

## **EX POST EVALUATION OF NATURAL DISASTER PROJECTS**

### **Project in response to floods**

**May 2005**

### **Abstract**

**Background.** In the second half of the 1990s, one of CEB's member states was hit by the largest floods ever recorded in the history of that country. These caused widespread devastation and some loss of life in one of the country's main river's catchment area. A second flood, following shortly after the first ones, caused further damage around a number of tributaries of the same river. Emergency recovery works were financed by the World Bank and the European Investment Bank. A loan was requested to the CEB by the central Government, to finance (a) the improvement and modernisation of embankments, of river and channel beds, and of pumping stations and various other constructions; (b) the completion of two reservoirs on an important tributary of the river and of a derivation channel around a town hit by the floods; and (c) the repair of the buildings and replacement of the damaged equipment of eleven healthcare facilities. A dedicated office of national disaster recovery, set up after the first floods, coordinated the implementation of the three components and allocated funds to the implementing agencies according to perceived beneficiary priorities.

**Evaluation findings.** All planned repair works were undertaken but only part of the modernisation initially envisaged could be accommodated within the available resources. The engineering design of the works was of high quality, although protection against the worst flood on record is not fully ensured. The works were in line with national standards, but according to European best practice, cost/benefit appraisal and search for alternative solutions should have been carried out. This would have entailed a less costly and more environment-friendly approach, such as moving new developments away from flood-prone areas. As they stand, the repaired works could withstand at most a flood of three quarters the amplitude of the initial disaster. This is considered to be a satisfactory level of protection, and stakeholders, though not adequately consulted early on, have later expressed satisfaction with the results. Other evaluation observations are:

- The criteria of prioritisation of sub-components had not been established at the time of the loan request.
- The redesign of the reservoirs was not accompanied by a comprehensive environmental impact assessment.
- While project management was generally satisfactory and financial accounts were well documented and reported, modifications brought to various components entailed completion delays of one to two years and an overall cost 8.5% over budget.
- Shortened procurement procedures were not fully justified given that the project was not an emergency.
- Data for cost/benefit analyses were not available at the time of loan approval, but the loan was adequately spent to achieve improved flood protection.

As a result of the project, residents of the flood-prone areas feel safer, and better access to healthcare services has been noted. Project works created substantial but temporary employment and improved technical know-how, but did not necessarily stimulate the region's economy. The positive environmental impact of reduced river pollution from pesticides is offset by an increase of erosion and decrease in the fish population downstream of the reservoirs. The CEB loan has contributed to institutional strengthening. The Government is budgeting funds for the maintenance of flood protection infrastructure.

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

#### **Lessons and recommendations:**

- The Borrower should consider more environment-friendly and less costly flood protection policies.
- The Borrower should provide upfront complete project feasibility documents with risk assessments and cost/benefit analyses that would allow more efficient implementation monitoring.
- The Borrower should provide more detailed information on parallel financing by the Government and by other lenders.
- The CEB should develop means for more thorough feasibility appraisal prior to its lending decisions.
- The CEB should consider making future loans conditional on institutional strengthening and beneficiary participation.