Document of
The World Bank

FOR OFFICIAL USE ONLY

Report No.: 18146

PERFORMANCE AUDIT REPORT

INDIA

COAL MINING AND QUALITY IMPROVEMENT PROJECT
(LOAN 2796-IN)

June 24, 1998

Operations Evaluation Department

Currency Equivalents (annual averages)

Currency Unit = India Rupees (Rs)

1986	US$1.00	Rs. 12.74
1988	US$1.00	Rs. 14.49
1990	US$1.00	Rs. 17.79
1992	US$1.00	Rs. 16.74
1994	US$1.00	Rs. 31.37
1996	US$1.00	Rs. 35.72

Abbreviations and Acronyms

ADB	Asian Development Bank
BICP	Bureau of Industrial Costs and Prices
CIL	Coal India Limited
ECL	Eastern Coalfields Limited
GOI	Government of India
ICR	Implementation Completion Report
IDA	International Development Association
LRMC	Long-run marginal cost
MIS	Management information system
MMTPY	Million metric tons per year
NGO	Nongovernmental organization
OED	Operations Evaluation Department
OMS	Out-put per manshift
PAPs	Project-affected persons
PAR	Performance Audit Report
PR	President's Report
R&R	Resettlement and rehabilitation
SAR	Staff Appraisal Report
SECL	Southeastern Coalfields Limited
TCE	Ton coal equivalent

Fiscal Year

Government: April 1 - March 30

Director General, Operations Evaluation	:	Mr. Robert Picciotto
Director, Operations Evaluation Department	:	Ms. Elizabeth McAllister
Manager, Sector and Thematic Evaluations Group	:	Mr. Roger Slade
Task Manager	:	Mr. Richard Berney

FOR OFFICIAL USE ONLY

The World Bank
Washington, D.C. 20433
U.S.A.

Office of the Director-General
Operations Evaluation

June 24, 1998

MEMORANDUM TO THE EXECUTIVE DIRECTORS AND THE PRESIDENT

SUBJECT: Performance audit Report on India: Coal Mining and Coal Quality Improvement Project (Loan 2796-IN)

Attached is the Performance Audit Report prepared by the Operations Evaluation Department (OED) on the above project. The loan, for the amount of US$340 million equivalent was approved in FY87 and closed in September 1995 after a one-year extension. A total of US$39.7 million was canceled.

The primary objective of the project was to increase the quantity and quality of coal for the power and industrial sectors. The project components included develop additional thermal coal production capacity through (a) expansion of the Southeastern Coalfields Limited (SECL) coal mine at Gevra, to increase production from 5 mmtpy to 10 mmtpy; (b) development of the Eastern Coalfields Limited's (ECL) opencast coal mine at Sonepur-Bazari to produce 3 million tons per year; and (c) import of US$160 million (about three million tons) of coking coal for blending with high ash domestic coking coal.

On a technical level the project components have been satisfactorily implemented. The coking coal was imported on schedule. The Gevra mine expansion project has surpassed its production targets, produces coal at low price, is highly profitable. Gevra justifies the strategy pursued to strengthening Coal India Limited (CIL) by expanding production through large, low-cost, opencast mines. The Sonepur-Bazri mine, while four or five years behind schedule because of land acquisition and related resettlement and rehabilitation problems, is now producing good quality grade-B coal, one grade higher than estimated at appraisal, at a rate of about 1.75 million tons per year, and is expanding smoothly. Technically both investments are sustainable. However, with the coming deregulation of the sector, the outlook for expanded production at Sonepur-Bazari may be compromised by the excessive surcharges levied by the West Bengal government and high rail transportation costs.

Overall, Indian coal quality has failed to improve measurably in the last decade. There are no incentives for the coal companies to do so. The GOI needs to change the coal pricing regime to provide incentives for improving the quality of delivered coal. Coal should be priced in terms of its delivered calorific content and other quality measures. Little was done to improve the operational efficiency of CIL's underground mining operations.

The audit rates the overall project outcome as satisfactory (as in the ICR), and the sustainability as likely (as in the ICR). For the above reasons, institutional development is rated as negligible (partial in the ICR). Bank performance is rated as unsatisfactory (satisfactory in the ICR). The Bank accepted, without critical analysis, the assurances of the Government of West Bengal that the land transfer and associated resettlement and compensation issues would be resolved shortly. During implementation, the Bank put too much emphasis on improving CIL's financial performance through price increases and paid insufficient attention to implementation of coal quality improvement and cost reduction programs. Borrower performance was satisfactory (as in the ICR).

The major lessons learned were: first, borrowers need to establish participatory decisionmaking by the project-affected persons (PAPs); second, the Bank should insist that land acquisition and compensation issues are fully and appropriately resolved before agreeing to participate in financing a project; and third, more attention needs to be paid to improving financial results by creating incentives for enterprises to improve their operating efficiency. These incentives can best be created under competitive conditions and maximum private sector participation.

Attachment

Contents

Principal Ratings

	Loan 2796-IN	
	Audit	*ICR*
Outcome	Satisfactory	Satisfactory
Sustainability	Likely	Likely
Institutional Development	Negligible	Partial
Bank Performance	Unsatisfactory	Satisfactory
Borrower Performance	Satisfactory	Satisfactory

Key Staff Responsible

	Loan 2796-IN		
	Task Manager	*Division Chief*	*Country Director*
Appraisal	John Strongman	Ibrahim Elwan	Enrique Lerdau
Completion	Peter Pollak	Jean-Francois Bauer	Robert Drysdale

Preface

This is a Performance Audit Report (PAR) on the India Coal Mining and Coal Quality Improvement Project (Loan 2796-IN) for which the World Bank approved a loan of US$340 million equivalent on April 21, 1987. The loan closed on September 30, 1995, after an extension of one year. A total undisbursed balance of US$39.7 million was canceled.

This report is based on the Implementation Completion Report (ICR) prepared by the South Asia Region and issued on April 23, 1997, the Staff Appraisal Report, loan documents, project files, and discussions with Bank staff. In addition, an Operations Evaluation Department (OED) mission visited India in January 1998 to discuss the effectiveness of the Bank's assistance with the government and the various project implementing agencies. The cooperation and assistance of government officials and the management and staff of CIL, SECL, and ECL are gratefully acknowledged.

The ICR covers the project's physical implementation, including the resettlement problems that arose and were resolved. The audit updates information on the implementation of the Sonepur-Bazari mine, which has yet to reach full production, and covers, in some detail, issues related to coal pricing, coal contracts, and their relationship to coal quality improvements.

Following the standard OED procedures, the draft of the PAR has been sent to the borrower for comments. These comments have been incorporated into the text of the report and are attached as Annex C and Annex D.

