Environmental Monitoring Report

Project Number: 47100-004
September 2015

Period: January 2015 – June 2015

IND: Madhya Pradesh Power Transmission and Distribution System Improvement Project

Submitted by

Madhya Pradesh Pashchim Kshetra Vidyut Vitaran Co. Ltd.(DISCOM-W), Indore

Asian Development Bank

Gm/JB

SPEED POST

OFFICE OF THE MANAGING DIRECTOR
M. P. Pashchim Kshetra Vidyut Vitran Co. Ltd.
(Wholly Owned by Government of M.P. Undertaking)
GPH COMPOUND, POLOGROUND, INDORE
(EPABX Ph. No. 0731-2426144, 2426130, 2426200; Fax No. 2423300, 2421345)
E-mail- mpwzadb@rediffmail.com

No. MD/WZ/08-01/ADB-III/ 15740 Indore, Dated - 2 SEP 2015

To,

Ms. M. Teresa Kho, Country Director,
Indian Resident Mission,
Asian Development Bank,
4 San Martin Marg,
Chanakyapuri, New Delhi-110021

ASIAN DEVELOPMENT BANK
INRM
COUNTRY DIRECTOR'S OFFICE
07 SEP [illegible]
8383
RECEIVED

Sub: Submission of Environmental Monitoring Reports by MPPKVVCL, Indore (DISCOM-W) for ADB-III Loan No. 3066-IND: Madhya Pradesh Power Transmission & Distribution System improvement Project.

Dear Madam,

As desired the Environmental Monitoring Report for the period of January 2015 to June 2015 in respect of ADB-III Loan No. 3066-IND: Madhya Pradesh Power Transmission & Distribution System improvement Project is enclosed herewith separately.

It is hoped that you will find the information in order.

Thanking You,

Encl: As above (2 copies)

ASIAN DEVELOPMENT BANK
INRM
1584
PA 08 SEP 2015 GM
RECEIVED
Rec'd 8 Sep'15 PA

Yours Sincerely,

Project Director (ADB)
MPPKVVCL, Indore
O/o MD (WZ)

Copy to:

1.) Shri. J. Banerjee, Project Officer (Energy) INRM, Asian Development Bank, 4 San Martin Marg, Chanakyapuri, New Delhi-110021

2.) Shri. Girish Mahajan, Senior Environment Officer, INRM, Asian Development Bank, 4 San Martin Marg, Chanakyapuri, New Delhi-110021

SEMI ANNUAL ENVIRONMENTAL DUE DILIGENCE REPORT

Period - January 2015 to June 2015

Loan Number: 3066-IND

ADB Assisted Project

MADHYA PRADESH POWER SECTOR INVESTMENT PROGRAM (PROJECT- III)

Submitted to :

Executing Agency

Madhya Pradesh Paschim Kshetra Vidyut Vitaran Company Limited (DISCOM-W),Indore (MP) India

Prepared by:

SMS Envocare Limited
M-16, Shagun Complex,
Vijay Nagar Square, Indore, M.P.

CONTENTS

ABBREVIATIONS:

ADB	-	Asian Development Bank
AP	-	Affected People
CFC	-	Chloro Fluro Carbon
CSS	-	Country Safeguard Systems
EARF	-	Environment Assessment and Review Framework
EIA	-	Environmental Impact Assessment
EMP	-	Environmental Management Plan
EPA	-	Environment Protection Act
ESMU	-	Environmental Social Management Unit
GoMP	-	Government of Madhya Pradesh
GRC	-	Grievance Redress Committee
HVDS	-	High Voltage Distribution System
IEE	-	Initial Environmental Examination
LVDS	-	Low Voltage Distribution System
MPPCB	-	Madhya Pradesh Pollution Control Board
MPPKVVCL	-	Madhya Pradesh Paschim Kshetra Vidyut Vitaran Company Limited
PCB	-	Poly chlorinated biphenyl
PPE	-	Personal Protective Equipment
SIEE	-	Summary Initial Environmental Examination
SOP	-	Standard Operating Practices
SPS	-	Safeguard Policy Statement

1. INTRODUCTION

1.1 Project Description

Govt. of Madhya Pradesh (GoMP) through Govt. of India (GoI) has utilized a financing facility from the Asian Development Bank (ADB) to fund the power sector investment programme in the State of Madhya Pradesh. The objective of the Project is to increase capacity and operational efficiency in the electricity transmission and distribution system in the State. The program will sustain the reform agenda established with earlier ADB support, and is expected to help attract other long -term financiers to the sector. The investments to be supported by ADB have following advantages

(i) Improve quality and reliability of power;
(ii) Remove transmission bottlenecks;
(iii) Facilitate in-state and inter-regional power transfers;
(iv) Facilitate a reduction in overall system losses;
(v) Improve energy efficiency, expand renewable energy capacity, and capitalize related carbon market opportunities; and
(vi) Improve utility operational and financial performance.

A part of the fund is being utilized for the up- gradation and improvement of the distribution networks coming under the jurisdiction of MPPKVVCL Indore and it is being implemented under ADB Loan 3066.

The project shall comprise Subprojects under the following components:

Components A: Transmission System Improvement, comprising augmentation of substation capacity and transmission line lengths, and includes the provision of:

(i) Approximately 1,800 circuit-km of transmission lines;
(ii) 2 new and 3 upgraded 400 kV substations;
(iii) 4 new and 5 upgraded 220 kV substations; and
(iv) 26 new 132 kV substations.

Component B: Distribution System Improvement, comprising augmentation of substation capacity and distribution line lengths, and includes the provision of:

(i) Approximately 3,125 circuit-km of distribution lines;
(ii) 149 new 33/11kV substations; and
(iii) 328 upgraded 33/kV substations.

Component C: Capacity Building, comprising training for staff of MP Transco and the DISCOMs on such matters as project management, procurement, monitoring and evaluation, financial management, and safeguards and the provision of related support and associated facilities, including a hostel and laboratory. Component C as set out in paragraph 2 of this Schedule includes the provision of Consulting Services.

The physical closing date of the project is 30 October 2016. The overall objective of the investment programme is to address power sector issues and provide a solid foundation for the sustainable growth of the power sector in the State of Madhya Pradesh.

