



# Environmental Monitoring Report

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Project Number: 32298-03  
January 2010

## IND: Madhya Pradesh Power Sector Investment Program

Prepared by

Madhya Pradesh Poorv Kshetra Vidyut Vitaran Company Limited (DISCOM-E), Jabalpur

For

Executing Agency

Madhya Pradesh Poorv Kshetra Vidyut Vitaran Company Limited (DISCOM-E), Jabalpur

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Asian Development Bank

# Environmental Monitoring Report

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Loan Number: 2324-IND

Reporting period: April 2007 – December 2009

## MADHYA PRADESH POWER SECTOR INVESTMENT PROGRAM

Prepared by:	Madhya Pradesh Poorv Kshetra Vidyut Vitaran Company Limited (DISCOM-E), Jabalpur
Implementing Agency:	Madhya Pradesh Poorv Kshetra Vidyut Vitaran Company Limited (DISCOM-E), Jabalpur
Executing Agency:	Madhya Pradesh Poorv Kshetra Vidyut Vitaran Company Limited (DISCOM-E), Jabalpur

Date: January 2010

## **TABLE OF CONTENTS**

1.	Introduction	4
2.	Compliance status with National /State /Local statutory environmental requirements	5
3.	Compliance status with the environmental covenants as stipulated in the Loan Agreement	6
4.	Compliance status with environmental management and monitoring plans as stipulated in the environmental documentation as agreed with ADB	8
5.	Approach and methodology engaged for environmental monitoring of the project	12
6.	Monitoring of environmental receptors/ attributes (e.g. ambient air, surface water, ground water, land, ecological aspects, noise, hazardous/toxic wastes, etc.)	13
7.	Any other environmental aspects, impacts observed during implementation which were not covered earlier	14
8.	Details of Grievance Redress Committee and complaints received from public and actions taken thereof to resolve	14
9.	Follow-up actions and conclusions	14

## **List of Figures and Tables**

Table 1.1: Projects Undertaken by DISCOM-E and Present Status	4
Table 2.1: Environmental Regulatory Requirements of the Projects and Present Status	5
Table 3.1: Environmental Compliance Requirements as per Agreement and Present Status	6
Table 4.1: Environment Management Plan and the Status of Implementation	8

## 1. Introduction

1. The Government of Madhya Pradesh (GoMP) through Government of India has availed a multi-tranche financing facility from Asian Development Bank (ADB) to fund the power sector investment program in the State of Madhya Pradesh. The investment program will cover physical investments in generation (including renewable energy), transmission, distribution, energy efficiency, and non-physical investments in management information system and other areas (e.g., capitalization of a state energy conservation fund). A part of the fund is being utilized for the upgradation and improvement of the distribution networks coming under the jurisdiction of Madhya Pradesh Poorv Kshetra Vidyut Vitaran Company Limited (DISCOM-E), Jabalpur. DISCOM-E is implementing sub-projects under 3 tranches under Loan agreement Nos. 2324, 2347 and 2520. The implementation of sub-projects under Loan Agreement 2324 is reviewed and presented in this report. The details of sub-projects being implemented under Loan 2324 (Tranche III) are presented in Table 1.1.

**Table 1.1: Projects Undertaken by DISCOM-E and Present Status**

Sl. No.	Details of sub-projects	Progress of Implementation
1	Construction of HVDS in six distribution Circles in eastern distribution zone of the State, including conversion of about 6920 km of low voltage lines to high voltage lines and installation of 20408 nos. DTRs.	26.5%
	Remote metering of 10,598 nos. LT connection above 10 HP	
	Renovation of protection system at about 100 substations <ul style="list-style-type: none"> <li>▪ Supply of VCB <ul style="list-style-type: none"> <li>○ 33 kVA – 456 Nos.</li> <li>○ 11kVA – 1210 Nos.</li> </ul> </li> </ul>	48%

2. The major activities proposed under these sub-projects include construction of High Voltage Distribution System (HVDS) in six distribution circles in eastern distribution zone and installation of distribution transformers, remote metering of LT connections above 10 HP, renovation of 33/11 kVA and 11 kVA and supply of VCB. The works are being implemented in the jurisdiction of Jabalpur, Narsinghpur, Tikamgarh, Damoh, Rewa, and Satna circles. Majority of the works are supply and erection of equipments and civil construction is limited to the provision of foundations and pole erection. The overall objective of the Investment Program is to address power sector issues and provide a solid foundation for the sustainable growth of the power sector in the jurisdiction of DISCOM E. The project will (i) improve quality and reliability of power; (ii) remove transmission bottlenecks; (iii) facilitate in-state and interregional 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. During the project preparation stage, environmental assessment of the project was carried out following the Environmental Assessment and Review Framework (EARF) approved for the Investment Program and the project is categorized as Environment Category B. Based on the initial environmental examination (IEE) an Environment Management Plan (EMP) was prepared for the Tranche which was approved by ADB. The EMP is being implemented along with the project. The implementation of the project started with the signing of Loan Agreement No.2324 on 12 April 2007 and is at various stages of implementation. As of now, the construction of HVDS has progressed upto 26.5% and the renovation of

substations completed upto 48%. All the works are expected to be completed by 31 March 2010. The status of implementation is presented in column 3 of Table 1.1.