1. Project Objectives and Description

1.1 The Coal Mining and Quality Improvement Project (the Coal Mining Project) was the third loan to Coal India Limited (CIL). All three project sought to increase the availability and quality of thermal coal production by developing modern, low-cost, opencast coal mines at CIL subsidiaries. The third project continued this strategy by establishing opencast coal mines at two CIL subsidiaries, Eastern Coalfields Limited (ECL) and Southeastern Coalfields Limited (SECL). During appraisal a component to import high-quality coking coal was added. The project's institutional objectives were: (i) to enhance efficiency and improve end-product quality by introducing advanced mining technology for opencast coal mines, including mining, handling, and transport measures; (ii) to contain production costs by improving efficiency of existing coal labor-intensive mining operations; and (iii) to strengthen the managerial, commercial, and financial practices of ECL and SECL.

1.2 The Coal Mining Project had two components. The first was to develop additional thermal coal production capacity through (i) expanding the SECL mine at Gevra, increasing production from 5 million metric tons per year (mmtpy) to 10 mmtpy; and (ii) developing the ECL mine at Sonepur-Bazari to produce 3 mmtpy. The second component was to import US$160 million (about three million tons) of coking coal for blending with high-ash (21 percent) domestic coking coal.

2. Project Implementation and Results

Import of Coking Coal

2.1 This was the first time that CIL had agreed to allow the steel industry to import low ash coking coal that was not being produced in India. The US$160 million for imported coking was disbursed in two tranches. The first tranche of US$100 million was disbursed in late 1987, following loan effectiveness. The second tranche was released in June 1989, after a five-month delay while the Government of India (GOI) prepared a plan to enhance CIL's efficiency and financial performance, as agreed under project covenants. Low ash coking coal is now routinely imported to blend with high ash domestic coking coals.

Gevra Mine Expansion

2.2 The expansion of SECL's Gevra mine was highly successful. The planned increase in coal production from 5 to 10 mmtpy was completed in FY91, about two years ahead of schedule. Furthermore, production has continued to grow; the audit mission found that in FY97 the mine's production of 16.8 million tons had exceeded the ICR estimate of 16 million tons (March 1996). Gevra, now the largest opencast mine in India, has contributed significantly to SECL's overall financial strength.

2.3 In FY97, Gevra produced its F-grade coal at a cost of less than US$4 per ton (US$6.50 per ton coal equivalent [TCE]),[1] which compares favorably with exporting thermal coal from opencast mines around the world (see Annex B) and is significantly below the appraisal estimate of US$7/TCE in constant 1987 dollars. Gevra's output per man-shift (OMS) is about twice the SECL average. While OMS is considerably higher at opencast mines in leading coal-producing countries, Gevra's average labor costs, at less than US$1/TCE, are considerably lower. Gevra is highly profitable: from FY93 to FY97 its annual profits ranged between US$57 and US$61 million. Gevra's performance proves that, when properly designed, staffed, and managed, opencast mining operations in India can have substantial cost advantages over those in other leading coal-producing regions of the world.

2.4 The amount of overlying soil and rock (overburden) removed ahead of coal extraction, a serious concern in the ICR, has been reduced in the past two years but remains too high.[2] In December 1997, Gevra still had about 25 million tons of coal exposed, about 16 months ahead of production requirements. SECL plans further reductions in FY99. Horizontal mining exploitation techniques have been abandoned, excavation has reached maximum design depth, and benches have been established to exploit the mine in the direction of the dip. Overburden removed from these newly excavated areas will be back-filled in mined-out areas, reducing the need for dumping areas outside the mine.

2.5 The Central Equipment Workshop is completed and operational and can provide diagnostic, refurbishing, and manufacturing services for electrical and mechanical equipment for all SECL mines in the Korba area. The workshop will soon be able to manufacture replacement parts that are no longer available from original equipment vendors. At present it employs about 250 full-time workers, including about 40 to 50 project affected persons (PAPs).[3] Management intends to operate the workshop as an independent profit center and to allow it to bid for servicing equipment of SECL's other mines. The turnaround time for an average job at the workshop is about one month. Management estimated this turnaround time to be about half of that required for outside service.

2.6 *Resettlement*: OED believes that resettlement of PAPs from the Gevra project has been satisfactorily implemented. The audit's reviewed SECL's resettlement data and inspected one of the major resettlement sites. Of the 968 families displaced, 950 have been resettled. For 2,006 of the 2,630 PAPs the mine has provided direct or indirect employment. The Vijaynagar is the largest resettlement village (571 families) and one of four villages established to resettle PAPs. Considering the housing provided, and infrastructure and facilities observed, the standards and comfort level in this village far exceed those of other villages in this part of Madhya Pradesh. Among its amenities are electricity, roads, a village pond, an open well and pumps, as well as such facilities as a primary school, training center, playground, dispensary, and meeting halls. Almost all the infrastructure and facilities were in a satisfactory state. However, the role of the mining company in maintaining the infrastructure has yet to be totally clarified. For instance, the village head told the audit mission that the village had not been given replacement bulbs for street lights that had burnt out. He also said that the village would like a paved road to its pond. Such

1. For this audit, per ton coal equivalent (TCE) is estimated on Gross Calorific Value (GCV) comparisons based on 12,000 Btu per pound for Australian coal.

2. Removing overburden too far in advance of coal extraction creates a potential for spontaneous fires and consequent air pollution, a serious hazard of opencast mining.

3. People whose land was purchased for the project.

comments suggest that the village has become overly dependent on SECL's continued benevolence. **OED suggests that to avoid long-term misunderstanding, the project entity and the PAPs need to establish a clear limits to the project entity's responsibilities, and to reach an agreement with resettled PAP about how the PAPs are to arrange for maintenance of the infrastructure provided by the project entity.**[4]

Development of Sonepur-Bazari

2.7 Until FY91, the Sonepur-Bazari mine had not begun to procure equipment because the project was mired in land acquisition problems. Instead, its limited operations used borrowed equipment from the Kumarkhela mine. The audit mission found that all major equipment and facilities had been commissioned and were operating satisfactorily. However, overburden removal was behind schedule because of delayed land acquisition and subsequent delayed equipment purchases; only, one month's production was exposed. At this low overburden removal level ECL runs a high risk of sales losses from the inability to meet unforeseen production equipment contingencies.

2.8 The schedule to meet the 3 mmtpy target has slipped by another year since the ICR mission (to FY2000), and production targets are expected to lag behind that schedule. In FY97 the mine produced only 1.75 million tons of coal.

2.9 Sonepur-Bazari generates only modest profits. The cost of production during the past three years has oscillated between US$18 and US$21 per nominal ton (US$19 and US$22.5 per TCE), which is high compared to the US$10 to US$14/TCE production costs in Australia, South Africa, or the United States. OED's analysis of Sonepur-Bazari's costs suggests that a production cost of US$15 or less per TCE should be possible when the mine reaches full capacity operation. The fundamental uncertainty is whether the work force and management can be motivated to achieve the modest improvements required to reach this cost level. Based on its audit mission discussions at ECL, OED believes that they can.

