local poor and disadvantaged persons for construction and routine maintenance purposes, provided that the requirements for efficiency are adequately met. The PIUs along with the contractors will coordinate with State AIDS Control Society and other public health agencies to carry out HIV/AIDS awareness programs for labor and dissemination of information at worksites on risks of sexually transmitted diseases and HIV/AIDS as part of health and safety measures for those employed during construction.

(b) Environmental

62. **Environmental assessment.** RCIP states will follow the provisions of the RCIP environmental assessment and review framework (EARF), Environmental Code of Practice (ECOP) checklists will be completed by the PICs based on site visits for all road subprojects including bridges longer than 50 m. The completed ECOP checklists will be reviewed by TSC with site verifications for a minimum representative sample of 10% of the roads in each RCIP state under each Tranche. Based on the completed ECOP checklists state level IEE reports and standard Environmental Management Plans (EMP) for all road subprojects will be prepared by the TSC. The standard EMP will be attached to the bidding document while the road specific EMPs will be available and provided to contractors together with the DPRs. Information on the location of specific environment issues and number of trees, ponds, utility structures etc. will be taken from the ECOPs and added to the standard EMP to convert it into road specific EMPs. For non-road subprojects IEE reports and EMPs will be prepared separately in house or by the DPR consultants.

63. **Ensuring implementation of environmental standards.** The standard EMP will be attached to the bidding documents. SRRDAs will prepare and provide contractors with subproject specific EMPs, to enable them to estimate and include the cost required for implementing the EMP in their bids.

(f) Grievance Redress Committee

64. Grievances, if any, will be considered as a village level by the Land Management Committee (LMC) consisting of all members of Gram Panchayat, with Lekhpal of Gram Sabha as Secretary; and Pradhan, Up-Pradhan of Gram Panchayat as the Chairman and Vice-Chairman respectively. The LMC shall act as the village level grievance committee, and will meet for addressing grievances once in a month until design approval, and quarterly after initiation of the construction works until completion. Residual grievances shall be addressed through a Grievance Redressal Committee (GRC) at the district level, comprising:

- (i) Executive Engineer of the PIU
- (ii) Sub-collector of Revenue Department
- (iii) Member of Zilla Parishad
- (iv) Member of the grievance committee of the concerned GP
- (v) Representatives of APs will be active participants in the proceedings of grievance redressal

VIII. GENDER AND SOCIAL DIMENSIONS

(a) Gender

65. Gender analysis was carried out as part of social and poverty assessment and gender action plan prepared. It was found that due to the improved connectivity to nearby towns and villages, the investment program will improve access of women to health and educational services. Improved connectivity will contribute to the increase rate of safe child deliveries, and reduce the maternal and pre-natal deaths and the mortality of children. Better transport services will open up opportunities for more girls to enroll into schools, universities and various educational institutions outside of their villages. Women noted that presently they mostly go on foot, often on earthen tracks which are impassable in the rainy season, and better roads would make access safer, faster and more comfortable. Besides the increased use of motorized transport, all-weather roads will offer more opportunities to avail of non-motorized transport and better use the government's program providing bicycles to female school students. This will in turn reduce school dropouts of female students.

66. Gender mainstreaming features of the investment program include: (i) participation of not less than 40% of women in the transect walk for each road as provided for by the community participation framework (CPF), which ensures women contribution to the design solutions including road alignment, land requirements, safety and other need based design features; (ii) participation of women in the road safety awareness sessions systematically carried out for affected communities under the CPF with the help of awareness campaign material developed in local language; (iii) it is anticipated that at least 10% of the households in rural habitations to be connected by the investment program roads will be female headed and at least 40% of the habitants will be from vulnerable groups; (iv) at least 33% of labor carrying out tree plantations along the investment program's roads and unskilled work for road construction will be women; and (v) RCTRC's will develop and use social and gender sensitive training modules on design, construction and maintenance of rural roads to train design consultants, contractors, members of PRIs, staff of PIUs, and Panchayati Raj Institutions on design, construction and maintenance of rural roads. Gender Action Plan (GAP) is provided below.

Activities	Indicators and Targets ^a	Responsibility	Time Frame
Output 1. Selected priority rural roads prioritized by PMGSY	for 2012 sanction are constructed/ upgraded into all-weather standard	PIU/ Contractor	Y1 – onwards
1.1 Hire women workers for skilled and unskilled work in road construction and maintenance. Ensure equal wages for equal work done to both male and female skilled and unskilled labor in project works.	At least 33% of workers hired in road construction works are women.	PIU/ contractor	Y1 - onwards
1.2 Ensure that contract documents prohibit the hiring of child labor.	Explicit provision prohibiting child labor is evident in project contracts.	PIU/PIC. TSC will monitor	-Y1 - onwards
1.3 Ensure that impact on vulnerable female-headed households due to road construction is mitigated.	All affected FHH directly benefit from appropriate mitigation measures, and/or linked to poverty alleviation/livelihood restoration programs.	PIU, PIC, ZP, GP, PRI	Y1
Output 2. Quality of design of RCIP roads is improved	At least 30% of community members consulted on the design of RCIP roads are women	PIU/PIC	Y2 – Y4
Output 3. Maintenance of RCIP roads is improved and sustainable	At least 33% of road maintenance workers/ hired for strengthening of earthen shoulders, tree plantation along the shoulders for a forestation and prevention of erosion of shoulders are women.	PIU	Y1 - onwards
3.1 Engage women as road maintenance workers or supervisors for road maintenance.	At least 25% of the new staff to be engaged in each RRNMU in each of the 5 states are women.	PIU, PIC, ZP, GP, PRI	Y1
3.2 Ensure the engagement of women in each of the RRNMUs to be established in each state	Road safety design features installed in rural roads, e.g., speed bumps, rumble strips, zebra crossings, cautionary/informative signage, guard stones, shoulders used as safe sidewalks, etc.	PIU, PIC, TSC	Y1 – Y3
Output 4. Road safety measures are incorporated into the lifecycle of roads in RCIP states	At least 30% female participation in road safety orientation and awareness training programs.	PIU, PIC, TSC	Y1 – Y3
4.1 Consider the specific needs of vulnerable users (elderly, women, children, and disabled) in the design and modification of roads, wherever applicable .	Road safety measures are incorporated into the lifecycle of roads in RCIP states	PIU, PIC, TSC	Y1
4.2 Ensure women's participation in community orientation and road safety awareness campaigns	At least 30% female participation in road safety orientation and awareness training programs.	PIU, PIC, TSC	Y1 – Y3
Output 5. Qualification and skills of PMGSY engineers, technicians, site supervisors, concerned staff of PRI, design consultants and contractors in RCIP states is improved and maintained	At least 30% female participation in road safety orientation and awareness training programs.	PIU, PIC, TSC	Y1 – Y3

Activities	Indicators and Targets ^a	Responsibility	Time Frame
5.1 Ensure the engagement and training of women in all aspects of rural road network management and development in the PIUs, and Panchayati Raj Institutions through RCTRCs.	At least 30% of PIU staff and PRI members trained in all aspects of rural road network management are women. At least two social- and gender-sensitive training modules (one for consultants, contractors and project staff of PIUs and one for the PRIs) developed and utilized	RCTRC/PIU and PRI	Y3
5.2 Develop and utilize social- and gender-sensitive training modules on the design, construction, and maintenance of rural roads, for staff, including design consultants, contractors and Panchayati Raj Institutions.	All project design consultants and contractors, and at least 10 PRIs capacitated on social- and gender-sensitive design, construction, and maintenance of rural roads	RCTRC's with support from PIU	Y2
5.3 Train design consultants, contractors and PRIs on the social- and gender-sensitive design, construction and maintenance of rural roads		RCTRC's with support from PIU	Y3
Output 6. Effective project management provided			
6.1 Collect sex-disaggregated data during the baseline survey and conduct a gender analysis during preparatory surveys, feasibility studies, assessments and reports.	Reports on the baseline survey, feasibility studies especially poverty and social assessment study and assessments include clear gender analyses with sex-disaggregated data.	PPTA consultants, PIU, PIC, PRI, TSC	Y1 - onwards
6.2 Include social and gender indicators in the PMIS for the implementation of RCIP and systematically monitor its progress with the regular collection of sex-disaggregated data.	PMIS with social and gender indicators and regularly updated with sex-disaggregated data	PIU, PIC, TSC	Y1 – Y4.
6.3 Appoint a social and gender officer at the PIU or PIC level	Effective social and gender officer engaged at the PIC level.	PIU	Y1

FHH = female-headed households, GP = Gram Panchayat, IAY = Indira Awaas Yojana, PIC = Project Implementation Consultants, PIU = project implementation unit, PMGSY = Pradhan Mantri Gramin Sadak Yojana, PMIS = project management information system, PRI = Panchayati Raj Institution, RCIP = Rural Roads Connectivity Improvement Project, RCTRC = Rural Connectivity Training and Research Centre, RRNMU = Rural Road Network Management Unit, TSC = Technical Support Consultants, ZP = Zilla Parishad.

^a Quantitative targets will be refined at project onset in consultation with the EAs and IAs based on the results of the baseline survey and impact monitoring.

(b) Health and Labor

67. Each State shall ensure through specific provisions in the bid documents and the works contracts financed under the Investment Program that the contractors shall: (i) carry out HIV/AIDS awareness programs for labor and disseminate information at worksites on risks of sexually transmitted diseases and HIV/AIDS as part of health and safety measures for those employed during construction; (ii) follow and implement all statutory provisions on labor (including not employing or using children as labor, equal pay for equal work), health, safety, welfare, sanitation, and working conditions; and (iii) maximize employment of females and local poor and disadvantaged persons for construction and routine maintenance purposes, provided that the requirements for efficiency are adequately met. The PIUs will coordinate with State AIDS Control Society (SACS) and other public health agencies to carry out HIV/AIDS awareness programs for labor and dissemination of information at worksites on risks of sexually transmitted diseases and HIV/AIDS as part of health and safety measures for those employed during construction.

IX. PERFORMANCE MONITORING, EVALUATION, REPORTING AND COMMUNICATION

A. Design and Monitoring Frameworks

68. The design and monitoring framework (DMF) for the Investment Program is in Schedule 2 of FFA. DMF for Tranche 1 is attached to PFR1.

B. Monitoring

69. **Project performance monitoring:** The achievement of the project performance targets will be assessed following the DMF. SRRDAs assisted by TSC, PICs, and other consultants as required will establish and assist with the implementation of a project performance management system (PPMS) in each state. PPMS will include detailed methodology of data collection and analysis ensuring statistical validity, isolation of compounding factors and comparison with baseline and control data. As a minimum, the indicators will be monitored before and after construction/project, both on the subprojects and control roads.

70. Indicators to be monitored may include, but not be limited to the following: (i) number of newly connected habitations (total, by districts, and size); (ii) length of roads constructed/upgraded (total, by district, by habitation size, terrain etc); (iii) traffic volume and travel time on constructed roads; (iv) periods of construction (by road length, terrain etc), amounts and frequencies of variation orders, frequencies and durations of holding up of civil works by rural communities (by causes, including instances of holding up of civil works due to the omissions in design); (v) pavement condition index on RCIP roads under 5 year maintenance; (vi) percentage of DPRs for RCIP roads undergoing road safety audits (RSAs) and amended following RSAs of DPRs; (vii) percentage of existing roads undergoing RSAs and percentage of existing roads improved following RSA recommendations; (viii) number of PIU staff, PRI representatives, DPR consultants and contractors trained by RCTRCs, etc.

71. TSC will also establish a system for the monitoring of socio-economic indicators in the selected habitation served by RCIP roads as compared to the unconnected habitations, such as (i) poverty rates, (ii) number of maternal and infant deaths, (iii) number of total vs. safe deliveries, (iv) immunization rates, (v) unemployment rates, (vi) agricultural production of perishable goods, (vii) income and expenditures of rural households, and (viii) district cash turnover of agricultural produce in local markets served by RCIP roads, etc. TSC will conduct baseline surveys at the outset of each Tranche.

72. SRRDAs will also monitor (i) the project budget and actual expenditure, (ii) road maintenance budget, (iii) ratio of km of rural road network per one staff dedicated to rural road maintenance, (iv) road maintenance cost per km, and other relevant indicators.

73. The results of the performance monitoring will be carefully documented and made accessible to MORD, NRRDA, ADB and the states. TSC will establish a practice of annual presentation to MORD, NRRDA, and ADB on the key performance indicators of the Investment Program.

74. **Compliance monitoring:** Compliance with loan covenants will be monitored through ADB's project administration missions—including project inception mission to discuss and confirm the timetable for compliance with the loan covenants; project review missions to review

the compliance with particular loan covenants and, where there is any noncompliance or delay, discuss proposed remedial measures with the EAs; and mid-term review mission if necessary to review covenants to assess whether they are still relevant or need to be changed, or waived due to changing circumstances.

75. **State level safeguard monitoring and reporting.** SRRDAs will be responsible for internal monitoring of the social and environment aspects of the Investment Program. Each SRRDA will have a focus safeguard person to provide oversight on the implementation of safeguards in a respective state. The PIU with the support of the PICs will monitor the implementation of CPFs and EMPs. Specifically in the monitoring of the implementation of EMPs by the contractor, PIU with the support of the PICs and prepare monitoring reports covering pre-construction, during construction and during operation-stages of the subproject. Annual Environmental Monitoring Reports will be prepared by the SRRDA for submission to NRRDA and ADB and disclosure on the ADB website. In the event that a subproject is categorized as environment category A, semi-annual environment monitoring reports will be prepared for submission to NRRDA and ADB and disclosure on the ADB website.

76. **National level safeguard monitoring and reporting** TSC will perform the task of the national monitoring and evaluation. The TSC will have Social Development Specialists and Environmental Experts as part of the team, who will be responsible for organizing tasks for monitoring and evaluation. The monitoring cycle will be once in six months. The TSC will submit monitoring reports to SRRDAs, NRRDA and ADB.

77. **Responsibilities for environmental monitoring.** The following entities will have responsibility of implementing environmental measures:

(i) **Contractor:**

- Implementation of all mitigation measures included in the EMP attached to the bidding documents and the road specific EMP included with the DPR
- Bear all costs for EMP implementation and include costs in the bid BOQ for any mitigation costs not covered under the cost of physical works or other schemes and agencies Process and obtain all relevant statutory clearances and permits related to construction

(ii) **PIU:**

- Review and verify the ECOP checklists prepared by the PIC
- Monitoring implementation of the EMP by the contractor
- Review and approve monitoring reports prepared by the PIC
- Obtain all project related statutory clearances and permits where relevant

(iii) **PIC:**

- Conduct transect walks, carry out public consultations and prepare ECOP checklists for each and every road and bridge that is longer than 50m for all non-sample roads
- Prepare road specific EMP based on the standard EMP prepared by TSC and information collected in the ECOP checklists and the DPR
- Conduct regular monitoring of EMP implementation by the contractor
- Provision of technical guidance to the contractor where necessary
- Prepare monitoring reports covering pre-construction, during construction and operation stages and submit to PIU

(iv) **SRRDA**

- Review and approve all ECOP checklists and IEE reports (to be done by the concerned focal person for environment safeguards)
- Prepare annual environmental monitoring reports for submission to NRRDA and ADB for disclosure on the ADB website
- In the event that a subproject is categorized as environment category A, prepare semi-annual environment monitoring reports for submission to NRRDA and ADB for disclosure on the ADB website
- Review and approve due diligence reports prepared by the TSC for ongoing sub-projects at the time of preparation for follow on tranches and forward to NRRDA
- Ensure that standard EMP is attached to the bidding documents and road specific EMP is attached to the DPRs
- Obtain all project related statutory clearances and permits where relevant
- Coordinate with local agencies (such as the local Panchayats) and schemes (such as MGNREGA) for implementation of selected relevant environment mitigation measures

(v) **TSC:**

- Conduct due diligence for at least 10% of all ECOP checklists that are prepared by the PIC
- Based on the approved ECOP checklists prepare state level IEE reports along with a standard EMP
- Review monitoring reports prepared by the PIC and conduct site verification for a minimum of 10% of roads
- Provision of training and technical advice to the PIU and PIC where necessary.
- Prepare safeguard due diligence reports for ongoing subprojects at the time of preparation for follow on tranches and submit to SRRDA

C. Evaluation

78. ADB inception missions will be fielded within 3 months after the legal agreements for the Investment Program and each Project are declared effective; thereafter, regular reviews will follow at least annually. As necessary, special loan administration missions and a midterm review mission will be fielded, under which any changes in scope or implementation arrangement may be required to ensure achievement of project objectives. NRRDA at the central level and SRRDAs at the state level will monitor the implementation of the Investment Program in accordance with the schedule and time-bound milestones, and keep ADB informed of any significant deviations that may result in the milestones not being met. Within 6 months of physical completion of each of the Projects under the Investment Program, NRRDA will submit a project completion report to ADB.²³

D. Reporting

79. Disaggregated data for all output and outcome indicators will be updated and reported quarterly. States through MORD/NRRDA will provide ADB with (i) quarterly progress reports submitted within 45 days after the end of each quarter in a format consistent with PPMS, DMF and will provide information necessary to update ADB's project performance reporting system;²⁴

²³ Project completion report format available at: <http://www.adb.org/Consulting/consultants-toolkits/PCR-Public-Sector-Landscape.rar>.

²⁴ ADB's project performance reporting system is available at: <http://www.adb.org/Documents/Slideshows/PPMS/default.asp?p=evaltool>

(ii) consolidated annual reports including (a) progress achieved by output as measured through the indicator's performance targets, (b) key implementation issues and solutions, (c) updated procurement plan, and (d) updated implementation plan for the next 12 months; and (iii) a project completion report within 6 months of physical completion of each Project under the Investment Program. To ensure viability and sustainability, project accounts and the audited financial statements (AFS), together with the associated auditor's report, will be adequately reviewed (as outlined in Section V).

80. For civil works, progress will be reported on a regular basis by PIUs through the OMMAS. The SRRDAs will submit to MORD/NRRDA, through the relevant state government, monthly progress reports. Based on these reports, MORD, with assistance from NRRDA, will include in the quarterly progress reports all required information on the progress in the implementation of civil works. This will include data on progress made during the period of review, changes if any in the implementation schedule, problems or difficulties encountered and remedial actions taken, and work to be undertaken in the coming quarter.

E. Stakeholder Communication Strategy

81. Various information regarding the Investment Program and each of its Projects, including scope, general progress status, beneficiaries, invitation for bids, and consultant recruitment notices, will be provided to the general public. The information will be made available and updated through the official websites of each RCIP state, MORD and ADB. ADB's communication strategy is summarized below.

Project Documents	Means of Communication^a	Responsible Party	Frequency	Audience(s)
Project Information Document (PID)	ADB's website	ADB	initial PID no later than 30 calendar days of approval of the concept paper; quarterly updates afterwards	General Public
Design and Monitoring Framework (DMF)	ADB's website	ADB	draft DMF after fact-finding mission for the investment program and each tranche	General Public
Initial Environmental Examination Reports (IEEs)	ADB's website PMGSY website	ADB	post fact-finding mission for the investment program and each tranche	General Public, project-affected people in particular
Community Participation Frameworks (CPFs) and Community Participation Plans (CPPs)	ADB's website PMGSY website	ADB	post fact-finding mission for the investment program and each tranche	General Public, project-affected people in particular
Summary Poverty Reduction and Social Strategy (SPRSS)	ADB's website	ADB	post fact-finding mission for the investment program and each tranche	General Public, project-affected people in particular
Environmental and Social Safeguard Compliance Reports	ADB's website	ADB	post fact-finding mission for investment program and each tranche	General Public, project-affected people in particular
Gender Action Plan	ADB's website	ADB	post fact-finding mission for investment program	General Public, project-affected people in

Project Documents	Means of Communication ^a	Responsible Party	Frequency	Audience(s)
Legal Agreements	ADB's website	ADB	no later than 14 days of Board approval of the project	particular General Public
Documents Produced under Technical Assistance	ADB's website	ADB	within 2 weeks of completion	General Public
Facility Administration Manual	ADB's website	ADB	After loan negotiations	General Public
Social Monitoring Reports	ADB's website	ADB	annually	General Public, project-affected people in particular
Environment Monitoring Report	ADB's website	ADB	annually for category B projects and bi-annually for category A projects.	General Public, project-affected people in particular
Major Change in Scope	ADB's website	ADB	within 2 weeks of approval of the change	General Public

^a PMGSY website will have a hyperlink to the ADB website where all these documents will be posted.

X. ANTICORRUPTION POLICY

82. The Government, MORD, NRRDA, governments and SRRDAs of each RCIP state were advised of ADB's *Anticorruption Policy* (1998, as amended to date). Consistent with its commitment to good governance, accountability and transparency, implementation of the projects under the Facility shall adhere to ADB's Anticorruption Policy. ADB reserves the right to review and examine, directly or through its agents, any alleged corrupt, fraudulent, collusive, or coercive practices relating to the Investment Program or each of its Projects.²⁵ In this regard, investigation of government officials, if any, would be requested by ADB to be undertaken by the government.

83. To support these efforts, relevant provisions of ADB's Anticorruption Policy are included in the Loan Regulations and the bidding documents. In particular, all contracts financed by ADB shall include provisions specifying the right of ADB to audit and examine the records and accounts of the states and implementing agencies and all contractors, suppliers, consultants, and other service providers as they relate to the projects under the Facility. Individuals/entities on ADB's anticorruption debarment list are ineligible to participate in ADB-financed activity and may not be awarded any contract under the project.

84. ADB's Anticorruption Policy designates the Office of Anticorruption and Integrity (OAI) as the point of contact to report allegations of fraud or corruption among ADB-financed projects or its staff. OAI is responsible for all matters related to allegations of fraud and corruption. For a more detailed explanation refer to the Anticorruption Policy and Procedures. Anyone coming across evidence of corruption associated with the Investment Program may contact the Anticorruption Unit by telephone, facsimile, mail, or email at the following numbers/addresses:

By email at integrity@adb.org or anticorruption@adb.org
By phone at +63 2 632 5004

²⁵ Available at: <http://www.adb.org/Documents/Policies/Anticorruption-Integrity/Policies-Strategies.pdf>

By fax to +63 2 636 2152

By mail at the following addresses (Please mark correspondence Strictly Confidential):

Office of Anticorruption and Integrity
Asian Development Bank
6 ADB Avenue, Mandaluyong City
1550 Metro Manila, Philippines

85. All contracts financed by ADB shall include provisions specifying the right of ADB to audit and examine the records and accounts of the executing agency and all contractors, suppliers, consultants and other service providers. Individuals/entities on ADB's anticorruption debarment list are ineligible to participate in ADB-financed activity and may not be awarded any contracts under the Investment Program.²⁶ To support these efforts, relevant provisions are included in the loan and project agreement/regulations and the bidding documents for each of the Projects under the Investment Program.

