

EX POST EVALUATION OF NATURAL DISASTER PROJECTS

Two projects in response to an ecological disaster

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Abstract

Background. A failure of the tailings dam of a private mine released over several millions of tonnes of toxic mud and water down an important local river, bursting the river banks and covering a great surface of flood plain, much of which had been used for agriculture. The mud settled out within 40 km downstream of the dam, but the toxic waters travelled another 20 km, reaching a Natural Park, which comprises wetlands of ecological and international importance. There were no fatalities, but the ecosystems of the Park were threatened and consumer confidence in regional agricultural production risked being lost.

Within days after the event, the national Government reacted by setting up a committee comprising the River Basin Authority, the local government of the Region and the mine operator to prepare an Action Plan. Thirty tonnes of dead fish were collected immediately; bird eggs and chicks were relocated to safe areas and a series of retention dykes were built to contain the contaminated waters threatening the Park.

Two CEB loans were used by the River Basin Authority and the local government to perform (a) the removal of some 10 million tonnes of toxic mud and waste and their disposal in abandoned galleries of the mine; (b) the construction of retention dykes in the Park; (c) the treatment of retained waters; and (d) the expropriation of over 5,000 ha of private land for the establishment of an ecological corridor of natural vegetation along the affected shores of the river.

Evaluation findings. The overall objectives of project activities that were partly financed by the two loans have been met, even if their impact remains to be quantified. The good image of the region's agricultural production has been preserved thanks to the early identification of key problems and considerable consultation with the scientific and technical community throughout project implementation. The decision to establish an ecological corridor was highly innovative even if it was based on the quite pessimistic assumption that the affected lands would not be suitable for agriculture for a whole generation.

The project's design was simple, well-defined and based on tested procedures. The prompt intervention of the national authorities and of the CEB, along with swift contracting and procurement, contributed to the project's success. Compensation provided to the farmers for expropriated land was generous but within acceptable limits. Stakeholder participation increased as time went by, and the project design was later significantly modified along suggestions from environmental specialists. The project had a positive impact on the implementing agencies, improving their collaboration. The local government has since delineated a number of disaster response plans, and the river basin authority has developed a nationally shared knowledge system to be used in such a case.

Both projects are considered to have been highly successful notwithstanding a few shortcomings:

- The mine operator's contribution to the project was perceived as poor.
- The "temporary" retention dykes in the Park were still not removed 5 years after the disaster.
- Closer attention could have been given to the social and economic needs of the farmers affected by the spill.
- The Borrower did not comply with loan conditions regarding progress reporting and follow-up of project expenditures.
- Minor problems arose in the process of expropriation.
- Slight variations in the evaluation criteria used by the CEB's monitoring and ex post evaluation hampered the full assessment of ex ante and ex post project conditions.

Rating. Overall both projects are rated **very satisfactory**.

Recommendations:

- The Logical Framework methodology should be systematically utilised by the CEB and the Borrower to improve the chances of success of a project, to avoid windfall results, and to identify project risks.
- A thorough ex ante review by the CEB of project objectives and implementation procedures would reduce the risk of mismanagement by the Borrower.
- The Borrower should provide follow-up and completion reports to the CEB to enable the latter to verify the sound utilisation of its funds.
- The development of disaster response documentation would help build CEB expertise in the sector.
- The national and regional authorities concerned are advised to consider developing a comprehensive risk management strategy in the mining sector.