1.2 Status of the Project

The major activities under the project includes construction of new 33 kV lines, New 11 KV Lines, new LT lines, construction of 33/11 kV new substations, capacity addition of existing substations, Augmentation of Power Transformers and installation of vacuum circuit breakers, installation of distribution transformers etc. The physical project progress status as on June 2015 is presented in Table: 1.1(4 Reports of individual contractor)

Table1.1 Progress Status of the Sub-Projects (as on 30/06/2015)

Project ADB-3066 PROGRESS AS ON 30.06.2015

PPR 41 Lot I Indore Region

Contractor- Bharat Electrical Contractors and Manufacturers Pvt. Ltd.,Sangli

Amount Paid		**Date of Award:**	13.01.2104
Mobilization Advance:	10.56 Cr.	**Effective Date:**	29.05.2014
Material Advance:	03.00 Cr.	**Contractual Period**	24 Months
RA Bill:	00.34 Cr.	**Schedule Date:**	28.05.2016
Total Amount Paid	**13.90 Cr.**	**Contract Value:**	104.89 Crs

Description of Work: New 33/11KV S/s, Bifurcation of 33KV Line and Augmentation of PTR and Addition of PTR.

Sr. No.	Particular	Unit	Provision as per Award	Survey Approved	Achievement As on 31.05.2015		Work Completed During Month June 2015		Progressive Achievement up-to 30.06.2015		Balance	Remarks
					WIP	W/C	WIP	W/C	WIP	W/C		
1	New 33/11 KV 5MVA S/s	Nos.	22	**19**	13	P.E. - 690		P.E.- 179	13	P.E. - 869	22	4.5km str.
2	Bifurcation 33 KV feeders	Nos.	29	**26**	11 Feeders WIP	P.E. - 851	01 Feeders W/p	P.E.- 31Nos	12 Feeders WIP	P.E. - 882	29	1km str.
3	Augmentation 3.15 to 5 MVA	Nos.	51	**51**		17		2		19	33	
4	Augmentation 5 to 8 MVA	Nos.	11	**11**							11	
5	Addl. 5 MVA	Nos.	27	**26**							27	

Project ADB-3066 PROGRESS AS ON 30.06.2015

PPR 41 Lot II Ujjain Region

Contractor- Bharat Electrical Contractors and Manufacturers Pvt. Ltd.,Sangli

Amount Paid		**Date of Award:**	13.01.2104
Mobilization Advance:	09.47 Cr.	**Effective Date:**	18.06.2014
Material Advance:	03.16 Cr.	**Contractual Period**	24 Months
RA Bill:	00.00 Cr.	**Schedule Date:**	17.06.2016
Total Amount Paid	**12.63 Cr.**	**Contract Value:**	95.14 Crs

Description of Work: New 33/11KV S/s, Bifurcation of 33KV Line and Augmentation of PTR and Addition of PTR.

S No.	Particular	Unit	Provision as per Award	Survey Approved	Achievement As on 31.05.2015		Work Completed During Month May 2015		Progressive Achievement up-to 31.06.2015		Balance	Remarks
					WIP	W/C	WIP	W/C	WIP	W/C		
1	New 33/11 KV 5MVA S/s	Nos.	18	**14**	11	P.E.-389		P.E.-125	11	P.E.-514	18	9.5km stringing
2	Bifurcation 33 KV feeders	Nos.	28	**22**	7 Feeders WIP	P.E.-800		PE-120	7 Feeders WIP	P.E.-920	28	
3	Augmentation 3.15 to 5 MVA	Nos.	49	**46**		19		2		21	28	
4	Augmentation 5 to 8 MVA	Nos.	0	**0**							0	
5	Addl. 5 MVA	Nos.	30	**28**							30	

Project ADB-3066 PROGRESS AS ON 30.06.2015

PPR 42 Lot I — Indore Region

Contractor- Shri Ram Switchgears Pvt Ltd, Ratlam

Amount Paid -

Mobilization Advance:	02.17 Cr.	Date of Award	13.01.2014
Material Advance:	00.00 Cr.	Effective Date:	30.04.2014
RA Bill:	00.00 Cr.	Contractual Period	24 Months
Total Amount Paid	**02.17 Cr.**	Schedule Date:	29.04.2016
		Contract Value:	21.96 Crs.

Description of Work: 100KVA DTR works with associated 11KV line and LT line on AB Cable in Indore Region.

S No.	Particular	Unit	Provision as per Award	Survey Approved	Achievement As on 31.05.2015		Work Completed During Month June 2015		Progressive Achievement up-to 30.06.2015		Balance	Remarks
					WIP	W/C	WIP	W/C	WIP	W/C		
1	100KVA DTR (No.)	Nos.	414	32	12	21	8	4	20	25	389	
2	11KV Line (Km)	Kms.	210	11.78	P.E-128Nos.	5.5	P.E-17Nos.	1.47	P.E-145 Nos.	6.97	203.03	
3	LT Line (Km)	Kms.	171	14.46	P.E-200Nos.	9.1	P.E-69Nos.	1.2	P.E-269 Nos.	10.3	160.7	
4	Road/Line/ River crossing	Nos.	105	5							105	

Project ADB-3066 PROGRESS AS ON 30.06.2015

PPR 42 Lot II — Ujjain Region

Contractor- Shri Ram Switchgears Pvt Ltd, Ratlam

Amount Paid -		Date of Award	13.01.2014
Mobilization Advance:	04.24 Cr.	Effective Date:	30.04.2014
Material Advance:	03.11 Cr.	Contractual Period	24 Months
RA Bill:	00.00 Cr.	Schedule Date:	29.04.2016
Total Amount Paid	**07.35 Cr.**	Contract Value:	42.96 Crs.

Description of Work: 100KVA DTR works with associated 11KV line and LT line on AB Cable in Ujjain Region.

S No.	Particular	Unit	Provision as per Award	Survey Approved	Achievement As on 31.05.2015		Work Completed During Month June 2015		Progressive Achievement up-to 30.06.2015		Balance	Remarks
					WIP	W/C	WIP	W/C	WIP	W/C		
1	100KVA DTR (No.)	Nos.	807	479	42	127	273	30	315	157	650	
2	11KV Line (Km)	Kms.	413	210	P.E-2475Nos.	43.79	P.E-71Nos.	10.62	P.E-2546Nos.	54.41	358.59	
3	LT Line (Km)	Kms.	333	145	P.E-4229Nos.	39	P.E-224 Nos.	27.47	P.E-4453Nos.	66.47	266.53	
4	Road/Line /River crossing	Nos.	215	58							215	

1.3 Scope of Work

1. As a part of ESMU, Environmental Specialist has been appointed to review and monitoring of the implementation of Environmental management/ safeguard and monitoring plans in the execution of the works carried out under the sub projects. The objective is to assess the Environmental performance of the sub projects with a view to improve and mainstream the necessary Environmental compliances.

2. The Environmental Monitoring Scope of work includes the assessment of the compliance with statutory Environmental regulations, assessment of the adequacy of implementation of loan covenants, EMP implementation, implementation of ADB's Safeguard Policy Statement, 2009 (SPS) and EARF implementation. The Environmental Monitoring also recommends corrective action plan/remedial measures for impacts implications, if any.

