

INDIA

**NTPC POWER GENERATION PROJECT
(Loan 3632-IN)**

MANAGEMENT RESPONSE TO INSPECTION PANEL

June 3, 1997

ABBREVIATIONS AND ACRONYMS

CAS	=	Country Assistance Strategy
CCEA	=	Cabinet Committee for Economic Affairs
CEA	=	Central Electricity Authority
CEM	=	Country Economic Memorandum
EAP	=	Environmental Action Plan
EAS	=	Environmental Assessment Summary
EdF	=	Electricité de France
EGEAS	=	Electric Generation Planning Analysis Systems
EIA	=	Environmental Impact Assessment
EPRI	=	Electric Power Research Institute
ESP	=	Electrostatic Precipitators
GOI	=	Government of India
IPDP	=	Indigenous People Development Plan
NGO	=	Non-Governmental Organization
NTPC	=	National Thermal Power Corporation
OD	=	Operational Directive
ODA	=	Overseas Development Agency
OP	=	Operational Procedure
PAP(s)	=	Project Affected People
PFC	=	Power Finance Corporation
POWERGRID	=	Power Grid Corporation of India
R&R	=	Resettlement and Rehabilitation
RAP(s)	=	Resettlement Action Plan
ReAP(s)	=	Remedial Action Plan
SEB(s)	=	State Electricity Board
VDAC	=	Village Development Advisory Council

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I. INTRODUCTION

1. Ms. Madhu Kohli made a Request for Inspection (“Request”) of the NTPC Power Generation Project (Ln. 3632-IN) (“the Project”) on behalf of a number of small and marginal cultivators in the Singrauli region to the Bank’s Inspection Panel on May 1, 1997. On May 2, 1997, the Inspection Panel notified the Executive Directors and the Bank President about the registration of the Request. The Request for Inspection alleged that the Bank violated five of the Bank’s Operational Policies and Directives, namely: OP 10.04 Economic Evaluation of Investment Operations; OD 4.01 Environmental Assessment (EA); OD 4.20 Indigenous Peoples; OD 4.30 Involuntary Resettlement; and OD 13.05 Project Supervision.

II. SUMMARY OF CONCLUSIONS

2. In relation to the above-referenced Request for Inspection, the views of Management are as follows:

- ◆ With respect to **OP 10.04 (Economic Evaluation of Investment Operations)**, the main allegations are that: (i) alternatives have not been properly considered; (ii) energy options based on demand side management and renewable sources were not analyzed during appraisal; and (iii) the economic analysis did not examine consistency with the Bank’s poverty reduction strategy. *Management considers that it has complied with this OP*, because project alternatives were considered prior to and during appraisal including demand-side management and options for renewable energy. Moreover, the project is consistent with the Bank’s poverty reduction strategy as confirmed in the Country Assistance Strategy applicable at the time.
- ◆ In reference to **OD 4.01 (Environmental Assessment)**, the main allegations are that: (i) there was a lack of consultation of PAPs and local NGOs in project design, implementation and preparation of the Environmental Assessments (EAs); (ii) there was limited access to information; (iii) the inhabitation and agricultural use of sites (Rihand and Vindhyachal) was not a criterion for site selection; and (iv) induced development and other socio-cultural aspects of the project should have been addressed in the EA. *Management considers that it has partially complied with this OD*, but recognizes that the procedures and steps for consultation on the EAs specified in the OD were not followed. Management accepted these omissions, because the further development of the Singrauli area had been part of a public debate in India and the projects formed part of India’s Eighth Plan approved by Parliament. Management considers that access to information has been adequate after

the initial problems were corrected. Management does not know what criteria were used for site selection in the early 1980's, which was well before the Bank decided to support the Vindhyachal II and Rihand II projects, but it was satisfied with the selection criteria used for the selection of the sites for the ashdikes. Induced development and other socio-cultural aspects were addressed in the project specific EAs and the related Environmental Study of the Singrauli area.

- ◆ With respect to **OD 4.20 (Indigenous Peoples)**, the main allegation was that none of the World Bank financed projects in Singrauli gave any special consideration to tribal and ethnic groups. *The Management considers that it has complied with this OD*, because the socio-economic surveys carried out before appraisal found that no indigenous people were affected by new investments in the ashponds of Rihand II and Vindhyachal II and, therefore, no special consideration of such people was required under the Project,
- ◆ With respect to **OD 4.30 (Involuntary Resettlement)**, the main allegations are:
 - (i) involuntary resettlement in Vindhyachal and Rihand could have been avoided through upgrading of existing ashponds and back filling of ash in existing mines; (ii) the agreed RAPs were inadequate and prepared without consultation; (iii) NTPC's May 1993 R&R Policy is not compatible with the Bank's OD 4.30; (iv) the options for resettlement and restoration of livelihood are inadequate; and (v) not all people displaced during earlier stages have been provided with an alternative livelihood. *Management considers that it has substantially complied with this OD*. Adequate steps were undertaken to avoid resettlement in Vindhyachal II and Rihand II project sites. New ash dike management techniques have been introduced, but backfilling of ash in existing open cast mines in the Singrauli area were not found to be feasible by Northern Coal Limited. Management considers that meaningful consultation with the PAPs took place during the preparation of the RAPs and the RAPs were considered adequate at that time. Management had underestimated the practicability of implementing the land for land options and difficulties in carrying out income generating schemes. Accordingly, in the implementation of these RAPs by NTPC significant problems and delays have arisen. Management considers the NTPC's R&R Policy of May 1993 to be consistent with OD 4.30 except with respect to the treatment of indigenous people, particularly in reference to land tenure rights. No indigenous groups were identified among the people affected by Vindhyachal II and Rihand II. The resettlement and rehabilitation (R&R) options to restore livelihood, which are available to PAPs of NTPC projects under the May 1993 R&R Policy, are also in line with OD 4.30. Management agrees with the allegation that not all people displaced during earlier stages of Vindhyachal and Rihand have been provided with an alternative livelihood. Rihand I and Vindhyachal I were constructed from the late 1980's to the early 1990's with financial assistance from the UK and USSR respectively, and the OD only applies to projects financed by the Bank. Nevertheless, NTPC agreed to take remedial actions as part of the Project.
- ◆ With respect to **OD 13.05 (Project Supervision)**, the main allegations are that: (i) the Bank failed to adequately supervise the project or take corrective actions; (ii) the Bank failed to suspend disbursements because of non-compliance with agreed covenants; (iii) the Bank has reported that the Environmental Action Plan (EAP) was implemented on schedule; (iv)