## 2. Compliance status with National /State /Local statutory environmental requirements

3. The loan agreement of the project requires the Executing Agency (EA) has to implement the project and operate and maintain the project facilities in compliance with the Initial Environmental Examination (IEE), Environment Assessment and Review Framework (EARF), ADB's Environment Policy (2002), and Environmental Regulations of the Country applicable to the project. The IEE prepared for the Tranche based on the EARF approved for the project had identified the environmental regulatory requirements of the project, which is summarized and presented in Table 2.1. The compliance status is presented in column 3 of Table 2.1.

**Table 2.1: Environmental Regulatory Requirements of the Projects and Present Status**

Sl. No.	Environmental Regulatory Requirements	Status of Compliance
1	Environmental clearance from MoEF under the Environmental Impact Assessment Notification 1994	Distribution projects are exempted from the list of projects that require environmental impact assessment (EIA) and environmental clearances from MoEF.
2	Scrap batteries are to be disposed of as per the Batteries (Management and Handling) Rules	Scraped equipments are disposed through Metal Scrap Trading Corporation (MSTC), a Government of India Undertaking. Scrap batteries are not generated from the present sub-projects activities. Obtained authorization from MPPCB under Hazardous Waste (Management and Handling) Rules for the disposal of scrap batteries by sale to authorized persons.
3	Used / burned transformer oils to be disposed of in accordance with the Hazardous Waste (Management and Handling) Rules	Burnt/used oil is being disposed off through M/s. Divya Refineries Pvt. Ltd, Satna having valid authorization under Hazardous Waste Rules 1989 (3074/RO/MPPCB/HSMD/E/07 dated 29 November 2007) from MPPCB and Registration Certificate-cum-Pass Book for Re-refining/recycling of hazardous wastes from CPCB. Obtained authorization from MPPCB under Hazardous Waste (Management and Handling) Rules for the disposal of burnt/used oil through sale to authorized persons.
4	Avoid equipments using PCBs and CFCs Ozone Depleting Substances Rules	The equipments to be purchased under the project do not use PCB or CFC

4. The used oil/burned oil generated from the discarded equipment as well as from the existing facilities is being reprocessed through authorized recycler and reused to the extent possible. The scrap materials from the existing substations are being disposed through MSTC, a Government of India Undertaking and having ISO certification. Scrap materials generated from the present sub-project activities do not contain scrap batteries. Madhya Pradesh Pollution Control Board (MPPCB) has issued authorization under the Hazardous Waste (Management and Handling) Rules for the disposal of hazardous materials including scrap batteries through sale to authorized persons. The substations proposed to be renovated under this Tranche do not generate any trade effluent or emit any air pollutant into the atmosphere. Hence Consent to Establish from

MPPCB under the Water (Prevention and Control of Pollution) Act 1974 and Air (Prevention and Control of Pollution) Act 1981 is not required for undertaking the renovation works at these substations. All the works proposed under this Tranche are being carried out in the existing facilities and located outside national park and wildlife sanctuary. Hence the sub-projects proposed under this Tranche do not require any clearance from the Central or State Government Agencies.

### 3. Compliance status with the environmental covenants as stipulated in the Loan Agreement

5. DISCOM-E is implementing subprojects under Tranche III (Loan agreement no. 2324) from April 2007. According to the agreement, the EA should ensure that sub-projects are not located within national park and wildlife sanctuaries and monuments of cultural and historical importance should be avoided. The subprojects were designed strictly in complying with the above conditions. The sub-projects sites are not passing through any wildlife sanctuary or national park. No sensitive area or monuments of cultural and historical importance is 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 is summarized and presented in Table 3.1.

**Table 3.1: Environmental Compliance Requirements as per Agreement and Present Status**

Sl. No.	Loan Agreement Reference	Environmental Compliance Requirements	Compliance Status
1	Schedule 5, item 30 of Loan Agreement	Establish a grievance redress committee with representation from all stakeholders for the project to address grievances of APs concerning resettlement, environment and other social issues	No complaints received so far and hence not constituted. Action is being taken to constitute the committee immediately.
2	Schedule 5, item 32 of Loan Agreement	Implement the project strictly in compliance with IEE, EARF, ADB's Policy and environmental regulations of the country	Complied with the extent as reported in column 3 of Table 2.1
3	Schedule 5, item 33 of Loan Agreement	Approved IEE and EMP are to be followed during the design, construction and operation phases of the project. EMP should form part of bidding document	As per Special conditions of contract Clause 9.8 and 9.9 were added to the General Conditions of Contract detailed in section 7 of the bid document.
4	Schedule 5, item 34 of Loan Agreement	Monitor, audit and report twice a year on the implementation of EMP	The contractor was made responsible for implementation, monitoring and reporting of the EMP by adding clause 9.8 and 9.8 to the GCC. This is the first report and action has been taken to submit the half yearly report in time in future.
5	Schedule 5, item 35 of Loan Agreement	EA shall ensure that the subprojects are not located within national parks and wildlife sanctuaries, unless prior	Detailed surveys were carried out before finalizing the sub-project

		environmental clearance is obtained from relevant government agencies; monuments of cultural or historical importance are avoided; and EMP with adequate budget is developed and implemented for each subproject.	locations and ensured that no encroachment into national parks and wildlife sanctuaries and no monuments of cultural or historical importance are affected. EMP with adequate budget was developed during the project formulation stage and the approved EMP is made part of the contract document and being implemented.
6	Schedule 5, item 39 of Loan Agreement	EA shall prepare quarterly progress reports and submit these reports to ADB within 30 days of the end of each quarter. These reports shall provide a narrative description of progress of compliance with environmental and social requirements including EMP and RF.	Environment and Social Cell has been created. The Cell will be entrusted to take action to add a brief summary of compliance with environment and social requirements in the quarterly reports in future.