2.10 *Coal Transport*: The proposed method of transporting coal from the mine to the railroad was changed after mine development was begun. Instead of building a spur line to the mine, as had been agreed in the original mine development program, ECL had to truck its coal by road to an existing rail siding six miles away, because it was having great difficulties acquiring land for the rail spur. Subsequently, ECL decided to eliminate the spur from the project because its analysis suggested that the spur would not be economic for shipping less than 10 mmtpy. Bank supervision missions in 1993 expressed concern about the environmental impact of not building the spur as agreed in the original project design, since at a production level of 3 mmtpy, road delivery would require that one 12-ton truck per minute travel in each direction during daylight hours. However, it was not until mid-1995 that the Bank discovered that ECL had decided definitely to cancel the rail spur without implementing an environmental impact study. Given its concern for the environmental impact of hauling so much coal by road, the Bank decided that it should deny any additional extension of the loan closing date.

2.11 ECL may also have been influenced in its decision to eliminate the spur because the road trucking solution was financially advantageous; it can pass the full cost of the road transport on

4. These issues are being addressed in the Environmental and Social Mitigation Program of the Coal Sector Rehabilitation Project (Loan 4226-IN). See comments from the Ministry of Coal, Annex D.

to the consumer, but it would not have been allowed to increase coal prices to cover the investment and operating costs of the rail spur. **The GOI should consider altering this pricing policy so that all transport and handling costs to the rail siding are the responsibility of the coal producer. This would eliminate the perverse incentive for coal companies to choose transport systems that are uneconomic as well as environmentally unsound.**

2.12 *Resettlement:* Disputes over terms for the purchase of land resulted in a four-year delay in development of this mine, and almost forced cancellation of the project. The ICR states that the Bank's project identification and appraisal were insufficiently sensitive to resettlement issues and to the region's historical inability to resolve them. However, it must be remembered that Sonepur-Bazari was the first new mine to be opened in West Bengal since mining was nationalized in the early 1970s, and there had never been any serious problems with completing the purchase of land for other coal mining projects in other states. Furthermore, the Government of West Bengal (GOWB), on several occasions, had given the Bank assurances that it had taken legal possession of the land and would transfer it to ECL. At the time of Board presentation, it was expected that the transfer would be made after the upcoming West Bengal elections. The Bank decided, therefore, that rather than drop this component entirely, the risk could be mitigated by making lending for Sonepur-Bazari (beyond the initial US$8 million procurement package) conditional on completion of transfer of all the land required in the phase I mine development.

2.13 The issue on compensation was always one of how many jobs ECL would offer as compensation for the land, since even the lowest paid ECL jobs paid four or five times more than could be earned in agriculture. After board approval, the PAPs, with the support of the GOWB continued to hold out for more jobs. Inconclusive negotiations dragged on for several years. But ECL had only limited ability to increase the number of jobs offered. During this period the GOI had revised its policy for new power projects of providing employment for all PAPs, and took a similar position for coal projects. The Bank was also encouraging ECL, which was already highly overstaffed, to minimize additional employment. The problem was exacerbated by the then-prevailing militant political climate in West Bengal. The negotiated proposed settlement, which was modeled on the government's 1990 "Gulla package," was also rejected because the PAPs and the GOWB believed that it provided an insufficient number of guaranteed jobs, and that additional jobs should be provided for adult family members of landowners, as well as for sharecroppers, tenants, squatters with houses, and tribals who cultivated land under traditional rights.[5]

2.14 As part of a new proposal, the mine configuration was altered to minimize the number of people who had to be resettled. It was found that both the villages of Sonepur and Bazari could be eliminated from the mining area with only a limited loss in total coal reserves. This greatly reduced the number of PAPs needing resettlement, and left outstanding primarily the issue of compensation for agricultural and marginal land. With hindsight one can see that the project could have been improved during the project design stage by exploring alternative mine configuration possibilities to determine whether there were any technically and economically feasible alternative configurations that could have reduce the number of people who would have to be resettled.

5. The Gulla package reserved 300 semi-skilled jobs for landowners and gave those who did not receive jobs a 20-year monthly [non inflation adjusted] subsistence allowance,

2.15 By the end of 1991, after more than four years of gridlock, the Bank was ready to cancel the project. At that point ECL, which had not made any of the project's large infrastructure investments, began to wind down its operations and transfer its mining equipment elsewhere. When local leaders saw that ECL was willing to abandon the project, opposition dissolved into a spirit of cooperation. Many factors helped to make this shift possible, including changes in state government politics. Those changes were accompanied by a growing realization that local enterprises needed to be supported if they were to provide continued local employment. At the same time CIL revised its approach to the allocation of jobs for all its land appropriations. The Gulla package, in which 300 jobs had been allocated to the community as a whole, was therefore extensively modified, so that one job was allocated for each two acres of appropriated land to those who had possession of the land. This is a major improvement over the previous practice of buying peace by offering jobs to almost all PAPs.

2.16 Probably the most important change, however, was a shift in ECL's approach in dealing with the affected families. In 1991, following a favorable experience with another mine development, ECL management opened direct dialogue with the affected families to explain the practical alternatives open to them, including the outcome if no agreement could be reached. ECL's previous policy had relied on NGOs, politicians, and state authorities to carry on the dialogue with the PAPs. The experience in Sonepur-Bazari indicates that participation of the affected persons as well as their designated leaders needs to be a central part of the strategy for effective resolution of resettlement and rehabilitation (R&R) issues. The Bank has taken this lesson to heart in India. In Credit 2862-IN, the Coal Sector Environmental and Social Mitigation Project (CSESMP), approved in FY96, early efforts were made to maximize participatory decisionmaking and to ensure that those affected have first-hand understanding of their options. In addition, project management has taken into account all possible ways to minimize the project's detrimental impact on the local community.