the implementation of the RAPs for Vindhyachal II and Rihand II is not satisfactory; (v) Bank staff refuses to meet with NGOs or PAPs without NTPC staff present; and (vi) false progress reports were provided to the Bank by NTPC and the Bank never verified NTPC's progress reports or reports submitted by the NGOs and PAPs. ***Management considers that it has substantially complied with this OD.*** Contrary to the allegations, the Bank has: (i) adequately supervised the Project; (ii) taken corrective actions; (iii) met separately with NGOs or PAPs; and (iv) verified reportedly false reports by NTPC. However, Management recognizes problems with the effectiveness of its project supervision, as reflected in its difficulties in having appropriate remedial actions taken to overcome project implementation problems.

- ◆ Management has been aware that there are two areas relevant to the Request, in which NTPC does not fully comply with the Bank's agreed covenants under the loan: (i) timely implementation of the EAP and; (ii) timely implementation of the RAPs for Vindhyachal II and Rihand II. In accordance with OD 13.05, para 30, Management decided to exhaust all methods of persuasion before exercising contractual remedies. The exercise of available legal remedies is a matter for the judgment of Management, taking into account all the circumstances of each case. Bank supervision missions for the Project noted NTPC's failures to carry out certain obligations under the loan agreement and identified appropriate remedial actions. Several warnings that the Bank might exercise its available remedies were issued through aide memoires and letters to NTPC management. Management made the judgment that maintaining an intensive dialogue and being engaged in the resolution of the issues was a more appropriate approach than exercising formal remedies. Management also noted that certain mitigatory actions were being taken by NTPC in respect of the EAP, and that implementation of the RAPs for Vindhyachal II and Rihand II was progressing. The judgment of Management in this respect is consistent with the results of the 1994 Bank-wide resettlement and rehabilitation review and subsequent Board discussions, which concluded that in the case of R&R problems, it may often be better for the Management to remain engaged than to formally suspend a loan.
- ◆ The decision to remain engaged is neither a sign of negligence nor of lack of concern. On the contrary, we have maintained dialogue in the context of continuing to support implementation as the path most likely to yield achievement of project objectives. Moreover, Management's decision not to exercise formal remedies did not mean that NTPC faced no sanctions for deficiencies in its R&R and environmental performance. The envisaged second and third time-slice operations in what was originally designed as a series of three US\$400 million Bank loans at 18- to 24-month intervals (see para. 3.14 of the SAR) have been deferred, with the result that NTPC has had to scale down its investment program.

III. DISCUSSION

◆ **Project Background and Current Status of Implementation**

◆ *Project Objectives and Scope*

3. The NTPC Power Generation Project was designed taking into account the lessons learned from earlier NTPC operations^{1/}. The objectives of the Project are to: (i) help improve commercial discipline in the power system through the implementation of new commercial and investment policies; (ii) help NTPC meet its targets for capacity additions through increased mobilization of funds from internal resources, domestic and foreign capital markets as well as from the private sector through joint venture operations; (iii) upgrade environmental performance of NTPC power stations and make its new power stations environmentally more sustainable; and (iv) strengthen environmental management and resettlement and rehabilitation management capability.

4. The NTPC Project comprises three components: (i) support a five-year time slice of NTPC's least cost investment program of new coal and gas based power; (ii) support NTPC's program to undertake joint venture operations; and (iii) implement an Environmental Action Plan (EAP)^{2/}, which includes environmental upgrading of existing power stations, training and technical assistance for the strengthening of NTPC's environmental and R&R management.

◆ *Current Status of Project Implementation*

5. **Investment Program Component.** Under the time-slice approach, NTPC has flexibility to use the proceeds of the Bank loan for the construction of new power stations provided that the specified eligibility criteria agreed with the Bank are met^{3/}. NTPC requested that the first two power generation projects to be considered be the Vindhyachal II and Rihand II thermal power stations.

^{1/} A list of all credits and loans to the power sector in India and chronology of project, loan processing and supervision data for Loan 3632-IN is provided in Appendix 1. See also: Project Completion Reports for the first nine NTPC operations (Singrauli (Credit 685-IN); Korba (Credit 793-IN); Ramagundam (Credit 84-IN and Loan 1648-IN); Singrauli II (Credit 1027-IN); Farakka (Credit 1053-IN and Loan 1887-IN); Korba II (Credit 1172-IN); and Ramagundam II (Loan 2076-IN)) and OED Performance Audit Report No. 10854: Korba Thermal Power Project, Ramagundam Thermal Power Project, Second Singrauli Thermal Power Project and Farakka Thermal Power Project, February 3, 1993.

^{2/} The objectives of the EAP were to: (i) rationalize and improve NTPC's organizational structure for environmental management at the corporate and plant levels; (ii) improve environmental monitoring and the preparation of environmental impact assessments; (iii) execute a specific program of remedial environmental measures for NTPC's existing power stations to ensure compliance with Indian environmental standards; (iv) address outstanding R&R issues (within the context of a new corporate R&R policy); and (v) upgrade NTPC's capability to prepare and execute R&R programs. The EAP covered all NTPC power generation stations and not just those located in the Singrauli area.