6. The sub-projects were identified and project prepared in complying with the EARF. Initial Environmental Examination (IEE) was carried out for the sub-projects and an EMP developed prior to the signing of Loan Agreement. The EMP approved by ADB was included in the bid document and the responsibility of EMP implementation and monitoring of EMP implementation was entrusted with the contractor of the project. The implementation of the EMP by the contractor will be monitored by the field officers of the Project Implementation Unit (PIU). Environment and Social Cell was created at the Head Quarters of DISCOM-E on 10 November 2009 to overview and audit the implementation of EMP by the contractor and to co-ordinate activities related to the EMP implementation and monitoring at various levels. The Environment and Social Cell started functioning at the Head Office from November 2009 onwards. A monitoring system will be developed and the implementation of EMP will be monitored on regular basis. Documentation of monitoring activities at various level will be ensured during implementation in future.

7. As majority of the works under the project are renovation and/or upgradation of the existing system, much environmental impacts are not experienced during the implementation of the sub-projects under this Tranche. No complaints about environmental pollution or nuisance caused by the sub-project activities were received so far. Hence the grievance redress committee was constituted. Action is being taken to constitute grievance redress committee at each circle level with representation from the stakeholders to address complaints, if any, raised by the public. Complaint register will be maintained at each local project office for registering the complaints.

8. As per Schedule 5, item 32 of the Loan Agreement, all future sub-projects are to be planned and implemented in accordance with the EARF approved for the project. The initial examination was carried for the project and the EMP prepared for the project was made part of the contract. 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-E and ensured that the sub-project activities will not have any impact on the environment. According to EARF, the EA has to hire an independent monitoring agency with ADB concurrence for undertaking external monitoring of the all projects funded by the MFF. The monitoring agency will be selected within three months of loan approval. Action is being taken to engage an independent agency for undertaking external monitoring of implementation of the sub-projects under this Tranche.

#### **4. Compliance status with environmental management and monitoring plans as stipulated in the environmental documentation as agreed with ADB**

9. To ensure the effective implementation of EMP, special condition was included in the bid document, making the contractor responsible for implementation, monitoring and reporting the progress of implementation of the EMP. According these conditions, the contractor will be responsible for:

- Obtaining statutory clearances required for the project;
- Establishing an operational system for managing environmental impacts;
- Carrying out all the monitoring and mitigation measures set forth in the EMP;
- Allocate the budget required to ensure that such measures are carried out;
- Submit to the employer quarterly reports on the carrying out of such measures; and
- Recording the conditions of roads, agricultural land and other infrastructure prior to transport of materials and construction commencement and upon completion of construction, fully reinstate roads, agricultural land and other infrastructure to at least their pre-project condition.

10. Major activities being implemented under this Tranche are renovation and upgradation 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 equipments. Hence not much civil construction works are to be carried out. Therefore not much environmental issues are created during the implementation of the project. The contractors entrusted with the implementation of the project are adopting the best available technologies and construction practices and thereby complying with most of the mitigation measures specified in the EMP. Construction activities are planned to avoid damages to agricultural crops. The mitigation measures suggested in the EMP and its status of implementation are presented in Table 4.1.

**Table 4.1: Environment Management Plan and the Status of Implementation**

Sl. No	Mitigation Measures	Status of Implementation	Measures proposed 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	Transformers or other project facilities or equipments do not use PCBs or CFCs.  Phased out materials are disposed off through approved agencies as per the authorization issued by MPPCB under the hazardous	Internationally accepted specifications will be adopted for the equipments and materials in future tenders.

	be phased out and to be disposed of in a manner consistent with the requirements of the government	Wastes Rules.	
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 line proposed under this project is very low and hence no impact on settlement.	---
3	Involuntary resettlement or land acquisition	Involuntary resettlement or land acquisition not required for this project. No action required.	---
4	Avoid encroachment into precious ecological areas by careful site and alignment selection	No ecologically sensitive area involved. No action required.	---
5	Avoid encroachment into forestland.	No forestland is involved enroute the line. No action required.	---
6	Avoid encroachment into farmland	Detailed survey and line alignment selection were made with minimum impact or no impact on farmland. No claim/complaint received about the impact on farmland.	---
7	Better design to ensure noise will not be a nuisance	The transformers and equipments required for the project will not create noise. No action required	---
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.	Internationally accepted specifications will be specified for the equipments and materials to be purchased in the project
10	Construction technique and machinery selection to minimize noise disturbance	No heavy equipments used in the construction. Best and modern construction practices followed by the contractor. No work carried out during night hours.	---
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. Contractor is made responsible for ensuring avoidance of disturbance to farming activities.	Complaint monitoring system will be developed and implemented to improve the complaint handling mechanism.

