

**EX POST EVALUATION OF NATURAL DISASTER PROJECTS**  
**Project in response to floods**  
**December 2004**  
**Abstract**

**Background.** Following disastrous floods, the Government requested a loan to the CEB to help build flood prevention infrastructure throughout the country. The project comprised four components: (1) the construction of 140 km of new or improved dykes, temporary reservoirs and polders and the reshaping of 100 km of rivers in high flood risk areas; (2) the reconstruction of 177 km of damaged forest roads, the rehabilitation of small torrents and the reforestation of some 1 500 hectares of hillsides; (3) the supply of five environmental protection laboratories; and (4) the replacement of outdated meteorological equipment with two sets of radars, including computers, software and telecommunications equipment.

**Evaluation findings.** All constructions and repairs were completed in conformity with standard technical specifications, most of them within initial cost estimates, and proved effective in preventing renewed flooding or dyke erosion. Infrastructure and private and public facilities that were damaged during these works were fully restored and even improved. Local authorities, though not involved in project design or implementation, expressed their satisfaction with the works. Their overall socio-economic impact was positive. Land and house values have increased in some areas by up to 20%. Land productivity also increased, and some employment was created. All subprojects appear to be well maintained. Without CEB financing, works would have been further delayed, entailing continued flood risks. The new laboratory equipment was costly and the initial tender had to be renewed for lack of participants, but it should allow the country to identify and control hazardous pollutants in accord with the European environmental legislation. The two radars are operating constantly.

The evaluation made the following observations:

- All subprojects of component 1 were selected by the central authorities among a large number of operations identified and designed years earlier and that had since been awaiting funding for implementation or completion; whether the final selection process was optimal could not be assessed for lack of available data.
- Rather than calling for new tenders, these works were entrusted to contractors with whom one-on-one agreements had been reached in the years preceding the project.
- Lack of appropriate financial data makes it impossible to fully evaluate the economic rationale of the project;
- While maintenance has been good to date, ongoing transfers of responsibilities, from central to local authorities for the maintenance of flood protection structures and from the local EPAs to regional ones for the laboratory equipment, may in time create problems unless funds and technical know-how are also transferred.
- A ministerial reorganisation delayed CEB disbursements against component 2 and the payment of contractors; a few project works were not completed and budgetary data show some inconsistencies, but, overall, the component is believed to have generated reasonable value for money.
- The full potential impact of the two radars has yet to materialise for lack of sufficient media collaboration in broadcasting the radars' observations.

**Rating.** Overall, the project is rated **satisfactory**.

**Lessons and recommendations:**

- Prior to loan approval, CEB should require that subproject selection criteria be well defined, with sound justifications of the priorities that led to their selection.
- Stakeholder participation should be fostered in project design, implementation and maintenance.
- The Borrower should be required to provide detailed progress data and regular cash flow information presented in standard subproject forms to be provided by CEB.
- CEB could consider financing further flood protection works in this country, where the need remains great and well-prepared proposals are available, so as to prevent disasters rather than take remedial action after they occur; such works should be subject to competitive bidding procedures.
- Flood protection works should be preceded by environmental impact assessments.