XI. ACCOUNTABILITY MECHANISM

86. People who are, or may in the future be, adversely affected by the project may address complaints to ADB, or request the review of ADB's compliance under the Accountability Mechanism.²⁷

87. Grievance redress mechanism as established by RCIP states under PMGSY and improved under RRS-II will continue to be in place throughout the Investment Program. Land management committees and dedicated grievance redress committees will be in place to receive and resolve complaints, as well as to act upon stakeholders' reports of irregularities on project related matters, including grievances concerning land donation procedures. RCIP states and NRRDA will widely publicize the existence of this mechanism to ensure that stakeholders are aware that a venue is available to address concerns or grievances relating to fraud, corruption, abuse, and any other aspects of project implementation.

XII. RECORD OF FAM CHANGES

88. All revisions/updates during course of implementation should be recorded and retained under this Section to provide a chronological history of changes to implemented arrangements recorded in this FAM.

²⁶ ADB's Integrity Office web site is available at: <http://www.adb.org/integrity/unit.asp>

²⁷ For further information see: <http://compliance.adb.org/>.

ATTACHMENTS

Attachment A:	Procurement Plan
Attachment B:	TOR for PIC
Attachment C:	TOR for TSC
Attachment D:	Draft TOR for RCTRC rollout (loan-financed consultant services)
Attachment E:	Draft TOR for RRNMU support (CDTA component)
Attachment F:	Draft TOR for RCTRC setup (CDTA component)
Attachment G:	Design standards under RCIP
Attachment H:	Form for reporting on Technical Bid Evaluation (for prior ADB review for the first 5 contracts under each Tranche in each RCIP state)
Attachment I:	Form for reporting on Financial Bid Evaluation (for prior ADB review for the first 5 contracts under each Tranche in each RCIP state)
Attachment J:	Form of certified summary sheet reporting on the main aspects of the bid evaluation and contract award for all contract packages
Attachment K:	TA Cost Estimates and Financing Plan

PROCUREMENT PLAN

Basic Data

Project Name: Rural Connectivity Investment Program	Executing Agency: Ministry of Rural Development; States of Assam, Chhattisgarh, Madhya Pradesh, Odisha and West Bengal
Country: India	Loan Number:
MFF Amount: \$800.00 million	Date of this Procurement Plan: 04 March 2012
Date of First Procurement Plan: 22 Nov 2011	

A. Process Thresholds, Review and 18-Month Procurement Plan

I. Project Procurement Thresholds

1. Except as the Asian Development Bank (ADB) may otherwise agree, the following process thresholds shall apply to procurement of goods and works.

Procurement of Goods and Works

Method	Threshold
International Competitive Bidding (ICB) for Works	\$10,000,000 and above
National Competitive Bidding (NCB) for Works	Between \$100,000 and \$10,000,000
Shopping for Works	Below \$100,000
International Competitive Bidding (ICB) for Goods	\$500,000 and above
National Competitive Bidding (NCB) for Goods	Between \$100,000 and \$500,000
Shopping for Goods	Below \$100,000

II. ADB Prior or Post Review

2. Except as ADB may otherwise agree, the following prior or post review requirements apply to the various procurement and consultant recruitment methods used for the Investment Program.

Procurement Method	Prior or Post	Comments ¹
NCB Works (Roads)	Prior	Prior review of SBD for RCIP; For each state under each Tranche: prior review for 1st NCB; post-review for succeeding NCBs; prior review for 1st three Technical Bid Evaluation Reports and Financial Bid Evaluation Reports for the same contracts, post-review for succeeding evaluation reports.
NCB Works (RRNMU and RCTRC facilities)	Prior	Prior review of SBD for RCIP; For each state under each Tranche: prior review for 1st NCB; post-review for succeeding NCBs; prior review for 1st Technical Bid Evaluation Reports and Financial Bid Evaluation Reports for the same contracts, post-review for succeeding evaluation reports.
NCB Goods	Prior	Prior review of SBD for RCIP; For each state under each Tranche: prior review for 1st NCB; post-review for succeeding NCBs; prior review for 1st Technical Bid Evaluation Reports and Financial Bid Evaluation Reports for the same contracts, post-review for

¹ Single-Stage; Two-Envelope process.

Attachment A to FAM

Procurement Method	Prior or Post	Comments ¹
Shopping for Works	Post	succeeding evaluation reports.
Shopping for Goods	Post	
Recruitment of Consulting Firms:		
International Recruitment: Quality- and Cost-Based Selection (QCBS)	Prior	
National Recruitment: Quality- and Cost-Based Selection (QCBS)	Prior	

III. Goods and Works Contracts Estimated to Cost More than \$0.2 Million and less than \$3.0 Million

3. The following table lists goods and works contracts for which procurement activity is either ongoing or expected to commence within the next 18 months.

General Description	Contract Value (Total)	Procurement Method	Prequalification of Bidders (Yes/No)	Advertisement Date (quarter/year)	Comments
Civil Works for NCB Roads (around 275 contract packages, refer to indicative packages in Section B) Individual Bids	\$306.20 million	NCB	No	TBD	
Civil Works for RRNMUs (5 Contract packages): Individual Bids ²	\$2.7 million	NCB	No	TBD	
Civil Works for RCTRCs (5 Contract packages): Individual Bids	\$2.7 million	NCB	No	TBD	
Goods (detailed specification and contract packaging will be finalized by the CDTAs during RCIP implementation)	\$0.90 million	Shopping	No	TBD	

IV. Consulting Services Contracts Estimated to Cost More Than \$100,000

4. The following table lists consulting services contracts for which procurement activity is either ongoing or expected to commence within the next 18 months.

² Around 5 more contracts, each for construction of around 5 RRNMU facilities in each state (Assam, Chhattisgarh, Madhya Pradesh, Odisha, and West Bengal), will be procured by the 4th year of implementation.

General Description	Contract Value	Recruitment Method	Advertisement Date (quarter/year)	International or National Assignment	Comments
RCTRC Consultant (one package)	\$4,000,000	QCBS (80:20) Time based contract	To be determined	International firm in association with national firm(s)	
TSC (one package)	\$800,000	QCBS (80:20) Time based contract	May 2013	National ³	

B. Indicative List of Packages Required under the Investment Program

5. The following table provides an indicative list of all procurement (goods, works and consulting services) over the life of the project.

General Description	Estimated Value (cumulative) \$(‘000,000)	Estimated Number of Contracts	Procurement Method	Domestic Preference Applicable	Comments
Works	990.75	(around 1,970 contracts)	NCB	n/a	
Goods	1.00	(around 5 contracts)	NCB	n/a	
	2.00	(around 35 contracts)	Shopping	n/a	
Consulting Services	4.00	1	QCBS,	n/a	
	2.00	1	QCBS	n/a	

6. The following table provides an indicative list of civil works packages which involve ADB financing to be procured over the life of the Project 1 under the Investment Program.

A. Roads

Chhattisgarh

No.	Name of District	Name of Road	Length in km
1	Bilaspur	PATHAPALI - BANKA	9.00
2		PARSAHI RD - URAIHAPARA	1.75
3		BARTORI - BELTUKARI	5.02
4		BILHA DAGORI RD - UDGAN	1.05
5		T-09 - Newsa	1.39
6		L-087 - Karauhanar	1.71
7		T-03 - Nawagoan Jait	1.29
8		T-09 - Budhwara	3.60
9		Koilari - Gorakhpur	1.60
10		Jewra - Khondhara	5.19
11		T-04 - Kkapari	2.90
12		JEWRA - PATELPARA	2.50
13		Chhata - Pratappur	2.01

³ Services will be limited to the social and environmental safeguard due diligence, impact monitoring, road safety audits and maintenance inspections on rural roads. This work will involve interaction with local communities in local language, knowledge of local design standards, laws, procedures and practices. International experts will not be suitable for the assignment.

Attachment A to FAM

14		L088 Baihakapa - Hedaspur P	2.04
15		T05 - Nawagaon	1.65
16		T05 - Singh Bandha	2.04
17		T-06 - Jhaliapur	3.55
18		T06 Dullapur - Lachhanpur	3.00
19		T04 - Kirna	4.45
20		T05 - Chorhabundeli	3.33
21		T-04 - Newapur	4.14
22		T-06 - Jalli	4.20
23		T-03 - Pipraload	5.97
24		KHUTERA - KALARJEWRA	3.03
25		T-O6 - BHATHLI	4.00
26		Belmundi - Kopra	2.25
27		Darry - Vijaypur	2.57
28		L-042 - Khairadih	1.59
29		Gunsari - Rawatpara	3.51
30		Nirtu - Dipripara	1.17
31		Nirtu - Karhipara	2.10
32		T-04 - Nawapara	1.20
33		T-05 - Purena	1.44
34		T-06 - Sakeri	3.66
35		T-07 - Salhaiya	3.50
36		T-07 - Tingipur	2.16
37		T-06 - Vicharpur	1.96
38		Kathakoni - Bhiloni	2.32
	Total	38	109.84
39	Durg	Main Road - Jhalam	1.40
40		Main Road - Damaidih	2.00
41		Darhi - Bandhi	4.50
42		Main Road - Dhangaon	1.56
43		Bemetara - Sirwabandha	5.61
44		Main Road - Bhawarda	2.40
45		Ghatiyakala - Mudpar	1.40
46		Sarda - Andoo	2.01
47		Berla - Lawatara Road - Taksiwa - Takam	8.00
48		Main Road Baghul - Gopalbhaina	3.70
49		Maro - Dohtara	1.81
50		Andhiyarkhor - Barbaspur	2.40
51		Main Road - Gangpur	3.60
52		Main Road - Sukhatal	3.08
53		Padumsara - Hathmudi	3.15
54		Padumsara - Kirki	3.96
55		Main Road (Keshtara) - Bagledi	2.47
56		Main Road - Bod	2.40
57		Saja Kodwa Road - Matra	1.65
58		Dhamdha Gandai - Pattharrikhurd	4.90
59		Tiriyabhat - Sonpandar	1.50
60		Masulgondi - Kongiyakhurd	0.80
61		Bortara - Khairy	3.12
62		Main Road - Korway	1.88
63		Novekasa - Lalpur	0.93
64		Main Road - Tedi	4.00
	Total	26	74.23
65	Janjgir-Champa	Main Road - Rogda	3.10

Attachment A to FAM

66		Main Road - Parsada	2.60
67		Main Road - Junadih	2.25
68		Main Road - Angharkhar	1.10
69		Main Road - Parsada	1.15
70		Main Road - Lewai	6.80
71		Main Road - Nawapara B	2.60
72		Main Road - Kudri	2.10
73		Main Road - Awraikhurd	1.82
74		T06 - Jhapeli	2.10
75		Main Road - Khoha	1.15
76		Main Road - Nawagaon	1.50
77		T05 - Mudpar	5.50
78		Main Road Kadari - Khamiya	4.17
79		SH-9 - Bhadra	4.00
80		Main road - Sonaidih	1.10
81		Main Road - Mohgaon	3.55
82		Main Road - Riwadih	1.77
83		Main Road Rohda - Bhawarmal	2.40
84		Sarhar - Bhagodih	1.58
85		Main Road Sarhar - Darri	2.60
86		Main Road T04 - Nawapara	2.50
87		Mukta - Binodha	2.00
88		Main Road T03 - Bhilaigarh	1.80
89		L044 to - Purainabhudha	2.40
90		Main Road Putidih - Bhedikona	4.10
91		Amlidih - Bhatmaul	3.00
92		Main Road - Barra	1.60
93		Sirli - Kumharipathan	3.10
94		Mehanda - Sewai	2.00
95		Janjgir-Kera Road - Nawapara	2.30
96		Pandariya - Bhakhrabhata	1.00
97		Main Road - Singhaldeep	1.75
98		Pamgarh - Uraiha	1.65
99		Dhardei - Pandariya	4.58
100		Main Road - Neoraband	1.30
101		Pachori - Hedsapur	4.05
102		T02 - Dumarपाली	2.30
103		Lawsara - Beladih	1.20
104		Main - Songuda	2.80
105		Kesla - Khutadabhara	2.70
106		Jajang - Belachua	2.30
	Total	42	105.37
107	Korba	Patiyapali Rambatha - Sajapani	3.10
108		Karrapali Tonda Road - Pahadgaon	3.70
109		Kotmer - Koi	5.10
110		Ring Road Darri - Baigamar	2.20
111		Baisma Kudmura Road - Bhelwatar	2.30
112		Matmar - Kaldamar	3.65
113		Main Road - Bhalusatka	2.20
114		Rajgamar Patrapali - Godma	3.40
115		Sonpuri - Taraidand	2.55
116		Balco Ajarbahar - Tilaidand	2.60
117		Ajarbahar Kachhar - Kosgai Temple	0.75
118		Ghuichua Saplwaraod - Baisemar	5.40
119		Jemra - Chaiturgharh Temple	7.80

Attachment A to FAM

120		T05 - Bandhiyapara	3.80
121		Lafa Silli - Ghunghuttiyapara	1.10
122		T04 - Nawapara	2.80
123		Tiwarta - Rantaraipara	2.25
124		Bagdaridand - Bharhamuda	2.55
125		Katghora Pali - Saraipali	2.05
126		L028 - Bamnikhurd	3.65
127		Chotiya Chirmiri Road - Jhinpuri	3.80
128		T03 - Jamkachhar	6.90
129		Lalpur road - Pathakachhar	5.45
130		Lamnabasin - Matin	1.90
131		Katghora Ambikapur - Sirkikala	11.10
132		Katghora Pasan - Merai	10.90
133		T04 Lalmatiya - Lakhapur	1.60
134		Katghora Pasan - Korbi	2.67
135		Katghora Pasan - Kansamar	4.60
136		Laigapara Banpipar - Dhawalpur	7.60
137		Manjhipara Gudipara - Hardipara	3.30
138		Katghora Pasan - Adsara	8.45
139		Pasan Pipariya - Langi	3.75
140		Pasan Chandrouti - Tulbul	3.00
141		Delwa - Pandripani	10.15
	Total	35	148.12
142	Koria	Larkoda - Badkadol	2.70
143		T-07 (Devgarh) - Dongritola (L)	4.62
144		Jawaritola - Chhirhatola	2.19
145		Kanjiya - Patpartola	1.65
146		Sirkhola - Dongritola (C)	5.13
147		Deogarhkhoh - Karwan	8.04
148		T-05 (Km-32) - Dhowatal	1.80
149		Singhaur (T-05) - Khetauli	2.61
150		T-04 (Km-11) - Jaiti	7.02
151		Kunwarpur - Koilara	2.61
152		Gurudol (T-02) - Balshiv	3.09
153		T-03 (Km-6.5) - Chintimar	2.73
154		Latma - Ravatsarai	16.00
155		Majhartola - Pathargawan	6.00
156		Keshgawan - Tanjara	10.00
157		T-03 (Km-13) - Anandpur F	2.70
158		Bodar - Kushha	3.24
159		L-030 (Km-0.50) - Kachhar	3.40
160		Bhaiswar Road - Chakdand	4.70
	Total	19	90.23
161	Mahasamund	NH217 - Telibandha	1.65
162		T09 Khamahariya - Chhindola	1.85
163		T02 - Mahoba	2.50
164		Komakhan-Chhura - Kosmarra	1.55
165		NH 217 - Joratarai	5.15
166		T09 Khamahariya - Kurrubhata	1.60
167		Koma - Amanara	2.05
168		T02 Rewa Road - Saraipali	1.20
169		T02 Rewa Road - Dongripali	1.35
170		T09 - Roda	1.65
171		NH6 - Malidih	2.20
172		T04 Marod - Sukulbay	4.30

Attachment A to FAM

173		L048 Choukbeda - Bamburdih	1.05
174		NH-6 - Gongal	2.10
175		T04 - Banskura	1.90
176		NH-6 - Darripali	1.85
177		NH-6 - Singhori	1.90
178		T020 - Murki	1.55
179		NH-6 Memaradih - Memara	1.55
180		NH-6 - Kashibahara	2.30
181		NH-6 Mudipahar - Parsapali	2.30
182		Donripali - Kailashpurpara	2.00
	Total	22	45.55
183	Jashpur	Gurguri - Marangi	5.70
184		L-68 - Pakartoli	7.00
185		TR-03 - HARRADIPA	3.50
186		TR-01 - SONMUTH	4.50
187		TR-01 CHIR Aidand - BASPATARA	2.90
188		CHAINPUR - JHILIBERNA	1.90
189		KERSAI - SARAITOLI	1.65
190		KHUTGAON - GANJUTOLI	4.20
191		L-38 - MAKRIBANDHA	2.30
192		PANDRIPANI - BANMUNDA	7.10
193		PETAMARA - BHALUMUNDA	3.00
194		SAJBAHAR - BANDHATOLI	2.30
195		TAPKARA - JABLA	3.30
196		TR01 - RAPADAND	3.50
197		TR03 - MRIGKHOL	4.60
198		DOKDA - KHUTINTOLI	2.00
199		L-38 - FARSAJUNGAIN	2.50
200		TR-04 - NAYAKTOLI	2.85
201		HEADKAPA L-41 - UPARKAPA	2.50
202		L-23 - BOTANIDAND	4.70
203		L-24 - DUMARTOLI	3.20
204		L-27 LOGHAMA - KHUTGAON	5.40
205		NH-78 - DHUMADAND	4.30
206		T-06 GORIYA - PAKARIKACHHAR	5.50
207		TR 04 KUNJARA - SHRITOLI	1.70
208		GHAGHARA - RAJALA	11.50
209		T-01 - DHDRUKONA	4.50
210		TR-02 - KHOKSO BENJORA	2.50
211		TR-06 - TALASILY	4.40
212		TR-07 - SARAI DIH	8.10
213		TR-07 - IRAIGARH	4.00
214		TR-07 - CHHATASARAI	4.10
215		TR-02 - CHOURAAMA	4.50
216		TR 02 - DAHIDAND	8.10
	Total	34	143.80
217	Raigarh	Baiyasi - Lakhpatara	1.90
218		L-032 - Dumarnara	3.70
219		T-01 - Tonainara	2.15
220		T-010 - Nayadih	2.50
221		T-010 - Tendumudi	2.30
222		T-12 - Newar	6.00
223		T-02 Alola - Katharpara	2.50
224		Bahirkela - Junadih	2.80
225		Gharghoda Raigarh Road - Chidoriya	2.80

Attachment A to FAM

226		Gharghoda Dharamjaigarh Road T-08 - Karichapar	1.80
227		Konpara - Katharapali	2.80
228		Kudumkela - Jampali	2.20
229		T-08 - Gunnu	4.10
230		Sonpur - Rajama	3.50
231		Chhatadei - Kharwani Chote	4.50
232		Dharwabhata - Nagarmuda	1.00
233		Raigarh Gharghoda T-08 - Onkaripali	2.20
234		Raigarh Gharghoda T-08 - Padkipahari	2.50
235		Samekera T-03 - Raipara	3.80
236		Saraidipa L-041 Godi Kasdol - Salihari	3.00
237		Saraidipa - Bhalumuda	3.60
238		Tamnar Tolge T-01 - Jarhadih	1.45
239		Hukra Dongamouha Y-02 Kodkel - Beljor	3.45
240		T-04 Pali - Karmagard	3.30
241		Tamnar Gharghoda Raod - Patrapali	4.50
242		Tamnar Tolge L-060 - Lalpurkhar	1.70
243		Tamnar Tolge Road T-01 - Kharra	3.20
	Total	27	79.25
244	Raipur	Koliyari - Lakhna	2.28
245		Parsada V - Amadi	2.29
246		SH09 Lahoud - Khamhardih	0.80
247		Sonpuri - Shuklabhata	2.70
248		05T01 - Kediyeerwar	2.10
249		Jawgahan - Madhubakhala	4.50
250		L059 - Hardi	1.80
251		T014 Siltara - Mandhar Neuardih	3.20
252		Diwanmuda - Sukalibhata	6.68
253		Ghghar - Darlipara, Nagaidehi	6.40
254		Girsul - Biorguda	1.90
255		Madagaon - Purnapani	1.95
256		SH2B - Dohel	1.50
257		SH2B - Dumarpita	3.45
258		SH2B - Kadlimuda	2.55
259		SH2B - Ladara	2.00
260		Nawagaon - Kanjiya GP	2.35
261		Chuchrungpur - Chhirahi	1.17
262		Mallin - Tilda	3.06
263		Sonardeori - Gaboud	1.75
264		T03 Odan - Dhurrabhata	1.50
265		T03- km 30 - Bansbinouri	2.40
266		12T07 Kesla - Sakri S	3.26
267		12T07 - Khaira	1.57
268		T04 km9 - Sahada	2.53
269		T06 km 3 - Gaitra	5.00
270		Bhainsa - Kareli	3.51
271		Manikpur - Ranijaroud	3.21
272		Parkidih - Tekari	8.10
273		Chadiya - Madaipur	2.80
274		Kota - Mohadi	5.30
275		Motimpurkala - Padabhat	3.30
	Total	32	96.89

276	Kawardha	Bokkakar - Mahlighat	1.70
277		Khara (Chitpurikhurd) - Kanhari	6.50
278		Main Road (Charanteerath) - Barpani	1.80
279		Larbakki - Pakaripani	2.40
280		MAINROAD T03 - DHOLBAJJA	5.90
281		MAINROAD - MARIYATOLA	3.53
282		Sukhjhar - Bhurasipakari	2.10
283		Daldali - Banghora	8.10
284		Main Road (Chendradadar) - Piparkhunta	10.40
285		Main Road (Rengakhar) - Bandha	1.80
286		Chimra - Sarekha	2.40
287		Bendarchi - Ramchua	2.90
288		LoharaRengakhar road - Pandripani	14.20
289		Main Road (Bajjalpur) - Komo Mudghusari	7.80
290		Bajjalpur - Boriya	2.95
291		Mian Road (Khariya) - Mudghusari	3.00
292		Sili - Sontara (Amera)	2.95
293		LOHARAROAD - SARODHI	8.78
294		LOHARAROAD - BODA/41	5.00
295		DULLAPUR - LALPUR	2.90
296		MAINROAD T01 - SAGAUNADEEH	1.30
297		MAINROAD - DOMSARA	2.80
298		KUNDA - RENGABOD	4.40
299		MAINROAD - KHAIRWARKALA	1.10
300		MAINROAD - ODADABRI	1.75
301		MAINROAD FASTERPUR - LOKHAN	3.30
302		HATHMUDI - CHITAPAR	3.60
	Total	27	115.35
	Grand Total: Chhattisgarh	302	1008.63