		No complaint from farmers regarding damage of farming activities	
12	Construction equipment to be well maintained and turn of the plant not in use to avoid noise, vibration and operator safety.	EMP included in the bid document and the contractor uses equipments and vehicles complying with environmental standard No heavy equipment/vehicle is employed in the construction works. Project works are being carried out only during day time and contractor has to obtain prior permission from the Project Managers for working in night time, if urgency arises.	---
13	Existing roads and tracks used for construction and maintenance access to the line	EMP included in the bid document. The contractor has not constructed any new access road for these project activities.	----
14	Marking of vegetation to be removed prior to site clearance and strict control on clearance activities to ensure minimal clearances.	EMP included in the bid document Marking of vegetation to be cleared is being done during the detailed survey and line alignment selection. No trees cut/removed for the project.	----
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.	EMP included in the bid document. No trees cut/removed for the project As existing LT lines are converted into HT lines, the trimmings of branches of trees are to be required only as operation and maintenance activity.	Monitoring and record keeping will be improved.
16	Construction workers prohibited from harvesting wood in the project area	Included on the bid document No labour camps established for the project Contractor employs local labours generally	---
17	Dispose scrap materials such as batteries, transformers, conductors, capacitors etc in environmentally sound manner	Obtained authorization from MPPCB for the disposal of hazardous materials and scrap batteries. Scraped equipments are disposed through Metal Scrap Trading Corporation (MSTC) Used /burnt oil are disposed off through agency having valid authorization from MPSPCB	----
18	Tree clearances for easement establishment to only involve cutting trees off at ground level	EMP included in the bid document. No trees cut/removed for the project	---
19	Excavated earth to be stored and reused for back filling	Adopt good construction practices	

		Incorporated in contract document Only minor civil construction works involved.	---
20	Fuels and other hazardous materials to be stored above high flood level	Adopt good construction practices. Incorporated in contract document.	---
21	Noisy construction activities shall be carried out during day time	Adopt good construction practices Incorporated in contract document. Project works are being carried out only during daytime and contractor has to obtain prior permission from the Project Managers for working in nighttime, if urgency arises.	---
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	--
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	Adopted good construction practices Incorporated in contract document Only minor civil construction works involved.	---
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.	Adopted good construction practices Incorporated in contract document Only minor civil construction works involved.	---
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 neighbouring land uses.	---
26	Existing borrow sites will be used to source aggregates therefore no need to develop new sources for aggregates.	Incorporated in contract document and implemented through contractor Incorporated in contract document and implemented through contractor No borrow site developed for the project.	---
27	Ensure health and safety of workers	Incorporated in contract document and contractor is providing measures as per the	----

		existing laws. No complaint from workers received regarding the facilities provided	
28	Training to the DISCOM environmental monitoring personnel	Time to time the persons involved in field were educated regarding environmental issues	Proper record of training will be maintained A plan for training the staff and workers will be drawn up and implemented
29	Effective environmental monitoring system using checklist	Environmental Cell formed and monitoring the progress of implementation of EMP is being carried out	Check list will be prepared and maintained by the contractor and the DISCOM
30	Creation of Environment and Social Cell at headed by Chief Officer of DISCOM for implementation and monitoring of EMP	Environmental and Social Cell created as per per Order No.DISCOM/EZ/WS/ADB/6623 dated 10-11-2009	No heavy equipments used in the construction Best and modern construction practices followed by the contractor No work carried out during night hours.

11. The mitigation measures proposed in the EMP are generally followed by the contractor while implementing the sub-projects. Monitoring and recording of the progress of implementation requires improvement. In order to further improve the monitoring and reporting of implementation of EMP, the newly created Environment and Social Cell will closely monitor the physical progress of implementation of EMP by the Contractor. An Officer each from the field offices will be designated as Environmental Officer and he will be made responsible for monitoring and recording the progress in a systematic way. The Environment and Social Cell will overview and co-ordinate the monitoring activities. The contractor will also be instructed to designate an Officer as Environment Officer and he will be made responsible for ensuring the implementation of EMP. A check list system will be developed for improving the efficiency of the monitoring and will be followed at all levels. Proper training will be given to the staff of contractors and Officers of DISCOM in implementation and monitoring of EMP.

## **5. Approach and methodology engaged for environmental monitoring of the project**

12. The IEE has identified the major environmental issues likely to be occurred during the implementation of the project as air pollution due to release of chemicals and gases from equipments, encroachment into ecologically sensitive area, loss of agriculture, noise and vibration during construction and movement of vehicles, increase in air borne dust, trimming and cutting of trees, pollution from scrap transformers, batteries, spillage of fuel and transformer oil, contamination from disposal of wastes from labour camps, etc. The impacts due to the siting of the project and alignment of lines were monitored 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 keeping adequate clearance from designated forest,

national park and wildlife sanctuary. 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. The EMP prepared for the project was made part of the contract document and the contractor is entrusted with regular monitoring and reporting of implementation of EMP. The Environment and Social Cell created recently will take necessary action to 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 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 grievance redress committee will be constituted soon with stakeholder's participation. Contractor will be 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 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 grievance redress committee and the decision of the committee will be implemented. The complaint register shall be placed at a convenient place, easily accessible by the public.