1.4 Approach and Methodology

2. The report has reviewed and monitored the necessary Environmental compliances with respect to (i) Environmental safeguards (ii) loan covenants and (iii) implementation of Environmental Management and Monitoring Plans of the ADB approved IEE reports for all subprojects. The report also referred the Environmental covenants, Initial Environmental Examination report approved by the ADB, Environmental Monitoring Reports and Aid–Memoires prepared by ADB. The approach and methodology includes the following work plan.
3. Activity 1: Collection of relevant documents/reports included Initial Environmental Examination report approved by the ADB, Environmental Monitoring Reports and Aid –Memoires prepared by ADB etc.
4. Activity 2: On the basis of Environmental due diligence review conducted to strengthened and streamlined the agreed Environmental compliances. Major decisions have been taken to address the shortfalls identified and bridging the gaps.
5. Activity 3 : Site visits were carried out for the Environmental monitoring of the sub projects. Checklists were prepared to monitor the Environmental safeguards. Focused Group Discussions were carried out for public consultations. The shortcomings observed during the field visits have been communicated with the Corrective Action Plan for remedial measures. The same have already been initiated by the MPPKVVCL and the concerned contractors.

2. STATUS OF COMPLIANCE

The project loan agreement requires the Executing Agency has to implement the project in compliance of the all agreed relevant provisions stipulated in the Environmental documentation of the project. i.e. Initial Environmental Examination (IEE), Environmental Assessment and Review Framework (EARF), ADB's Safeguard Policy Statement, 2009 (SPS) Environmental Covenants as stipulated in the Loan Agreement, EMP applicable to the Sub Projects etc.

2.1 Compliance with Statutory Environmental Requirements

The IEE and EARF prepared for the project had identified the Environmental regulatory requirements of the project under taken by MPPKVVCL as per the Environmental regulations of the country applicable to the project. The Environmental regulatory requirements of the project with the compliance status are summarized and presented in Table-2.1.

Table 2.1 Compliance with Statutory Environmental Requirements

S. No.	Relevant Govt. Notifications /Rules	Compliance requirement under the Rule	Compliance Status
1.	EIA Notification 2006,as amended	All development projects listed in schedule 1 of EIA Notification needs to get prior Environmental Clearance	Power Distribution projects are excluded from the Schedule 1 of EIA Notification 2006
2.	Batteries Management and Handling Amendment Rules 2010	As per Rule 10(2), it shall be the responsibility of the bulk consumer to : (i) ensure that used batteries are not disposed off in any manner other than by depositing with the dealer/ manufacturer/ registered recycler /importer/ re-conditioner or at the designated collection centers,- and (ii) file half-yearly return in Form VIII to the State Board.	Will be disposed off as per the provisions of rules framed under EPA for disposal of scrap batteries through sale of authorized firm. Scraped equipments are disposed through Metal Scrap Trading Corporation (MSTS), a Govt. of India undertaking.
3.	Hazardous Waste (Management and Handling) Second Amendment Rules 2009	Used/burned transformer oils to be disposed off in accordance with the Hazardous Waste (Management and Handling) Rules	Used/burned oil of transformer is being disposed off as per the provisions of the Hazardous Waste (Management and Handling) Rules

4.	Ozone Depleting Substance (Regulation & Control) Rules 2000	Avoid equipments using CFCs/PCBs as per Ozone Depleting Substance (Regulation & Control) Rules	CFCs and PCBs are not used in any equipment. The equipments are as per latest BIS specifications that comply with international standards, particularly with respect to avoiding use of PCBs
5.	Air Prevention and Control of Pollution Act,1981 with Rules	Compliance to National Ambient Air Quality Standard	The new substations being established or the existing sub-station under augmentation do not generate any trade effluent or air pollutant in to the atmosphere. The only potential impact assessed is increase in airborne dust particles due to construction of roads for accessibility if any. No construction of roads for accessibility, the existing roads and tracks are being used for construction and maintenance access under the project.
6.	Water (Prevention and Control of Pollution) Act 1974 with rules	Prevention and Control of Water Pollution	The new substations being established or the existing sub-station under augmentation do not generate any trade effluent in to the receiving waters. No new construction facility for construction workers involved that can cause contamination of receiving waters.
7.	Noise Pollution (Regulation & Control) Rules, 2000	Compliance with Ambient Noise Standards in accordance to land use of the area	Construction techniques and machinery creating minimal sound disturbance that remains always within the permissible limits. No complaints received from the locals
8.	e-Waste (Management & Handling) Rules 2011 (Effective form 1st may 2012)	Compliance with the responsibility entrusted to Bulk consumers of electrical and electronic equipment listed in schedule I of the rule in to maintain records of e-waste generated by the consumer.	e-Waste generated will be channelized to authorized collection center or registered dismantlers or recyclers or is return to the pick up or take back services provided by the producers.

9.	Fly Ash Notification, 2003	Responsibility on the construction agency to use Fly Ash based bricks/product, within a radius of 100 kms from a thermal power plant.	No major construction work envisaged in the project. No major thermal power plant located within a radius of 100 kms of project area.

2.2 Compliance with EARF

Ensuring the follow-up of selection criteria detailed in the EARF, sub-projects were identified and prepared. Initial Environmental Examination (IEE) was conducted for the sub-projects and an EMP developed during the project formulation stage and the IEE was considered prior to the signing of Loan Agreements. The EARF also requires EA to take certain measures for the efficient monitoring and evaluation of compliance with the Environmental requirements of the project. The detailed alignment survey reports were scrutinized by the project staff of DISCOM-W and ensured that the sub-project activities will not have any significant impact on the Environmental. In addition, the EARF requires the EA to take measures as detailed in Table 2.2 while planning and implementing this Tranche. The status of compliance during implementation phase is also detailed in Table 2.2.

The scope of works provided for both augmentation of existing system and new works for construction of substation and transmission and distribution lines as per details of works given on page 3 of the report. Although much environmental impacts are not envisaged in this work, MPPKVVCL would take all necessary measures to conserve and protect the environment and also monitor any adverse impact on the environment during the implementation of the project. So far no complaints have been received in this regard.