Odisha

No.	Name of District	Name of Road	Length in km
1	Angul	Antulia to Radasinga	9.70
2		Thakurgarh, Talamalia	18.51
3		Barasahi Khairabeni Road	3.00
4		Pallahara Block Chhak to Ishwar Nagar	8.94
5		RD Road (Sarbeda) to Pechamundi	6.44
6		Siarimalia to Badbagdharia	3.86
7		Babagdhari Chhak to Sanabagdhari	3.90
8		NH-23 to Salagadia	3.35
	Total	8	57.69
9	Balasore	NH-6 to Dudhahansa	1.70
10		Chakrada to Renupada	2.00
11		Rautpada to Bahkrabad	6.00
12		RD Road to Alumeda	2.40
13		RD Road to Badakhudi	4.95

Attachment A to FAM

14		Somnathpur to Singarpur	2.00
15		PWD Road to Janakipal	2.15
16		RD Road to Belda	2.70
17		Amarda Station Feeder Road to Basantapur	1.00
18		PWD Road to Dandakat	2.80
19		Harasapur to Udambar	2.00
20		Bakhrabad to Berhawal	2.00
21		Karua to Asti-1	1.50
22		NH-5 to Banaparia	3.00
	Total	14	36.20
23	Boudh	NH-224 to Tidikajhore	1.20
24		R.D.Road to Badajharkata	4.00
25		NH-224 to Tikarapada	2.24
26		NH-224 to kanakpur	1.00
27		NH-224 to hilunga	1.05
28		R.D.Road DTS to Bagedia	4.25
29		SH-41 to Dhankhandi	2.00
30		SH-41 to Charbati	4.60
31		NH-224 to Gudhiali	1.80
32		R.D.Road to Krushnapalli	1.50
33		R.D.Road (T-8) to Kultakhali	1.00
	Total	11	24.64
34	Cuttack	Upper Majhikhanda to Mahanga	12.37
35		Badbil to Nati (00/00 km to 7.00 km)	7.00
36		Badbil to Nati (7/00 km to 14.00 km)	7.00
37		Badbil to Nati (14/00 km to 21.00 km)	7.00
38		Badbil to Nati (21/00 km to 27.15 km)	6.15
39		S.H.60 Brahmanjharilo to Khurunti	5.10
40		R & B Road to Kundi	5.40
41		Usuma to Dharpur	6.65
42		Tilda to Gopinathpur (Ratilo)	3.44
	Total	9	60.11
43	Dhenkanal PIU	T-5 (RD Road) to Dhobaninadar	3.76
44		RD Road to Panchakendu	3.85
45		P.W.D.Road to Aruha	3.40
46		T-4 (ODR) to Kamaniga (A)	1.44
47		T-3 (SBK Road) to Ranipal (B)	1.99
48		NH-55 to Siridihi (A)	2.77
49		NH-55 to Nuabangurusingha	0.90
50		T-2 (MDR) TO Sankhua	3.30
51		L-22 to Erapada	1.50
52		NH-42 to Ratnaprava	1.10

53		T-6 (Kantimili) to Sanamunda Road	1.09
54		T-3 (NH) to Nandanpur	2.60
	Total	12	27.70
55	Kamakhya Nagar PIU	P.W.D.Road (Bam Chhak) to Jarada (A)	6.00
56		P.W.D.Road(T3) Jarada Chhak to Dehuryhata (B)	2.35
57		NH-200 to Orisinga Balisahi(A)	1.76
58		P.W.D.Road to Bandania (B)	1.68
59		P.W.D.Road (T-2 Batagaon) to Palasdangi	4.00
60		P.W.D.Road (T-3) to Pathargarh	7.90
61		Kamakhyanagar to Gundichanali	7.55
		Total	7
62	Ganjam PIU 1	SH-21 to Mentapur	2.95
63		Kalasantdhapur to Patiliguda	1.63
64		SH-30 to Badagada	2.75
65		Sunathara to Padmabati	5.50
66		RD Road (K.S.Nagar Polasara road) to	5.15
67		Pandiapathara to Sunapalli	3.00
68		R.D. Road to Patrapalli	3.04
69		Kumpapada to Khairanati	6.87
70		R.D.Road to Gotha Lunda	3.70
71		SH-21 to Kumundi	2.90
72		PWD Road to Biripadar via Buduli (0/00 km. to 5.50 Km.)	5.50
73		PWD Road to Biripadar via Buduli (5.50 Km. to 10.20 Km.)	4.70
74		Rajanapalli to Balakiari	5.18
75		RD Road (Budheisuni - Madarangapalli) to Madarangapalli	4.56
76		SH-36 to Srirampalli	8.00
77		PWD Road to Malasapadar	2.50
78		PWD Road to Jhadhatuni	4.20
79		SH-21 to Bhusandapala	1.60
	Total	18	73.73
80	Gangam PIU 2	Phasiguda to Tundra	5.05
81		MDR-63 PWD Road to Tulasipadar	5.73
82		PWD Road to Bahalapalli	5.40
83		PWD Road to Palanga	4.00
84		PWD Road to Badakalajhuri	5.00
85		PWD Road (Davara) to Tentiapada	3.88
86		SH-30 to Duarabagada	5.86
87		PWD Road (Sheragada) to Ramakrishnapur	3.35

Attachment A to FAM

88		PWD Road (Bhuduki) to Matiburai	4.80	
89		MDR-63 to Jalamra	2.70	
	Total	10	45.77	
90	Khurda	Old Jagannath Road to Nagapur sasan	3.80	
91		S.N.Road to kajanga	2.00	
92		PMC to belurihata	3.90	
93		PMC to Endrapal	1.50	
94		PMC to Umadeiberhampur	3.22	
95		Rajas to Garia	2.00	
96		CBC to Seulakunda	2.00	
97		RD Road to Tinkipada	3.03	
98		CBC to Padanapada	2.53	
99		CBC to Bhanaragarh	4.18	
100		RD ROAD at Dangarpada to Dalak	7.81	
101			rd road at Kunjuri to Bhatapada	4.00
102			NH-224 to Dhanaghar Nuagaon-Sunalo	6.19
103		RD Road to panichatra	2.20	
104		Ayatapur to Baledihi	1.80	
105		NH-5 to Brahamankusadiha	1.25	
106		Old Cuttack PWD Road to Gamei Gramadihi	3.50	
107		NH-5 to Janla	0.50	
108		PWD Road to Jageswar	0.70	
109		NH-5 to Kasipur	1.39	
110		NH-224 to Bamadiha	4.10	
111		RD Road to Brundabanpur	1.10	
112		Sagadabhanga to Radhamohanpur	2.30	
113		PWD Road to Pananagar	1.35	
114		Nariso to Kantapada	4.35	
115		Khamanga to Gandilo	2.00	
116	Sardarpatel PWD Road to Jariput Chhotrapur	5.00		
	Total	27	77.70	
117	Puri	L-24 to Magalapur	1.15	
118		L-24 to Jaguliapada	0.86	
119		PDK Road to Dampur	2.09	
120		Sauria to Jorakani	2.31	
121		NH-203A to Kadajit	3.73	
122		NH-203A to Kalikabadi	2.75	
123		L-31 to Balakankula	1.83	
124		NH-203A to Sahajanpur	5.99	
125		RD Road to Deulapada	3.35	
126			L-79 to Kaliakera	3.69

Attachment A to FAM

127		Sarangajodi to Torania	3.85
128		PWD Road to Munida	1.40
129		DBPWD Road to Singhakuda	5.17
130		PWD Road to Balikera Pachipal	4.68
131		RD Road to Sanaanla	3.77
132		PWD Road to Jagirikuda	1.35
133		T-4 to Haraspada Malisahi	2.00
134		T-6 to Machhapada	1.50
135		RD Road to Jhinkiria	2.20
136		PWD Road to Baghamunda	2.72
	Total	20	56.39
137	Nimapara PIU, Puri	Ketakipatna to Alandapara	5.50
138		MB Road to Mahapur	7.00
139		Kurujanga to Chhelibe4uan	3.40
140		Indira Bazar to Palabasta	3.60
141		NB Road to Taraboisan	2.30
142		NB Road to Kotakasangha	5.50
143		NA Road to Badarikilo	5.15
144		FNM Road to Khulisa	2.50
145		Katakana to Bibhutipur	2.20
146		NA Road to Kanapur	3.50
147		L-73 to Kanapur	2.35
148		L-101 to Villisan	3.00
	Total	12	46.00
149	Bargarh (PPTA)	NH6 to Kandapali	1.50
150		SH-54 to Udepur	0.97
151		PWD Road to Pipilipali	2.10
152		Karuan to Gandapali	0.70
153		RD Road to Bhoipali	1.25
154		Gopalpur to Temeren	2.73
155		Kapasira to Antaradi	5.03
156		Lakhanpur to Uttam	9.68
157		RD Road to Baniapali	7.20
158		RD Road to Bhainatora	6.25
	Total	10	37.41
159	Padampur PIU, Burgah (PPTA)	T 03 R. D. Road to Baidpali	2.48
160		R. D. Road to Baunspola	2.20
161		Sandadar to Dungrichadha	3.33
162		Chhotanki to Bodanki	4.28
163		Beheratal to Jamartala	3.25
164		Dahita to Dangachhancha	2.55
165		R D Road to Kudasingha	0.98

Attachment A to FAM

	Total	7	19.07
166	Jharsuguda (PPTA)	Ludung to Gadalpada	5.29
167		RD Road to Negipali	2.57
	Total	2	7.86
168	Bhadrak PIU 1	R.D.Road to Jirina	2.50
169		R.D.Road to Podapatna	1.50
170		P.W.D.Road to Nachhipur	3.10
171		P.W.D.Road to Bisalakana	3.20
172		R.D.Road to Panapadi	1.20
173		Kanpada to Kanpadabindha	2.70
	Total	6	14.20
174	Bhadrak PIU 2	Chhedak to Bansada road	2.40
175		T3 (PWD Road) to Talabandha Road	2.40
176		Patuli to Pahadpur Road	2.00
177		(PWD Road) to Rukunadeipur	2.70
178		(PWD Road) to Dakhinkorua	3.00
179		Dhanakuta to Baincha Road	3.20
180		L90 to Barakolha Road	3.70
181		HLC to Chandranapur Road	1.00
182		Sabarang to Samia Road	4.60
183		Rtrfs to Basuapada	1.80
184		BC Road to Begunia	7.00
185		RD Road to Belagadia	4.50
	Total	12	38.30
186	Nayagarh	Mahipur Malishi RD Road to Balabhadrapur	9.72
187		NH-57 to Ekatala	4.20
188		RD Road to Purusottampur	2.46
189		Bahadajhola Sunamuhin RD Road to Balisinsa	7.50
190		MDR-18 to Janisahi	5.00
191		Itamati Khedapada RD Road to Melambo	4.92
192		Itamati Sunalati Baghera Road to	5.93
193		PWD Road to P. Bankarta	6.67
194		Talamaninaga to Uppar Maninaga	6.00
195		Sanapandusar to	2.20
196	ODR to Patharganda	2.00	
	Total	11	56.60
197	Bargarh	Tangarpali to Luisira	2.76
198		Gandaturum to Tihikipali	2.00
199		Kuketira to Haldi	1.78
200		NH-201 to Ravanguda	3.50
201		NH-6 to Pastamunda	2.47

202		RD Road to Jamchhapur	2.58
203		Bagabdi to Putrupali	2.25
204		Kanakbira to Kendugudia	9.00
	Total	8	26.34
205	Padampur	SH-3 at 41 km to Ichhapali	2.50
206		R.D.Road to Panduripani	2.50
207		PR Road to Chhotanki	2.80
208		R.D.Road to Jampali	1.45
209		Baidpali to Southkhandi	3.52
210		P.W.D.Road to Purna	2.00
211		R.D.Road to Jenkeda	1.09
212		R.D.Road to kanpuri	4.28
	Total	8	20.14
	Grand Total:Odisha	212 Roads	757.09

West Bengal

No.	Name of District	Name of Road	Length in km
1	North 24 Parganas	Tepul to Publi (Media Banstala) via GP Office	4.021
2		Barbaria Masjidpara to Taldharia	7.364
3		Dakshin Ghoshpara to Putimari	8.560
4		Hingalgange to Mamudpur Paschim	4.816
5		Muslimpara to Matiagacha Paschim	3.423
6		Dholtukri to Mohonpur Paschim	2.247
7		Khasbalanda Three Point to Rowkhan RCC Bridge	8.327
8		Old Bongaon East to Pratapnagar (PPTA)	2.41
9		Keotsah Bazar to Haiderpara via Atlia (PPTA)	5.60
	Total	9	46.77
10	Bankura	Kankaboti to Belpushkarini Sihas	7.355
11		Nagri to Banbedia	12.215
12		Gobarda to Satpatta (PPTA)	13.03
13		T10 (Dhengram) to Bishanpur (PPTA)	10.11
14		Joypur to Gelia (PPTA)	11.84
	Total	5	54.56
15	Birbhum	Mini steel Plant Lakhindarpur To via Gibdarpur Gobindapur	6.410
16		Teghari More to Haripur via Kustikuri Mangalpur Damdama	4.771
17		Bagdola to Dorola	5.067
18		Paikuni More to Tulamara	3.825
19		Highway to Khadempukur village Road	6.000
	Total	5	26.073

Attachment A to FAM

20	Jalpaiguri	T07 at Lal School to Brazer Khutti (PPTA)	6.35
21		T05 at Bikash Nagr to Rajfapri (PPTA)	4.82
22		Ranicherra Tea Garden to Paschim Damdim (with extension from Betabari to Damdim More) (PPTA)	3.68
23		T-14 at Sarkarpara to Munsipara (PPTA)	7.83
	Total	4	22.68
24	Murshidabad	Panchthupi To Molla (Mahadebbati) (PPTA)	8.01
25		Puthia To Jat Biswanath (Chandpur) (PPTA)	1.23
26		Kapasdanga Bridge to Kapasdanga Jitpur (PPTA)	1.48
27		Charpaikamri To Chardebipur (PPTA)	3.27
28		Puthia To Ramchandrapur (with a 300m Link to Puthia) (PPTA)	2.61
	Total	5	16.60
Grand Total West Bengal		28	166.671

Madhya Pradesh

No.	Name of District	Name of Road	Length in km
1	Ashoknagar	Ashoknagar-Issagarh road to Dhorra	5.500
2		Bamora to Banskhedhi	7.000
3		Soter To Ludhaya	9.750
4		Amrod-Piprod road to Besara	5.525
5		(Ghat Bamuriya-Athaikheda road) Bamuriya to Barra	10.850
6		Mungaoli-Malhargarh road to Hureri	6.900
	Total	6	45.525
7	Bhind	Gwalior road to gada	4.6
8		Gwalior Etawah Pawai road to Kushmar	4.34
9		Gwalior-Etawah road to Madan Pur	2
10		Bhind-Lahar road to Jange Singh Ka Pura	1.85
11		Gwalior-Itawah road to Khadar Gou Ghat	2.80
12		Gwalior-Itawah road to Aheti	6.00
13		Mehgaon Seonda road to Guriyanchi	7.00
14		Bhind Lahar Amayan road toPura	7.65
15		Basantpura road to Kot	4.25
16		Raipura road to Dohai	3.95
17		Bhind Bhander rd.to (Lapvasa) Kareela	5.50
18		Aswar rd to Kariyawali	5.80
	Total	12	55.74

19	Bhopal	BERASIYA NAJIRABAD ROAD TO JHIRONIYA CHAPRI	10.78
20		BERASIYA NAJIRABAD (KHITWAS) ROAD TO GONDIPURA	3.03
21		BERASIYA NAJIRABAD ROAD NEAR BAHRAWAL TO AMARPUR	7.70
22		HARRAKHEDA ROAD TO BUDHOR KALAN	11.05
23		BERASIYA NAZIRABAD ROAD TO SURANA	5.10
24		KOTRA CHOPRA TO BHESKHEDA	7.88
25		BERASIA-NARSINGARH RD. TO SUNGA LADHAPUR	1.20
26		RATUA TO SUKALIYA	3.99
27		BERASIYA TO KARARIYA	2.25
	Total	9	52.97
28	Chhatarpur	Buxwaha Dalpatpur road to Dharampura	4.20
29		Buxwaha Sunhra road to Machhendri	5.80
30		Sedhara road to Chourai	5.60
31		Nowgong Ishanagar Guriyya road to Parapatti	3.50
32		N.H.-86 to Malguwan	5.15
33		Loundi Mahoba road to Purwa Bamhori	10.50
34		Ganj Jamtuli road to Katara	5.00
35		Lugasi Gadimalhra road to Bardawahakala	6.70
36		Dekoli to Peera	4.10
37		Ghuwara Indora road to Devpur	2.68
	Total	10	53.23
38	Chhindwara (PIU 1)	CHANDRIKAPUR To AAMTEE	3.00
39		T04 To SURREWANI	2.90
40		KHAMARPANI PWD ROAD to BHICHWI	1.10
41		T04 (SARASBOH SURRANGI To SILOTAKALA	1.83
42		T05 (KHAMARPANI) To GHARIYA	1.35
43		KUDDAMJOBNI To PALASPANI	1.60
44		GHOTI To PARTAPUR	3.600
45		RANGARI TO MEHANDI	4.000
46		T01 To LENDAGONDI	4.80
47		NANDANWARI-MOHGAON ROAD JUNCTION To BUCHANKHAPA	3.00
48		MOHI To MANDVI	2.73
49		MANKADEHI to BHAIS MUNDA	5.40
50		BCKH to KAREAM (RATED)	15.13
	Total	13.00	50
51	Chhindwara (PIU 2)	GANGAI TO RONJHANI	10.38
52		PARTAPUR TO CHHINDA	10.30
	Total	2.00	20.68
53	Chhindwara	Gutty Morkund road to Umariya Phadali	2.56

Attachment A to FAM

	(PIU3)		
54		Machighatmal To Gorakhpur	3.45
55		Ghorawarikhurd To Ghorawari Kala	2.75
56		Khumkal- Bomalya Rd To Bamhanimal	2.33
	Total	4.00	11.09
57	Chhindwara (PIU4)	T07 TO BARELIPAR MAL	1.30
58		RAJALWADI TO MOHGAONKALA	2.60
59		BINJAWADA TO KEDARPUR KHURD	2.50
60		T01 (THAWRI) TO MEHGORA	5.00
61		MOHALPUR(RAJADA) To SOHAGPUR ROAD	2.60
62		BANDA (SH-19 LAS) TO KUKDIKHAPA	8.44
63		JHANJHARIYA TO GHOGHRA	4.60
64		CHHINDWARA-CHAND ROAD TO PULPULDOH	2.00
	Total	8.00	29.04
65	Damoh	SH-49 Km 6 to Chandora	5.00
66		SH-37 to Athai	6.70
67		Jabera to vijaysagar	4.00
68		Chopra to Mahuakheda	4.10
69		Fatehpur-Madiyado Road (Via Guda) to Pandajhir	6.05
70		Bhatera (SH-37) Road To Pipariya Shahani	7.70
71		Hatta Raseelpur Road to Kunwarpura-Hatta	0.70
72		Hatta-Gaisabad Road to Devra Jamsa	3.00
73		Kalkuwa To Bachhama	4.40
74		Hatta Sehora Rd. SH-51 to Belkhedi Patera	7.50
75		Itwa Heeralal to Shikarpura	3.70
76		Damoh-Hatta Road (SH-49) to Itwa Heeralal	5.10
	Total	12	57.95
77	Dewas	Chandupura to Laxminagar	8.00
78		Bajwada to Nemawar	5.60
79		Eklera to Surmaniya	10.50
80		Barotha Patadi Road to Shukhrawasa	4.96
81		Agrod to Akalya	6.80
82		Jalodiya to Bhopal Road	5.00
83		Bavai (Dewas Kakad) to Jagdishpur	4.60
84		Lasudiya Kulmi to Madhopur Khera	5.24
85		AB road to Agrod road to Karadia	1.20
	Total	9	51.90
86	Dhar (PIU 3)	UJJAIN - PETLAWAD ROAD JAWASIYA	7.90
87		RATLAM GUJRI ROAD DANGIKHEDI	9.30
88		RATLAM GUJRI ROAD PADUNIYA	7.74
89		RATLAM GUJRI ROAD BHATBAMNDA	8.10

90		RATLAM GUJRI ROAD JALOD	4.40
	Total	5.00	37.44
91	Guna	T-04 Aron Panwadi Hat Hapakhedi Road to Jhitiya (L-042)	6.000
92		T-01 ARON SIRONJ ROAD to MOHRI KHURD	4.500
93		T-02 Sen Board Vishanwada Road to Dumawan	10.225
94		Binagunj Teligaon To Suthaliya To Bapcha Lahariya	7.600
95		T-07 Chachoda Mrigwas to Gaumukh (L-105)	7.300
96		A.B Road Patai Umari Road to Sandkheda	7.100
97		T-04 Janjali Banaskhedi Road to Kanthi (L-066)	5.050
98		T-04 Janjali Banskhedi Road to Birwas (L-147)	4.150
	Total	8	51.93
99	Indore	Nemawar Road To Kharadia	5.60
100		Badia Keema Approach Road	1.55
101		Pachola to Titavda	5.30
102		Indore Depalpur Road to Jambodi Sarvar	4.85
103		Indore-Depalpur Road to Arniya	3.15
104		Depalpur Road to Karki	7.43
105		Ghatabillod road to Amlia	6.15
106		Malendi to Mangliya	10.50
	Total	8	44.53
107	Jabalpur	T-01 TO BAIRAGI	4.225
108		NH – 7 to Silua	5
109		MDR T-02(Tilwara Chargawan Rd) to Chirapondi	15.45
110		MDR (Tilwara chargawan Rd to) T02 TO SAKRI	3.325
111		NH-12 to Kulon	5.7
112		MDR (JABALPUR DAMOH) TO BILKHIRWA	2.7
113		Malakala to Pondi	4.05
114		SH-37 TO KHAJRI (Jabalpur Damoh road)	6.775
115		(Sahajpur) Kanjai Road to Devri	7.23
116		NH-7 TO KHINNI	9.15
	Total	10.00	63.605
117	Katni	PWD Road (NH-78) to Salaiya	3.76
118		PWD Road (Rohaniya) to Sandhi	7.31
119		Patiraja to Basan	2.50
120		Khamtara to Mahegaon	20.05
121		Kodiya to Simara	2.88
122		Nirwar Bichhua Road (Shahpura) to Tedi	2.62
123		Bilhari Sleemnabad Rd to Sagoudi	6.50
124		Singhwara (Bhaisvahi) to Tikarya	4.13
125		Chaka Kaymora Rd to Bamhangaon	1.10
		Total	9.00