^{3/} The Board was informed that the first time slice loan would be the first of a series of three operations to support NTPC's investment program which would be presented for consideration of the Board, at intervals of 18 to 24 months (anticipated at that time) for a total amount of US\$1.2 billion, provided that NTPC remained in compliance with the Bank's conditions (refer Para 3.14, Staff Appraisal Report No. 11827-IN, June 4, 1993).

6. The first 500MW unit for Vindhyachal II is expected to be commissioned in early 2000, about six months behind the appraisal schedule because of delays in awarding the contract for the main plant packages. The tender documents for the main plant packages for Vindhyachal II were issued before Board presentation in June 1993, but the contracts could only be awarded in early 1995 because of delays in obtaining final clearance for the project from the Cabinet Committee for Economic Affairs.

7. NTPC decided to defer the construction of Rihand II power station expansion, mainly because the host state, Uttar Pradesh, was not in compliance with the terms of the existing Bulk Power Supply Agreement between NTPC and the Uttar Pradesh State Electricity Board^{4/}. This was in line with NTPC's new commercial and investment procedures which were agreed and fully supported by the Management^{5/}.

8. **Joint Venture Component.** Bank funds have not been used for this component because a suitable joint venture has not yet been identified.

9. **Environmental Action Plan (EAP) Component.** This component was intended to strengthen NTPC's environmental and rehabilitation and resettlement capabilities.

- ◆ **Environmental Action Plan (EAP).** A detailed overview of the status of the EAP is presented in Appendix 2. About 84 percent of the activities and projects stipulated in the EAP are either of a continuous nature, in progress, or have been completed. However, of the investment costs estimated during appraisal at about US\$190 million (about Rs. 6,700 million), only about US\$20 million has so far been spent by NTPC^{6/}. This is because of the substantive delays in some of the major environmental projects namely: (i) retrofitting of Electro-Static Precipitators (ESP) where all material has been delivered to the site, but installation delayed by about two years, because installation has to coincide with scheduled maintenance or low demand periods. Installation will be completed during 1997; (ii) installation of ash slurry water recirculation systems for existing ashdikes in Singrauli, Vindhyachal I and Rihand I and II has been delayed because of land acquisition problems. In the case of the Singrauli Power Station, NTPC has proposed to drop the plans for ash water recycling for the existing ashpond^{7/} since they will be moving to a new location in about 6 to 7 years where these systems will be installed; (iii) retrofitting

^{4/} Loan Agreement, Schedule 6.

^{5/} In late 1995, NTPC requested that the Bank finance the Kayamkulam Combined Cycle project in Kerala. This project met the eligibility criteria in August 1996, and the main turnkey contract was awarded in September 1996. The Kayamkulam Combined Cycle project in Kerala is not at issue in the Request.

^{6/} About US\$10 million has so far been disbursed for the EAP component under Ln. 3632-IN.

^{7/} The consent order issued by the State Pollution Control Boards for the existing Singrauli Power Station does not require ash water recycling systems for the existing ashdike. These will however, be installed in all new ashdikes

of closed cycle cooling water systems at Singrauli and Rihand I. NTPC management has been so far unwilling to implement the closed cooling water systems projects^{8/}.

- ◆ **Resettlement and Rehabilitation (R&R).** R&R in the Singrauli Region under the Project consist of: (i) resettlement and rehabilitation of 598 persons affected by the construction of Vindhyachal II power station and 145 persons affected by construction of the Rihand II power station^{9/}; and (ii) implementation of Remedial Action Plans (ReAPs) for Singrauli, Vindhyachal I and Rihand I power stations^{10/} to mitigate the effects of deficiencies in earlier resettlement and rehabilitation programs^{11/}. The Rehabilitation Action Plans (RAPs) for Vindhyachal II and Rihand II are being implemented in accordance with the May 1993 R&R policy of NTPC. The ReAPs are being implemented in accordance with the provisions of Chapter 5 of that policy^{12/}. The context of R&R and current status of implementation of RAPs and ReAPs in the Singrauli area is given in Appendix 3.

^{8/} The retrofitting was required because the prevailing Government of India standards for thermal pollution exceeded the design parameters. During project preparation, these existing standards were under review by the Ministry of Environment and Forest (MOEF). No formal relaxation of standards has so far been issued, but the Peer & Core Expert Committee of the Central Pollution Control Board recommended in May 1996 that the standards for existing plants be relaxed. As perceived by NTPC, installation of the new systems would require the closing down of the power station units for considerable periods of time. NTPC management has not been prepared to accept the proposed solution given the power situation in the country (at US\$0.05 per kWh the loss of 1,000MW of generating capacity at 85 percent plant load factor would be about US\$35 million per month). Also because without approval from the Central Electricity Authority (CEA), NTPC would not be able to recover the cost of these investments. NTPC is therefore not in compliance with the MOEF environmental regulation on thermal pollution for the above mentioned plants.

^{9/} Because of subsequent recalculations, the figures presented here are different from those presented in the SAR. Based on the records at the time of land acquisition between 1985-1989, the number of PAPs identified was 824 for Vindhyachal II and 191 PAPs for Rihand II. Effectively, the number of PAPs based on subsequent socio-economic surveys is only 743, because 272 PAPs were untraceable because they had left the project area. The number of PAPs affected by Vindhyachal II and Rihand II is relatively small, because resettlement is required only for the construction of the ash dikes for these projects. No resettlement is required for the construction of these power plants, because the existing plant sites have enough space to accommodate the planned expansions.