Table.2.2 Compliance Requirements and its Status under EARF

S. No.	EARF Compliance Requirements	Compliance Status
1	Environmental and Social Management Unit will be created within the DISCOM headed by concerned head of the company which will be accountable and responsible for implementation of EMP.	Environmental and Social Management Unit (ESMU) has been reconstituted headed by the Project Director (ADB) and Environmental Specialist as member with five other technical members vide order No. CMD/WZ/04 11/ADB/7961 dated 13/04/11, for ADB assisted projects.
2	A Grievance Redress Committee (GRC) will be constituted in each subproject location to address all concerns and grievances of the local communities and affected parties.	Project Grievance Redress Committee (GRC) has been constituted vide order no CMD/ WZ/04-11/ADB/7962 dated 13/04/11, for ADB assisted projects.
3	An independent monitoring agency will be hired by the EA for undertaking external monitoring of all projects within three months of loan approval.	Environmental Specialist has been appointed, as an independent monitoring agency under ESMU vide Order No.MD/WZ/06/PUR/ ADB-III/10961/ORD-40 Indore dated 23.06.2015, for ADB assisted projects.

2.3 Compliance Status with the Environmental Covenants stipulated in the Loan Agreement

DISCOM-W is implementing projects approved under loan agreement No. 3066. According to the loan agreement, EA has to ensure that sub-projects are not located within national park and wildlife sanctuaries and monuments of cultural and historical archeological importance are avoided. The subprojects were designed after detailed field surveys to ensure strict compliance with the above conditions. The sub-project sites are not passing through any wildlife sanctuary or national park. No sensitive area or monuments of cultural and historical importance are affected by the project activities. The projects are being planned, designed, and implemented in complying with the other conditions of the loan agreement. The Environmental compliance requirements as per the Loan Agreement and its compliance status during the implementation phase is summarized and presented in Table 2.3

Table 2.3 Environmental Compliance Requirements as per Agreement and Present Status

S. No.	Loan Agreement	Environmental Compliance Requirements	Compliance Status
1	Schedule 4, item 5 of Loan Agreement	The Borrower shall ensure or cause the State to ensure, that the relevant Project Executing Agency ensures that: (a) No works contracts is awarded for a Subproject which involves environmental impacts until State, MP Transco and the DISCOMs, as applicable, have incorporated the relevant provisions from the EMP, RP, into the Works Contract; and (b) No commencement of Works is allowed under any section of the Works contract which requires environmental clearance, until the State, MP Transco and the DISCOMs, as applicable, have obtained environmental clearance from the appropriate environmental authority of the Borrower and/or State, as applicable.	West Discom Shall ensure the compliance of all applicable Environmental impacts.
2	Schedule 5, item 2 of Loan Agreement	The State, MP Transco and each DISCOM shall insure that, towards the smooth implementation of the Project and Subprojects, grievance (S), if any, from stakeholders, relating to Project or any Subproject implementation or use of funds will be addressed effectively and efficiently.	There is no complaint/ grievance, from any of the stakeholder. A Grievance committee to address any grievances during the implementation is in plaee. Funds will be utilized effectively and efficiently.

3	Schedule 5, item 5 of Loan Agreement	The Borrower shall ensure or cause the State to ensure, that the relevant Project Executing Agency ensures that the preparation, design, construction, implementation, operation and decommissioning of each Subproject complies with: (a) all applicable laws and regulations of the Borrower and the State relating to Environment, health and safety; (b) The Environmental Safeguards; and (c) All measures and requirements set forth in the IEE, the EMP corrective or preventative actions set forth in a Safeguards Monitoring Report.	MP Transco and DISCOMs ensures that the preparation, design, construction, implementation, operation and decommissioning of each Subproject complies with: (a) all applicable laws and regulations of the Borrower and the State relating to Environment, health and safety; (b) The Environmental Safeguards; and (c) All measures and requirements set forth in the IEE, the EMP corrective or preventative actions set forth in a Safeguards Monitoring Report.
4	Schedule 5, item 6 of Loan Agreement	Land Acquisition and Involuntary Resettlement: the Borrower shall ensure, or cause the State to ensure, that the relevant Project Executing Agency ensures that all land and all rights-of-way required for	Involuntary resettlement or land acquisition not required for this project.
		each Subproject are made available to the Works contractor in accordance with the schedule agreed under the related works contract and any land acquisition and resettlement activities are implemented in compliance with : (a) all applicable laws and regulations of the Borrower and the State relating to land acquisition and involuntary resettlement; (b) the Involuntary Resettlement Safeguards; and (c) all measures and requirements set forth in the RP, and any corrective or preventative actions set forth in the Safeguards Monitoring Report.	

5	Schedule 5, item 7 of Loan Agreement	Without limiting the application on the Involuntary Resettlement Safeguards or the RP, as applicable, the Borrower shall ensure, or cause the State to ensure, that the place in connection with the Project or any Subproject until: (a) compensation and other entitlements, as relevant, have been provided to affected people in accordance with the RP, and (b) a comprehensive income and livelihood restoration program has been established in accordance with the RP.	There is no involuntary resettlement required for the project.
6	Schedule 5, item 8 of Loan Agreement	Indigenous Peoples: The Borrower shall ensure, or cause the State to ensure; that the relevant Project Executing Agency ensures that the Project does not have any indigenous people's impacts within the meaning of the SPS. In the event that the Project does have any such impact, the Borrower shall ensure or cause the State to ensure that the relevant Project Executing Agency ensures that the preparation, design, construction, implementation and operation of the Project and all Project facilities comply with : (a) all applicable laws and regulations of the Borrower and the State relating to indigenous peoples; (b) the Indigenous Peoples Safeguards; and (c) all measures and requirements set forth in the relevant IPP, if any, and any corrective or preventative actions set forth in a Safeguards Monitoring Report.	There is no indigenous peoples impact, because of this project. ESMU is in place to address any issue arising in future.
7	Schedule 5, item 9 of Loan Agreement	Human and Financial Resources to Implement Safeguards Requirements: The Borrower shall ensure, or cause the State or ensure, that the relevant Project Executing Agency ensures that all necessary budgetary and human resources to fully implement the EMP, the RP, and any IPP are made available.	EMP is under implementation, and it is ensured that there will be no budgetary and human resources constraints in its implementation.