3. Issues

Steam Coal Quality

3.1 Improvement of the quality of steam-grade thermal coal was a stated objective of the project. But neither the coal pricing mechanism in use in India at the time of project appraisal nor the mining technology chosen for the two opencast mines were conducive to meeting this objective. First, the pricing mechanism established coal grade steps based on wide bands of calorific value, especially for the lower quality coal (for example, G-grade coal has a calorific value between 3110 kcal/kg and 3870 kcal/kg, C-grade coal has a value between 5600 kcal/kg and 6000 kcal/kg). This gave the coal company no incentive to improve the coal quality within any given grade. Second, the coal grade was "established" for each mine, without providing a contractual, legally enforceable method for continuous joint (buyer and seller) measurement of the quality of each coal shipment. Consequently, there was no immediate penalty for shipping a lower grade of coal than had been contracted for. The Bank was aware of this problem, but was unable to make any significant progress.[6] Instead it kept the issue alive by getting CIL to agree to

6. Annex 3.3 in the Staff Appraisal Report for the Coal Sector Rehabilitation Project (Report No. 16473-IN) provides an excellent summary of the issue.

exchange views with the Bank on possible improvements to coal contracts. **In OED's view, this approach would be better suited for a first loan to the coal sector. By the third loan, more should be expected.**

3.2 The lack of financial incentive to improve coal quality encourages the use of mining methods that intermingle coal and rock, and discourages the use of technologies and mining practices that would improve the quality of coal produced. For example, ECL's use of blasting combined with dragline excavators leads to extensive mixing of materials at the interface between overburden and the coal seam. **OED recommends that the Bank should review in more detail the contractual rules and regulations that govern all aspects of relationships between buyers and sellers, and to insist that they meet reasonable market standards in terms of avoidance of "moral hazard."[7] These contracts need to be designed so that they are legally enforceable, even when the buyers and sellers are state enterprises.[8]**

Resettlement and Rehabilitation at Sonepur-Bazari

3.3 As discussed earlier (paras. 2.12-2.16), ECL and the PAPs reached an agreement on compensation for land taken for the mining operation in the early 1990s, after many years of conflict and controversy. During this period, ECL undertook neither a baseline socio-economic survey nor a systematic study of the program's subsequent impact. However, at the urging of the Bank, ECL has agreed to carryout a PAP tracer study under the ongoing Coal Sector Environmental and Social Mitigation Project. This study is intended to provide an action plan to raise the income level of any PAPs from Sonepur-Bazari who are currently living under the poverty line. Without this basic data the audit was able to gain only a general impression of the program's implementation, gained through observations and discussions during short visits to several resettlement sites. Based on these limited observations, the audit found that the resettlement program has been favorably received. Previous residents of the hamlet of Ruidaspara, who just before loan closing prevented excavation operations and expansion of the mine, have been successfully resettled in a new village (Sukantpura). This village has been provided with infrastructure, street lights, wells and pumps, and electricity. Houses are of good size with large compounds and are made of cement and brick. Compensation agreements also have been concluded with the relatively affluent villagers of Punjabidangga, who do not want employment from ECL because they have jobs in the transportation sector. These villagers are relocating to a site on the Grand Trunk Road, close to where they work. There the audit mission saw the beginnings of a well laid out village with the first of several large houses and wide roads under construction. ECL is currently negotiating with two other villages to expand stage II mine production. According to ECL, negotiations appear to be on course for resolution of compensation agreements.

3.4 The critical element in the success of the Gevra R&R effort, and what set it apart from the Sonepur-Bazari experience, was that land acquisition issues and compensation agreements with PAPs had been concluded before the Bank became involved in the project. Moreover, the resettlement effort had begun before the Board had approved the loan. The process was also easier because in Madhya Pradesh the political environment, and state authorities and politicians,

7. "Moral hazard" is defined here to mean that one party has a financial incentive, without a countervailing penalty to take perverse actions, such as using less selective mining techniques that increase the amount of rock to the coal .

8. This has, however, been of continued importance to the Bank, and the recent Coal Sector Rehabilitation Project has, however, included technical assistance to help develop coal sales contracts.

did not appear to be working at cross purposes with the project authorities and the central government. **One clear lesson from this project is that an appropriate resettlement and rehabilitation policy is an essential element of project design. The Bank should provide assistance to resolve the resettlement issues upstream of its involvement in the project to ensure that land acquisition and compensation issues are fully resolved in line with Bank policies in a fully participatory manner. The resolution of resettlement issues requires project ownership and the commitment of authorities at all levels of government. Project managers need to ensure that this commitment leads to specific required actions before agreeing to support such projects. Resettlement planning was the central focus of the Credit 2862-IN.**

Environment

3.5 The mission examined data on effluent water from the mine and drinking water quality provided for Gevra and found that quality of water was well within the standards mandated for such waters. Levels of suspended particulate matter, total dissolved solid content, as well as levels of inorganic species, ions or heavy metal species in drinking and runoff waters are well within industry standards. At Sonepur-Bazari, water and air quality measures comply with standards, and mining practices appear to minimize environmental impact.

3.6 The machinery workshop at Gevra has a problem with disposal of the large quantity of machining oil it uses in production. Because Gevra management has not found a solution to this problem, a Bank supervision mission suggested that they hire an international consultant to find an acceptable solution. In the opinion of the audit, this would be an uneconomic solution to a fairly simple, routine problem. The key issue here is finding the funds to do the work. It makes little sense for SECL to use Bank funds, which it eventually must repay, to finance a high-cost foreign consultant study, when it could use its own funds to do the same job locally at a much lower cost. **While the Bank should insist that SECL find a quick solution to the problem, SECL should take up the challenge and find an Indian university or consulting firm to do the work, most likely at less than a fifth of the cost of a foreign firm. A supervision mission of the follow-on coal project should explore these alternatives with CIL.**[9]

Improving CIL's Financial Performance

3.7 CIL's financial performance has been a central element in the Bank's sector dialogue with Indian authorities. Following nationalization of coal mines in 1972/73, prices were set to cover only cash operating costs, without consideration for a return on invested capital or for recuperating capital costs through depreciation charges. CIL's losses increased rapidly, to the point that massive unplanned infusions of government funds became necessary to cover CIL's cash losses. The Bank's *Indian Coal Sector Report*, based on a 1980 sector review, argued that the importance of coal in the Indian economy required economic efficiency pricing based on coal's long-run marginal cost (LRMC) measured in border prices (between the import and export parity price). It argued that the consumer's maximum price should reflect the economic opportunity cost of importing coal, defined as the CIF import price adjusted for coal quality, plus inland transport costs to the consumption center. It also recognized that the minimum economic

9. In its comments on the Draft Audit Report, CIL reports that subsequent to the audit mission, action has been taken by the Gevra Workshop to keep the effluents within the permissible limits (see Annex C). The Ministry of Coal notes that the problem is being taken up with indigenous know-how (see Annex D).

price could not be so easily defined, because the quality of Indian coal was too low to be economically exported. Although the GOI conceded in the Sixth Plan that "in the past the pricing of energy has not always reflected either the true cost to the economy or helped to ensure the viability of the energy industries," it continued throughout the 1980s to keep prices low to minimize costs to major consumers, who were state-owned large-scale industry and electricity generating companies.