^{10/} The total number of families affected by these projects is estimated at 5,216 (Appendix 3)

^{11/} As part of the Project, ReAPs are also being implemented for projects which were ongoing at the time of negotiations. These were: Ln 2442-IN, Second Farakka; Ln 2674-IN, Combined Cycle; and Ln. 2844-IN, National Capital Power. As part of the EAP, ReAPs are also being implemented at Korba, Anta, Auraiya and Ramagundam. Another ongoing Bank project, Talcher Thermal Power, was not covered because an acceptable RAP was already under implementation.

^{12/} NTPC makes a distinction in the R&R Policy of May 1993, between people affected before the adoption of the new policy and those eligible after that date.

Specific Issues

10. The Request alleges violation of five of the Bank's Operational Policies and Directives. The alleged violations are discussed below in the context of the relevant Bank Operational Policy (OP) or Operational Directive (OD).

11. ***OP 10.04 Economic Evaluation of Investment Operations.*** OP 10.04 requires among other actions the consideration of alternatives, an analysis of different energy supply (design) options, and a verification of the project's consistency with the Bank's poverty reduction strategy.

12. The main allegations raised by the Requester are:

- ◆ ***Alternatives have not been properly considered.*** Management considers that alternatives were adequately considered. This was done through studies carried out by the Central Electricity Authority (CEA) when the project was designed. NTPC's Rihand II and Vindhyachal II power station projects were included in India's least-cost generation expansion plan following techno-economic planning studies^{13/} performed by CEA in the late 1980s-early 1990s. The Bank's analysis established the economic viability of the 1993-1999 time-slice of NTPC's core investment program. The Rihand II and Vindhyachal II projects were among NTPC's - and India's - lowest-cost generation projects^{14/}.
- ◆ ***Energy options based on demand side management and renewable sources, which are more sustainable financially and environmentally were not analyzed during appraisal.*** Management considers that this analysis was carried out prior to and during appraisal. The Project was part of the Bank's overall Country Assistance Strategy and one of the elements of the Bank's lending strategy for the power sector in India.^{15/} The Bank's 1991 study of "Long-Term Issues in the Power Sector in India" (White Cover, December 1991) estimated that by fully implementing various measures to improve electricity end-use efficiency, as much as 30 percent of maximum demand and 20 percent of electrical energy could theoretically be saved over time. For the short-term, the study estimated that raising electricity tariffs to long-run marginal cost levels over five years would reduce demand for generation capacity by about 8,700 MW (or only about 10 percent of

^{13/} CEA's main planning model is the Electric Generation Planning Analysis System (EGEAS), developed for the Electric Power Research Institute of the United States (EPRI) by the Massachusetts Institute of Technology and Stone & Webster Engineering Corporation.

^{14/} See also Environmental Study of the Singrauli Area, by Electricité de France (EdF) and Groupe Charbonnage de France, 1991, (The EdF Study). The anticipated NTPC power station capacity expansion in the Singrauli area will, once completed, leave the total power generating capacity in the region below the intermediate growth scenario of 11,000MW, which was found by the EdF Study to be compatible with regard to air and water quality issues.

^{15/} The Bank's lending strategy to the power sector in India and its consistency with the Bank's overall policy for lending in the power sector was explained in para. 1.30 of the Staff Appraisal Report, No 11827-IN, June 4, 1997.

the power demand estimated to be required for the end of the Ninth Plan). Some progress can reasonably be expected in the coming years. Electricity prices to industrial and commercial customers are already high, and pressures to improve productivity, including the more efficient use of electricity have increased rapidly under the Government's economic liberalization program initiated in 1991. India's increasingly competitive business environment is also expected to cause companies to pursue low-cost conservation measures more aggressively.

- ◆ India's renewable energy program is among the most active in the world. Progress is being made in such areas as wind, solar-photovoltaic, bagasse and biogas, and mini-hydroelectric energy generation. As an example, India has about 900 MW of installed power capacity. The renewable resources program is supported, through the Indian Renewable Energy Development Agency (IREDA), by several donors, including the Bank Group under the Renewable Resources Development Project (US\$115 million under Cr. 2449-IN), and a grant from the Global Environment Facility (US\$26 million). IREDA has provided funding for over 700 renewable energy projects. However, while this program is yielding encouraging and locally significant results and contributing to India's power supply, renewable energy will not be able to cover India's projected energy supply shortfall in the foreseeable future.
- ◆ Power shortages have increased since the approval of Ln. 3632-IN and currently exceed 10 percent of total electrical energy and 20 percent of peak capacity requirements. Shortages are likely to increase further in the coming years in several parts of India. The Ninth Plan (FY 1998-2002) projects capacity additions from conventional sources at about 57,000 MW. This, however, is highly unlikely to be achieved because of financing constraints and the long gestation period for power projects in India. Therefore, even if all demand side management measures and renewable energy projects would materialize, capacity additions envisaged to be constructed under the project (a maximum of 1,500 to 3,500MW) would fall well short of requirements.
- ◆ ***Economic analysis did not examine consistency with the Bank's poverty reduction strategy.*** Management considers that the economic analysis for the project was consistent with Bank's Country Assistance Strategy with the Bank's overall poverty reduction strategy^{16/}. The NTPC Power Generation Project is not directly targeted to the poor, but by improving the power supply, the project will help overcome infrastructure constraints which is one of the most serious bottlenecks to industrial activity and higher economic growth in India. The key contribution of the project to the poor is therefore to ease the power supply bottleneck to economic activity and growth. The project is therefore consistent with the Bank's poverty reduction strategy.

13. ***OD 4.01 Environmental Assessment.*** OD 4.01 stipulates among other actions that the borrower should solicit and fully take into account through meaningful consultations, the views of affected groups and local NGOs in project design, and the preparation of the Environmental

^{16/} India, Country Strategy Paper, July 18, 1991, paragraphs 66 and 68.