8	Schedule 5, item 10 of Loan Agreement	<u>Safeguards – Related Provisions in Bidding Documents and works Contracts:</u> The Borrower shall ensure, or cause the State to ensure, that the relevant Project Executing Agency ensures that all bidding documents and contracts for Works contain provision that require contractors to: (a) Comply with the measures and requirements relevant to the contractor set forth in the EMP, and the RP (to the extent that they concern impacts on affected people during construction), and any corrective or preventative actions set out in a Safeguards Monitoring Report. (b) Provide MP Transco and the relevant DISCOM with a written notice of any unanticipated environmental, resettlement or indigenous peoples risk or impacts that arise during construction, implementation or operation of the Project that were no considered in the IEE, the EMP, the RP or any IPP. (c) Adequately record the condition of roads, agricultural land and other infrastructure prior to starting to transport materials and construction; (d) Fully reinstate pathways, other local infrastructure to at least their pre-project condition upon the completion of construction.	Necessary action for compliance of the issues raised under this item have already been taken (a,b). Implementation of EMP is part of the Bidding Document. The concerns of affected people and indigenous people during construction/operation of the project will be properly addressed, if not already considered (c) Condition of roads, agricultural land and other infrastructure is being recorded prior to starting to transport material and construction (d) Will be ensured. through regular monitoring

9	Schedule 5, item 11 of Loan Agreement	Safeguards Monitoring and Reporting: the Borrower shall ensure, or cause the State to ensure, that the relevant Project Executing Agency ensures the following: (a) Submit semiannual Safeguards Monitoring Reports to ADB and disclose relevant information from such reports to affected persons promptly upon submission. (b) If any unanticipated environmental and/or social risks and impacts arise during construction, implementation operation of the Project that were not considered in the IEE, the EMP, the RP or IPP (if any), promptly inform ADB of the occurrence of such risks or impacts, with detailed description of the event and proposed corrective action plan; (c) Report any breach of compliance with the measures and requirements set forth in the EMP, the RP or IPP (if any) promptly after becoming aware of the breach.	Safeguard monitoring and reporting mechanism as envisaged under this item has already been developed. It will be implemented as per item11 of schedule 5
10	Schedule 5, item 12 of Loan Agreement	The Borrower shall ensure, or cause the State to ensure, that the relevant Project Executing Agency ensures that no proceeds of the Loan are used to finance any activity included in the list of prohibited investment activities provided in Appendix 5 of the SPS.	This will be strictly complied to so far no expenditure has been done on the list of prohibited investment activities provided in Appendix 5 of the SPS.

11	Schedule 5, item 13 of Loan Agreement	Other Social Measures: The Borrower shall ensure, that the relevant Project Executing Agency ensures that Works contracts follow all applicable labor, health, and safety laws and regulations of the Borrower and the State and that these further include provisions of the effect that contractors (a) 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; and (b) follow and implement all statutory provisions on labor (including no employing or using children as labor, equal pay for equal work), health, safety, welfare, sanitation, and working conditions. Such contracts shall also include clauses for termination in case of any breach of the stated provisions by the contractors.	It is ensured that all necessary measures by the relevant Project Implementing agency will be taken to fulfill the provisions of all applicable laws and regulations of state and central government. Similarly all other provisions made under this item will be fully complied.
12	Schedule 5, item 15 of Loan Agreement	MP Transco and each DISCOM shall conduct extensive public awareness campaigns, including without limitation, installing appropriate signs and issuing fliers to the public, to ensure that people are aware of safety hazards on misuse of the high voltage transmission and distribution system.	Knowing the importance of Public awareness progammes, regular interaction with the public and making them aware of the safety hazards with the help of signboards and other measures, have been made part and partial of the project,

2.4 Compliance with ADB's Environmental Safeguards

ADB's Environmental Safeguard Requirements are one of the safeguard requirement that borrower/client is required to meet. These requirements include assessing impacts, planning and managing impact mitigations, preparing Environmental assessment reports, disclosing information and undertaking consultation, establishing a grievance mechanism, and monitoring and reporting. These also include particular Environmental safeguard requirements pertaining to biodiversity conservation and sustainable management of natural resources, pollution prevention and abatement, occupational and community health and safety, and conservation of physical cultural resources etc. The applicability of particular requirements is established through the Environmental assessment process and compliance with the requirements is achieved through

implementation of Environmental management plans agreed to by ADB and the borrower/client. The compliance status of ADB's Environmental Safeguards taken during the construction phase is summarized and presented in Table 2.4.

Table2.4.Compliance Status of ADB's Environmental Safeguards

S. No.	ADBs Safeguard Requirements	Compliance Requirement	Status
1.	Environmental Assessment	Identify potential Environmental impacts on various resources and determine its significance in consultation with all stakeholders.	Environmental assessment of the proposed investments was carried out following Safeguard Policy Statement (SPS) (2009); The project is classified as category B in accordance with ADB's Environmental Assessment Guidelines, Initial Environmental Examinations (IEEs) have been prepared .The Summary IEE (SIEE) outlines key aspects of the project components, Environmental benefits and negative impacts, proposed mitigation measures, and an Environmental Management Plan (EMP). Public consultation was also carried out during the project and IEE preparation.
2.	Environmental Planning and Management	The borrower/client will prepare an Environmental Management Plan (EMP) that addresses the potential impacts and risks identified by the Environmental assessment.	The client has prepared an EMP addressing the potential impact and risks, suggesting appropriate mitigation measures.
3.	Information Disclosure	The borrower will submit to ADB the final IEE and Environmental Monitoring Reports.	The Final IEE is submitted. This is the second Environmental Monitoring Report for the period from January 2015 to June 2015.
4.	Consultation and Participation	The borrowers will carry out consultation with AP and other stakeholders. The consultation process and its Results are to be documented and reflected in the Environmental Assessment Report.	Public Consultations were carried out during assessment and are documented and reflected in the assessment report i.e. in the IEE. Environmental Specialist has also carried out the public consultation during field visits.

5.	Grievance Redress Mechanism	The borrower/client will establish a mechanism to receive and facilitate resolution of affected peoples' concerns, complaints, and grievances about the project's Environmental Performance.	A GRC has been constituted vide Order No.CMD/WZ/04-11/ADB/7962 dated 13/04/11. So far, no complaint received by GRC.
6.	Monitoring and Reporting	The borrower/client will monitor and measure the progress of implementation of the EMP.	Monitoring and measuring of the progress of implementation of EMP is being done both at the field by EA's and at the HQ's by Project Director.
7.	Unanticipated Environmental Impacts	Where unanticipated Environmental impacts become apparent during project implementation, the borrower/client will update the Environmental assessment and EMP.	No unanticipated Environmental impacts encountered as of now However EMP will be updated as and when required.
8.	Biodiversity Conservation and Sustainable Natural Resource Management	The borrower/client will assess the significance of project impacts and risks on Biodiversity and natural resources as an integral part of the Environmental assessment process	No risk, and impact on Biodiversity, habitat change, and natural resources Observed.
9.	Pollution Prevention and Abatement	The borrower/client will apply pollution prevention and control technologies and practices consistent with international good practice, as reflected in internationally recognized standards.	No significant pollution issue involved in the project. Equipments comply with international standards, particularly with respect to avoiding use of PCBs.
10.	Health and Safety	The borrower/client will apply preventive and protective measures consistent with international good practice, as reflected in internationally recognized standards	Preventive and protective measures are being applied with international good practices. Safety Manuals and Safety and Quality meetings are in practice by the contractors.
11	Physical Cultural Resources	The borrower/client is responsible for siting and designing the project to avoid significant damage to physical cultural resources.	No damage to physical cultural resources observed.