**6. Monitoring of environmental receptors/ attributes (e.g. ambient air, surface water, ground water, land, ecological aspects, noise, hazardous/toxic wastes, etc.)**

13. As discussed above, 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 was created during the construction activities. Major activities under the project are being carried out on open land. No sensitive establishment or residential building located near to the site. Most of the works were carried out within the existing substations or all along the existing lines. The sub-project activities do not cause any air or noise pollution to the people of the locality. 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.

14. The physical progress of implementation of the EMP was monitored through the contractor. The Environment and Social Cell recently created will closely monitor the compliance of the contractor in implementing the EMP. An environmental performance monitoring and reporting system will be developed

and implemented to ensure that the works under this Tranche will be carried out without causing any environmental problem to the people living adjacent to the project sites.

## **7. Any other environmental aspects, impacts observed during implementation which were not covered earlier**

15. The sub-project activities, especially the segregation of approximately 751 km of 11kV line to separate agricultural feeders from village feeders has to be carried out partly through agricultural fields. The works can be carried out only after the harvesting. The contractor is taking care to avoid any damage to the agriculture. In order to meet the time schedule, the contractor may carry out the works prior to the harvesting leading to crop damage. The Environment and Social Cell will be more vigilant and ensure that the work will be carried out only after harvesting.

16. Though the mitigation measures suggested in the EMP are being implemented as part of the project, proper documentation is lagging. The documentation of EMP implementation at contractor's level will be streamlined with the introduction of checklist system and providing training. The functioning of the Environment and Social Cell will improve the monitoring system and ensure effective implementation of EMP.

## **8. Details of Grievance Redress Committee and complaints received from public and actions taken thereof to resolve**

17. As per the Loan Agreement and para G of the EARF, a grievance redress committee with representation from all stakeholders for the project to address grievances of APs concerning resettlement, environment and other social issues will have to be created. Since no complaints were received so far, the creation of grievance redress committee was delayed. Action is being taken to create a grievance redress committee at each circle level with representation from local authorities, affected parties, and well-reputed persons from health, education sectors. This committee will address the project related grievances of the affected parties and will provide them a public forum to raise their concern or objections. A senior official from DISCOM at circle level will represent EA. The grievance redress committee will be functional at each circle level so as to ensure easy access to communities and affected parties.

## **9. Follow-up actions and conclusions**

18. The project started implementation during April 2007 without much background preparation for implementation of EMP. Hence more attention was given for the identification of project location and implementation of the project in a time bound manner. The EMP prepared for the project was made part of the bid document and the contractor was made responsible for the implementation of EMP. The bid conditions require the contractor to adopt best construction practices which include most of the mitigation measures suggested in the EMP. Environment and Social Cell was constituted for closely monitor the implementation of EMP by the

contractor. The project activities will be carried out without affecting the agricultural activities and crop damage. The bid document requires the contractor to pay compensation in case of any crop damage. A grievance redress committee will be constituted with due representation to the people residing near to the project site. Complaints, if any, received will be recorded and the complaint together with the corrective action taken by the contractor will be placed before the committee immediately. The contractor will implement the decision taken by the committee. Proper training on environmental issues during project implementation and EMP implementation will be organized for the staff and officers of the contractor and implementing agency. A checklist system will be developed and implemented for improving the monitoring and reporting of EMP implementation. The responsibility of each level of officers of the contractor and field offices will be fixed and implemented.


19. The Implementing Agency, DISCOM-E, will give more attention towards the implementation of EMP and project will be implemented in compliance with the environmental regulations of the country and environment covenant of Loan Agreements.

**Signed by:**

Monitoring agency:

Madhya Pradesh Poorv Kshetra Vidyut Vitaran  
Company Limited (DISCOM-E), Jabalpur