Assessment (EA). Relevant information on the project, EA, and other relevant materials is to be made available at some public place accessible to affected groups.

14. The main allegations raised by the Requester are:

- ◆ ***There was a lack of consultation of PAPs and local NGOs during project design and implementation and in the preparation of the environmental assessment.*** Management recognizes that the specific procedures and steps for consultation on the EAs prescribed in OD 4.01 were not followed. However, full Category “A” EAs were prepared for each of the first two investments proposed under the Project (Vindhyachal II and Rihand II). In July 1992, public consultation meetings were held with the PAPs of Vindhyachal II and Rihand II to inform the local population and NGOs of the proposed Rihand II and Vindhyachal II power stations. The minutes of these consultation meetings (see EA for Vindhyachal II and Rihand II) show that the main pre-occupations of the PAPs were the amount of compensation and the rehabilitation benefits. The draft EAs were not made available at those meetings. Management approved the EAs and found them consistent with the requirements of OD 4.01. Draft EA reports were provided to the Bank prior to appraisal as required under paragraph 15 of OD 4.01 and an Environmental Assessment Summary^{17/} was provided to the Executive Directors of the Bank on April 14, 1993 and placed in the Bank’s Public Information Center (PIC). The Environmental Mitigation Plans for Vindhyachal II and Rihand II are incorporated in the overall EAP agreed with the Bank. The implementation of the EAP is an obligation of the borrower under the loan agreement for the Project (see Section 3.04 and Schedule 2 of the Loan Agreement).
- ◆ ***Other related consultations.*** Management was aware that other than the July 1992 consultative meetings referred to above, no direct consultation had taken place on the EAs with the PAPs and local NGOs as required by OD 4.01^{18/}. However, Management accepted that omission because: (i) a public presentation of the Environmental Study of the Singrauli Area, July 1991 (the EdF study) was held in New Delhi. Prominent national NGOs as well as stakeholders from the Singrauli Region attended that presentation; and (ii) the Vindhyachal II and Rihand II projects were part of India’s Eighth Plan which had been subject to a public debate and approved by the Indian Parliament. Management acknowledges that the above does not effectively substitute for consultation with local affected populations. However, as discussed below Management has subsequently taken steps to ensure that adequate local public information is available.
- ◆ ***There was limited access to information.*** Management considers that we are in compliance with requirements on access to information. OD 4.01 requires that the

^{17/} The Environmental Assessment Summary (EAS) for the project (SecM93-370, April 14, 1993) provided a specific background note describing how the environmental problems were being addressed under the NTPC Power Generation Project in general, and in the Singrauli area in particular. The latter was done because two of the first investments under the proposed loan (Vindhyachal II and Rihand II), were located in the Singrauli area.

^{18/} Direct consultations with the PAPs were much more extensive during the preparations of the RAPs for Vindhyachal II and Rihand II (see para. 18).

Environmental Assessment Summary for the project be placed in the Bank's PIC. The EA Summary was completed in April 1993 and made available through the Bank's New Delhi Office. At the time of project preparation, NTPC did not have PICs, but available information could be obtained from NTPC's Corporate Planning Department in New Delhi. Public notices that the final EAs were available from NTPC were issued on September 15, 1993 for Vindhyachal II and on February 14, 1994 for Rihand II. In addition, NTPC made information available on request to interested parties on a case-by-case basis. PICs were established at all NTPC's including at Vindhyachal and Rihand and its Corporate Center in New Delhi after Board approval of the Project. These PICs contain all relevant documents, including the Corporation's May 1993 R&R policy which has been translated into Hindi.^{19/}

- ◆ ***The inhabitation and agricultural use of sites (Rihand and Vindhyachal project sites) was not a criterion for site selection.*** Management does not know what exact criteria were used by NTPC and the Government of India for site selection since the sites for the Rihand I and Vindhyachal I power stations were made in the early 1980's, long before the Bank decided to support the Stage II expansions of these power stations. NTPC's policy has been to acquire sufficient land during the first stage of development to accommodate future plant extensions^{20/}. Management could therefore not influence the plant site selection. Because of NTPC's decision to give priority to the expansion of existing power stations, the additional resettlement required was limited to a relatively small number of persons affected by the construction of the ashdikes for the second stages only. The decision to change the location of the ashdike to Mithini (Rihand project site) was indeed the result of an attempt to further minimize resettlement and impact on agricultural land. Upgrading of existing ash dikes has also been considered and the land requirements for ash disposal are being brought down from 0.8 acre/MW to 0.6 acre/MW through improved ash pond management. However, the acquisition of additional land could not be entirely avoided. Management was satisfied with the criteria used for the selection of the ashdikes.

- ◆ ***Induced development and other socio-cultural aspects of the project should have been addressed in the Environmental Assessment.*** Management considers that these aspects were addressed in the EAs and the related Environmental Study of the Singrauli Area (the EdF study). OD 4.01 requires that the EA assess induced development and other negative impacts on the socio-cultural dimensions of the project area and people. The recognition that remedial actions were required to address the increasing environmental and socio-economic problems in the Singrauli region was based on the EdF study. It was completed in 1991 and was financed under the Second Singrauli Power Project. This study led to a

^{19/} Initially there were complaints from PAPs and some NGOs, that the PICs were not accessible, because they were located on NTPC premises, documentation was incomplete and operating hours were limited. These problems have been corrected, but there are still complaints that photocopying facilities are not available in the PICs.