Attachment A to FAM

126	Mandsaur	Bhanpura - Gandhisagar MDR to Ralayata	2.5
127		Borda Dhunakheri Road to Dhaba	1.35
128		Garoth - Khadwada Road to Dhaba	9.3
129		Hatunia to Mundla	4.6
130		Pipliya-Manasa Road to Bandpipliya (Fatehpur)	2.3
131		Balaguda to Umariya	6.65
132		Mandsaur Bypass road (NH - 79) to Achera (Khajuri Badayala)	9.4
133		Bhawgarh Sitamou Road to Bhandariya	5.5
134		Chaumela road to Harnawada	10
	Total	9	51.6
135	Neemuch	Neemuch Singoli Road to Dabariakala	8.25
136		Dudlai Devran road to Sonadi	6.50
137		Manasa Rampura road to Pokharada	6.00
138		Rampura Bhanpura App. Road to Khimla Road	7.00
139		Piplyaghot (Rampura Bhanpura road) to Phophalya	4.95
140		Neemuch Manasa road to Jhalri (Revli Devli to Jhalri)	7.05
141		Thadoli to Chadoli	3.25
142		Neemuch Cheetakheda road to Chenpura Dam	6.90
	Total	8	49.90
143	Ratlam	Khajuridevda to Moriya	6.60
144		Kharwakala to Napakheda	3.40
145		Alote to Dhaturiya	8.00
146		Jaora Alote Rd to Banikhedi	7.10
147		Jaora Khachroad Road to Hanumantiya	8.15
148		Sukheda to Kalaliya	9.05
149		Barbodna to Tarkhedi	5.30
150		Indrawal Kala to Somarundi Kala	3.20
151		Ratlam Bajna Road to Kelda	2.33
152		Adwaniya Chandargarh to Tori	1.95
153		Ratlam Bajna Road to Badapurakhurd	4.60
		Total	11
154	Sagar	Surajpura (Jhagari) to Devpura	4.00
155		Pipariya Gopal (Pachara) to Khiriya Khawas	4.50
156		Darariya to Murga	1.90
157		MDR (Rampur Jamghat) PMGSY Road to Parraka	2.80
158		Udayapura to Mothar Naiak	1.30
	Total	5	14.50
159	Satna	(T01) NH-7 to Nainiya	3.90
160		Kothi Singhpur rd. to Chakar	13.50
161		(T06) Sundra Singhpur Road to Mora	13.70
162		New DeorajNagar to Kolidha No. 2	7.20

163		Satna-Amarpatan rd. to Itma Kothar	2.80	
164		Krishnagarh rd. to Kheriya Kothar	8.08	
165		Satna-Nagod rd. to Goura	2.30	
	Total	7.00	51.48	
166	Sehore	BABDIYA GUSAI TO GADIYA	7.80	
167		DHAMANDA TO CHHAPARI TALLUK	3.40	
168		ICHHWAR DHABLAMATA ROAD TO BICHHOLI	1.70	
169		ICHAWAR NADAN TO GURADI	1.20	
170		Ichhwar Nadan Road (Guradi) to Dhaikheda	2.70	
171		ICHHAWAR SEHORE ROAD TO KUDI	4.90	
172		DIWADIYA TO UMARKHAL	4.10	
173		PALKHEDI TO AMLA RAMJIPURA	1.90	
174			BHAHU KHEDI TO LASUDIYA RAM	0.80
175			ICHHAWAR KHERI TO NIPANIYA	0.80
176		NH-86 TO ATRALIYA	4.00	
177		KHAJLAS TO KUNDIYA NATHU	2.00	
178		ARNIYAGAON TO KALYANPURA	2.90	
179		NH-86 TO KUNDIADHAGA	2.20	
180		SIDHIKGANJ ROAD TO UDYAPUR	2.75	
181		NH-86 TO UMARPUR	3.60	
182		NH-86 TO GOPALPURA	1.90	
183		KAJLASS TO JIVAPUR MAHODIYA	4.00	
184		SIDHIGANJ ROAD TO UMARDHAR	3.90	
185		T 01 (CHARNAL GAWA) ROAD TO MAGARDI KALAN	2.75	
186		AHMADPUR TO AJMATNAGAR	2.35	
187		DORAHA AHMADPUR ROAD TO IMLIYA HASAN	2.70	
188		T-11 (BILKISHGANJ ROAD) To RAMAKHEDI	1.45	
189		L-088 (ABIDABAD) TO BHILKHEDA KHURD	1.60	
190		Sangrampur TO LASUDIYA DHAKAD	2.50	
191		T-11 (SEHORE-BILKISHGANJ RD) To KHEDLI	1.25	
192		GAVA TO PATER	1.20	
193		HINGONI (T 01) TO ACCHAROHI	1.25	
194		DHAMKHEDA TO KAHIRI JADEED	3.60	
195		RAVANKHEDA TO PANVIHAR	4.60	
196		AJMATNAGAR TO NAHIDI	3.30	
197		SEMALPANI KADEEM TO MAHAGAON KADEEM	0.65	
198		BHADAKUI TO LACHOR	4.10	
199		BRIJISNAGAR TO DABRI	13.20	
	Total	34	103.05	
200	Shajapur	Agar - Dug Road to Barah	8.1	
201		Agar Sharangpur Road to Dhadenda	6.95	

Attachment A to FAM

202		Ranarya Rathore to Tanodia	9.8
203		Jamner Road to Dobla Hussain Pur	7.926
204		A.B. Road Km 501.5 to Toriya	2.6
205		Kalapipal Amlay Road to Sherpura	2.75
206		Kalapipal-Sehore Road to Kankariya	3
207		Pipliyaset to Nalkheda	10.3
208		Indore - Kota (Km. 149/6) to Chapriya	4.8
	Total	9	56.226
209	Sidhi	Jogipur Bahera West Road	8.279
210		Kolhudih Padariya Kala Road	5.304
211		Padainiya Kala Chunaha Road	2.100
212		Sapani Duari to Katari Kandi	6.100
	Total	4	21.78
213	Tikamgarh	Tikamgarh Jatara Road to Raipura	7.50
214		Patha Budera Road to Nanhi Tehri Ugad	1.40
215		Tikamgarh Jhansi Road to Lakhron	3.45
216		Tikamgarh Jhansi Road to Kari Uttari	2.25
217		Jatara Khargapur Road to Simariya	4.25
218		Tikamgarh Jhansi Road to Ratanguwan	2.50
219		Tikamgarh Mohangarh Road to Majhagawan	3.20
220		Khajri Road to Gadari	3.45
221		Sijora Road to Balbantpura Khas	1.50
222		Tikamgarh Chhatarpur Road to Rampura Sewar	3.50
223		Bijor Road to Devrikalrau	3.80
224		Prithvipur Teharka Road to Pahadi Bakshi	5.60
225		Bhelsa Road to Rampura Naj. Kanora	7.85
	Total	13	50.25
226	Ujjain	Ujjain-Badnagar-Naharkhedi Road to Ghadsinga	4.35
227		Ujjain-Badnagar Road to Kiloli	6.00
228		Hidi (T-03) to Barkhedamadan	9.05
229		Khachrod-Nagda Road to Kilodiya	7.00
230		Arniya Najik Mahidpur Road to Barkheda Bujurg	4.20
231		Dhablahardu-kalapiplya Road to Bhatkhedi	6.00
232		Chirlimod (Bherumaharaj) to Suwas	2.50
233		Ujjain Maxi rupakhedi (Tarana Limbadit) Road to Berkheda	9.00
234		Ujjain-Kankariya Chirakhan Road to Daudkhedi	3.80
	Total	9.00	51.90
	Grand Total for MP	234 roads	1187.254

Assam

No.	District	Road Name	Length (in Kms)
1	Barpeta	Niz Chenga to Bampara	2.86
2		L32 to Balarbitha	1.93
3		B D Road to Budrutop	1.3
4		Bilpar to Kharadhara	1
5		Nagaon to Damrabua	2
6		Ganakuchi to Nasatra	1
7		Balapara Botia road to Moripur	1
8		Niz Barala to Debra	4.8
9		Niz Barala to Chagalchari	3
10		Balajan to Satrakanara	2.2
Total of Barpeta		10	21.09
11	Baska	Karemura to Nikashi Namati Masalpur	7
12		T01 to Chandannagar	2.45
13		Road from Dihira to Nikasshi	3
Total of Baska		3	12.45
14	Bongaigaon	Kharija Dolaigaon to Kharija Dolaigain I	0.75
15		Patiladoha to Khursamari	2.842
16		Nachankuti to Takuamari	1
17		East Bhadrangaon III to Digdari	2.5
Total of Bongaigaon		4	7.092
18	Cachar	(T1 toT1) LRA Road to SMD Road	2.7
19		Karbala grant to Natanpur grant	0.913
20		NH53 to Abhongcherra	2.25
21		Bagbahar III to Bagbahar V	2.5
22		Road from Dudpatil I to dudpatil VIII	1.5
Total of Cachar		5	9.863
23	Chirang	SH1 to Borogaon	2.8
24		105 to Birinchiguri	1.25
25		SH1 to Uttar Dakhwngaon	1.2
26		Amguri Farmanchali	3
27		22 to Kumguri	1.8
28		Bengtol Kha Pt-1 Durgapur	2.3
29		22 to Sherfanguri Pt-1 & 11	3
30		SH1 to Madhyam Dakhingaon	5
Total of Chirang		8	20.35
31	Darrang	Jhargaon to Janaramchokwa Road	5
32		Bhalukhowapara to NH-52	4.5
33		Choto Athiabari to NH-52	3

Attachment A to FAM

34		Bhakatpara Pandaghat Road (Mohtoli to Duni)	2
35		Naptipara to Jaberikuchi Road	2
36		Samalakhat to Lengrijhar	2
Total of Darrang		6	18.5
37	Dibrugarh	Phukanbari TE to Matiekhana	6.1
38		Malipothar To Joypur Town	2.5
39		63 to Chengelijan Habi no1	2.68
40		Gerekoni to Rangbanani	2.5
41		Balimora TE To Kamargaon Road	4
42		LBT road to Niz Maderkhat	1.855
Total of Dibrugarh		6	19.635
43	Dima Hasao	M.L.Road to Tuolpoi	0.72
Total of Dima Hasao		1	0.72
44	Dhemaji	Gogamukh Ghilamara road at 2nd km to subansiri dyke cum road	0.9
45		Uriamguri to Sissimukh via Nagakhalia	4.075
46		Baligaon to Tingiri	2.5
Total of Dhemaji		3	7.475
47	Dhubri	NH way 31 at Rangamati to Choutara road	1.5
48		Nizchirakhowa to Chamrasali road	1.7
49		6th km of B S road to Choruarvita road	3.5
50		NH way 31 to Pasuarkhal Pt II road	1.5
51		3rd km of B S road at Jogirmahal to Salmara	1.5
52		Supariguri to Gaurangtari Pt II road	0.7
53		NH way 31 at Khoraghat to Khamar	1.2
54		8th km of Fakiragram Sapatgram road to Sesapani road	1
55		Arearjhar Pt I to Sagolkuti road	1.25
56		Dhanpur to Barkuti via Suripara road	1.6
Total of Dhubri		10	15.45
57	Goalpara	Thorko to Hurkachungi (Hurkachungi Thorko)	2.75
58		Kurswakati to Salmara	3
59		Bheltarghat Khamari	2.5
60		Dolgoma to Gossaibari	1.5
61		Harimura (Krishnai) to Tengabari	2
62		NH-37 to Bagaribari	2.5
63		Bapupara to Rakhapara	4
64		Pakalagiti to Garoputary	2
Total of Goalpara		8	20.25
65	Golaghat	T2 to Bosagaon	2.655
66		G28 to Adarsha No.1	2.705
67		T1 to Titabor Tangia	2.323
68		T6 to Samukjan	2.097
69		T6 to Beloguri	1.5
70		T02 to Borpak	2
71		T6 to Jigalati	2.5

Total of Golaghat		7	15.78
72	Jorhat	T01 to Buruk Baruah	1.75
73		T04 to Deoghoria Grant	1.163
74		T04 to Sodial Kachari	3
75		T04 to Tairakuri Gaon	2.088
76		T06 to Namchungi Road	1.145
77		T06 to Alengi	2.87
Total of Jorhat		6	12.016
78	Kamrup	T02 to Rowmari	1.48
79		T02 to Niz Bongsor	1.941
80		30 to Lankhar	10.503
81		Ukium no. 1 to Ukium no.2	2.997
Total of Kamrup		4	16.921
82	Karbi Anglong	85th Km of SH 35 to Kheroni Majbasti	3.1
83		NH 36 at Langtibuk to Dillai gate Sarumanthi via Diliram Basti	3.75
Total of Karbi Anglong		2	6.85
84	Karimganj	Road from Baniargool to Mugrapur (T04 to Kuchirgool)	1.979
85		Road from Nayagram to Madanpur (T02 to Madanpur TE)	1
86		Road from Purahuria to Manikkuna (NH 151 to Hamidpur)	1
87		Road from Gandhai To Lamabahadurpur (T02 to Lamabahadurpur)	3
88		A Road from PK Road to connect KA Road via Duhalia (T04 to Narayanpur)	2.2
89		A Road from LC Road to Barapunji (T01 to Barapunji)	2
90		A Road from Montholi to Jeutoli (T02 to Jewtali	1
91		A Road from Dasgram to Maizgram (T03 to Rahatpur)	1.8
Total of Karimganj		8	13.979
92	Kokrajhar	242 to Bhowraguri Satbil II	2.8
93		T03 to Boro Binnyakata II	3
94		138 to Chedamari	4.5
95		50 to Rimijhimi I	2.22
96		T05 to Jaraguri FV	4.5
Total of Kokrajhar		5	17.02
97	Lakhimpur	Batamari to Dhenukhana Pathar (Dhenukhana Pather road)	1.5
98		78 81 Merbil Gt to Parbatti pur No 2	3.6
99		Joypur Pichala to Durpang	7.7
100		Salikipara Chumadubi road	3.32
Total of Lakhimpur		4	16.12
101	Morigaon	01M28 to Damal	2
102		Sidhabori Gaon to Natuagaon	2.814
103		Borigaon to Parashutangoni	1.517

Attachment A to FAM

104		03M-14 to Bualguri Kachari Gaon	1.512
105		03M-1 to Banmaribeel	1.328
106		Barangamari Dhekiphala road (Bhangamur to Udori)	2.7
Total of Morigaon		6	11.871
107	Nagaon	Nonoi Dakhinpat Road to Tulshimukh Gaon	1.659
108		Barkula Singara to Barkula Adarsgaon	1
109		Ranthali Jalahgaon road to Rangthali Rajabhethi road	0.6
110		Dhing Road At Tokobari To Uttar Tokoubari	1.5
Total of Nagaon		4	4.759
111	Nalbari	Barnibari Bortola Road at Dirua to Paikan Dirua near Gopalthan HE School	1.2
112		Hajo Daulasal Road to Daulasal IB	1
113		Kharsitha to Madhupur (Bihampur Khaliha)	2
114		Niz Banekuchi to Bausiapara	2
115		Jwardi to Gamariguri	0.5
116		Bekattari Rampur Road	3.5
117		Darangipara Dagapara	1.44
118		09N59 to Bhuyarkuchi (BBNG Road)	2.7
119		NH31 to Nankar Bhaira	1.7
Total of Nalbari		9	16.04
120	Sivasagar	Haripara Ali to Latum	0.8
121		Kakotibari Japidhara	1.1
122		Jhalong to Sukanpukhuri	0.9
123		Naga Ali to Dulia Puranimelia	1
124		Lahdoigarh to K K Baruah Ali	2.5
Total of Sivasagar		5	6.3
125	Sonitpur	Lawdoloni Disiri Road	3.9
126		Bogapani Village Road L34	1.5
127		Tezpur Jamuguri road to Uriumguri road	1
128		Renganijhar to Niz Goroimari NH 52	1
129		Kharasimolu Sadharu Road	2.025
130		Bapujar Gereki Road	2.99
131		kalakuchi to Ulubari 2 L23	1
132		Surjyapur No 2 to NH52 L31	1.11
133		Doomdumagaon to Rabartala L34	4.3
134		NH52 to Bordoop	2.77
135		NH 52toKhutikatia	0.75
Total of Sonitpur		11	22.345
136	Tinsukia	NH-37 To Betjan Gaon	1.5
137		NH-37 To Dariabosti Road	4
138		Raidang goan to Biani Gaon	2
139		Tengamora Celenguri Road	3
Total of Tinsukia		4	10.5
140	Udalguri	Bagchalachuburi to Nalkhamara Rd.	5

141		Daigola to RU Road	2
142		NH52 Road to Palasbasti	2
143		Buduragaon to Mahaliapara	2.5
144		Kadamguri to Dakhin-Kuyabill	2
145		U.T.Road to Khagrabari Road	3
146		Nawbandhahabi to Nawbandhagaon Road	2.975
Total of Udalguri		7	19.475
GRAND TOTAL		146	342.851

B. Rural Road Network Management Units (RRNMUs) and Rural Connectivity Training and Research Centers (RCTRCs)

Sl.No.	State	RRNMU/RCTRC	District	Plinth Area (m ²)
1	Chattisgarh	RRNMU	Raipur	1200
		RCTRC	Raipur (SIPRD Nimora)	2150
2	Assam	RRNMU	Darrang	1300
		RCTRC	Kamrup (RRL at Guwahati)	1730 New Construction 1120 Existing Building
3	Odisha	RRNMU	Dhenkanal	1400
		RCTRC	Bhubaneshwar	2326
4	Madhya Pradesh	RRNMU	Jabalpur	1400
		RCTRC	Bhopal (WALMI)	2125
5	West Bengal	RRNMU	North 24 Parganas (Barasat)	1400
		RCTRC	Nadia (Kalyani)	2125

**OUTLINE TERMS OF REFERENCE
Project Implementation Consultant**

I. SCOPE OF WORK

A. Road Maintenance

(i) Road maintenance inspections

- a) Conduct maintenance inspections on a sample of post-construction roads under Rural Roads Sector I Investment Program (RRSI-IP), Rural Roads Sector II Investment Program (RRSII-IP), Rural Connectivity Investment Program (RCIP), and other Pradhan Mantri Gram Sadak Yojana (PMGSY) roads (at least two from each district with at least one road under the initial 5-year maintenance contract and at least one road post 5 year maintenance and minimum 60 roads per year) and prepare (i) Maintenance Inspection Reports for each road inspected; and (ii) Annual Maintenance Audit Reports for the inspected roads in the state.

(ii) Road maintenance planning

- a) Assist pilot Rural Road Network Management project implementing units (PIUs)¹ to prepare comprehensive inventory of all PMGSY roads on yearly basis in the district.
- b) Assist pilot Rural Road Network Management PIUs in preparing Annual Road Maintenance Management Plans for PMGSY roads, which will include both roads under initial post-construction five year maintenance contracts and roads under post five-year maintenance.

(iii) Road maintenance training

- a) Providing training and support to PIU's for conducting inspections on road maintenance, and use of local labor for maintenance works.
- b) Conduct annual road maintenance workshop for State Government reporting the progress and result achieved, issues encountered and proposed countermeasures.

B. Road Safety

(i) At the DPR preparation stage

- a) Conduct road safety audits (RSAs) including mandatory field visits (jointly with PIUs) on 30 detailed project reports (DPRs) for roads with at least one road from each district in each batch, and prepare concise RSA reports listing road safety issues and proposed measures to mitigate/eliminate road safety issues.

¹ One in each state in the second year of RRS-III and 10 – in the fourth year.

- b) Conduct follow up desk review of final DPRs to check how the issues identified by 30 RSAs in Task a) are addressed and report to PIUs.
- c) Based on the RSAs under the batch, prepare the summary of RSA issues and suggestions for the batch and submit to PIU/State Rural Roads Development Agency (SRRDA) for review and action on remaining, not audited DPR's as appropriate, as this will address issues identified on road safety audited roads but perceived to be common on other roads under the batch.

(ii) During construction

- a) Conduct road safety inspections (RSIs) jointly with PIUs on randomly selected roads (at least 10 roads in each RCIP batch) under construction and prepare concise RSI reports listing road safety issues and proposed measures to mitigate/eliminate road safety issues, especially for vulnerable road users.
- b) Timely report to PIUs on road safety issues identified during construction and follow up on road safety issues/lapses as appropriate.
- c) As per direction of the SRRDA, conduct independent analysis of severe road accidents occurred on the RCIP roads under construction, if any, and recommend specific road safety countermeasures for review and endorsement by PIU/SRRDA.

(iii) At the post-construction stage

- a) Conduct RSIs on randomly selected roads (at least 10 roads in each RRSIIIP batch) within three month after completion of civil works, and prepare concise RSI reports listing road safety issues and proposed measures to mitigate/eliminate road safety issues.
- b) Conduct RSIs on randomly selected roads completed under RRSI-IP, RRSII-IP and RCIP (at least 30 roads a year, in addition to immediate post-construction RSIs described under a) above and prepare concise RSI reports listing road safety issues and proposed measures to mitigate/eliminate road safety issues.
- c) Prepare Quarterly Road Safety Monitoring reports for the roads inspected in concise matrix format, including status of the roads where RSI is conducted, issues observed, and measures proposed for implementation.
- d) As per direction of the SRRDA, conduct independent analysis of severe road accidents occurred on the RRS-I, RRS-II, and RCIP roads over the period of RRSIIIP implementation, if any, and recommend specific road safety countermeasures for review and endorsement by PIU/SRRDA.

(iv) Road Safety Training

- a) Conduct on-the-job training of PIUs on conducting RSA and RSI during the joint road safety audits and inspections conducted together with PIU staff.
- b) Provide dedicated training to PIUs on conducting RSA and RSI and implementing engineering road safety counter measures.