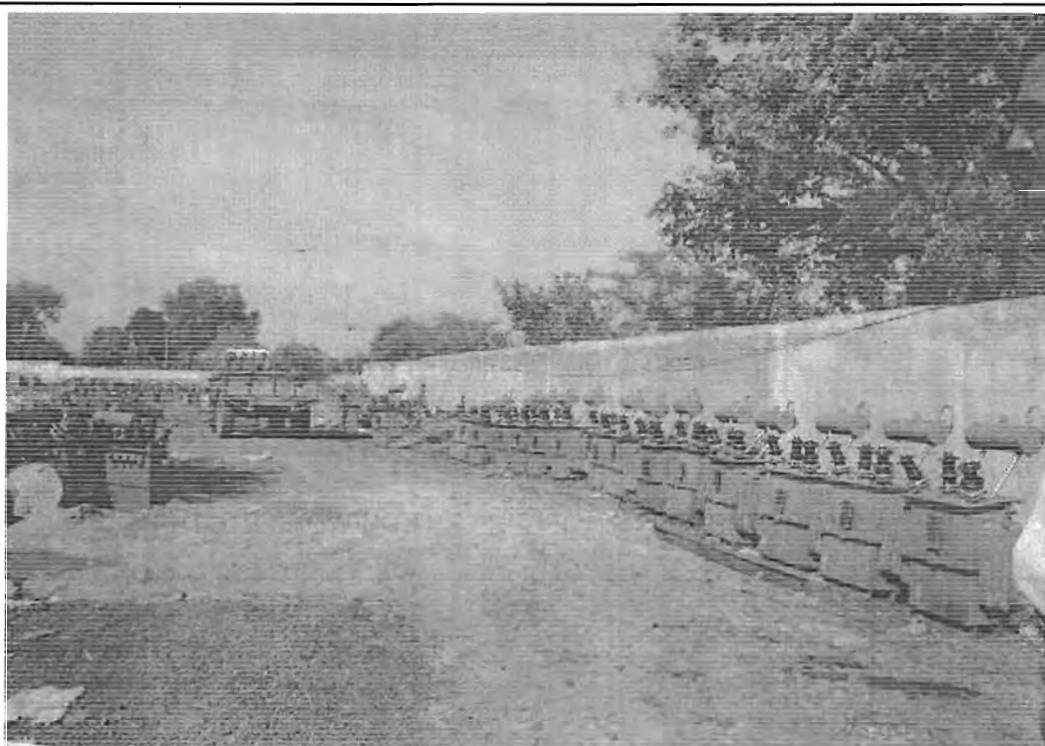
Authorized signatory from  
Implementing  
Agency /Executing Agency:

  
Madhya Pradesh Poorv Kshetra Vidyut Vitaran  
Company Limited (DISCOM-E), Jabalpur  
**Addl. Chief Engineer (ADB)**  
**Executive Head of the Project**  
**Implementing Authority**