2.5 Compliance with Environmental Management and Monitoring Plans

The Project activities being implemented under the project are renovation and up-gradation of existing distribution system and thereby enhancing the capacity and efficiency of the distribution networks in the project area. Main activities are supply and erection of transformers and other equipment. Hence not much civil construction works are to be carried out. Therefore not many Environmental issues are observed during the implementation of the project. The contractors entrusted to strictly implement the EMP along with the implementation of the project and have been made as part of the contract. The amendment letter has already been issued to make EMP. The mitigation measures suggested in the EMP and its implementation status during the implementation phase are presented in Table 2.5.

Table2.5.ComplianceStatus with Environmental Management Plan (EMP)

S. No	Proposed Mitigation Measure	Status of Implementation	Measures for Improvement
1	PCBs not used in transformers or other project facilities or equipments Processes, equipment and systems not to use chlorofluorocarbons (CFCs), including halogen Use of PCBs and CFCs in the existing systems should be phased out and to be disposed of in a manner consistent with the requirements of the government.	Transformers or other project facilities or equipments do not use PCBs.	Phased out materials are disposed off through approved agencies as per the provisions of hazardous Wastes Rules. Latest BIS or equivalent international standard is specified for all equipments and project facilities
2	Careful route selection to avoid existing settlements	As part of the detailed survey and line alignment selection, consultations with local people were carried out. New lines and substations proposed under this project are located without any impact on settlement.	Each circle CEO and contractor's designated environmental officer are ensuring the same.
3	Involuntary resettlement or land Acquisition	Involuntary resettlement or land acquisition not required for this project.	–

4	Avoid encroachment into precious ecological areas by careful site and alignment selection	No precious ecologically sensitive areas/wildlife sanctuary area is involved.	–
5	Avoid encroachment into Forestland.	Reserve forest area involvement has not yet come to the notice.	–
6	Avoid encroachment into Farmland	Detailed survey and line alignment selection were made with minimum or no impact on farmland.	–
7	Better design to ensure noise will not be a nuisance	Latest BIS or equivalent national or international standards is specified for all equipments and project facilities,	– –
8	Appropriate placement of poles to avoid drainage/ channel interference	In majority of the cases, the line alignment finalized along the existing line without affecting the natural drainage During detailed survey, consultations were made with local people.	—
9	Equipment specification with respect to potential pollutants	Equipments purchased under the project do not contain PCB or CFC. Latest BIS or equivalent international standards are adopted for the equipments and other project facilities.	–
Construction			
10	Equipment specification with respect to potential pollutants	No heavy equipments are used in the construction works under the project. Line works involved some minor works like digging of pit, etc.	–

11	Construction activities to be scheduled to avoid disturbance to farming activity	Works were carried out after harvesting to avoid any damage to farming activities. Contractors have been made responsible for ensuring avoidance of disturbance to farming activities. No complaint from farmers regarding damage of farming activities.	Contractors have been made responsible to maintain a channel of communication with the communities to address any concern or grievances and try to resolve it as soon as possible and also ensure the availability of register for public complaints at the site office.
12	Construction equipment to be well maintained and turn of the plant not in use to avoid noise, vibration and operator safety.	Equipment/vehicle is employed in the construction in the construction works. Project works are being carried out only during day time. No heavy equipments are used in the construction work.	EMP has been made part of the contract and the contractor has been made responsible for implementation of the EMP. Contractor will use equipments and vehicles complying with Environmental standards.
13	Existing roads and tracks used for construction and Maintenance should be used to access to the project site.	Established roads and tracks are being used, the contractors have not constructed any new access road for these project activities.	EMP has been made part of the contract and the contractor has been made responsible for implementation of the EMP.
14	Marking of vegetation to be removed prior to site clearance and strict control on clearance activities to ensure minimal clearances	Strict control observed on clearance activities by the project authorities to ensure minimal clearances.	
15	Trees allowed growing up to a height within the ROW by maintaining adequate clearance between the top of tree and the regulator as per the regulations. Trees that can survive pruning should be pruned instead of clearing.	No trees cut/removed for the project. Trimmings of branches of trees are to be required only as operation and maintenance activity.	EMP has been made part of the contract and the contractor has been made responsible for implementation of the EMP.

16	Construction workers prohibited from harvesting wood in the project area	Included on the bid document. No labour camps established for the project. Generally Contractor employs local Labors and used the facilities available on site.	
17	Dispose scrap materials such as batteries, transformers, conductors, capacitors etc in Environmentally sound manner	Having the authorization from MPPCB for the disposal of hazardous materials and scrap batteries. Scrap materials will be disposed off in accordance with provisions of applicable laws.	
18	Tree clearances for easement establishment to only involve cutting trees off at ground level	No trees cut/removed for the project.	
19	Excavated earth to be stored and reused for back filling	Minor civil construction works involved. Contract clauses specified the best management construction practices.	
20	Fuels and other hazardous materials to be stored above high flood level	Contract clauses specified the best Management construction practices.	
21	Noisy construction activities shall be carried out during day time	Project works are being Carried out only during daytime.	-
22	Construction workforce facilities to include proper sanitation, water supply and waste disposal facilities	No workers camp established. Local workers were employed as far as possible. No complaints received so far. Part of contract and the contractor has to implement it	-
23	Existing irrigation facilities are to be maintained Use existing access roads for transportation of materials Protect/preserve top soil and reinstate after construction completed Repair/reinstate damaged bunds etc after construction	Minor civil construction works involved, established roads and tracks are being used. The existing infrastructural facilities are maintained without damaging its originality.	EMP has been made part of the contract and the contractor has been made responsible for implementation of the EMP.

24	Take measures to prevent erosion and /or silt run off Limit site clearing to work area Regeneration of vegetation to stabilize work areas on completion Avoidance of Excavation in wet season. Water courses protected from siltation through use of bunds and sediments ponds.	Minor civil construction works involved, No erosion causing works carried out	
25	Careful construction practices to avoid loss to neighboring properties Productive land to be reinstated after construction Compensation for loss of Production	Incorporated in contract document and implemented through contractor No complaints received regarding loss of neighboring land uses.	
26	Existing borrow sites will be used to source aggregates therefore no need to develop new sources for aggregates.	No borrow site developed for the project. Incorporated in contract document and implemented through contractor.	-
27	Ensure health and safety of Workers	Works are being carried out under best management construction practices. Safety Manuals/safety day celebrations are being in practice by the contractors.	-
28	Training to the DISCOM Environmental monitoring Personnel	Some of the officers attended the trainings and in future regular Participation/organization of the trainings programes will be ensured.	Proper record of training should be maintained and action plan for training the staff and workers will be drawn up and implemented.