C. Social, gender and Resettlement Safeguard Implementation

- (i) Assist PIU in organizing the transect walk for documenting the social features and profile along the alignment for each sub project proposal prepare the record of community participation through the field visits to the project affected communities to assess rather CPF requirements have generally met. Ensure the involvement of the affected people and community groups in assessing the same.
- (ii) Following the provision of community participation framework (CPF), identify the project affected persons based on participated techniques like participatory rapid appraisals (PRA) fully involving all the measures stakeholders through community meetings, random selected interviews of the affected persons with set off questionnaires, secondary and other available data.
- (iii) Prepare methodology and approach for affectively selecting sample sub projects for monitoring and evaluation on the basis of social economic profile of project-affected communities and the extent of the project impact on these communities.
- (iv) Identification of all the land and structures getting affected along the proposed alignment, prepare the detailed inventory of the same by means of resettlement, census survey, covering 100% affected household along the alignments.
- (v) Based on the survey prepare support/assistance provisions for the project affected persons with particular attention to the vulnerable groups.
- (vi) Assist PIU in implementing the Gender Action Plan and monitoring implementation progress of the Plan.
- (vii) Assist PIU and Panchayats and disseminating information on the land, transfer support/ assistance provisions and grievances procedure as prescribed in the CPF.
- (viii) Assist the PIU to prepare a written agreement with h the State Aids Control Society in aligning its HIV/AIDS prevention awareness along with the vulnerable areas along the Project roads.
- (ix) Assist PIU in preparing monthly reports in compliance with the CPF during the project implementation.
- (x) Prepare due diligence report of all the project trenches.

PIC will conduct the following activities as per the new safeguard policies (June 2009):

D. Environmental Safeguards

- i) Assist PIU in checking compliance of the sub project proposal with EAF provisions during preparation and adherence to identified relevant provisions of the ECOP during construction.

ii) Providing on-the-job training and support to PIU's in implementing environmental safeguards. Through a phase-approach in building capacity of PIUs, demonstrate at least 12 months before contract termination that all PIUs are capable of preparing ECOP and conduct ongoing and post-construction monitoring independently, and recommending corrective action on detected non-compliances.

iii) Prepare needed internal guide documents for PIUs in ECOP preparation and environmental monitoring. This include, but not limited to, national and state environmental regulatory briefs (e.g. applicable emissions and effluent guidelines/standards), designing effective requirements, and environmental best practices in road construction (occupational health and safety; storm water, waste, noise, air emission, wastewater management; and community health and safety), and types of environmental monitoring (inspection, self-monitoring, and citizen monitoring).

iv) Assist the PIU in organizing the transect walk for recording the environmental features/profile within the right of way (ROW) of each subproject proposal.

v) Determine the requirement of regulatory clearances (environment/forest/archeological) to be sought from Government of India or State Government, and provide advisory services to PIU on environmental aspect including implementation and monitoring of the identified provisions of the ECOP by the contractor.

vi) Conduct Environmental baseline survey, prepare environmental checklist for inclusion in the contract document and also ensure that contract document includes the environmental responsibilities to implement mitigation measures and during the construction stage of the sub project in accordance with PMGSY guidelines.

vii) PIC will monitor the impacts of the construction work on the environmental and local settlement ensuring that contractor implement the environmental mitigations measures recommended in the environmental checklist and environmental management plan. Prepare a monthly progress report as per the environmental assessment and review framework during the pre-construction and post-construction stage.

II. STAFFING

The Consulting Services will be implemented over the whole period of the Investment Program (2012-2017). The person-month inputs required are summarized below.

Name of Positions	Indicative person-months					
	Assam	CG	MP	Orissa	WB	Total
Road Safety Engineer (1 No)						
Road Maintenance Engineer (1 No)						
Social,gender and Resettlement Safeguard Expert (...Nos)						
Environmental Safeguards Expert (...Nos)						

OUTLINE TERMS OF REFERENCE

Technical Support Consultant

A. Introduction

1. The Technical Support Consultant (TSC) will be engaged at the center by the National Rural Roads Development Agency (NRRDA) to assist the state IAs in implementing road safety measures, conduct maintenance of PMGSY roads, check and monitor compliance of the subprojects under ADB financing with the agreed safeguard requirements throughout the project cycle, and conduct impact monitoring of the Program. The TSC will be a team of national consultants. The TSC will be engaged to cover the following scope of activities:

- a) Monitoring at the implementation stage of last batches of subprojects of Rural Road Sector II Investment Program in Assam, Chhattisgarh, Madhya Pradesh, Orissa and West Bengal
- b) Preparation stage of batch I, batch II, and batch III in Assam, Orissa, West Bengal, Madhya Pradesh, and Chhattisgarh under RRS-III
- c) Implementation stage of batch I, batch II and batch III in Assam, Orissa, West Bengal, Madhya Pradesh, and Chhattisgarh under RRSIII-III
- d) Impact monitoring study of the project under RRS-II and RRS-III
- e) Assistance to PPTA for preparation of RRS-III

2. The TSC team will consist of multiple units, each having 4 experts covering (a) road safety, (b) social safeguards and socioeconomic impact monitoring, (c) environmental safeguards, and (d) road maintenance, all based in the capital of each state.

B. Primary Objectives

3. The primary objectives of the services to be provided by the TSC are:

(i) Road Safety

- Conduct systematic road safety auditing of 10% of DPRs including preparation of formal road safety audit and safety check reports
- Conduct systematic road safety inspections on a randomly selected sample of roads under maintenance, and document issues and countermeasures
- Prepare half-yearly Summary Road Safety Monitoring reports.
- Provide training and support to PIUs and PICs
- Assist SRRDAs and PIUs with road safety complaints and accident investigations
- Assess the effectiveness of RSA procedures and recommend improvements as needed

(ii) Social Safeguards

- Check compliance of subprojects with CPF provisions during subproject preparation and implementation
- Prepare due diligence reports on a randomly selected sample of roads for all Project tranches

Monitor and evaluate implementation of the community participation process prescribed in CPF and recommend improvements to the participatory process to ensure broader participation of rural population in subproject formulation.

(iii) Environmental Safeguards

- Assist in checking compliance of subproject proposals with EAF provisions during preparation and adherence to identified relevant provisions of the ECOP during construction
- Prepare due diligence reports on a randomly selected sample of roads for all Project tranches

(iv) Road Maintenance

- Conduct systematic checking of road maintenance management plans and conduct maintenance inspections
- Prepare half-yearly Road Condition and Maintenance Audit Reports
- Provide training and support to PICs, PIUs or Zilla Panchayats as the case may be
- Review the effectiveness of existing maintenance procedures and recommend improvements as needed
- Provide advise to NRRDA for the maintenance module of the Online Maintenance and Monitoring System (OMMS)

(v) Socioeconomic Impact Monitoring

- Conduct socioeconomic impact monitoring of selected subproject roads under the Program following the methodology developed for monitoring of socioeconomic impacts
- Monitor implementation of the Gender Action Plan.

C. THE CONSULTANT

4. The services will be provided by a national consulting firm, to be appointed by the NRRDA in accordance with agreed procedures acceptable to ADB. The consultant will provide the staffing as indicated in Para 11, though in preparing their proposals the consultants may propose alternative arrangements that, in their opinion, will provide services of an equivalent quality. The final staffing will be adjusted to suit the actual procurement and implementation schedules.

D. Scope of Work

Activity 1: Road Safety

5. The consultant will:

- (i) Conduct systematic road safety auditing of DPRs (at least one from each district and minimum of 10% of total DPRs in each state) including field visits to the proposed roads, make random checks of roads under construction and within 3 months after construction to ensure that road safety measures proposed by road safety audits (RSAs) are properly incorporated and working effectively. This will include preparation of formal road safety audit and safety check reports for each DPR/road inspected with the list of identified issues and countermeasures to be submitted to the concerned SRRDAs for action;

- (ii) Conduct systematic road safety inspections on randomly selected sample (at least one from each district and minimum of 30 roads per state per year) of roads under maintenance, and document issues and countermeasures for each road inspected for submission to the concerned SRRDAs for action. Sample for maintenance inspection would be selected from those districts where running batch of RRSIII-P is being implemented;
- (iii) Prepare half-yearly Summary Road Safety Monitoring reports summarizing in the concise matrix format status of conducted road safety audits, inspections and follow-up checks, issues found, measures proposed, implementation status and other important findings;
- (iv) Provide training and support to PIU's and PICs in road safety auditing and implementing engineering road safety countermeasures;
- (v) Regularly assess the effectiveness of existing RSA procedures and implemented RSA recommendations on the ground and recommend changes and actions as needed;
- (vi) Coordinate with the state governments to ensure that road safety mechanisms and programs, in particular through membership of the State Road Safety Council and District Road Safety Committees created as per provisions of Section 215 of the Motor Vehicles Act, 1988 are followed under the Program; and
- (vii) Conduct annual road safety workshops for the state governments reporting on the progress and results achieved, issues encountered, lessons learned and work plan for the next year.

Activity 2: Social Safeguards

6. The consultant will:

- (i) Assist the state IAs in reviewing and scrutinizing the records of community participation generated by PICs and verifying the records through field visit to the project affected communities (at least one from each District and minimum 10% of total DPRs in each state) to assess whether CPF requirements have been generally met. Ensure involvement of the affected people and community groups in assessing the same;
- (ii) Prepare methodology and approach for effectively selecting sample subprojects for monitoring and evaluation on the basis of socioeconomic profile of the project affected communities and the extent of expected project impacts in those communities;
- (iii) Review and verify on a sample basis the progress of community consultation for subproject preparation through review of documentary evidence as required by the CPF and visit to the project affected community;
- (iv) Verify on a sample basis the monitoring indicators collected by the PIUs/SRRDA on the performance of community participation, through visit to the project-affected community and through participatory consultation with the project-affected people, focusing on verifying the extent of participation by the vulnerable segment of the community population;
- (v) Based on the review and verification, evaluate the effectiveness of the community consultation process, and recommend improvements to the CPF procedures, particularly with respect to reporting and monitoring requirements;
- (vi) Prepare due diligence report based on items (i)-(v) for all Project tranches;
- (vii) Provide training and support to PIUs in implementing social safeguards;

- (viii) Provide training and support to PICs in performance of their tasks on social safeguards as needed; and
- (ix) Provide support to PPTA Team preparing RRS-III on implementation of social safeguards on the 500 km sample roads.

Activity 3: Environmental Safeguards

7. The consultant will:

- (i) Assist in checking compliance of subproject proposals with EAF provisions during preparation and adherence to identified relevant provisions of the ECOP during construction;
- (ii) Providing advisory services to PIUs in environmental aspects including seeking the regulatory clearances, application of the ECOP, implementation and monitoring of the identified provisions of the ECOP by the Contractor including by means of workshops;
- (iii) Scrutinizing, on a sample (at least one from each District and minimum 10% of total DPRs in each state) basis the environmental checklists generated by PICs, review of applications seeking the regulatory clearances prepared by PICs;
- (iv) Prepare due diligence report based on items (i)-(iii) for all Project tranches;
- (v) Conducting periodic site inspection for determining the efficacy and application level of the ECOP and suggest any modifications required thereof;
- (vi) Provide training and support to PIUs in implementing environmental safeguards;
- (vii) Provide training and support to PICs in performance of their tasks on environmental safeguards as needed; and
- (viii) Provide support to PPTA Team preparing RRS-III on implementation of environmental safeguards on the 500 km sample roads.

Activity 4: Road Maintenance

8. The consultant will:

- (i) Conduct systematic checking of road maintenance management plans and conduct maintenance inspections on a sample (at least one from each district and minimum of 30 roads per state per year) of post-construction roads under RRS-I, RRS-II, and RRS-III annually to ensure that road maintenance measures are properly and systematically implemented Sample for maintenance inspection would be selected from those districts where running batch of RRSIII-P is being implemented;
- (ii) Prepare half-yearly Road Condition and Maintenance Audit Reports for the inspected sample of roads in each state with reference to maintenance activities mentioned in Standard Bidding Document of PMGSY;
- (iii) Provide training and support to PIUs in administration of maintenance contracts, including maintenance inspections;
- (iv) Provide training and support to PIC, PIU or Zila Panchayats as the case may be;
- (v) Review the effectiveness of existing maintenance procedures and practices and provide advisory support to SRRDAs and NRRDAs including amending of existing bidding documents, manuals, and other maintenance guidelines and procedures;

- (vi) Provide advise to NRRDA regarding the addition, improvement and use of the maintenance module of the Online Maintenance and Monitoring System (OMMS); and
- (vii) Conduct annual road maintenance workshops for the state governments reporting on the progress and results achieved, issues encountered, lessons learned and work plan for the next year.

Activity 5: Impact Monitoring

9. The consultant will undertake monitoring in accordance with the Annex to TOR: Monitoring of Socioeconomic Impacts attached to this TOR and will:

- (i) Prepare study methodology, approach and implementation plan, including preparation of survey instruments and approach to project and control sample selection for purposes of statistical validity of results and availability of data on indicators selected; select project and control sample roads and principal villages; and conduct workshops in the three states on approach and methodology for purposes of consultation and capacity building of state socioeconomic research capacity. The study methodology will generally follow the one being followed under RRS1P, details of which is in the appendix to this TOR;
- (ii) Prepare initial inventory of road lengths, population served, inventory of existing facilities and services (education, health, shops, other services) and village general socioeconomic data, disaggregated by sex. It is expected that much of this information will be available with the PICs and PIUs, and there will be a need for an initial reconnaissance survey;
- (iii) After carrying out initial field level piloting, validation and refinement of the survey instruments at field level, conduct baseline survey of project roads and principal villages before improvement and of control roads and their principal villages, including establishing arrangements for annual focus groups in each village, selection of persons on institutions in villages to administer self-monitoring, and selection of households and arrangements for tracer studies. It is expected this will be conducted in mid 2011;
- (iv) Conduct half-yearly selected project roads and principal villages after improvement and of control roads and their principal villages. It is expected these will be conducted in 2011, 2012, & 2013; and
- (v) Using appropriate quantitative and qualitative techniques, prepare an analysis of the results of the baseline and half-yearly surveys to identify the socioeconomic impacts of the project roads especially on women and vulnerable groups, the mechanisms and process through which impacts took place, and the factors that enabled or inhibited impacts. This analysis should consider both the impacts of the total sample of road improvements and the impacts in each state.
- (vi) Prepare case studies showcasing the positive impacts on the socio economic conditions of women in the project influence area.

E. Schedule and Resources

10. All the activities will be executed from April 2011 to March 2013 with services being intermittent. Total length of the road covered under RRS-II and RRS-III will be 15,000 km approximately, for which the consultancy services will be provided. Agreement will be operative for the different loans sanctioned under RRS-II and RRS-III. 1,800 km length of the road will be

covered in batch II in Assam and West Bengal under Loan no. 2445-IND. 3,110 km will be covered in Assam, Orissa, and West Bengal in batch III under Loan no. 2535. Another 3,000 km of road length is being covered under new loan in Madhya Pradesh, Orissa, Assam, Chhattisgarh, and West Bengal under RRS-II. The project RCIP will cover 9,000 km of road in two batches in Madhya Pradesh, Chhattisgarh, Assam, Orissa, and West Bengal. The award of civil works in each batch will be after the pre-construction sample review and scrutiny in respect of road safety, social safeguards, environmental safeguards are completed by TSC.

F. Estimated Person month and desirable Qualifications

11. An estimated total of 200 person-months of consulting services are envisaged. In addition, about 200 person-months of survey enumerators will be required.

Experts ^a	Person-months	Tasks assigned
Road Safety Specialists (5 nos.)	45 (9 months each)	Activity 1
Team Leader cum Social Development/Monitoring Specialists (1 nos.)	12 (12 months each)	Activity 2,5
Social Development /Monitoring Specialist (4 nos.)	48 (12 months each)	Activity 2, 5
Environment Specialists (5 nos.)	50 (10 months each)	Activity 3
Road Maintenance Specialist (5 nos)	45 (9 months each)	Activity 4
Total	200	

^a National Consultants to be based with IAs in each respective State capital.

12. The team leader will be one of the five social development specialists who will have the longest assignment period under the staffing schedule. The prescribed desirable qualifications of each of the above experts are listed below.

(i) The **Road Safety Specialist** should be a senior level road engineer with a minimum of bachelor degree in civil engineering or equivalent, having experience of at least 15 years in the design of roads including rural roads, out of which he should have at least 5 years of experience in road safety engineering including conducting road safety audits and inspections on different types of roads, identification and treatment of blackspots, development and implementation of road safety programs, road safety monitoring and evaluation. Must have demonstrated knowledge of engineering road safety measures proved effective in India, especially targeting vulnerable road users in the mixed speed/traffic environments and on rural roads. Must have knowledge of proper placement and use of signs, pavement markings, and roadside hardware. Must have all-round knowledge of all other aspects of road safety, e.g., road safety education, safe way to school programs, and involvement of NGOs. Experience in externally funded infrastructure projects would be desirable.

(ii) The **Social and gender Development/Monitoring Specialist** should have a master's degree in social science or equivalent, and have at least 7 years of experience in preparing, implementing and monitoring social development schemes associated with infrastructure projects. He or she should have knowledge of statistical sampling. He or she should be fully familiar with land-related legal provisions and central/state government-sponsored rural development schemes. Experience in externally funded infrastructure projects would be desirable.

(iii) The **Environment Specialist** should have a master's degree in environmental science or equivalent, and have at least 7 years of post-graduate experience in preparing, implementing and monitoring environment management schemes associated with infrastructure projects. He or she should be fully familiar with legal provisions for environmental management. Experience in externally funded infrastructure projects would be desirable.

(iv) The **Road Maintenance Specialist** should be a senior level road maintenance engineer with a minimum of bachelor degree in civil engineering or equivalent, preferably with a specialized training in road maintenance, having experience of at least 15 years, out of which he should have managed road maintenance projects for at least 5 years. Must have knowledge of best practices, challenges and lessons learned in maintenance of rural roads in India. Must have experience with drafting, implementation and monitoring of maintenance and labor-based road contracts in India. Experience with training in maintenance and institutional strengthening of road agencies in conjunction with asset management functions will be an advantage.

13. The Consultant's nominated staff may be required to attend interview by the Client as part of the technical evaluation of proposals.

G. Reports

14. The consultant will submit within 15 days from end of month/quarter/half year, the following reports (both in hard and soft copies and with the executive summaries as needed).

Report	Due Date	MORD/ NRRDA	SRRDAs	ADB
Inception Report	Month 1	2# Hard copy, 1 Softcopy	1 Hard copy & 1 soft copy for concern state	2 (Hard Copy)
Progress Reports including Appendices of individual DPR scrutinizing results	Quarterly	1 softcopy	1 Hard copy & 1 soft copy for concern state	2 (Hard Copy)
Due Diligence Reports on social and environmental safeguards	2 months prior to submission of PFR	2 Hard copy, 1 Softcopy	1 Hard copy & 1 soft copy for concern state	2 (Hard Copy)
Road Safety Monitoring Report including Appendices of individual DPR audits and road inspections	Half-yearly and Yearly	1 Hard copy and 1 soft copy	1 Hard copy & 1 soft copy for concern state	-
Road Condition and Maintenance Audit Report including Appendices of individual road inspection reports	Yearly	1 Softcopy	1 Hard copy & 1 soft copy for concern state	2 (Hard Copy)
Socio-economic Impact Monitoring Report	Yearly	1 Hard copy, 1 Softcopy	1 Hard copy & 1 soft copy for concern state	2 (Hard Copy)
Project Completion Report *	Month 36	2# Hard copy, 1 Softcopy	1 Hard copy & 1 soft copy for concern state	2 (Hard Copy)

one each for MORD and NRRDA

* The Project Completion Report shall contain the basic data, loan data, effectiveness in achieving outcomes (farm output, education, health, transport, land values and road safety), environmental and social impacts, compliance of the loan covenant, other impacts and overall assessment and recommendations. It shall contain Appendices with all the survey data collected under the baseline survey and each of the half-yearly and annual surveys.

H. Facilities and Services to be provided by the Employer

15. Accommodation for an office in each of the capital cities of Assam, Orissa, West Bengal, Madhya Pradesh, and Chhattisgarh will be provided by the respective state SRRDAs. The consultant will have to make its own arrangements for transportation and residential accommodation in capital cities as well as in the field, costs for which should be included in the financial proposals of the consultant. The consultant also has to make its own arrangements for office purposes in the field, if required, for which no extra payment would be made.

16. The consultant will be given access to all data available with the NRRDA and the state SRRDAs that is required to perform the tasks including district road plans, CNCPL and CUPL, project proposals, DPRs, progress reports produced by PICs.

17. SRRDAs of Assam, Orissa, West Bengal, Madhya Pradesh, and Chhattisgarh will ensure participation of the respective staff in joint field visits with the TSC as required for the enhancement of the TSC input and on-the-job training. This will include joint road safety audits, maintenance inspections, etc.

OUTLINE TERMS OF REFERENCE FOR FIRM OF CONSULTANTS (DRAFT)

SUPPORT TO THE ROLLOUT OF THE RURAL CONNECTIVITY TRAINING AND RESEARCH CENTERS

A. BACKGROUND

1. The consulting services are to support the establishment of 5 Rural Connectivity Training and Research Centers (RCTRCs) in Assam, Chhattisgarh, Madhya Pradesh, Orissa, and West Bengal and rollout a large scale training of PMGSY engineers, technicians, site supervisors, concerned staff of Panchayati Raj Institutions (PRI),¹ design consultants and contractors. The consulting services will be financed under the Rural Connectivity Investment Program (RCIP or Investment Program, currently under processing). The present terms of reference (TOR) is for the firm of consultants (hereinafter referred to as Consultant).

2. The Investment Program will construct or upgrade to the all-weather standard about 9,000 km of rural roads connecting around 4,200 habitations in the states of Assam, Chhattisgarh, Madhya Pradesh, Orissa, and West Bengal (RCIP States). RCIP is the continuation of RRS-I (2003-2008) and RRS-II (2005, ongoing) provided to support a nationwide rural road investment program, Pradhan Mantri Gram Sadak Yojana² (PMGSY). PMGSY is aiming to provide all-weather road connectivity to currently unconnected eligible habitations in India's rural areas. For the investments in physical infrastructure to be effective and sustainable, the Investment Program will also focus on improvement of institutional arrangements, business processes and associated capacity building, especially in relation to design, operation, safeguard, financial, road safety, and road asset management matters.