^{20/} The ultimate planned capacity of the Rihand and Vindhyachal power stations is 3,000MW each, of which 1,000MW and 1,260MW respectively is currently in operation. Plans exist for adding an additional 1,000MW at each site.

decision to formulate a Singrauli Development and Environmental Strategy which was prepared by GHK/MRM International and completed in August 1994. This study was financed by an ODA grant and executed by the Bank^{21/}. The EdF study concluded that an expansion of generating capacity up to 11,000MW (from about 7,800 MW today) is compatible with the Singrauli area environmental carrying capacity with regard to air and water quality. There are no firm plans which would bring the generating capacity in the Singrauli area above the 11,000MW. Moreover, specific environmental actions recommended for NTPC power stations in the Singrauli area are being implemented as part of the EAP or have been incorporated in the design of the new power stations^{22/}. The April 1993 Environmental Assessment Summary of the Project explains the linkages between the project specific EAs for Vindhyaal II and Rihand II and the wider environmental and social problems in the Singrauli area.

15. **OD 4.20 Indigenous Peoples** OD 4.20 states that among other actions an Indigenous Peoples Development Plan be prepared before appraisal in the event that indigenous people are affected by the project.

16. The main allegation is that:

- ◆ ***None of the World Bank financed projects in Singrauli gave any special consideration to tribal and ethnic groups.*** The Management considers that no special consideration was required under the Project, because the socio-economic surveys carried out before appraisal found that no indigenous people were affected by new investments in the ashponds of either Rihand II or Vindhyaal II^{23/}. Despite that conclusion, particular provisions were made for users of forest land in Rihand^{24/}, but these groups are not classified as indigenous people (i.e. tribals) (see also page 12).

17. **OD 4.30 Involuntary Resettlement.** OD 4.30 specifies that involuntary resettlement should be avoided or minimized where feasible, through exploration of all viable alternative project designs. Where displacement is unavoidable, the policy directs that resettlement plans should be developed. Displaced persons should be compensated for their losses at full replacement cost prior to the actual move; assisted with the move; supported during the transition period in the resettlement site; and assisted in their efforts to at least restore their former living standards, income earning capacity, and production levels.

18. The main allegations are:

^{21/} The background and main conclusions of the proposed Singrauli Development and Environmental Strategy are provided in Appendix 4.

^{22/} In terms of the OD, the EAP, which covers all NTPC stations in India and not just Vindhyaal II and Rihand II, considerably exceeds the requirements

^{23/} See MODE, Socio-economic and Demographic Study of Mithini and Khairi villages, Feb. 1993, and Prof. K.C. Mathur and others, Socio-economic and Demographic Census Study for Ash Dikes in the Peninsular area of Gobind Ballabh Pant Sagar (Vindhyaal II), 1992

^{24/} See Supreme Court judgment, as reproduced in NTPC's Rehabilitation Action Plan for Rihand dated June 3, 1993.

- ◆ ***Involuntary resettlement in Vindhyachal and Rihand could have been avoided through upgrading of existing ashponds and back filling of ash in existing mines.*** Management considers that adequate steps were undertaken to avoid resettlement in Vindhyachal II and Rihand II. The scale of resettlement caused by the construction of the proposed ashdikes for Vindhyachal II and Rihand II is limited (743 PAPs). Avoiding resettlement completely was not possible. Development of any new pithead power station, instead of the power station expansions supported by the Project, would have involved much larger involuntary resettlement. Upgrading of existing ash dikes has been considered and new ashdike management techniques have been introduced. Other technical solutions such as backfilling of ash in existing open cast mines in the Singrauli area were found to be unfeasible by Northern Coal Limited (Appendix 2).

- ◆ ***The agreed Rehabilitation Action Plans (RAPs) were inadequate and prepared without consultation.*** Management considers that meaningful consultation with the PAPs took place during the preparation of the RAPs (during ___ 1992/early 1993) and the RAPs were considered adequate at that time. However, as discussed in paragraph 20 below, significant problems and delays have arisen in the implementation of these respective plans by NTPC. Preparation of the RAPs for Vindhyachal II and Rihand II began in 1992. PAPs were first consulted during the socio-economic surveys carried out from late 1992 through January 1993. Draft RAPs were submitted by NTPC to the Bank for review in March 1993 before project appraisal. After a series of reviews, it was concluded during appraisal that NTPC's policy and entitlement framework for R&R were not compatible with OD 4.30. During negotiations in May 1993, an agreement was reached between NTPC and the Bank on a new corporate R&R Policy. Consultations with the PAPs on RAPs continued during May and June 1993, after the NTPC R&R Policy was approved and enhanced in May 1993. In early June 1993, Management accepted the RAPs as satisfactory.

- ◆ ***NTPC's May 1993 R&R Policy is not compatible with the Bank's OD 4.30***
Management considers the NTPC's R&R Policy of May 1993 to be consistent with OD 4.30 except with respect to the treatment of indigenous people, particularly in reference to land tenure rights. No indigenous groups were identified among the people affected by Vindhyachal II and Rihand II.^{25/}

^{25/} No indigenous people, were identified in the base line socio-economic surveys for vindhyachal II and Rihand II, but since this was questioned by some NGOs further follow up socio-economic surveys were carried out. Some of the confusion arose, because about 10% of the PAPs of Vindhyachal I, which is not a Bank financed project, are classified as indigenous people.

- ◆ ***The options for resettlement and restoration of livelihood are inadequate.*** Management considers that the resettlement and rehabilitation options to restore livelihood outlined in the May 1993 R&R Policy available to PAPs of NTPC projects are in line with OD 4.30. A significant change introduced under the NTPC's new policy was that the R&R entitlements would no longer be family-based, but that each major (person of 18 years of age and above) is entitled to his/her own set of entitlements. On a per family basis, this has significantly increased the total resettlement and rehabilitation packages per affected family^{26/}. The new policy stipulates that preference should be given to land-based resettlement strategies for people dislocated from agricultural settings. If suitable land is unavailable, non-land-based strategies built around opportunities for employment or self-employment may be used. Appendix 3 provides an overview of the current status of the RAPs for Vindhyachal II and Rihand II. About 59 percent of the 598 PAPs in the case of Vindhyachal II have moved and rehabilitated. In the case of Rihand II, about 74 percent of the 145 PAPs have so far been rehabilitated^{27/}.