3.8 In preceding coal projects the Bank stressed the need for price increases to help CIL become financially self-sustainable after a decade of loss-making operation. In early 1984, the Agreed Minutes of Negotiations for the Dudhichua Coal Project (Loan 2393) clearly stated the Bank's position: "continued Bank lending to the coal sector is contingent on maintenance of appropriate prices and self financing ratios." This position was repeated in the 1985 Decision Memorandum for the Coal Mining Loan: "the Bank's dialogue with GOI on coal pricing would continue to focus (i) on the need for *regular increases* to ensure CIL's viability, and (ii) the principles that should underpin an appropriate pricing regime."[10] In mid-1985, the Bank again asked GOI to increase coal prices to help CIL meet the financial targets for FY86 that had been covenanted in the previous coal project loan, and the Loan Committee decided to hold processing of the coal mining project until GOI announced a satisfactory price increase, which the GOI did in January 1986 (16 percent). However, there were clear limits on the Bank's ability to insist that pricing increases be the primary tool for making CIL financially viable. After the 1986 price increase, the Bank's own analysis showed that now that coal prices "approximate[d] both long-run marginal cost and border prices, [and therefore] there was little justification for pressing for additional price increases to meet financial covenants."[11]

3.9 The GOI opposed further price increases, it saw automatic price increases needed to compensate the sector's continued excess employment and low productivity as a reward for inefficiency. It was particularly concerned about the problems of ECL, the worst performing of CIL's subsidiaries. ECL had suffered large losses every year since 1975, failed to increase production despite making substantial new investments, and been a major factor in eroding CIL's capital base. In 1995 the GOI initiated a study to identify ways to improve profitability by encouraging cost-reducing efficiency improvements. In May 1986, during the first negotiations for the Coal Mining Loan, the Indian delegation offered a list of efficiency improvement initiatives, but the actions needed to make the improvements had still not been fully defined. By August CIL had developed a broad set of strategies, actions, and programs intended to meet covenant requirement in the future,[12] but the Bank found that these measures still needed to be prioritized. Furthermore, CIL had yet to determine which mines and subsidiaries would be subject to the measures.

3.10 When the detailed program was presented in early 1987, it became apparent that benefits were likely to come slowly and a further year's delay in reaching financial viability was likely. Nonetheless, the program was broad and comprehensive in scope, including staffing reduction and redeployment, introduction of modern management techniques for improving stores control and maintenance, and implementation of stringent cost controls at all levels of operation. In addition, the program had a strong operational basis. Over the past year CIL had implemented a series of cost-reduction measures, including reductions in overtime and recruitment, that had

10. Memo to the Files, "Decision Memorandum," May 14, 1985.

11. Office Memo to SVPOP on proposed project, March 13, 1986.

12. Back-to-Office Memo, August 15, 1986.

already reduced operating costs by 2.5 percent from the budgeted level. Therefore, even though the Bank was unable to obtain agreement on automatic or even "frequent" increases of coal prices to cover inflationary erosion of CIL's financial position, it agreed to proceed with the loan. The shift in strategy then became complete. Efficiency improvements, including a satisfactory timetable for implementing them, became conditions for the disbursement of the second tranche of the coal import component.

3.11 The outcome for CIL was that while coal prices were increased only four times between February 1986 and February 1993, in dollar terms they actually declined slightly. Nonetheless, CIL has been profitable since 1992, even though ECL has continued to operate at a loss. The audit was unable to deconstruct the relative importance of the factors that contributed to CIL's return to profitability. The three major factors were: (a) rapid expansion of output from opencast mines, which operate at lower costs than underground mines; (b) introduction of cost savings and efficiency measures; and (c) impact of domestic inflation, which has greatly reduced depreciation charges and debt repayment (all in domestic currency) relative to value of sales. All three factors were clearly important for SECL, where the expansion of the Gevra opencast mine, at a cost of about $10 per ton, has made SECL the most profitable of CIL's subsidiaries.

3.12 However, ECL has continued to lose money for many of the same reasons that SECL has been profitable. One reason is that its Sonepur-Bazari mine is making only a small profit at its current low level of operation. ECL is likely to do better as production from Sonepur-Bazari and other opencast mines increases. But the most important reason for the lack of progress in profitability is that ECL has the highest percentage of underground coal production of any CIL subsidiary and has been unable to reduce significantly its losses from its underground mining operations.[13]

Improving Efficiency

3.13 During the period of project preparation the sector dialogue had also focused on decreasing costs through improving sector efficiency. As part of the project, ECL had agreed to improve its overall efficiency by establishing a program to rehabilitate 20 loss-making mines. In the loan covenants it had agreed to provide the Bank with annual progress reports on the results of this program and to extend the program to 20 more loss-making mines. This objective appears to have been lost during project implementation, and the program was never carried out. Supervision reports mention the issue only briefly, as in 1989: "latest report to Bank for all 40 mines promised for 10/31/89." After 1991 the subject was no longer mentioned in the project files. The ICR states only that this program was no longer required (and by implication was not implemented), but does not provide any further explanation. The audit was unable to obtain any additional information about this program.[14] It has only been in the past two years, since the reorganization of CIL into a holding company with separate and financially independent subsidiaries with a prohibition against cross-subsidization, that ECL management has focused its attention on its cost structure. The audit mission was told that management previously had

13. In its comments on the Draft Audit Report, CIL notes that continuous attention and attempts have been made for reduction in losses, but because the problem is of a complex nature, involving large manpower , aged mines, difficult geo-mining conditions, periodic wage increases, an differential assessments imposed by the Government of West Bengal, the results have not been forthcoming. Recently, the task of developing a turn-around strategy has been given to a professional consulting group (ICICI).

14. In its comments on the Draft Audit Report, CIL states that ECL is taking steps to close six of the heavily loss-making mines where there was no scope for improvement. Scrutiny and monitoring of these 20 loss-making mines is a continuing process, and ECL is taking further steps to reduce the costs of the remaining mines. Scrutiny and monitoring of these 20 loss-making mines is a continuing process.

viewed ECL as a coal production company whose goal was to meet agreed production targets. Now, however, with the recently announced consolidation of three high-cost districts and the reduction in infrastructure staff, steps are being taken to improve profitability.

3.14 It must be emphasized, however, that CIL's reorganization, which eliminated direct subsidization of inefficient subsidiaries, did not solve the cross-subsidy problem. It pushed the problem down from the national level to the regional level. Each subsidiary is still free to subsidize its high-cost underground mines with the profits from its efficient opencast mines. Based on the available documentation, it appears that during the supervision of the project, the Bank paid little attention to getting CIL to improve operating efficiency and close down inefficient operations. This problem will not go away. It is a problem of deciding how to allocate the stranded financial and institutional costs of past investment decisions that were made under very different economic circumstances. In this regard, it bears a striking resemblance to the problem of deciding who will bear the stranded costs of inappropriate investments of the U.S. power industry, now that electricity generation is moving from a regulated monopoly to a competitive market. This is an extremely difficult political problem, but it needs to be tackled. **Inefficient mines, mines whose running costs are greater than the value of their output, will have to be closed, as they have been in other countries (the UK, Hungary), if the rest of the industry is to expand to efficiently supply India's energy needs. One way to accelerate this process would be to continue to unbundle each of CIL's subsidiaries into smaller independent entities, which could then be privatized. In the end, increased competition among privatized CIL subsidiaries and new entrants into the sector will be the important factor in generating improved sector efficiency.[15]**

