



32 Bulgaria Industrial Pollution Improvement Project in Plovdiv

Responding to EU environmental standards by taking measures against air and water pollution

Loan Amount/Disbursed Amount 5.955 billion yen/5.955 billion yen
Loan Agreement November 1995
Terms & Conditions Interest rate 2.7% (2.3% for consulting services), Repayment period 30 year (grace period 10 years), General untied January 2004
Final Disbursement Date
Executing Agency KCM S.A. (<http://www.kcm.bg/eng/>)



Project Objectives

The project's objective was to reduce the harmful substances emitted into the air and discharged into water from KCM plant, the zinc and lead smelter located in Plovdiv, Bulgaria, through appropriate countermeasures to produce cleaner exhaust gas and wastewater, thereby contribute to environmental improvement and economic growth in Bulgaria.

Effectiveness & Impact

Rating **a**

KCM is one of Bulgaria's leading plants engaged in zinc and lead smelting. At the time of appraisal, KCM was forced to reduce its production output in order to meet EU environmental standards. Thanks to the installation and renovation of exhaust gas and wastewater facilities through this project, KCM was verified at the time of ex-post evaluation to be generally in compliance with EU environmental standards. The production volumes of zinc and lead continue to increase, and the project was also judged to have had an effect on the acquisition of foreign currency through the export of zinc and lead. A beneficiary survey confirmed that after the implementation of this project the health of nearby residents improved and the effects of air and water pollution on the surrounding community, including farmland and livestock, decreased. Residents also indicated on the survey that they value the social contribution projects that KCM is working on, including providing financing for local industry and making donations to the community. Therefore, this project rates a highly satisfactory level of effectiveness since it has largely achieved its objectives.

Relevance

Rating **a**

Both at the time of the appraisal and at the time of the ex-post evaluation, this project has been highly relevant to Bulgarian national and provincial policies. Bulgaria is proceeding with the development of environmental legislation and related regulations aiming toward joining the EU in 2007. The implementation of this project is consistent with this national policy.

Efficiency

Rating **b**

Although the project cost was kept almost as planned, the project period turned out to be much longer than planned (176% of planned time); therefore, the evaluation for efficiency is moderate. The main factors behind the project delays were the changes made to the project plans due to exchange rate fluctuations.

Sustainability

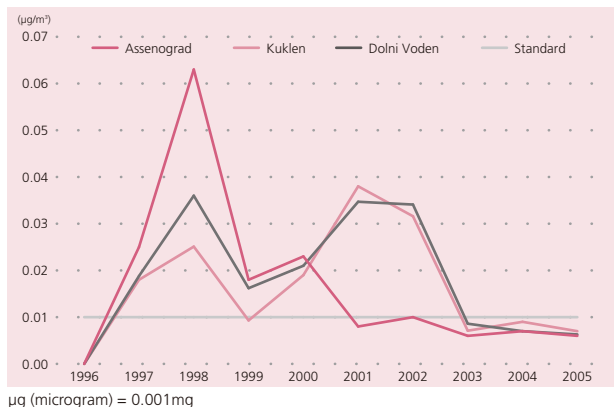
Rating **b**

KCM, the executing agency, was privatized in 2001. No major problem has been observed for its technical capacity or operation and maintenance system. However, KCM's financial status requires continuous monitoring. Therefore, this project sustainability of this project is moderate.

Conclusion, Lessons Learned, Recommendation

In light of the above, this project is evaluated, to be satisfactory. A lesson learned is that if the main contracts could be concluded in local currency other than yen, then the loan agreement should have a 10% or greater contingency reserve at the time of appraisal to deal with exchange rate fluctuations during project implementation. Also, the executing agency should be continuously monitored in the future, since its financial position is easily influenced by its market. If KCM's business condition worsens, a management forecast and other measures should be devised by requesting, through the Bulgarian Government as guarantor, the provision of a medium- and long-term management plan.

Average annual cadmium concentrations in neighborhoods around KCM (1995-2005)



Third-Party Opinion

This project contributed to the development of the regional economy through the creation of employment opportunities and the increase of sales. The implementation of an environmental project through JBIC gave direction to the privatization of KCM and heightened the sustainability of its business management.

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