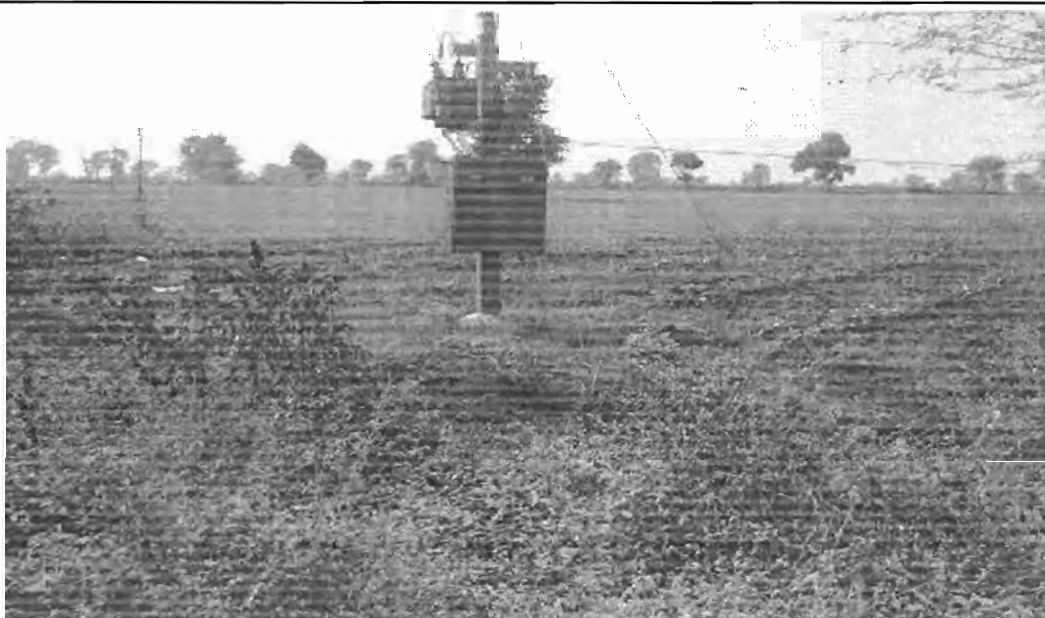


**APPENDIX 1**

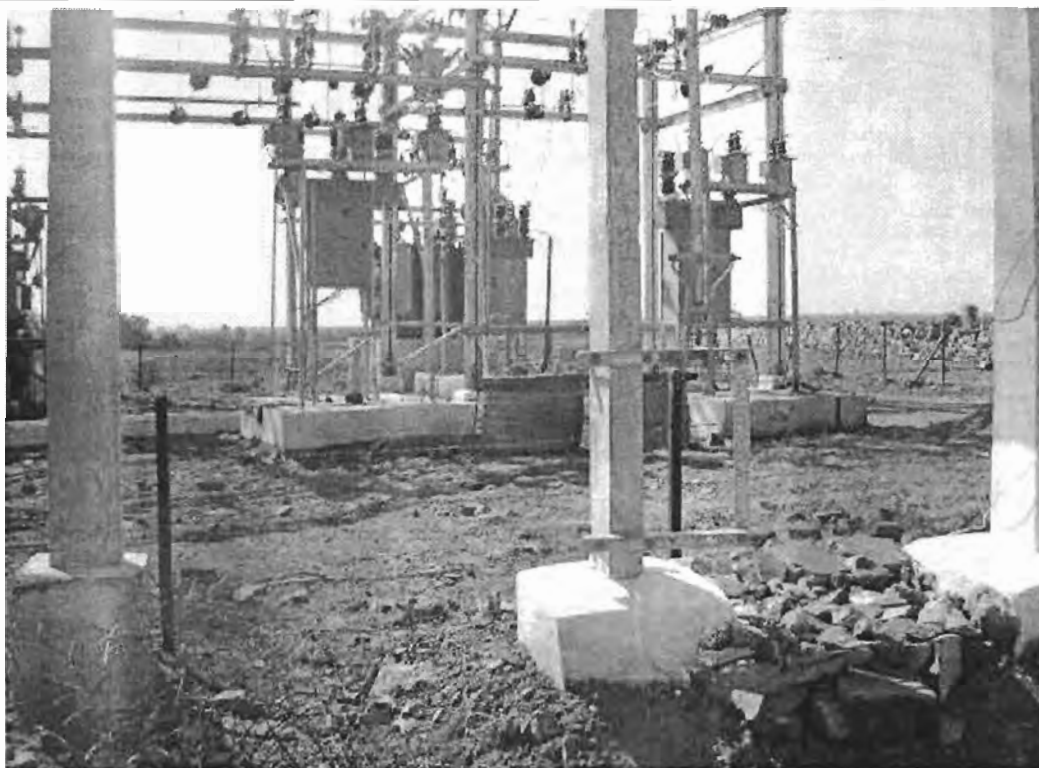
**PHTOTS SHOWING THE PROJECT IMPLEMENTATION**



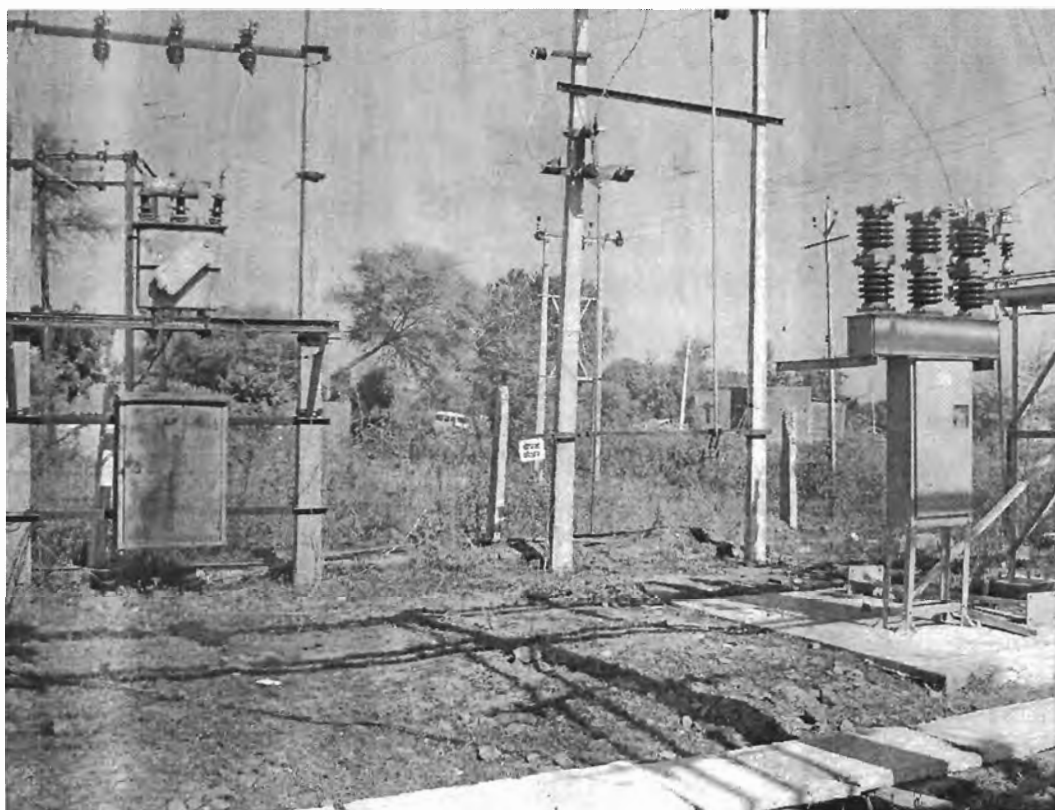
**Store Keeping the Materials for the Project Works, Jabalpur**