3.15 The Bank's shift of emphasis from its early efforts to push the GOI to raise prices, to its later decision to focus on improving operating efficiency of individual subsidiaries was correct. Increasing prices to the level of CIL's average costs, if successful, would have been counterproductive. Changes in technology in the coal industry have resulted in marginal costs for new opencast mines substantially below average mining costs for the industry as a whole. As a result, in the long run most of the sectors efficient gains must come from coal production shifting from underground mines to opencast ones. If the Bank had convinced the GOI to accept continuing higher prices throughout the 1980s, CIL would have been under less pressure to improve its production costs and operational efficiency. **The Bank needs to take a broader view of the role of pricing in sector policy reform. Pricing directly affect a sector's financial viability, and is a critical element in enterprise revitalization, it also affects industry restructuring and investment decisions, as well as users' decisions about the efficiency of substitution among substitute inputs (fuel oil, gas, imported coal). In this light, (long run) marginal cost pricing, which provides economically efficient signals to both consumers and producers, should take precedence over average cost pricing, which may ensure financial viability of inefficient enterprises.[16]**

15. In its comments on the draft Audit, the Ministry of coal notes that during 1997-98, Coal India has shed over 15,000 personnel and further reductions are expected in 1998-98. In addition, underground mines which are uneconomic are being closed progressively (see annex D, para. 4 for details).

16. In its comments on the Draft Audit Report, the Ministry of Coal notes that fresh investments in coal projects are being taken only after ensuring that such investments would provide an adequate return on investments (see Annex D, para. 5).

Taxes and Levies on ECL's Coal Output

3.16 ECL's precarious financial position has been worsened by high surcharges, taxes and other levies (for education, road maintenance, and other purposes) imposed by the State of West Bengal on the 60 percent of ECL's coal produced in that state. These surcharges add 60 to 70 percent to the mine-mouth price of coal. In the past, these costs were automatically added to the administered selling price, and were automatically paid by the buyers and passed on up the production chain. The impending deregulation of coal prices and subsequent competition among coal companies for buyers is likely to put ECL's West Bengal mines at a great competitive disadvantage relative to coal from other states and from imported coal. ECL is already having trouble finding buyers for its excess coal, and it may find that the area in which it is competitive with imported coal on long-term contracts will continue to shrink as infrastructure for imports grows.

3.17 The SAR briefly refers to significant surcharges on coal produced in West Bengal and Bihar (which at that time were 30 percent and 35 percent of sale price, respectively). These surcharges appear to have been not taken seriously by Bank appraisal, since they were not relevant for determining ECL's profitability. And, although the overall surcharge rate doubled over the project life, OED is unable to find any Bank record discussing the impact of these taxes on consumers or on ECL.[17] Even the SAR on the Bank's recent Coal Sector Rehabilitation Project (Loan 4226-IN, approved in FY98) failed to mention this critical tax policy issue, even in the context of its discussion of the impact on ECL of coal sector deregulation and corporatization of the subsidiaries in the year 2000. However, taxes on primary inputs into the production process can have a distorting effect on purchase decisions, and these distortions can be expected to grow as decisionmaking in energy markets shifts from being administratively controlled to being market driven. When they are as high as they are in West Bengal, the distorting impact will be rapidly felt through shifts from highly taxed domestic coal to low taxed imported coal (or even fuel oil), even when the economic cost domestic coal is below that of imports. **To avoid this problem in the future, India must harmonize its taxes on domestically produced energy sources with its tariffs on imported energy sources.**

Supervision and Monitoring

3.18 The purpose of the assistance program outlined in the SAR was broad; it included improvement of coal quality, efficiency of mining operations, financial health of the two subsidiaries being assisted under the project, coal transportation, etc. Following approval of the loan, however, the project degenerated into a bare-bone supervision of the expansion and development of the Gevra and Sonepur-Bazari mines. Project records show little or no effort to monitor and assess overall progress or accomplishments in the areas of coal quality, transportation, efficiency, cost of production, equipment performance, and other matters important to meeting the objectives of the assistance program. ECL's lack of progress in improving the performance of specific mines, and the Bank's acceptance of the view that the program is no longer required, is a clear example of this failure. In essence, the Region acted as though the Bank's role was limited to making sure that the project's implementation program was completed according to plan, when it should have been concerned with the improving broader

---

17. In Bihar, surcharges are about 10 to 15 percent of the sale price of coal, depending on quality. Although this is about 1/5th of that levied by West Bengal, it is still appreciably higher than that of Madhya Pradesh and Maharashtra.

sector performance targets. **OED recommends that in future projects these issues would be highlighted with monitorable objectives.**

4. Ratings

4.1 *OED rates project outcome as satisfactory, sustainability as likely, and borrower performance as satisfactory (same as the ICR).* On a technical level the projects have been satisfactorily implemented. The Gevra mine expansion project has surpassed its production targets, produces coal at low price, is highly profitable, and has materially contributed to the financial strengthening of SECL. Gevra justifies the strategy pursued to strengthening CIL by expanding production through large, low-cost, opencast mines. The Sonepur-Bazari mine, while four or five years behind schedule because of land acquisition and related R&R problems, is now producing good quality grade-B coal, one grade higher than estimated at appraisal, at a rate of about 1.75 mmtpy and is expanding smoothly. It is operating profitably, and can be expected to become more profitable when it is fully developed. However, continued deregulation of the sector could make Sonepur-Bazari's financial outlook less certain, because excessive surcharges levied by the West Bengal government and high rail transportation costs will reduce its ability to compete.

4.2 *OED rates institutional development impact as negligible (ICR rates it as partial).* Overall, coal quality has failed to improve measurably in the past decade. The GOI needs to change the coal pricing regime to provide incentives for improving the quality of delivered coal. Nothing was done to improve the operational efficiency of CIL's underground mining operations. This effort has been left to a long delayed follow-on Coal Sector Rehabilitation Project (Loan 4226 approved in FY98).

4.3 *OED rates Bank performance as unsatisfactory because of the less than satisfactory appraisal and supervision (ICR rates identification and supervision as satisfactory, but preparation assistance and appraisal as deficient).* The SAR clearly identified the resettlement risk. With hindsight however, OED finds that the Bank should have done more to confirm that the approach taken by CIL and the Government of West Bengal could be effectively implemented. Subsequent experience demonstrated that it could not. The Bank did not adequately follow up on issues related to the coal quality improvement and cost reduction programs. In this third coal sector loan, the Bank was still unable to obtain improvements in the coal pricing and coal quality measurement procedures. The sector dialogue during project preparation included discussions of efficiency improvements, and note was taken of this need in both the SAR and the project covenants, but in the end, the Bank relied more on price increases to improved CIL's financial performance. It pushed for administered price increases that would have allowed many inefficient underground mines to be profitable.