- ◆ ***Not all people displaced during earlier stages have been provided with an alternative livelihood.*** Management agrees with this allegation. However, Rihand I and Vindhyachal I were constructed from the late 1980's to the early 1990's with financial assistance from the UK and USSR respectively. When preparation of the Project started in 1991, problems of resettlement in the Singrauli area were already prevalent and highlighted by PAPs and NGOs. OD 4.30 does not apply to projects that were not financed by the Bank. Nevertheless, NTPC agreed^{28/} to investigate the difficulties faced by such PAPs as part of the EAP. As specified in Chapter 5 of NTPC's May 1993 R&R Policy, the approach in the case of such retrofit was to provide collective benefits to the population affected by these earlier projects. Socio-economic studies of families affected by earlier NTPC projects in the Singrauli area were completed in December 1994, and ReAPs were prepared for Rihand and Singrauli in May 1995. They are under implementation. A draft of a ReAP for Vindhyachal was prepared but is not being implemented because NTPC is having difficulties reaching an agreement about the individual rehabilitation options with a number of PAPs. The physical works, including infrastructure improvement and enhanced community development facilities have largely been completed. In addition, access to various training facilities has been provided to these communities as a whole.

- ◆ ***Results of retrofit socio-economic studies.*** The retrofit socio-economic studies of NTPC of people affected by the construction of Singrauli, Rihand I and Vindhyachal I power

^{26/} NTPC's May 1993 policy lists the available options. For example, in addition to compensation for land and property and moving assistance, all PAPs (majors) would qualify for land for land, assistance with self employment, shops, or petty contracts for goods and services required for the power station or the NTPC township. A complete list of compensation of each PAP of Vindhyachal II and Rihand II and the individual entitlement packages provided in the revised RAPs, are available in the Bank's files.

^{27/} These PAPs have received their compensation and rehabilitation packages. NTPC, however, continues to provide assistance in setting up the income generation schemes.

^{28/} Loan Agreement, Section 3.03(b).

stations were able to identify 3,383 families of which 95 percent had moved, received their compensation package, and resettled either in the resettlement colonies (Punervas for Rihand, Navjivan Vihar for Vindhyachal and Chilkadand for Singrauli) or elsewhere in the region (Appendix 3). NTPC has conducted a comparative analysis of the standard of living in unaffected villages in the area with the standard of living in the resettlement colonies, which shows that the living standard in the resettlement colonies is currently higher^{29/}. Community development programs are still ongoing.

19. **OD 13.05 Project Supervision.** OD 13.05 details among other activities, the supervision standards and procedures to ensure that the borrower implements the project with due diligence to achieve the agreed development objectives in conformity with the loan agreement. Bank management considers that the relevant policies, procedures and responsibilities for supervision have been complied with. Management, however, recognizes that progress in project implementation falls short of initial expectations.

20. The main allegations are:

- ◆ **Bank failed to adequately supervise the project or to take corrective actions.** Management does not agree with this observation. The frequency of supervision missions, the composition of the teams, dialogues with the PAPs and NGOs during supervision, issues identified (no new issues are raised in the Request for Inspection) and recommendations made for remedial actions, as shown in the aide memoires of the supervision missions and correspondence with NTPC (Appendix 1), reflect the intensive dialogue between NTPC, task team, and other stakeholders.^{30/} NTPC has also been providing comprehensive quarterly progress reports since the loan was approved (Appendix 5). Since 1995, most of the supervision responsibility for R&R under the project was delegated to the Social Development Unit in the Resident Mission in Delhi. Management made this change in supervision strategy in response to the difficulties in implementation of the R&R programs under the project with a view to take advantage of greater field presence and local knowledge offered by specialized staff in the resident mission.
- ◆ **Bank failed to suspend disbursements because of non compliance with agreed covenants.** Management has been aware that there are two areas relevant to the Request^{31/} in which NTPC does not fully comply with the Bank's agreed covenants under the

^{29/} Reports are available in the Bank files.

^{30/} The Bank's supervision plan in the Staff Appraisal Report (SAR) envisaged a total staff input of about 104 staff weeks of supervision inputs over a five year period. Actual supervision records (Appendix 1) show that the actual number of staff weeks (304 since Board approval until April 30, 1997) spent on supervision has vastly exceeded the initial supervision plan presented in the SAR.

^{31/} NTPC is also not fully in compliance with the two months' accounts receivable covenant under Loan 3632-IN. Bill collection problems have remained an area requiring considerable attention from NTPC management, because of the poor financial situation of the State Electricity Boards. Loan effectiveness was delayed by several months because bill collection problems had re-occurred. Due to continued pressure by the Bank, collection of current bills has considerably improved and progress is being made with the settlement of arrears.

loan: (i) timely implementation of the EAP and; (ii) timely implementation of the RAPs for Vindhychal II and Rihand II. In accordance with OD 13.05, paragraph 30, Management decided to exhaust all methods of persuasion before exercising contractual remedies. The exercise of available legal remedies is a matter for the judgment of Management, taking into account all the circumstance of each case. In this case, Bank supervision missions for the Project noted NTPC's failures to carry out certain obligations under the loan agreement and identified appropriate remedial actions. Several warnings that the Bank might exercise its available remedies were issued through aide-memoires and letters to NTPC management (Appendix 1). Management made the judgment that maintaining an intensive dialogue and being engaged in the resolution of the issues was a more appropriate approach than exercising formal remedies. Management also noted that certain mitigatory actions were being taken by NTPC in respect of the EAP and that implementation of the RAPs for Vindhychal II and Rihand II was progressing. The judgment of Management in this respect is consistent with the results of the 1994 Bank-wide R&R review and subsequent Board discussions, which concluded that in the case of R&R problems, it may often be better for the Management to remain engaged than to formally suspend a loan.