29	Effective Environmental monitoring system using checklist	Effective Environmental Monitoring System under the project has been placed. All the contractors have been made responsible to strictly implement the EMP along with the project and Contractor's designated Environmental/safety Officer will be responsible for monthly reporting and monitoring of EMP implementation to PIU. Similarly all the circle SEs(O&M) have been designated/ authorized to work as an Environmental officers under the ADB Projects and the designated officer will be responsible for EMP's Environmental compliances, Monitoring and Reporting.	Check list based monitoring has been Initiated and maintained by the Contractors and PIUs.
30	Creation of Environmental and Social Cell , headed by Chief Officer of DISCOM for implementation and monitoring of EMP	The Environmental and Social Management Unit (ESMU) has been reconstituted headed by the Project Director (ADB) and Environmental Specialist with five	-
		other technical members The constitution of ESMU has strengthened the monitoring activities.	

3. ENVIRONMENTAL MONITORING OF THE PROJECT

The IEE has identified the major Environmental issues likely to be occurred during the implementation of the project. The impacts due to the sitting of the project and alignment of lines were avoided by consultation with the local authorities and people, forest, revenue and other concerned government agencies during the detailed site selection surveys. The alignments of the lines were finalized after gating appropriate clearance from designated authorities. The contractors detailed alignment survey reports were reviewed at the Project Office and ensured that the line alignments are not encroaching into any national park or wildlife sanctuary or any other ecological sensitive area. Similarly, the impacts during the construction activities are now being regularly monitored and the shortcomings observed during the field visits have been communicated to all concerned with the Corrective Action Plan for remedial measures.

The Environmental and Social Management Unit (ESMU) has already been reconstituted. ESMU is headed by the Project Director (ADB) with inclusion of Environmental Specialist to look after the Environmental consequences of the project and five other technical members . The ESMU will strengthen the monitoring activities.

As the civil construction works under the project are very low, the Environmental pollution warranting monitoring of ambient air quality, surface water quality and noise level etc. were not experienced. Environmental quality monitoring will be conducted only at places where public complaint arises. Complaints from the affected person were identified as the performance indicator. No complaints were received so far against the alignment selection and impact due to the construction activities under the project. So no Environmental quality monitoring was carried out. In order to streamline the monitoring system, the Project Grievance Redress Mechanism has been placed and made responsible for handling public complaints regarding Environmental/social related matters. All public complaints will be entered into the Complaints Register. The contractor will promptly investigate and review Environmental complaints and adopt appropriate corrective actions to arrest or mitigate the cause of the complaints. The register of all complaints is to be transferred to the concerned Project Manager of DISCOM-W within 48 hrs of their receipt, with the action taken by the contractor on the complaints. All the complaints received will be placed before the Project Grievance Redress Committee and the decision of the committee will be implemented. The complaint register will be placed at a convenient place, easily accessible to the public. The Environmental Monitoring compliance of DISCOM-W is presented in Table.3.1.

Table3.1Environmental Monitoring Compliance of DISCOM-W

	Environmental Monitoring Tasks	Implementation Responsibility	Status of Compliance
1.	**Pre Construction Phase**		
	Audit project bidding documents to ensure EMP is included.	EAs through project management office and implementation units	Complied
	Monitor contractor's detailed alignment survey to ensure relevant Environmental mitigation measures in EMP have been included.	EAs through project management office and implementation units	Complied
	Audit detailed designs of lines and associated substations, and distribution system expansion to ensure Environmental safeguards and mitigation measures have been included.	EAs through project management office and implementation units	Complied
2	**Construction Phase**		
	Regular monitoring and reporting of contractor's compliance with contractual Environmental mitigation measures include monitoring implementation status of mitigation measures specified in EMP.	EAs through project management office and implementation units	Complied. However contractors have to ensure the follow-up of the checklist monitoring system.
3	**Operation and Maintenance Phase**		
	Observations during routine maintenance inspections of substations and transmission lines and phased out equipments management. Inspections will include monitoring implementation status of mitigation measures specified in EMP.	Project is still under initial stages of its implementation. However task given during operation and maintenance will be undertaken in away to avoid any adverse impact on environment.	Will be complied after the project is in operation and maintenance phase.

4. MONITORING OF ENVIRONMENTAL RECEPTORS/ATTRIBUTES

The chances of Environmental pollution caused by the project activities are very low. No heavy vehicles or equipments are engaged for the civil construction activities. Hence not much noise or dust pollution is observed during the construction activities. No complaints were received so far against the site selection or damages or nuisance caused due to the construction activities. Hence no ambient Environmental quality monitoring was carried during the periods under consideration. In case any work in future has to be carried out near to any sensitive establishment or through residential complex, baseline as well as real time Environmental quality monitoring will be arranged through agencies approved by the Madhya Pradesh State Pollution Control Board/Appropriate authority.

Effective Environmental Monitoring System under the project has been placed. All the contractors have been made responsible to strictly implement the EMP along with the project and Contractor's designated Environmental/safety Officer will be responsible for checklist based monthly reporting and monitoring of EMP implementation to PIU. Similarly all the circle SEs(O&M) have been designated/ authorized to work as an Environmental officers under the ADB Projects and the designated officer will be responsible for EMP's Environmental compliances, Monitoring and Reporting.

5. ANY OTHER ENVIRONMENTAL ASPECTS, IMPACTS OBSERVED DURING IMPLEMENTATION WHICH WERE NOT COVERED EARLIER

As discussed earlier, the sub-project activities under this tranche does not have much impact on the Environmental or the people living adjacent to the project sites. The impacts noticed are typical to that associated with construction activities. No specific problem was noticed during the period under report.

The documentation of EMP implementation at contractor's level is being streamlined with the introduction of checklist system. The streamlined functioning of the ESMU will improve the monitoring system and ensure effective implementation of EMP.

Following points need consideration of the contractor/environmental officer and MPPKVVCL for mitigation of impact on environment:

(i) Schedule activities to minimize Environmental impact and interference with the population nearby.

(ii) Determine the end land use for each segment of the alignment prior to commencing surface disturbance and identify soil conservation and reclamation and re-vegetation methods to achieve this land use.

(iii) Develop plans to address environmental problems that may arise and require immediate attention. For example Contingency plans could be developed for issues such as soil erosion and compaction, rock disposal, chemical spills, fire etc.