5. Lessons and Recommendations

5.1 *Land acquisition issues are extremely important and complex in India. The Bank needs to be sensitive to the numerous parties involved.* During project preparation the Bank failed to

5. Lessons and Recommendations

5.1 *Land acquisition issues are extremely important and complex in India. The Bank needs to be sensitive to the numerous parties involved.* During project preparation the Bank failed to recognize that land acquisition issues would form the central constraint for expansion of opencast coal mining in India, and that Bank financial support for the project would increase the difficulties encountered in resolving these issues. **To minimize this type of problem in the future, the project sponsors should be advised to establish a resettlement and rehabilitation program consistent with Bank guidelines before officially inviting Bank support. A resettlement plan is required, in any event, before appraisal; it makes sense to avoid delays by completing the plan in the early stages of project design. The Bank has been much more sensitive to resettlement issues in its most recent projects.**

5.2 *Financial incentives are beginning to play an important role in behavior of commercially oriented enterprises, even when they are government owned.* This project demonstrates the problems that can arise when contractual structures (such as the establishment of wide-band coal grade steps for pricing coal) provide financial rewards for non-optimizing behaviors. **OED recommends that, in the future, the Bank should undertake more detailed analysis of the financial and commercial behavioral implications of coal sale contracts. These contracts should be legally enforceable. Prices should be a function of calorific content and other quality measures, not based on arbitrarily defined quality grades as is presently the case. Contracted prices should be based on the quality of coal actually delivered, and rigorous and equitable quality sampling arrangements should be established to monitor coal quality.**[18]

5.3 *Establishing efficient opencast mine operations has helped CIL to strengthen its financial situation but it has done nothing to reduce the problem of individual subsidiaries subsidizing their inefficient underground mines.* More emphasis needs to be placed on improving operational efficiency, including closing mines where efficiency cannot be significantly improved, and less on raising prices, especially when prices are already above the cost of production at new mines. **CIL's subsidiaries may need to be further subdivided to maintain the financial pressure to improve efficiency and close the highest cost underground mining operations.**[19] **However, increased competition among privatized CIL subsidiaries and new entrants into the sector are likely to be the most important factors in generating improved sector efficiency. To achieve this end the GOI needs to reduce the barriers to private sector entry.**

18. In its comments on this Audit, the Ministry of Coal point out that contractual rules and regulations governing all aspects between buyers and sellers are currently being introduced. Contracts with most Electricity Boards are programmed to be signed in the current financial year and contracts with several independent power producers are under negotiation (see Annex D, para. 2 for details).

19. In its comments on the Draft Audit Report, the Ministry of Coal notes that a study on restructuring of Coal India will be implemented under the Coal Sector Rehabilitation Project (Loan 4226-IN) (see Annex D, para. 6 for details).

Annex A

Basic Data Sheet

INDIA: COAL MINING AND QUALITY IMPROVEMENT PROJECT (LOAN 2796-IN)

Key Project Data *(amounts in US$ million)*

	Appraisal estimate	*Actual or current estimate*	*Actual as % of appraisal estimate*
Total project costs	643.2[a]	442.7[b]	69
Loan amount	340.0	300.3	88
Coal India/GOI	303.2	142.4	47
Cancellation	-	39.7	-
Economic rate of return	n.a.	n.a.	-

a. Total cost was subsequently reduced by US$17.5 million by reducing/modifying categoy-wise loan components for both sub-projects.
b. In US$ terms the actual cost is much lower than that porojected in SAR because of sharp depreciation of the evaluation of the Indian Rupee. Additional investment is required to complete the Sonepur-Bazari portion of the project.

Cumulative Estimated and Actual Disbursements

	FY88	*FY89*	*FY90*	*FY91*	*FY92*	*FY93*	*FY94*	*FY95*	*FY96**
Appraisal estimate (US$M)	91.8	202.6	239.2	276.4	308.6	335.4	340.0	340.0	340.0
Actual (US$M)	77.6	172.2	210.2	217.6	222.5	243.4	293.3	300.0	300.3
Actual as % of appraisal	84.5	85.0	87.9	78.7	72.1	72.6	86.3	88.3	88.3
Date of final disbursement:	March 31, 1996								

* US$39.7 million cancelled effective April 11, 1996.

Project Dates

	Original	*Actual*
Identification	2/83	2/83
Preparation	2/83-1/85	2/83-6/85
Appraisal	2/85	6/85
Negotiations	5/1/86	5/1/86 & 2/12/87
Board approval	4/21/87	4/21/87
Signing	6/29/87	6/29/87
Effectiveness	9/28/87	9/28/87
Project completion	12/30/93	12/30/94
Closing date	9/30/94	9/30/94

Annex A

Staff Inputs (staff weeks)

	Actual	
	Staff Weeks	*US$*
Through appraisal	123.1	264.0
Apprasial to effectiveness	53.2	137.8
Supervision	179.9	478.4
Completion	25.0	50.2
Total	381.2	930.4

Mission Data

	Date (month/year)	*No. of persons*	*Staff days in field*	*Specializations represented*[a]	*Performance rating*[b] *Implem. status*	*Devlop. impact*	*Types of problems*
Identification/ Preparation	2/83	6	14	EN,EC,PR,FA	-	-	-
Appraisal	6/85	6	24	EN,EC,PR,FA	-	-	-
	4/87	4	14	EN,EC,PR,FA	-	-	-
Supervision	6/87	4	14	EN, FA, PR	1	1	-
	1/89	1	14	EN	3	3	land acquis.
	8/90	3	19	EC, EN	2	2	land acquis.
	1/91	3	16	EC, EN	2	2	-
	9/91	4	18	OA, EN, EC	3	2	land acquis.
	6/92	4	19	EC, OA, EN	3	2	land acquis.
	3/93	3	17	OA, EN	2	2	-
	1/94	3	25	OA, EC, EN	2	2	-
	6/95	3	34	OA, EC, EN	S	S	-
Completion	2/96	1	13	EN	S	S	-

a. Specialization: EN=Engineer; EC=Economist; FA=Financial Analyst; PR=Procurement Specialist; OA=Operations Analyst.

b. Performance rating: 1 = Problem-free or minor problems; 2 = Moderate problems; 3 = Major problems; S=Satisfactory.