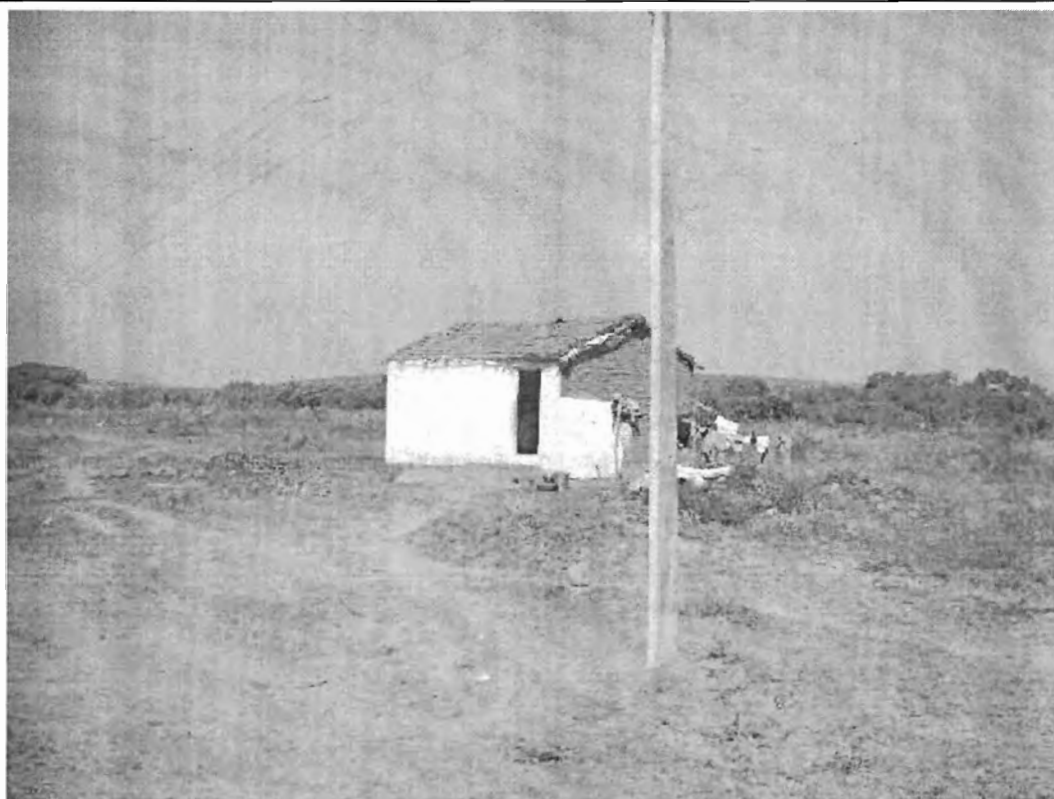
**New Transformer Installed at Agricultural Field, Shapura Road**



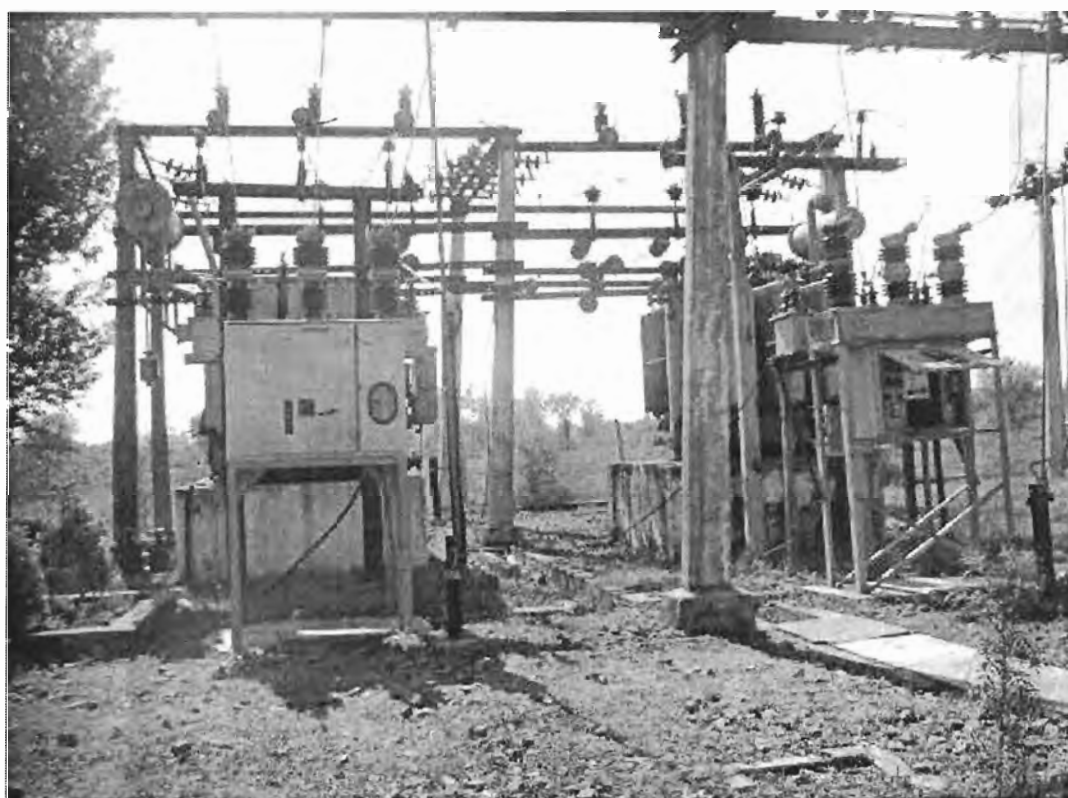
**Chauna – Installation of New Transformer**



**Tinsi Feeder- Juna Substation**



**Bhainsa- Work in Progress**



**Chorai Substation**

## APPENDIX 2

### Map Showing Project Location