3. In order to improve and keep up a high standard skills of engineers, technicians, site supervisors, concerned staff of PRI, design consultants, and contractors involved in the development and maintenance of the rural road network, there is a need for a systematic, sustainable, and high quality training reflecting specifics of the rural roads and building up on the extensive experiences and lessons learned accumulated over 10 years of implementation of PMGSY across India. Rural road network in India (around 2,700,000 km) makes up 80% of the total road network in the country, however, qualifications and training of civil engineers remain oriented at high category roads. Previous experience with the massive training of PMGSY engineers supported under World Bank financed rural road project³ was successful, however, it was a one-off exercise and due to the turnover of staff the acquired skills are already being diluted. Also, while NRRDA has already developed certain capabilities in conducting specialized practice-oriented research on PMGSY, these activities are not systematic and need support in staffing, business procedures, and facilities to become sustainable.

4. The Investment Program will construct and equip 5 RCTRCs in each RCIP state as state-of-the-art facilities,⁴ and finance consulting services (the Consultant) to assist RCTRCs in rolling out systematic and large scale training in RCIP states (this assignment).

¹ A panchayat is a body of directly elected people responsible for development of activities in an area. The three levels of panchayat comprise gram panchayat at village level, intermediate panchayat at block level, and zilla panchayat/parishad at district level. These panchayats collectively called "panchayati raj institutions."

² Prime Minister's Rural Roads Program.

³ The World Bank's loan for \$400 million to finance part of PMGSY in Himachal Pradesh, Jharkhand, Rajasthan, and Uttar Pradesh.

⁴ This will include both construction of new buildings (classrooms, laboratories, housing blocks, etc.) and provision of state-of-the-art equipment.

5. CDTA was provided earlier to support the preparatory work for the establishment of RCTRCs, which (i) formulated the concept, organizational structure, business procedures, and staffing requirements of RCTRCs; (ii) formulated funding mechanisms for the RCTRCs operations; (iii) provided advisory support in design and procurement process for RCTRCs facilities; (iv) provided training to RCTRC staff; and (v) developed operational plan for the roll-out of RCTRCs. This assignment will build on the previous work done by the CDTA and will be provided to actually roll out RCTRCs and deliver a large scale training and research programs in RCIP states.

B. OUTCOME AND OBJECTIVES

6. The outcome of the assignment will be a large scale training program in RCIP states, targeted research program, and RCTRCs capable of continuing such training and research independently. The scope will include tasks to (i) develop detailed training courses for RCTRCs, (ii) deliver large-scale training, (iii) formulate and assist in the implementation of RCTRC research programs, (iv) assist in RCTRC management tasks, and (v) provide advisory support in the procurement of equipment for RCTRCs facilities.

C. SCOPE OF SERVICES

7. The scope of services will include, but not necessarily be limited to, the following tasks:

Task 1: Develop detailed training courses for RCTRCs

8. Based on the operational plan for the roll-out of RCTRCs developed by the CDTA consultancy, which includes outline training programs for each of the next three years to be managed and delivered by RCTRC, the Consultant will develop detailed training materials for each of the courses identified by the operational plan. Specific training modules will be developed for PIU staff, DPR consultants, contractors, PRIs, rural communities, etc. The consultant will develop audio-visual materials (e.g., films) to support the delivery of training modules. Training modules will be developed to utilize innovative and state of the art equipment of RCTRCs. This effort should also identify possibilities for the specialization/focus areas by each RCTRCs and swaps of RCTRC staff to conduct some specific courses, if feasible.

Task 2: Deliver large scale training

9. The Consultant will deliver large scale training throughout the assignment, which will include training of at least 4,000 PIU engineers, technicians, site supervisors; 300 concerned representatives of PRIs; 100 design consultants and 300 contractors. Some training courses will be delivered together with the concerned RCTRC staff, with increasing responsibility given to RCTRC staff; the others will be conducted solely by the Consultant with the representatives of the RCTRCs providing oversight and feedback. The Consultant will make early contact with the National Skills Development Corporation to find out options for collaboration and synergy in providing the training.

10. Throughout the roll-out of the training program the consultant will identify further needs for an overseas training for the concerned RCTRC staff as well as key selected RRNMU and PIU staff, and provide such training in reputable overseas institutions. Study tours to learn best practices in rural roads in various states in India will also be organized. RCTRC staff will then incorporate new knowledge received in the RCTRC programs.

Task 3: Formulate and assist in implementation of RCTRC research programs

11. Based on the operational plan for the roll-out of RCTRCs developed by the CDTA consultancy, which includes outline research programs for each of the next three years to be managed and delivered by RCTRC, the Consultant will develop detailed research programs for each of the research topics of the operational plan. This effort should also identify possibilities for the specialization/focus research areas by each RCTRCs.

12. The Consultant will then work together with RCTRC staff to deliver research programs, with increasing responsibility given to RCTRC staff.

Task 4: Assist in RCTRC management tasks

13. The Consultant will provide mentoring and assistance to the heads of RCTRCs in all aspects of RCTRC management, as requested. This will include support in the planning and budgeting exercise, as needed.

Task 5: Provide advisory support in the procurement of equipment for RCTRCs facilities

14. The Consultant will assist in the finalization of bidding documents for the procurement of the equipment for RCTRCs, acceptable to the RCIP states and in compliance with ADB requirements, and will provide all necessary support in the procurement process.

**TERMS OF REFERENCE FOR FIRM OF CONSULTANTS
CAPACITY DEVELOPMENT TECHNICAL ASSISTANCE (DRAFT)
INSTITUTIONAL DEVELOPMENT FOR RURAL ROADS ASSET MANAGEMENT**

COMPONENT 1: PILOTING RURAL ROAD NETWORK MANAGEMENT UNITS

A. BACKGROUND

1. The consulting services are to support the establishment and operations of 5 Rural Road Network Management Units (RRNMUs) in Assam, Chhattisgarh, Madhya Pradesh, Odisha, and West Bengal. The consulting services will be financed under a capacity development technical assistance (CDTA) which will support institutional development component of the proposed ADB-financed Rural Connectivity Investment Program (RCIP or Investment Program, currently under processing) in the total amount in ADB financing of around \$800 m. The present terms of reference (TOR) is for the firm of consultants (hereinafter referred to as Consultant).

2. The Investment Program will construct or upgrade to the all-weather standard about 9,000 km of rural roads connecting around 4,200 habitations in the states of Assam, Chhattisgarh, Madhya Pradesh, Odisha, and West Bengal (RCIP States). RCIP is the continuation of RRS-I (2003-2008) and RRS-II (2005, ongoing) provided to support a nationwide rural road investment program, Pradhan Mantri Gram Sadak Yojana¹ (PMGSY) PMGSY is aiming to provide all-weather road connectivity to currently unconnected eligible habitations in India's rural areas. For the investments in physical infrastructure to be effective and sustainable, the Investment Program will also focus on the improvement of institutional arrangements, business processes and associated capacity building, especially in relation to design, operation, safeguard, financial, road safety, and road asset management matters.

3. Institutional arrangements and staff qualifications for PMGSY in RCIP states are currently strongly oriented towards project preparation and implementation. However, with the shift in emphasis from construction to the operation and maintenance of the created network of rural roads,² there is an urgent need for strengthening of institutional arrangements and PIU capacities in the states for operation and maintenance of the created road network. In the course of implementation of the Investment Program, it is planned to establish around 30 RRNMUs on a pilot basis. It is anticipated that one pilot RRNMU in each participating state will be established during the third year of implementation. After sufficient experience with the work of RRNMUs is accumulated and analyzed (by the fourth year of implementation), around 5 more RRNMUs will be established in each RCIP state. The tasks of RRNMUs will encompass the complete road network management cycle and will include: (i) mapping and road data inventory (information, data presentation, decision making); (ii) road inspection, data collection, and community work (traffic volume and type, traffic generators, road conditions, roadside and adjacent land use activities, seasonal impacts, community meetings and participation); (iii) planning, programming and budgeting for road construction, road periodic maintenance and road routine maintenance (preparing road programs—short term, single year, multi-year, preparing estimates and budgets); (iv) road safety (road safety audit of designs, and road safety audits of roads under construction and maintenance); (v) road design (procurement of design contracts, participation in field reconnaissance and transect walks, quality control of designs);

¹ Prime Minister's Rural Roads Program.

² Specifically, more than 65,000 km are currently on 5-year post-construction maintenance, and the length of roads beyond 5-year post-construction maintenance will increase from around 17,000 km to more than 80,000 km within the next 5 years.

(vi) road construction and supervision (contract packaging, contract administration, construction supervision); (vii) road maintenance (performance standards, prioritizing defects for attention, contract packaging, tendering, contract administration, construction supervision); (viii) data management and record keeping including development, operating and maintaining of the asset management module of the online management and monitoring system and related collection, verification, entry, retrieval and analysis of road condition, traffic and other road data and expenditure data; and (ix) protection of roads from excessive loads.

4. Pilot RRNMUs will be created based on the existing project implementation units for rural roads and will have staffing, equipment, and training adequate for effective management of the rural road network. RCIP will finance civil works and equipment to establish RRNMU facilities. Created RRNMUs will have a high demonstration potential and will establish a model for replication in the remaining PMGSY districts.

B. OUTCOME AND OBJECTIVES

5. The outcome of the TA will be strengthened institutional capacity and improved business processes ensuring effective, sustainable, safety conscious and cost efficient design, construction, operation and maintenance of rural roads in RCIP states. Specific objectives of the TA are to: (i) develop rural road network management policies, business procedures and associated tools; (ii) provide advisory support in design and procurement process for RRNMU facilities; (iii) provide dedicated rural road network management training; (iv) support RRNMUs with the implementation of rural road network management tasks; and (v) conduct monitoring and analysis of RRNMUs performance and lessons learned.

C. SCOPE OF SERVICES

6. The scope of services under the TA will include, but not necessarily be limited to, the following tasks:

Task 1: Develop rural road network management policies, business procedures and associated tools.

7. To increase the realism and result orientation of this task, the development of the rural road network management policies and operations manual defining business procedures for the complete cycle of rural road network management will be conducted by the Consultants together with its involvement in the operations of the first 5 PIUs selected for the conversion to RRNMUs. The Consultant will also make contact with the consultants working on the road maintenance strategy, policies and standards under the World Bank financed rural road projects and obtain all applicable information and insights. The Consultants inputs will be state-specific. The Consultant services under this task may include, but not be limited to the following aspects:

- (i) Planning and programming of rural road network development and maintenance: e.g., priorities; data collection, entry, storage, retrieval, presentation and analysis; PMGSY vs. non-PMGSY roads; construction vs. upgradation, key design criteria, institutional development and capacity building; connectivity standards (e.g., single vs. double connectivity; eligibility of habitations); ownership (i.e., Rural Road Departments vs. Panchayati Raj Institutions, PRIs), data-driven mechanisms and tools vs. other approaches, impact monitoring, etc.

- (ii) Financing and budgeting of rural road network development and maintenance: e.g., central vs. state financing; funding arrangements (e.g., state rural road maintenance funds), associated governance mechanisms, sources of funding, including non-traditional sources (e.g., levy of cess on agricultural produce brought to local markets, cess levied on mining companies using/planning to use rural roads, tolls on through traffic collected by PRIs etc); budgeting mechanisms, use of data-driven procedures.
- (iii) Regulatory mechanisms to protect rural roads from unforeseen use by farm machinery, overloaded vehicles, and traffic volume increases generated through traffic using PMGSY roads as shortcuts to higher category roads, etc.
- (iv) Development of operations manual defining business procedures for the complete cycle of rural road network management, including separate modules and associated tools/templates for each stage, such as longer term and annual planning and budgeting, data management, design, procurement, project implementation and contract management for construction/upgradation and maintenance and impact monitoring mechanisms. This will also include development of asset management module of online management, monitoring, and accounting system (OMMAS), utilizing work already conducted by RCIP states to the extent possible); and specifying associated procedures, tools and equipment required for data collection, verification, storage, retrieval, analysis and reporting; network mapping; introduction of e-billing, etc).
- (v) Development, improvement and support in operationalization of a set of construction plus maintenance contracts, and different types of maintenance contracts. The latter will include various types of maintenance contracts beyond the 5 years post-construction maintenance period, with the development and incorporation of necessary state-specific modifications. This activity will also include support to RRNMUs in the procurement of all types of contracts.
- (vi) Staff instructions tailored to the RRNMUs along with the performance monitoring and incentive mechanisms to lower a turnover of RRNMU staff.
- (vii) Operationalization schedule.

Task 2: Provide advisory support in design and procurement process for RRNMU facilities

8. **Design.** The Consultant will prepare site-specific architectural drawings of all RRNMU facilities (30 in total, around 6 in each participating state) at a model concept level, and provide advisory support to local architects and designers in preparing the detailed architectural drawings and designs based on the model concept drawings provided. The drawings will include each floor plan, all side views, in 3D views with the landscaping (3D views can be prepared at the artistic rendering level, for the demonstration to the high level decision makers in each state), and all other necessary details. The Consultant will prepare a short brief for each architectural design explaining architectural solutions used, functionalities of the facility, and benefits. Architectural design will utilize a “green” concept suitable to tropical conditions, and sustainability measures such as insulation, solar water heating, low energy light fixtures, double glazed units, solar powered air conditioning and natural ventilation and ample day lighting reducing the energy consumption in the buildings, etc. Concept of laboratories/workshops

should utilize special requirements such as vibration free floors, dust exhaust and suppression, etc.

9. The Consultant will also provide advice/ideas on the innovative equipment which can be installed in the facilities, including videoconferencing; interactive satellite TV facilities connecting RCTRCs, RRNMUs and mobile stations for distant learning, demonstration, and feedback, etc; and, upon the consent of the states will ensure that the architectural design properly accommodates such equipment.

10. The Consultant will review drawings and designs prepared by local design consultant regularly in the preparatory process and provide comments/suggestions for improvements. The Consultant will start review designs prepared locally as early as possible in their development, and provide comments and advisory support in the development of designs. The major thrust of this effort will be to arrive at the design creating working environment most conducive to the RRNMU functions, comparable with best international standards, having high demonstration and replication potential, suitable to local climatic and other conditions, and based on the "green" concept, including utilizing sustainable energy sources. Following the review and approval by the RCIP states, designs will be amended based on the Consultant's recommendations.

11. **Equipment.** The Consultant will develop the list of equipment for RRNMUs and related functional specifications.

12. **Procurement.** The Consultant will prepare bidding documents for the procurement of civil works for the construction of RRNMUs and procurement of the equipment. The bidding documents will be developed to the standard acceptable to the RCIP states and in compliance with ADB requirements. Further, the Consultant and will provide all necessary support in the procurement process.

Task 3: Provide dedicated rural road network management training

13. At the outset of the assignment the Consultant will prepare and deliver an overseas training tour (OST) on rural road network management to the key staff of RRNMUs and officials of the rural road network management cells established at headquarters of the IAs. The compendium of training materials with related audio-visual footage illustrating key aspects learned during OST will be compiled.

14. Over the period of first year of RRNMU operations, the Consultant will conduct three dedicated training sessions explaining the broader picture and concepts of RRNMU operations and business procedures and tools. The Consultant will compile all training materials and prepare a dedicated training course which will be later utilized for the training of trainers mode for the staff of other RRNMUs and in the training programs of newly established Rural Connectivity Training And Research Centers (RCTRCs).³

15. In the training tasks the Consultant will coordinate and consult with RCTRC setup consultant⁴ (and later—with the RCTRC support consultant engaged under the RCIP), and the staff of the newly established RCTRCs, so that the synergy between the two are established. E.g., established RRNMU could be used for demonstration and field training of RCTRC

³ One RCTRC will be established in each RCIP state with the support of a separate TA, followed up by a loan-financed consultancy.

⁴ To be engaged under a separate contract.

trainees, placing of longer term interns at RRNMUs, etc while RCTRC facilities and training expertise could be used for dedicated training of RRNMU staff. The Consultant will also make contact with the National Skills Development Corporation (NSDC) to obtain additional information, their insights on establishing the institutions, and potential ways of future collaboration.

Task 4. Support RRNMUs with the implementation of rural road network management tasks.

16. The operationalization will be conducted in a gradual manner, first on the existing PIU facilities, and continue together with putting in operations new RRNMU facilities and equipment. The Consultant will be placed in the respective RRNMUs and will conduct all RRNMU tasks together with the assigned RRNMU staff in the apprenticeship mode, giving more and more responsibilities to local staff so that by the end of the second year of RRNMU operations local staff could conduct all RRNMU tasks fully independently.

17. The operationalization will also involve a thorough analytical work aiming at assessment whether the procedures are really working, are right, and what should be done to make them work. E.g., cross-learning achieved through the rotation of Consultant experts between different RRNMUs should be part of the process.

18. Specific tasks and responsibilities of the RRNMUs will be defined by the Consultant as a part of Task 1 and will encompass the complete road network management cycle. E.g., the tasks may include, but not be limited to the following:

- (i) planning, programming and budgeting for road construction, road periodic maintenance and road routine maintenance (preparing road programs—short term, single year, multi-year, preparing estimates and budgets);
- (ii) mapping and road data inventory (information, data presentation, decision making);
- (iii) road inspection and data collection (traffic volume and type, traffic generators, road condition, roadside and adjacent land use activities, seasonal impacts, community meetings and participation);
- (iv) road safety (in-house or outsourced road safety audit of designs, road safety audits of roads under construction (temporary traffic control) and under maintenance both in day and night time operation, road safety awareness sessions with the communities, incorporation of road safety audits recommendations, investigating causes of road accidents and taking actions, handling community complains on road safety, interaction with police/schools on safe way to school programs, accident data analyses, etc);
- (v) road design (procurement of design contracts, participation in field reconnaissance and transect walks, quality control of designs);
- (vi) road construction and supervision (bidding documents, contract packaging, tendering, managing site preparation,⁵ contract administration, construction supervision);
- (vii) road maintenance (performance standards, bidding documents, contract packaging, tendering, contract administration, maintenance supervision);
- (viii) protection of roads from excessive loads (weigh stations and surveys, regulatory mechanisms, coordination and interaction with enforcing authorities etc);
- (ix) right of way management;

⁵ Including shifting of utilities, etc.

- (x) data management and record keeping (database on contractors and consultants; operating and maintaining of the asset management module of the OMMAS, including collection, verification, entry, retrieval and analysis of road condition, traffic and other road data and expenditure data);
- (xi) Impact monitoring (baseline, and post implementation surveys and analyses;
- (xii) Environmental management (environmental management frameworks, initial environmental examination reports, liaison with other government agencies, etc.);
- (xiii) Social development and community work (community participation frameworks, social assessments, donations/acquisition/compensations, land transfer issues, liaison with other government agencies, etc); and
- (xiv) RRNMU performance monitoring.

19. It would be highly beneficial if the staff of the first 5 pilot RRNMUs could deliver the training of the subsequent RRNMUs to be established later on. The Consultant will come up with specific mechanisms enabling such training without negatively affecting the operations of the first 5 pilot RRNMUs.

Task 5. Conduct monitoring and analysis of RRNMUs performance and lessons learned.

20. This will be conducted on the day-to-day basis and will be documented in the CDTA reports as defined in Section E.

D. IMPLEMENTATION ARRANGEMENTS, STAFFING AND SCHEDULE

21. MORD, with technical and management support from NRRDA, will be Executing Agency (EA) for the CDTA at the central level and will be responsible for overall supervision and execution of the CDTA. The government of Assam through its Public Works Department; the governments of Chhattisgarh, Madhya Pradesh and West Bengal through their Departments of Panchayat and Rural Development; and the government of Odisha through its Department of Rural Development will be Executing Agencies for the TA at the state level. The Implementing Agencies (IAs) will be State Road Board in Assam, State Rural Roads Agency in Odisha, State Rural Development Agency in West Bengal, and Rural Roads Development Authorities in Madhya Pradesh and Chhattisgarh. Heads of the IAs in each state will be the major point of contact for the TA consultant and will appoint their representatives and counterpart support staff to interact with the TA consultant at the working level.

22. The CDTA will be carried out by a firm of international consultants in association with national consultants. Staffing input of the firm will be 37 person-months of international consultants and 46 person-months of national consultants with the indicative breakdown of person-months shown in Table 1.

Table 1. Indicative Breakdown of Consultant’s Input

International Staff		
Position	Tasks	Input
Rural Road Network Management Expert (Team Leader)	Tasks 1-5 (all states with implementation emphasis on Madhya Pradesh, Chhattisgarh, Odisha)	18
Rural Road Network Management Expert	Tasks 1-5 (focus on Assam and West Bengal)	10
Road Safety Expert	Task 4 (road safety aspect)	5
Architect	Task 2 (support to design)	4

National Staff		
Rural Road Network Management Expert (Deputy Team Leader)	Tasks 1-5 (oversight)	30
Procurement Expert	Task 1(v) and 2 (goods and civil works)	8
Social Development Specialist	Task 4 (social development work)	4
Environmental Specialist	Task 4 (environmental work)	4

23. The firm will be engaged in accordance with ADB's *Guidelines on the Use of Consultants* and other arrangements satisfactory to ADB on the engagement of national consultants. The consulting firm will be engaged using ADB's quality and cost-based selection procedures (QCBS) with a quality-cost ratio of 80:20. Full Technical Proposals (FTP) will be requested.

24. CDTA will be conducted over a period of 30 months with intermittent inputs. International team members will be required to provide at least 90% of their input working in the PIUs/RRNMUs in RCIP states, while the rest of the input (such as finalizing the reports and attending to the requests for advise coming from the PIUs/RRNMUs etc. during the period of the on-call support) can be done in their home offices. Deputy team leader (national) will be required to provide at least 70% in the PIU/RRNMUs offices of the total input working in RRNMUs and 30% in the firm's headquarters (overall oversight and coordination). The input of the Consultant will be gradually decreasing from full involvement in the operations to the oversight and advisory support on as needed basis, as more and more responsibilities are given to the local RRNMU staff.