- ◆ The decision to remain engaged is neither a sign of negligence nor of lack of concern. On the contrary, we have maintained dialogue in the context of continuing to support implementation as the path most likely to yield achievement of project objectives. Moreover, Management's decision not to exercise formal remedies did not mean that NTPC faced no sanctions for deficiencies in its R&R and environmental performance. The envisaged second and third time-slice operations in what was originally designed as a series of three \$400 million Bank loans at 18- to 24-month intervals (see para. 3.14 of the SAR) have been deferred, with the result that NTPC has had to scale down its investment program.
- ◆ ***Bank has reported that the EAP was implemented on schedule*** The EAP was implemented a schedule as reported by Management to NGOs during the first two years of progress implementation. But over the last two years, significant delays in implementation of certain environmental projects and actions have been reported by the supervision missions^{32/}. In the Singrauli Region, this refers specifically to the closure of the cooling water systems and recycling of the ash slurry water systems which were considerably delayed. Despite the major shortfalls noted above, NTPC has become more pro-active in dealing with environmental issues. Recommendations for mitigatory actions were made during each mission to deal with outstanding issues. Several warnings that Management might exercise its available remedies were issued through the aide-memoires and the letters to NTPC management.

The bill collection problems have not affected NTPC's capability to provide their contribution to the investment program and financing R&R programs. NTPC's overall financial position remains strong.

^{32/} The overall rating of the environmental aspects, declined from "highly satisfactory" up to mid-1995 to "satisfactory" until now, because on balance, many actions in the EAP were in progress, of a continuous nature or completed (Appendix 2)

- ◆ ***Implementation of the RAPs for Vindhyachal II and Rihand II is not satisfactory.***
Management agrees that NTPC's performance with respect to the implementation of these RAPs has not been satisfactory. This has been recognized during supervision, and since a separate rating was introduced for resettlement in the form 590 in 1996, that performance area has been rated unsatisfactory. Appendix 3 reflects the context of R&R in the Singrauli area as well as a more detailed overview of the results of NTPC's R&R efforts in that area. During supervision, improving the consultations with PAPs have been a feature of all Bank field missions^{33/}. Meetings have been held with NGOs, Community Based Organizations (CBOs) and members of the Village Development Advisory Councils (VDACs). VDACs were set up by NTPC as mechanisms for regular consultation with PAPs at all plant sites. The composition of the VDACs has been criticized by the Requester as not being representative. Bank supervision missions have also pointed that out to NTPC, including the need to reorient the VDACs into representative fora with better representation of women and minorities^{34/}. NTPC has also recruited sociologists at each plant site who function as community outreach workers. They have been able to establish close contacts in the affected communities. As a result, more than 60% of the PAPs of Vindhyachal II and Rihand II have been resettled and received their rehabilitation packages (Appendix 3). In practice, NTPC has not been able to implement the land for land option in the Singrauli area and the main groups of PAPs still resisting resettlement are landowners. In this respect, Management underestimated the practicability of implementing the land for land options. In the absence of permanent jobs with NTPC or land for land choice, Management recognizes that the record of achievements under income generation schemes in the Singrauli area needs further evaluation and new approaches incorporating more effective social mobilization at the initial stage are required. Again, Management had underestimated the difficulties in carrying out income generating schemes.

- ◆ Access to an independent judicial process is a fundamental right under Article 21 of the Indian Constitution. PAPs of Rihand I availed themselves of this right and the Supreme Court ruled in their favor. PAPs of Vindhyachal II also sought judicial recourse, but the Supreme Court of India dismissed their petition. While the appeal was pending, it was not possible for PAPs and NTPC to reach agreement. Since the climate of discussion between NTPC and PAPs has been, and in some respects still is, volatile, there is clearly a need for confidence-building measures to successfully rehabilitate the remaining PAPs.

- ◆ ***Bank staff refuses to meet with NGOs or PAPs without NTPC staff present***
Management does not agree with this allegation. The supervision reports show that there have been many interactions with NGOs and PAPs during project supervision. Bank staff

^{33/} Details can be found in the supervision reports listed in Appendix 1.

^{34/} Suggestions for strengthening the VDACs have been made on a number of occasions over the past two years. Improvements in terms of increased regularity of meetings and representation from a wider group of persons have been forthcoming. The VDACs, however, continue to be male and elite dominated. On all supervision missions over the past two years, mission members have attended VDAC meetings. See mission reports listed in Appendix 1.

have met with PAPs, NGOs and other interested parties with and without NTPC staff present in field locations and in New Delhi.

- ◆ ***False progress reports were provided to the Bank by NTPC and the Bank never bothered to verify NTPC's progress reports or reports submitted by the NGOs and PAPs.*** Management does not agree with this allegation. NTPC progress reports were verified through regular field visits and discussions with NTPC staff. There have been differences in interpretation of monitoring data and at times NTPC management overruled positions taken by junior NTPC staff. complaints made by PAPs and NGOs to the Management and staff have consistently been brought to the attention of NTPC and follow-up action was monitored. Where specific allegations have been made, Management has asked NTPC Corporate Center to investigate, and has made its own discreet inquiries to determine accuracy. Finally, as paragraph 66 of the Request demonstrates, this project is taking place in a society which provides several avenues of redress to its citizens, from the media to the judicial system.

21. A matrix with more detailed responses to the allegations made is presented in Appendix 5.

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