



1. Project Data :			
OEDID: C2450			
Project ID: P010411			
Project Name: Jharia Mine Fire Control Technical Assistance			
Country: India			
Sector: Mining & Other Extractive			
L/C Number: Credit 2450-IN			
Partners involved :			
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2. Project Objectives, Financing, Costs and Components :

The project objective was to provide BCCL (the coal company) with a sound strategy for minimizing the commercial, environmental and social costs of the underground fires in the Jharia coal field . The components were: (i) development of a fire fighting study to identify an optimum cost-effective program to extinguish or contain the mine fires; and (ii) preparation of an environmental management plan which would identify a set of measures that could mitigate the adverse physical, environmental, and social damage caused by the fires . The project cost was estimated at US\$14.3 million and was completed at a cost of US\$ 11.0 million, primarily because both the consulting services and surveying services were less expensive than appraisal estimates . Of the IDA Credit of US\$12 million, \$4 million was unused and canceled.

3. Achievement of Relevant Objectives :

The project's objectives were only partially achieved . Surveys of the extent and growth patterns of major fires were completed, and preliminary engineering estimates of the cost of extinguishing or containing each fire have been estimated. Also, the scope and costs of a program of environmental and resettlement measures have been estimated. In the order of US\$1 billion and 22,300 families need to be shifted. Thus, while progress has been made on developing essential background information, the clear strategy for minimizing the costs of Jharia's fires has not been established.

4. Significant Achievements :

A final review workshop was held in Delhi to focus senior government officials' attention on the serious and complex nature of the fires and on the cost of the necessary fire fighting investments and actions needed to resolve the related environmental and social mitigation problems . An Action Plan is being developed for GOI review and to facilitate GOI consideration of funding options .

5. Significant Shortcomings :

Two major project risks identified at appraisal were : (a) a delay in the implementation of the project, which would make the problem of controlling the existing fires more difficult; and (b) that only a small number of action plans would be economically justified . In this case the long delay in implementation was costly to the ultimate success of the ultimate action plan. Furthermore, the results of the studies are unclear, since the consultants did not undertake the cost benefit analysis for specific fire fighting investment program, so it is not yet possible to establish economic priorities among the many fire fighting programs identified in the study, or indeed to establish whether any of the US\$1 billion in recommended investments are justified at all . The overall strategy and associated tactical "Action Plans" for implementation of fire control and environmental/social mitigation measures and the economic justification for choosing these specific actions are yet to be developed . Terms of reference are still only in the process of being written.

6. Ratings :	ICR	OED Review	Reason for Disagreement /Comments
Outcome:	Satisfactory	Marginally	The proposed Action Plans for

		Unsatisfactory	implementation of fire control and environmental/social mitigation measures and the economic justification of these plans have not yet been developed .
Institutional Dev .:	Substantial	Substantial	
Sustainability .:	Likely	Uncertain	Terms of reference for the Action Plan have not yet been developed . The ICR provides no information on how these further studies might be financed, and little indication of what support there might be for the final proposals .
Bank Performance .:	Satisfactory	Satisfactory	
Borrower Perf .:	Satisfactory	Unsatisfactory	The GOI took too long to approve the project and BCCL took too long to implement it.
Quality of ICR .:		Satisfactory	

7. Lessons of Broad Applicability :

Nothing but the standard comments on the need to have realistic implementation schedules and to teaching the Borrower about Bank procurement procedures .

8. Audit Recommended? ☐ Yes ☒ No

9. Comments on Quality of ICR :

One major reason for not achieving the central project objective was the long delay between board signing and project approval by the GOI. The ICR provides no insight on the causes of this delay . Since there were no significant covenants, something else must have been involved . Understanding the cause of this problem might be helpful for designing future work in this sector in India .