Annex A

Other Project Data

Borrower/Executing Agency:

FOLLOW-ON OPERATIONS

Operation	*Credit no.*	*Amount (US$ million)*	*Board date*
Jharia Mine Fire Control Project	Cr. 2450-IN	14.3	12/17/1992
Coal Sector Rehabilitation Project	Ln. 4226-IN	530.0	
	Cr. 2986-IN	2.0	
Coal Sector Environmental & Social Mitigation Project	Cr. 2862-IN	63.0	5/16/1996

Annex B

Thermal Coal Costs from Opencast Mines Around the World

(Representative Costs in 1992 US$/ton)[a]

	Mining Cost	*Capital Charge[b]*	*Rail/Barge Transportation Cost*	*Loading Cost at Pier*	*Total FOB Cost*
Australia:					
Queensland Surface	11.7	5.7	9.9	3.3	30.6
NSW Underground	25.6	6.1	5.7	2.9	40.3
United States:					
Wyoming Surface to West Coast	5.0	1.7	15.5	3.9	26.1
Wyoming Surface to East Coast	5.0	1.7	18.3	1.5	26.5
Appalachia Underground	23.3	1.0	17.5	2.5	44.3
South Africa:					
Fransvaal Surface	12.0	1.5	10.1	2.6	26.2
Indonesia:					
Kalimantan Surface	10.5	5.0	5.0	3.5	24.0

a. Costs are expressed in terms of 306J/ton.

b. Assuming a 10% rate of return on investment.

Source: Internal Energy Agency, Coal Information 1992, as reported in World Bank Report No. 814/94.

Annex C

COAL INDIA LIMITED
WORLD BANK PROJECT DIVISION
10, Netaji Subhas Road,
Calcutta 700 001

TEL: (033)210 5817
EPBX (033)220 9980
FAX: (91) (033)220 4653

Ref: CIL/WBP/

Date: 17.6.98

To
Mr. Richard Berney
Principal Eval. Officer
OEDST
The world Bank
Washington D.C. - 20433
USA.
Fax No: (202) 522-3123

Sub: Coal Mining and Coal Quality Improvement Project (Loan No: 2796- IN)
Re: Draft Performance Audit Report

Dear Mr. Berney,

This has reference to your fax message dated June 16, 1998 regarding comments on draft Performance Audit Report (PAR) of the above project.

Parawise comments on the draft PAR are furnished as under:

Para 2.6 (Page- 9): OED's suggestion to reach an agreement with the resettled PAPs regarding maintenance of infrastructure should be confirming to a uniform guideline. The word ECL mentioned in para 2.6 is to be replaced by SECL.

Para 2.8 (Page- 9): Revised output level for the mine from 3million ton to 5 million ton per annum is not for approved Sonepur-Bazari project only. Possibly Sonepur-Bazari B OCP also has been considered which is not an approved project. The capacity of Sonepur-Bazari B OCP is 0.75 mty. Hence there is no increase envisaged from approved project of 3mty.

Para 3.6. Workshop effluent: Action has been taken for Gevra Workshop in order to keep the effluents within the permissible limits.The word ECL mentioned in para 3.6 is to be replaced by SECL

Para 3.12 (Page- 16): The last sentence which states that ECL has failed to focus on its need to reduce losses from its underground mining operation, is not correct. Continuous attention and attempts have been made for reduction in losses, but the problem being of complex nature involving large manpower, aged mines, difficult geo-mining conditions, revision of wages periodically and differential cess imposed by Govt. of West Bengal, the results are not forthcoming. Of late, the issue of Turn around strategy has been given to a professional body i.e. ICICI.

Contd: P/2

Annex C

P/2

Para 3.13 (Page- 17) and Para 3.18(Page- 18): It is incorrect to state that ECL current management knows nothing about rehabilitation of 20 loss making mines. In fact the scrutiny and monitoring of these 20 loss-making mines are being continued. ECL has taken steps of closing 6 heavily loss-making mines where there was no scope of improvement and further steps to reduce the cost have been undertaken.

Our comments may be included suitably in the final PAR.

Best regards,

Yours Sincerely

बी॰ के॰ पाण्डेय

(B.K.Pandey)
CGM(CSRP)
World Bank Project Division

Annex D

No. 14011/11/98-CPAM

Government of India
Ministry of Coal

New Delhi, 24 June, 1998

Pravesh Sharma
Director
Tel: 91-11-3386347
Fax: 91-11-3387738

Mr. Roger Slade
Manager
Sector and Thematic Evaluations Group
OED
World Bank
Washington D.C.
Fax: 202-522-3123

Ref: India-Coal Mining and Quality Improvement Project (Loan 2796-IN) Draft Performance Audit Report

Dear Mr. Slade,

I am directed to refer to your letter on the above subject dated May 22, 1998 and to enclose the comments of the Ministry of Coal on the various points raised in your report.

Kindly acknowledge receipt of the same and arrange to reflect the response in the final report.

With regards,

Yours sincerely,

(PRAVESH SHARMA)

Annex D

Comments of the Ministry of Coal on the Coal Mining and Quality Improvement Project (Loan 2796-IN) - Draft Performance Audit Report.

.....

1. Resettlement and Rehabilitation Programme

This issue is being addressed in detail in the ESMP component of the new World Bank/JEXIM Loan to the Coal Sector (Coal Sector Rehabilitation Project). The ESMP component has a major thrust towards the resettlement and rehabilitation of PAPs.

The new R&R policy is participatory in nature involving close interaction with the PAPs. Non-governmental organisations are spearheading this process.

The issue of maintenance of infrastructure provided by the project entity is also part of the new ESMP Project.

(Paras 2.6, 3.4, 5.1).

2. Contractual rules and regulations governing all aspects between buyers and sellers are being progressively introduced in the coal industry. Specific contract for supply of coking coal to SAIL and Vizag Steel Plant with penalities and bonuses has been entered into by the CIL. Contracts have also been signed with NTPC. Contracts with several independent power producers are under negotiations. It is programmed that before the end of the current financial year contracts would be entered into with most Electricity Boards who are receiving coal from Coal India Ltd. These contracts will include specific clauses regarding quality and quantity.

(Para 3.2)
& 5.2

Annex D

3. The problem of disposal of machine oil from the Gevra Workshop is being taken up with indigenous knowhow.

(Para 3.6)

4. Efficiency improvements are sought to be brought about through improvements in productivity, more optimum utilisation of machinery, control over costs and reduction in manpower. During 1997-98, Coal India and subsidiaries shed over 15,000 personnel through a combination of VRS and retirements. A larger number is expected for 1998-99. Underground mines which are uneconomic are being closed progressively, though it is not possible to close down all uneconomic mines at the same time. The possibility of reviving such mines to economic operations will also be considered in detail.

(Para 3.14)

5. Fresh investment in coal projects is being taken up only after ensuring that such investments would be viable and provide adequate returns on investments. The issue of marginal cost pricing has already been introduced in some specific mines linked to specific end-uses.

(Para 3.15)

6. Restructuring of Coal India and subsidiaries is a part of a long term study initiated under the Coal Sector Rehabilitation Project (World Bank/JEXIM - 98). The need or otherwise to accept these recommendations would be known only after the study is completed by mid 1999.

(Para 5.3).