E. DELIVERABLES

25. **Reports.** The Consultant will prepare quarterly progress reports; an inception report; draft and final reports on rural road network management policies, business procedures and associated tools; compendium of RRNMU training materials (including OST audio-visual materials); interim, draft final and report on pilot RRNMU operations (5 RRNMUs). All reports will be in English and Hindi. One hard copy and one electronic copy of each report will be submitted to each RCIP state, NRRDA and ADB. One hard copy of the final report will also be provided to DEA. The summary of reporting requirements is below:

Report	Timeline
Progress reports	quarterly
Inception report	1 st month
Draft state-specific reports on RRNMU policies, business procedures and tools (5 in total, one per state)	4 th month
Final state-specific reports on RRNMU policies, business procedures and tools (5 in total, one per state)	8 th month
Compendium of RRNMU training materials	8 th month
Interim Report on pilot RRNMU operations	12 th month
Draft Final Report on pilot RRNMU operations	24 th month
Final Report on pilot RRNMU operations	30 th month

26. **OST and Workshops.** The Consultant will deliver OST and the following workshops:

Workshop	Timeline
Overseas study tour	3 rd month
RRNMU policies, business procedures and tools (5 in total, one in each state; and one cross-learning workshop for representatives of all states)	5 th month
RRNMU operations: achievements and lessons learned (5 in total, one in each state; and one cross-learning workshop for representatives of all states)	11 th month
RRNMU operations: achievements and lessons learned (5 in total, one in each state; and one cross-learning workshop for representatives of all states)	23 rd month

F. GOVERNMENT INPUT

27. The IAs of RCIP will provide counterpart staff for the TA, provide all relevant information and data, and ensure proper level of review of the recommendations provided by TA Consultant. The IAs will ensure active participation and learning of the concerned RRNMU staff. The IAs will also provide an office space for the CDTA Consultant to ensure effective cooperation between the TA Consultant and RRNMU staff.

PREFERRED QUALIFICATION REQUIREMENTS FOR KEY PERSONNEL

The qualification requirements in this appendix are preferred qualifications, and not pass/fail. However, qualifications specifically mentioned with language such as “minimum” or “at least” are pass/fail. Not meeting the pass/fail requirements will be considered as “non-complying” for those specific requirements.

The qualifications described are to supplement the information already provided in the TOR that directly or indirectly defines the level and range of expertise, qualifications and experience to be possessed by the experts, and is, therefore, not an exhaustive list of requirements.

International Experts

1. Team Leader Cum Rural Road Network Management Expert

Should be a senior level Road Asset Management Expert with a minimum of Masters Degree in Civil Engineering, having total experience of at least 20 years, out of which he should have been involved in the all aspects of road network management either as a public servant or consultant for at least 15 years. Experience in rural road network management will be an advantage. The experience should include developing road network management policies and operational manuals; institutional strengthening; management of various types of road construction and maintenance contracts; planning, programming and budgeting for road network development and maintenance; and development and application of network management tools. Must have a combination of experiences in both developed and developing countries. Experience in Asia and especially India would be an advantage. He/she must have a successful experience in project management at senior levels, including leading large multi-disciplinary teams and experience in the delivery of TAs financed by one or more external financiers (ADB, JBIC, World Bank or other bilateral/multilateral funding agencies).

2. Rural Road Network Management Expert

Should be a senior level Road Asset Management Expert with a minimum of Bachelors Degree in Civil Engineering, having total experience of at least 15 years, out of which he should have been involved in the all aspects of road network management either as a public servant or consultant for at least 8 years. Experience in rural road network management will be an advantage. The experience should include developing road network management policies and operational manuals; institutional strengthening; management of various types of road construction and maintenance contracts; planning, programming and budgeting for road network development and maintenance; and development and application of network management tools. Must have a combination of experiences in both developed and developing countries. Experience in Asia and especially India would be an advantage. He/she must have a successful experience in the delivering of services under TAs financed by one or more external financiers (ADB, JBIC, World Bank or other bilateral/multilateral funding agencies).

3. Road Safety Expert

Should be a senior level Civil/Traffic Management Engineer with a minimum of bachelor's degree and preferably with a master's degree in Traffic/Road Safety Engineering, with at least 10 years experience in various aspects of road safety engineering. This should include experiences in leading RSA teams and conducting RSAs at various stages in project implementation; identification and treatment of black spots; road safety monitoring and evaluation, including accident data analyses. Experience in road safety audits/engineering for rural roads will be an advantage. Must have a combination of experiences in both developed and developing countries.

4. Architect

Should be a senior level Architect with a minimum of Bachelors Degree in Architecture, having experience of at least 20 years, out of which he should have prepared architectural drawings and design of buildings for at least 15 years. Experience in the design of field office and industrial buildings (e.g., field laboratories) suitable to tropical conditions, based on best international standards and utilizing a “green” concept, including utilizing sustainable energy sources would be an advantage.

National Experts

1. Deputy Team Leader Cum Rural Road Network Management Expert

Should be a senior level Road Asset Management Expert with a minimum of Masters Degree in Civil Engineering, having total experience of at least 25 years, out of which he should have been involved in the all aspects of road network management either as a public servant or consultant for at least 15 years. Experience in rural road network management will be an advantage. The experience should include developing road network management policies and operational manuals; institutional strengthening; management of various types of road construction and maintenance contracts; planning, programming and budgeting for road network development and maintenance; and development and application of network management tools. Must have a combination of experiences in both developed and developing countries. He/she must have a successful experience in project management at senior levels, including leading large multi-disciplinary teams and experience in the delivery of TAs financed by one or more external financiers (ADB, JBIC, World Bank or other bilateral/multilateral funding agencies).

2. Procurement Expert

Should have a minimum 15 years of experience in procurement of civil works and goods. Should have thorough knowledge of the procurement documentation and be experienced in all aspects of procurement of civil works, goods and consulting services including preparation of bidding documents, shortlists, technical and financial bid evaluation reports. Experience of development of bidding documents and support in procurement of different types of road and maintenance contracts, including performance based maintenance contracts is essential. Should have an experience in procurement of contracts under ADB financing and demonstrated knowledge of ADB procurement process and requirements.

3. Social Development Specialist

Should have a Master’s Degree in Social Science or equivalent, and have at least 8 years of experience in preparing, implementing and monitoring social development safeguards in infrastructure projects. He or she should have experience with the monitoring of socioeconomic impacts of road infrastructure projects and related knowledge of impact monitoring methodology, techniques and statistical sampling. Must have experience in the preparation, implementation and monitoring of social safeguards in infrastructure projects financed by one or more external financiers (ADB, JBIC, World Bank or other bilateral/multilateral funding agencies). Experience in social development aspects of the rural road projects will be an advantage.

4. Environmental Specialist

Should have a Master’s Degree in Environmental Science or equivalent, and have at least 8 years of post-graduate experience in preparing, implementing and monitoring the implementation of the environmental safeguard in infrastructure projects. He or she should be fully familiar with the legal provisions for environmental management in India. Must have

experience in the preparation, implementation and monitoring of environmental safeguards in infrastructure projects financed by one or more external financiers (ADB, JBIC, World Bank or other bilateral/multilateral funding agencies). Experience in environmental aspects of the rural road projects will be an advantage.

**TERMS OF REFERENCE FOR FIRM OF CONSULTANTS (DRAFT)
CAPACITY DEVELOPMENT TECHNICAL ASSISTANCE
INSTITUTIONAL DEVELOPMENT FOR RURAL ROADS ASSET MANAGEMENT**

**COMPONENT 2: SUPPORT TO THE ESTABLISHMENT OF THE
RURAL CONNECTIVITY TRAINING AND RESEARCH CENTERS**

A. BACKGROUND

1. The consulting services are to support the establishment of 5 Rural Connectivity Training and Research Centers (RCTRCs) in Assam, Chhattisgarh, Madhya Pradesh, Odisha, and West Bengal. The consulting services will be financed under a capacity development technical assistance (CDTA) piggybacked to the ADB-financed Rural Connectivity Investment Program (RCIP or Investment Program, currently under processing) in the total amount in ADB financing of around \$800 m. The present terms of reference (TOR) is for the firm of consultants (hereinafter referred to as 'Consultant').

2. The Investment Program will construct or upgrade to the all-weather standard about 9,000 km of rural roads connecting around 4,200 habitations in the states of Assam, Chhattisgarh, Madhya Pradesh, Odisha, and West Bengal (RCIP States). RCIP is the continuation of RRS-I (2003-2008) and RRS-II (2005, ongoing) provided to support a nationwide rural road investment program, Pradhan Mantri Gram Sadak Yojana¹ (PMGSY). PMGSY is aiming to provide all-weather road connectivity to currently unconnected eligible habitations in India's rural areas. For the investments in physical infrastructure to be effective and sustainable, the Investment Program will also focus on improvement of institutional arrangements, business processes and associated capacity building, especially in relation to design, operation, safeguard, financial, road safety, and road asset management matters.

3. In order to improve and keep up a high standard skills of engineers, technicians, site supervisors, concerned staff of PRI, design consultants and contractors involved in the development and maintenance of the rural road network, there is a need for a systematic, sustainable, and high quality training reflecting specifics of the rural roads and building up on the extensive experiences and lessons learned accumulated over 10 years of implementation of PMGSY across India. Rural road network in India (around 2,700,000 km) makes up 80% of the total road network in the country, however, qualifications and training of civil engineers remain oriented at high category roads. Previous experience with the massive training of PMGSY engineers supported under World Bank-financed rural road project² was successful, however, it was a one-off exercise and due to the turnover of staff, the acquired skills are already being diluted. Also, while NRRDA has already developed certain capabilities in conducting specialized practice-oriented research on PMGSY, these activities are not systematic and need support in staffing, business procedures, and facilities to become sustainable.

4. The Investment Program will construct and equip 5 RCTRCs in each RCIP state as state-of-the-art facilities,³ and finance consulting services to assist RCTRCs in rolling out systematic and large scale training in RCIP states and targeted rural roads research programs.

¹ Prime Minister's Rural Roads Program.

² The World Bank's loan for \$400 million to finance part of PMGSY in Himachal Pradesh, Jharkhand, Rajasthan, and Uttar Pradesh.

³ This will include both construction of new buildings (classrooms, laboratories, housing blocks, etc.) and providing state-of-the-art equipment.

The support to the RCTRC staff will be provided in the apprenticeship mode where over the period of three years, training courses will be delivered by the RCTRC consultant together with the concerned RCTRC staff, with increasing responsibility given to RCTRC staff. The Consultant will also establish partnerships with leading institutions on the rural road training and research in India and overseas and work together to prioritize, develop and deliver specific rural road training courses with the utilization of external resources. Consulting services financed by the Investment Program will also support RCTRCs in research and compiling best specific practices and experiences in rural roads and will use that material in the training and development of MORD/NRRDA guidelines, manuals, etc. It is anticipated that RCTRCs will train annually in RCIP states around 2,000 PIU engineers, technicians, site supervisors; 50 concerned representatives of Panchayati Raj Institutions (PRIs); 10 design consultants and 30 contractors.

5. Thorough preparatory work will be needed both in terms of establishing required RCTRC facilities and, more importantly, in the establishment of the RCTRCs as an institution.⁴ CDTA (this assignment) will be provided to support the preparatory work for the establishment of RCTRCs, while subsequent loan-financed consultancy engaged under a separate contract will be provided to actually roll out RCTRCs and provide long-term training.

B. OUTCOME AND OBJECTIVES

6. The outcome of the CDTA will be RCTRCs in RCIP states as an institution ready for the rollout and managing large scale training programs and dedicated research. CDTA scope will include tasks to (i) formulate the concept, organizational structure, business procedures, and staffing requirements of RCTRCs; (ii) formulate funding mechanisms for the RCTRCs operations; (iii) provide advisory support in design and procurement process for RCTRC facilities; (iv) provide training to RCTRC staff; (v) develop operational plan for the rollout of RCTRCs; and (vi) assist in the recruitment process for the loan-financed RCTRC consultant.

C. SCOPE OF SERVICES

7. The scope of services under the TA will include, but not necessarily be limited to, the following tasks:

Task 1: Formulate the concept, organizational structure, business procedures, and staffing requirements of RCTRCs.

8. The Consultant will use the draft concept, organizational structure, and staffing requirements of RCTRCs developed by the PPTA consultant preparing RCIP as a starting point and further improve and finalize these aspects in consultations with RCIP states, NRRDA, State Technical Agencies, and leading road training and research institutions in India. Experiences with the establishing of similar institutions need to be studied and proven models applied as suitable.⁵ The Consultant will also make contact with the National Skills Development Corporation (NSDC) to obtain additional information, their insights on establishing the institutions, and potential ways of future collaboration.

⁴ It can be a separate faculty of an existing training/research institute/laboratory, or expansion of existing research centre, etc. The arrangement will be different from state to state.

⁵ Indian Academy of Highway Engineers (IAHE) can be an example. Aside from the fact that its focus is higher level roads, there are a lot of similarities. It was established in the same way through a bank funded (WB in this case) project. Like NRRDA, it is established as a society and has a memorandum of understanding to guide it.

9. Following the finalization and acceptance of the improved RCTRC concept by NRRDA and RCIP states, the Consultant will develop state-specific detailed operations manuals defining business procedures in RCTRCs. This may include but not be limited to such aspects as planning and budgeting for training and research; establishment of annual and longer term training and research programs; interaction with external training and research institutions; delivery of training and research programs; establishment of feedback, monitoring and evaluation of training and research programs; mechanisms to contribute to the PMGSY or similar rural road program (e.g., testing, quality control, participation in state technical agencies etc); human resources development providing mechanisms to lower a turnover of RCTRC staff, etc.

Task 2: Formulate funding mechanisms for the RCTRCs operations

10. The Consultant will propose sustainable funding mechanisms for the RCTRCs operations, which will achieve an optimum balance between the government financing and other sources, such pay per training/laboratory test mechanisms (including those for trainees coming from other states), partnerships with private companies, etc. In this effort, the Consultant will explore different schemes and potential partnerships, e.g., discussions with the National Skills Development Corporation should be conducted, and proposed/ongoing national/state skills development schemes should be reviewed.

Task 3: Provide advisory support in design and procurement process for RCTRCs facilities

11. **Design.** The Consultant will propose concept design of each RCTRC including learning blocks, housing and laboratories, and assist RCIP states in the recruitment process of the local consultants to design RCTRCs.

12. The Consultant will prepare site-specific architectural drawings of all RCTRCs at a model concept level, and provide advisory support to local architects and designer in preparing the detailed architectural drawings and designs based on the model concept drawings provided. The Consultant will prepare site-specific architectural drawings of RCTRC facilities. The drawings will include each floor plan, all side views, in 3D views with the landscaping (3D views can be prepared at the artistic rendering level, for the demonstration to the high level decision makers in each state). The Consultant will prepare a short brief for each architectural design explaining architectural solutions used, functionalities of the facility, and benefits. Architectural design will utilize a “green” concept suitable to tropical conditions and sustainability measures such as insulation, solar water heating, low energy light fixtures, double glazed units, solar powered air conditioning and natural ventilation and ample day lighting reducing the energy consumption in the buildings, etc. Concept of laboratories/workshops should utilize special requirements such as vibration free floors, dust exhaust and suppression, etc.

13. The Consultant will also provide advice/ideas on the innovative equipment which can be installed in the facilities, including videoconferencing; interactive satellite TV facilities connecting RCTRCs, RRNMUs and mobile stations for distant learning, demonstration, and feedback, etc; and, upon the consent of the states will ensure that the architectural design can properly accommodate such equipment.

14. The Consultant will review drawings and designs prepared by local design consultants regularly in the preparatory process and provide comments/suggestions for improvements. The Consultant will start review designs prepared locally as early as possible in their development,

and provide comments and advisory support in the development of designs. The major thrust of this effort will be to arrive at the design creating working environment most conducive to the RCTRC functions, comparable with best international standards, having high demonstration and replication potential, suitable to local climatic and other conditions, and based on the “green” concept, including utilizing sustainable energy sources. Following the review and approval by the RCIP states, designs will be amended based on the Consultant’s recommendations.

15. **Equipment.** The Consultant will finalize the list of equipment for RCTRCs and related functional specifications.⁶

16. **Procurement.** The Consultant will assist in the preparation of bidding documents for the procurement of civil works for the construction of RCTRCs and procurement of the equipment, acceptable to the RCIP states and in compliance with ADB requirements, and will provide all necessary support in the procurement process.

Task 3: Provide dedicated training to RCTRC staff

17. The Consultant will prepare outline training program for RCTRC staff, and provide dedicated training to the RCTRC staff in rural road training and research, which will include both in-house (by the Consultant) and external training. Internal training will be done at each RCTRC campus (as they will have different environments), with the involvement of SRRDA management in an advisory role. External training will include both domestic and overseas training courses in the selected rural road training and research institutions. International program will also include interactions with local practitioners, such as within forums involving local government engineers to share experiences and learn, and to show off the achievements.⁷

18. Following the completion of the external training the Consultant will compile all training materials for the subsequent utilization in RCTRC courses delivered by RCTRC staff together with consultants financed by the Investment Program. The Consultant will also prepare video footages illustrating major aspects of the overseas training.

Task 4. Develop operational plan for the rollout of RCTRCs

19. The state-specific operational plans for the rollout of RCTRCs will include preparing outline training and research programs for each of the next three years to be managed and delivered by RCTRC. This will include identification of courses and research topics, their scope and outline, targeted audiences, and providers (RCTRC staff together with the loan-financed consultants; invited representatives from other leading institutions in India or overseas (those should be part of the loan-financed consultancy, etc). The Consultant will also propose innovative methods of learning and related equipment (audio-visual capabilities, interactive satellite TV equipment for distant learning and feedback connecting all RCTRCs and RRNMUs, etc). In addition to core training modules required for the rural connectivity management, the Consultant will propose outline of additional module(s) on climate proofing⁸, greening, planting trees, community participation, approaches to afforestation, effective soil conservation

⁶ Drafts will be developed by the PPTA consultant preparing RCIP.

⁷ Example can include forums for local government engineers conducted by the Institute of Public Works Engineering Australia (IPWEA).

⁸ ADB has developed guidelines on climate proofing (adaptation options) in training and capacity development. These will need to be reviewed and incorporated as appropriate.

techniques, etc. Task 4 will also include estimation of budgeting for training and research.⁹ The plan should be prepared for each RCTRC, but will also attempt to foster coordination and partnership between 5 RCTRCs and provide some delineation of efforts, especially in the research.

Task 5. Assist in the recruitment process for the loan-financed RCTRC consultant

20. The Consultant will develop a detailed TOR for the loan-financed consultant which will assist RCTRCs in rolling out systematic and large scale training in RCIP states. It is anticipated that loan-financed support to the RCTRC staff will be provided in the apprenticeship mode where over the period of three years the training courses will be delivered by the RCTRC consultant together with the concerned RCTRC staff, with increasing responsibility given to RCTRC staff. TOR should also define tasks related to establishing partnerships with leading rural road training and research institutions in India and overseas. It is anticipated that TOR should include support RCTRCs in research and compiling best specific practices and experiences in rural roads. It is anticipated that RCTRCs will train annually around 2,000 PIU engineers, technicians, site supervisors; 50 concerned representatives of Panchayati Raj Institutions (PRIs); 10 design consultants and 30 contractors.

21. The Consultant will then assist RCTRCs in the development of draft request for EOI and RFP acceptable to the RCIP states and in compliance with ADB requirements.

D. IMPLEMENTATION ARRANGEMENTS, STAFFING AND SCHEDULE

22. MORD, with technical and management support from NRRDA, will be Executing Agency (EA) for the CDTA at the central level and will be responsible for the overall supervision and execution of the CDTA. The government of Assam through its Public Works Department, and the governments of other RCIP states through their Rural Development Departments will be Executing Agencies for the CDTA at the state level and will provide general oversight and guiding at the state level. The Implementing Agencies (IAs) will be state rural roads development agencies (SRRDA) responsible for the day-to-day supervision of the CDTA. Heads of SRRDAs in each state will be the major point of contact for the CDTA Consultant and will appoint their representatives and counterpart support staff to interact with the CDTA consultant at the working level.

23. The CDTA will be carried out by a firm of international consultants in association with national consultants. Staffing input of the firm will be 10 person-months of international consultants and 10 person-months of national consultants with the indicative breakdown of person-months shown in Table 1.

Table 1. Indicative Breakdown of Consultant's Input

International Staff		
Position	Tasks	Input Person-months
Continuing Education Expert (Roads) cum Team Leader	1-6	5
Rural Road Network Management Expert	3-6	3
Architect/Building Design Engineer	3	2

⁹ Some portion of financing (e.g., fees for invited resource persons) could be potentially provided by ADB under the RCTRC rollout consultancy included in the Investment Program.

National Staff		
Rural Road Network Management Expert (Deputy Team Leader)	1-6	8
Procurement Expert	6	2

24. The Continuing Education Expert (Roads) cum Team Leader and Rural Road Network Management Expert will have different experience and skills, which will be complementary to each other in the context in the assignment. One needs to be capable of establishing a training institute and should have an educational background. The other needs to be a rural road management expert. Detailed qualification requirements for key personnel are provided in Appendix 1.

25. The firm and individual consultants will be engaged by ADB in accordance with ADB's *Guidelines on the Use of Consultants* and other arrangements satisfactory to ADB on the engagement of national consultants. The consulting firm will be engaged using ADB's quality and cost-based selection procedures (QCBS) with a quality-cost ratio of 90:10. Simplified Technical Proposals (STPs) will be requested.

26. CDTA will be conducted over a period of 12 months with intermittent inputs. International team members will be required to provide at least 90% of their input working in the in RCIP states, while the rest of the input (such as finalizing the reports) can be done in their home offices.

E. DELIVERABLES

27. **Reports.** The Consultant will prepare an inception report; report on RCTRC concept, organizational structure, business procedures, and staffing requirements; compendium of RCTRC training materials; and a report on operational plan for the rollout of RCTRCs. All reports will be in Hindi and English. One hard copy and one electronic copy of each report will be submitted to each RCIP state, NRRDA, and ADB. One hard copy of the report on operational plan for the rollout of RCTRCs will also be provided to DEA. The summary of reporting requirements is below:

Report	Timeline
Inception report	1 st month
State-specific reports on RCTRC concept, organizational structure, business procedures, and staffing requirements (5 in total, one per state)	4 th month
Compendium of RCTRC training materials	8 th month
State-specific report on operational plan for the rollout of RCTRCs (5 in total, one per state)	10 th month

28. **Workshops.** The Consultant will deliver following workshops:

Workshop	Timeline
RCTRC concept, organizational structure, business procedures, and staffing requirements (5 in total, one in each state; and one cross-learning workshop for representatives of all states)	4 th month
Operational plan for the rollout of RCTRCs (5 in total, one in each state)	10 th month

F. GOVERNMENT INPUT

29. The IAs of RCIP will provide counterpart staff for the TA, provide all relevant information and data, and ensure proper level of review of the recommendations provided by TA Consultant. The IAs will ensure active participation and learning of the concerned RCTRC staff.