(iv) Plan the right of way and locate transmission lines to minimize aesthetic impact clean of the right of way in preparation for reclamation.

(v) Replace salvaged soil materials, so that soil depth or representative undisturbed land and capable of supporting vegetation.

(vi) Ensure that levels of contaminants on the right of way of substation area do not become a hazard to human or animal health, do not affect water quality and do not impede germination growth, survival or management of vegetation used for reclamation.

(vii) Appropriate action to avoid accidents, mal function and unplanned event should be taken.

(viii) A management plan should be drawn at the field level to meet any emergency situation at all levels of commissioning of the project under consideration.

6. DETAILS OF GRIEVANCE REDRESS COMMITTEE AND COMPLAINTS RECEIVED FROM PUBLIC AND ACTIONS TAKEN THEREOF TO RESOLVE

The Project Grievance Redress Mechanism has been placed and made responsible for handling public complaints regarding Environmental/social related matters. The Project Grievance Redress Committee has been constituted vide order No.CMD/WZ/04-11/ADB /7962 dated 13/04/11. No complaint received so far. All public complaints will be subjected to enter into the Complaints Register. The contractor will promptly investigate and review Environmental complaints and adopt appropriate corrective actions to arrest or mitigate the cause of the complaints. All the complaints received will be placed before the Project Grievance Redress Committee and the decision of the committee will be implemented. The complaint register will be placed at a convenient place, easily accessible by the public.

7. GUIDELINES FOR ENVIRONMENT PROTECTION

The Environmental Protection Guidelines apply to the construction, operation, maintenance, and reclamation of transmission lines. Following the Guidelines may help ensure successful conservation, and eventual reclamation. They apply to all disturbances associated with the transmission line, including infrastructure (roads, work camp sites, etc.).

Environmental Protection Officers will expect to see the Guidelines being followed in the field. The Officers or operator may request modifications in the procedures in order to deal with site-specific conditions.

The Guidelines promote and encourage:

- The return of a disturbed site to a land capability equivalent to the predisturbance land capability.
- Assessment and documentation of predevelopment soil, landscape and vegetation conditions as the standard for post-development conditions.
- Identification of potential environmental concerns through preconstruction site assessments and preplanning.
- Protection of the environmental characteristics of the project site to minimize post construction remedial requirements.
- Awareness of the value of soil, the sensitivity of soil to disturbance, and the difficulty of reclaiming degraded soils.
- Awareness of the importance of protecting native vegetation through minimizing disturbance and rapid reestablishment of vegetation that is compatible with the adjacent land.
- Monitoring and on-site supervision by personnel responsible for environmental quality control of all activities to ensure a complete record of conservation, degradation, mitigation and reclamation events.
- Site assessments following reclamation which provide a complete evaluation of soil, landscape and vegetation conditions and comparison to predevelopment conditions or adjacent control locations prior to application for a reclamation certificate.
- Monitoring during the operating life of the transmission line to ensure that integrity of the environment on and adjacent to the site is maintained.

This may be circulated to all concerned for better environmental management

8. DECOMMISSIONING BY CONTRACTOR AFTER COMPLETION OF THE PROJECT

The objectives of decommissioning by the contractor transmission lines are:

1. To ensure that on-site contamination is identified and appropriate steps are taken to remediate sites.
2. To protect the environment while the site is being shut down and decommissioned.
3. To ensure that the site is reclaimed to a land capability equivalent to the pre-disturbance land capability and compatible with current adjacent land use so that a reclamation certificate can be obtained.

Action required

- Dismantle, decontaminate and transfer the equipment in a manner that protects the environment. To check for contaminants (for instance, PCB's, hydrocarbons, sterility, and other contaminants).
- Take soil samples from locations unaffected by substation operations (near the perimeter of the property) to determine baseline levels of contaminates.
- Develop a reclamation plan to remediate and reclaim the substation site.
- Remediate or dispose of all the contaminated material in an effective and appropriate manner, to approved facilities.
- Salvage transmission steel structures in an effective and appropriate manner.
- Fill pole or structure holes with clean compacted sand and replace subsoil and topsoil over the holes.
- Seed and fertilize the sites with vegetation compatible with adjacent land.

This should be communicated to all concerned.

9. FOLLOW-UP ACTIONS AND CONCLUSIONS

- The monitoring report confirms that the subprojects of Loan 3306 of DISCOM-W have so far caused no potential significant negative Environmental impacts during the implementation of the project. There might be some environmental impacts during execution of work, which will be mitigated by proper implementation of EMP. No unanticipated environmental impacts were observed during project implementation.
- The Corrective Action Plan (CAP) for the shortcomings observed during the implementation phase are being communicated to all concerned from time to time. Corrective measures for the same have already been taken by the concerned i.e. by the Contractors and MPPKVVCL authorities. However, Institutional Arrangements as prescribed in the EARF and Loan Covenants was strictly followed for better monitoring and execution of Environmental Management Plan
- All the subprojects for transmission system improvement are not located anywhere near the 9 national parks and 25 wildlife sanctuaries or the cultural/archaeological excavation sites. The impacts that are associated during construction stage such as increased noise and dust level are temporary and of short duration. The project does not come under the purview of ADB's highly complex and sensitive projects.
- Approach roads in some substation sites such will require upgrading to facilitate construction but this will also benefit local residents using the roads. Relevant Indian construction standards on the design, installation and maintenance of substations and transmission lines such as IS: 5613 (1995) Part II, IS: 4091-1967 and IS:3072 (1975) should be complied with.
- Mitigation mmeasures and monitoring to minimize environmental impacts have been incorporated in the environmental management plan and monitoring plan. Environmental monitoring report will be submitted to ADB semi-annually during construction and annually during operation.
- Environmental consultants have been appointed by DISCOM -W to provide technical support in addressing its obligation under relevant environment issues and in complying the requirements of ADB.
- Consultations of local people were done as part of preliminary surveys and environmental assessment. All social concerns are being appropriately addressed.
- There were no serious concerns on the transparency and valuation of compensation to temporary damages for crops and plants during construction.
- Overall, local people are supportive of the project due to the expected long-term

benefit of a reliable and stable power supply.

- Public Consultations will continue in varying degrees during construction and operation phase. Local people will be informed of the grievance redress mechanism prior to commence any construction work.
- The projects is implemented in accordance with the country's legal and institutional framework, consisting of its national, state or sectoral implementing institutions and relevant laws, regulations, rules and procedures that pertains to the policy area of environmental and social safeguards. The country safeguard systems (CSS) are fully followed and respected to its true spirit.

- End of Report -