30. The IAs will provide an office space for the CDTA Consultant to ensure effective cooperation between the TA Consultant and RCTRC staff. The offices will be provided on the campuses of the future RCTRCs (or nearby).

PREFERRED QUALIFICATION REQUIREMENTS FOR KEY PERSONNEL

The qualification requirements in this Appendix are preferred qualifications, and not pass/fail. However, qualifications specifically mentioned with language such as “minimum” or “at least” are pass/fail. Not meeting the pass/fail requirements will be considered as “non-complying” for those specific requirements.

The qualifications described are to supplement the information already provided in the TOR that directly or indirectly defines the level and range of expertise, qualifications and experience to be possessed by the experts, and is, therefore, not an exhaustive list of requirements.

International Experts

1. Continuing Education Expert (Roads) cum Team Leader. Should be a senior level Transport Education Specialist (e.g., Civil Engineer, Transport Economist, Road Asset Management Expert, or equivalent) preferably with a Masters Degree in Transportation Studies or equivalent, having total experience of at least 20 years, out of which he should have been involved all aspects of continuing education in the transport sector for at least 10 years. Such experience should include as a minimum, participation in the establishment of training courses and institutions; working in such institutions as a manager responsible for all aspects of planning, budgeting and operations; and delivering of training programs. Should have a record of cooperation with leading transport educational and research institutions around the world. Experience in rural road network management will be an advantage. Experience in Asia and especially India would be an advantage. He/She should have a successful experience in project management at senior levels.

2. Rural Road Network Management Training Expert

Should be a senior level Road Asset Management Expert with a minimum of Bachelors Degree in Civil Engineering, having total experience of at least 20 years, out of which he should have been involved in the all aspects of road network management, including rural roads either as a public servant or consultant for at least 10 years. Experience in providing training in rural road network management is essential. The experience should include developing road network management policies and operational manuals; institutional strengthening; management of various types of road construction and maintenance contracts; planning, programming and budgeting for road network development and maintenance; and development and application of network management tools. Must have a combination of experiences in both developed and developing countries. Experience in Asia and especially India would be an advantage.

3. Architect/Building Design Engineer

Should be a senior level Architect with a minimum of Bachelors Degree in Architecture, having experience of at least 20 years, out of which he should have prepared design of buildings at least 15 years. Experience in the design of educational institutions, office and industrial buildings (e.g., field laboratories) suitable to tropical conditions and based on the “green” concept, including utilizing sustainable energy sources would be an advantage.

National Experts

1. Deputy Team Leader Cum Rural Road Network Management Expert

Should be a senior level Civil Engineer with a minimum of Masters Degree in Civil Engineering, having total experience in road planning, design, construction and maintenance for at least 25 years, including at least 10 years experience at senior level managing planning, design,

Appendix 1

construction and maintenance for a road network. Experience in rural roads and, in particular, following experience would be an advantage: experience in developing road network management policies and operational manuals; institutional strengthening; management of various types of road construction and maintenance contracts; planning, programming and budgeting for road network development and maintenance; and development and application of network management tools. Must have a combination of experiences in both developed and developing countries. He/she must have a successful experience in project management at senior levels, including leading large multi-disciplinary teams and experience in the delivery of TAs financed by one or more external financiers (ADB, JBIC, World Bank or other bilateral/multilateral funding agencies).

2. Procurement Expert

Should have a minimum 15 years of experience in procurement of civil works and goods. Should have thorough knowledge of the procurement documentation and be experienced in all aspects of procurement of civil works, goods and consulting services including preparation of bidding documents, shortlists, technical and financial bid evaluation reports. Should have a thorough knowledge of ADB procurement process and requirements.

SUMMARY OF DESIGN STANDARDS AND TECHNICAL APPROACH

1. The roads to be constructed or upgraded under the Rural Roads Sector III Investment Program (RCIP, or Investment Program) are rural roads comprising village roads and other district roads to provide all-weather connectivity to habitations. RCIP roads will be built along the alignments of the existing earth/gravel roads/tracks, which are in poor condition. The majority of these roads/tracks are impassable for to 3-4 months during the wet season. As they presently carry a low volume of traffic—on average, less than 50 motorized vehicles per day—and projected traffic for them after 20 years will still be below 1,000, the project roads are classified as low-traffic.

A. Design Standards for Investment Program Roads

2. The design criteria adopted are in accordance with the Indian Roads Congress (IRC) publication *Rural Roads Manual* (IRC:SP:20-2002) and other IRC design codes that have been followed by the Prime Minister's Rural Roads Program (PMGSY). The standards are consistent with standard international practices adopted by the American Association of State Highway and Transportation Officials design standards and Transport Research Laboratory Overseas Road Note 31: Guide to the Structural Design of Bitumen-Surfaced Roads in Tropical and Subtropical Countries, and are found appropriate.

3. The following codes have been developed by IRC to provide guidelines on the Geometric Design Standards of Rural Roads.

- (i) IRC: 73-1980 : Geometric Design Standard for Rural (Non-urban) Highways
- (ii) IRC: 64-1970 : "Guidelines for Capacity of Roads in Rural Areas" for Carriageway Widths
- (iii) IRC: 72-2007 : "Guidelines for Design of Flexible Pavement for Low Volume Rural Roads" for Pavement Design
- (iv) IRC: SP: 62-2004 : "Guidelines for the Design and construction of Cement Concrete Pavement for Rural Roads" for C.C. Pavement
- (v) IRC: SP: 13-2004 : "Guidelines for Design of Small Bridge & Culverts" for Cross Drainage Works
- (vi) IRC: 52-2001 : "Recommendation about the Alignment Surveys & Geometric Design" of Hill Roads
- (vii) IRC: SP: 23-1983 : "Vertical Curves for Highways"
- (viii) IRC: 38-1988 : "Guidelines for Design of Horizontal Curves for Highways"
- (ix) IRC: SP: 48-1998 : "Hill Road Manual" for Rural Roads in Hilly Terrain

4. Pavement will be designed in accordance with IRC: 72: Flexible Pavement Design of Rural Roads (generally adapted from AASHTO Guide for Design of Pavement Structures). PMGSY requires that roads be negotiable in all kinds of weather. The choice of surfacing takes into account factors such as traffic, soil type, and rainfall. In most cases, bitumen surfacing will be the most economic option for the roads under the Investment Program, particularly because (i) under monsoon conditions, gravel-surfaced roads could be washed away by rains; and (ii) gravel roads require frequent maintenance if they are to realize their potential life, and include uncertainties about establishing a permanent capacity sufficient for carrying out required activities. Cement concrete pavement will be used instead of bituminous pavement in all village portions of rural roads since its drainage design is more compact and also due to the environmental and hygienic considerations. Rigid pavement option will also be explored as an alternative to bituminous pavement in the road portions susceptible for flooding, due to its higher endurance and lower maintenance costs.

B. General Design Consideration

5. The major improvements on the project roads are as follows:

- (i) Widen the existing roadway to 7.5 meters (m)—efforts will be made to confine widening within the existing right-of-way to minimize adverse environmental and social impacts.
- (ii) Provide a 3.75 m wide carriageway with granular subbase, waterbound macadam as base, and bitumen overlay.
- (iii) Provide a 3.75 m shoulder (1.875 m on each side). In case soft soils are used for embankment, hard shoulders of 1.0 m width will be provided on either side. Where availability of land is not a constraint, extra width of shoulders can be provided near bus stops and to provide platforms for storing of materials during maintenance.
- (iv) For link roads in plains: provide formation width of 6.0 m, carriageway width of 3.75 m (if motorized traffic volume is above 100 a day) and carriageway width of 3.00 m (if motorized traffic volume is below 100 a day)
- (v) For all roads in hilly areas: provide formation width of 6.0 m, carriageway width of 3.75 m (if motorized traffic volume is above 100 a day) and carriageway width of 3.00 m (if motorized traffic volume is below 100 a day)
- (vi) Raise the embankment to provide a minimum subgrade level of 0.5 m above the natural ground level or 0.6 m above the highest flood level to meet hydraulic requirements. As a general rule top of the road crust (at crown) shall not be more than 1.5 m above the general ground level except at locations of cross drainage structures and their approaches, subject to meeting the all weather road criteria.¹
- (vii) Improve horizontal and vertical alignment to allow a design speed of 50 kilometers/hour on level terrain. The existing alignment will be followed in most cases to minimize resettlement. However, viable alternative alignments should be considered and evaluated, especially in cases where such alternatives could provide savings, and minimize social and environmental impacts. The input from the communities² and Panchayati Raj Institutions will be incorporated in the selection of alignment alternatives.
- (viii) Provide adequate road safety features. Road safety audits will be conducted on sample roads in each RCIP tranche to identify specific road safety issues on each road and provide recommendations to address the issues. Road safety audits will also identify common/recurrent roads safety issues which will be addressed on all roads in each RCIP tranche.

¹ With consideration to possible climate change related risks that will reduce the life span and resilience of the roads and related infrastructure.

² Through the participation in the transect walks.

- (ix) Provide and integrate cross-drainage and longitudinal drainage. Provide proper cross-drainage structures, where necessary, to ensure all-weather connectivity. Explore possibilities of adopting causeways where minor/major bridges are proposed, for cost effectiveness. Provide conduits for future irrigation pipes.
- (x) Where height of embankment is more than 2.5m (approaches to cross drainage structures, side slopes should be protected by stone/cement concrete block pitching. Alternatively, use of erosion control blankets like biodegradable concrete fibers may be explored from cost considerations. In other cases, where embankment height to less than 2.5 m, local grass cover or vetiver grass cover may be adequate.
- (xi) Provide road furniture, including signs, delineators and kilometer posts. Provide speed breakers at critical locations where traffic speed should be lowered (such as schools, intersections with higher category roads, etc.).
- (xii) As rural roads are considered low volume, low cost roads, local materials which are cheaper to extract and readily available will be used to the maximum extent feasible.³
- (xiii) Pilot interlocking concrete block pavement in accordance to the IRC SP:63-2204 designs on village portion of rural roads where feasible.⁴
- (xiv) Pilot cold mix technology for bituminous pavements as per IRC 14:2004 specifications for use in construction of rural roads.⁵
- (xv) Stabilize high embankment slopes and bridge abutments, including the use of vetiver grass.⁶
- (xvi) Establish tree plantations along the roads or in designated locations where appropriate.
- (xvii) Use fly ash where feasible fly ash possesses several desirable characteristics such as lightweight, ease of compaction, faster rate of consolidation, better drainage, etc. In comparison to soil, spreading and compaction of fly ash can be started much earlier after a rainfall. For construction of embankments over weak subsoil fly ash could be a preferred material.

³ Past experience in India shows that for the same pavement thickness, the use of local materials in lieu of the conventional hard stone aggregates can bring about savings to the tune of 25% of conventional construction costs (up to 40% where hard stone aggregates have to be carted from long distances of the order of 200 km).

⁴ The advantage of the ICBP is that the blocks are constructed under the controlled conditions and actual laying of blocks is relatively simple. The ICBP is also much more aesthetically pleasing than the cc pavement. Application of the technology reduces energy consumption, and results in lower greenhouse gas emissions than hot mix.

⁵ This technology is especially beneficial compared to the hot mix technology in the regions which have continuous intermittent rains (such as Assam). Application of the technology reduces energy consumption, and results in lesser greenhouse gas emissions than hot mix.

⁶ The use of vetiver grass is especially beneficial to stabilize slopes adjacent to the pond/river and a viable alternative to concrete retaining walls and bamboo nets. Use of vetiver grass proved to be a very cheap and effective bio-engineering measure. It promotes climate resilience of the roads as it has better capacity to resist erosion due to heavier rains, storm surges, and similar climate induced events.

Attachment G to FAM

- (xviii) Pilot using of Jute Geo Textile (JGT). JGT, though biodegradable, helps in strengthening the soil and facilitating the drainage. JGT efficiently performs different tasks like separation, filtration, drainage, and reinforcing. The advantages for using JGT include natural consolidation of soil, strength graining of base soil through reduction in moisture content, and cost reduction compared to conventional methods in adverse soil conditions, like black cotton soils.
- (xix) Use pre-fabricated bridges (steel bridges) as an alternative to conventional bridges on PMGSY roads for faster construction.
- (xx) Pilot using of new materials accredited by IRC, e.g., new stabilizers for improving the engineering properties of soil, and additives improving the properties of asphalt.

Technical Bid Evaluation

Package No.	1				
Name of Road(s)	2	[List the names of all roads included in the contract package, specifying start and end points]			
District	3				
Estimated Cost (Rs. Lakhs)	Construction	4			
	Maintenance	5			
Total Estimated Cost (Rs. Lakhs)	6				
Construction period in years (Number)	7				
No. of bids downloaded	8				
No. of bids received	9				
Closing date for bid submission	10				
Bid Security Amount (Rs. Lakhs)	11				
Required Minimum Average Annual Construction Turnover	12				
Required Minimum Size of Contracts of Similar Size and Nature (one of two requirements)	13a (one contract)				
	13b (two contracts)				
Required Liquid Assets and/or Credit Facilities Available	14				
Required Minimum Bid Capacity	15				
Names of Bidders	16	[Insert name of bidder 1]	[Insert name of bidder 2]	[Insert name of bidder 3]	[Insert name of bidder 4]
Amount of Bid Security Satisfied (Yes/No)	17				
Bid Validity of Bid Security Satisfied (Yes/No)	18				
Bid Submission Fee Paid (Yes/No)	19				
Submission of Affidavit for Correctness of Information (Yes/No)	20				
Single Entity (SE) or Joint Venture (JV)	21				
Letter of Intent or JV Agreement Provided (Yes/No)	22				
Nationality (Each Member of JV)	23				
Eligible for ADB-financed Contracts* (Yes/No)	24				
No Conflict of Interest Present (Yes/No)	25				
Government-owned Enterprise? (Yes/No)	26				
If Government-owned Enterprise: is it legally and financially autonomous, operate under commercial law, and not a dependent agency of the Purchaser? (Yes/No)	27				
Is Bidder eligible in accordance with ITB 3.3 (ADB Sanctions)? (Yes/No)	28				
Letter of Technical Bid duly signed by the Authorized Person? (Yes/No)	29				
Annual Construction Turnover during Last 5 years (Rs. Lakhs)	2007-08	30			
	2008-09	31			
	2009-10	32			
	2010-11	33			
	2011-12	34			
Minimum Annual Average Construction Turnover	Average Annual Construction Turnover over Last Five Years (Rs. Lakhs)	35			
	Satisfied the Requirement (Yes/No)	36			
Minimum Size of Contracts of Similar Nature	Actual Size (One Largest Contract)	37			
	OR Actual Size (Two Contract)	38			
	Satisfies the Requirement (Yes/No)	39			
Total Value of Existing Commitments, Works which are yet to be Completed & Work Awarded but not yet Started	40				
Requirement for Liquid Assets and/or Credit Facilities Satisfied (Yes/No)	41				
Minimum Key Equipment Requirement Satisfied (Yes/No)	42				
Minimum Key Personnel, Nos. & Required Qualification Satisfied (Yes/No)	Construction	43			
	Laboratory	44			
	Routine Maintenance	45			
Submission of Income Tax Permanent Account Number, Balance Sheet, Profit & Loss Statement, Auditors Report & Details of Liabilities (Yes/No)	46				
Submission of Information on Current Litigation (Yes/No)	47				
Submission of Proposed Methodology and Schedule (Yes/No)	48				
Submission of Affidavit for non Employment of Related Personnel of the Employer (Yes/No)	49				
Submission of Affidavit for non Employment of Retired (within 2 years) Department Official (Yes/No)	50				
Bid capacity (Rs. lakhs)	Max. Value of Civil Engineering works (A) in any one year in last 5 years	51			
	Existing commitments "B"	52			
	Bid capacity = (A x N x M) - B	53			
	Satisfies the requirement (Yes/No)	54			
Material Deviation, Omission or Reservation Found (Yes/No)	55				
Technically Qualified (Yes/No)	56				

[Draft template only]**Note: The template is not exhaustive.****The actual document shall report on all key findings and aspects of evaluation**

English translated copy of original Bid Evaluation and Sanction Proceeding
 (Original bid evaluation report has been prepared in Hindi language) **[this does not apply if the original report is prepared in English]**

[Insert Name of the Evaluating Authority]

 Analysis of Tenders invited for PMGSY, ADB **[insert loan number]**

(Date of Meeting: [insert date])

1. Package No: **[insert]**
2. District: **[insert]**
3. Block: **[insert]**
4. No/Date of Administrative Approval: **[insert]**
5. No/Date of Technical Sanction: **[insert]**
6. No/ Date of N.I.T.: **[insert]**
7. Date of Receipt of Tender: **[insert]**
8. Cost as per Tender: **[insert]**
9. Earnest Money: **[insert]**
10. No. of Tenders sold: **[insert]**
 No. of Tenders downloaded: **[insert]**
11. Date of opening of Technical Bids: **[insert]**
12. Date of Opening to Financial Bids: **[insert]**
 Place: **[insert]**

13. Details of Tenders Received

S.N.	Name and class of the contractor	Bid Capacity in Rs. Lakhs	Amount quoted by contractor	Comparison with the Engineer's estimate	Remarks
			Total:		
			Construction:		
			Maintenance:		

14. Whether Earnest Money found correct: **[insert Yes/No]**15. The Contractors who downloaded the Tender documents through website whether produced the Bank Draft towards Cost of Tender Document **[insert Yes/No]**

16. On opening of the technical bids following contractors are found disqualified Remaining contractors fulfill the essential requirements.

Name of the Contractor	Reason of Disqualification
	[reason for disqualification should be provided in sufficient detail]

17. The financial offers submitted by the contractors were examined and found [Describe actual findings. Wording in the default case can be “found substantially responsive i.e., conform to all the terms, conditions, and specifications of the bidding documents, without material deviation, omission or reservation”]. If the financial bid is not substantially responsive, describe the material deviation, omission or reservation found

In case of the non-responsive financial bid, describer actions taken

18. Short Note regarding Financial Evaluation of Tenders Received

[Provide actual summary. Wording which can be used is: “For {describe the package}, {insert the number} contractors participated in the competition.

[Describe the findings of checking of substantially responsive bids by the Employer for any arithmetic errors, and actions taken if errors found; effect on bid prices]

The lowest bidder, {insert the name of the contractor} quoted Rs {insert the amount in figures and in words}. Indicate whether the amount was adjusted based on the checking for any arithmetical errors, or other specific conditions

For the lowest bidder:

{Provide check for aggregation. If the aggregation requirements are not met, record and check L2. If L2 meets the aggregation requirement, complete the documentation for L2, etc}.

{Provide comparison of item rates quoted for construction and total cost with the Engineers estimate, make a conclusion}

{If quotes for routine maintenance are invited: Provide comparison of rates quoted for the routine maintenance with the Engineers estimate, make conclusion},

{Provide assessment of whether the bid was found seriously unbalanced or front loaded; if found, describe the action taken}.

{Provide comparison with the work program – consistent or not; if not, describe the action taken }.

{Provide general conclusion: recommended for award or not}}

[insert the name and position of the head of the tender evaluation committee/team; and title of the evaluation committee/team]

19. Analysis and Decision taken by the [Insert the Name of the Tender Sanction Authority]

[Describe the decision taken, and the basis for it].

[insert the name and position of each member of the Tender Sanction Authority]

Form of certified summary sheet reporting on the main aspects of the bid evaluation and contract award
 [to be provided to ADB for all contracts, promptly upon award, refer FAM]

S.No.	District/PU	Package No.	Name of Road	Length in km	Date of NIT	Date of opening of Tech. Bid	No. of bids received	No. of bids Technically qualified	Date of Financial bid opening	Name of winning contractor	Contractor's address	Date of the award of contract	Contract Amount (in Rs. lakhs)		Completion date (stipulated)	Name of other bidders to the contract	Result of Technical evaluation (Q/NQ)	Amount of bid (in Rs.)
													Items rate civil works amount	Maintenance amount				
													12(a)	12(b)				
1		2	3		4	5	6	7	8	9	10	11			13	14	15	16
1																		
2																		
3																		
4																		
5																		

CERTIFIED BY:
 Name, Position, Agency

**CAPACITY DEVELOPMENT AND TECHNICAL ASSISTANCE
INSTITUTIONAL DEVELOPMENT FOR RURAL ROADS ASSET MANAGEMENT**

**COST ESTIMATES AND FINANCING PLAN
(\$'000)**

Component 1: Piloting Rural Roads Network Management Units

Item	Amount^a
A. Asian Development Bank Financing	
1. Consultants	
a. Remuneration and Per Diem	
i. International Consultants	988.00
ii. National Consultants	360.00
b. International and Local Travel	65.00
c. Reports and Communications	5.00
2. Equipment ^b	12.00
3. Workshops, Seminars and Conferences	100.00
4. Surveys/Field Visits	0.00
5. Miscellaneous Administration and Support Costs	26.00
6. Representative for Contact Negotiations	6.00
7. Contingencies	238.00
Total^c	1,800.00

Note: The government will provide counterpart support in the form of counterpart staff, part-time support staff, and office space.

^a Financed by the Japan Fund for Poverty Reduction (\$1.3 million), and TASF-others (\$0.5 million)

^b Includes desktop computers, printers, other necessary office equipment, and internet connection. Equipment will be turned over to the Government after completion of the technical assistance

^c Not including government in-kind counterpart support.

Source: Asian Development Bank estimates.

Component 2: Support to the Establishment of Rural Connectivity Training and Research Center

Item	Amount
A. Asian Development Bank^a	
1. Consultants	
a. Remuneration and Per Diem	
i. International Consultants	250.00
ii. National Consultants	80.00
b. International and Local Travel	40.00
c. Reports and Communications	5.00
2. Equipment ^b	5.00
3. Workshops, Seminars and Conferences	70.00
4. Surveys/Field Visits	0.00
5. Miscellaneous Administration and Support Costs	16.00
6. Representative for Contact Negotiations	6.00
7. Contingencies	28.00
Total^c	500.00

Note: The government will provide counterpart support in the form of counterpart staff, part-time support staff, and office space.

^a Financed by the Asian Development Bank's Technical Assistance Special Fund (TASF-others).

^b Includes desktop computers, printers, other necessary office equipment and Internet connection. Equipment will be turned over to the government after completion of the technical assistance.

^c Not including government in-kind counterpart support.

Source: Asian Development Bank estimates.