

## Summary of the Special In-depth Evaluation Report WASTEWATER TREATMENT PLANT

### Introduction

*In the last 18 months, EIB IG/EV has actively pursued possibilities to perform joint evaluations with other International Financial Institutions (IFIs). This report summarises the results and findings of a first joint evaluation conducted between the evaluation teams of the EBRD and the EIB. It has been carried out as a joint EBRD/EIB parallel evaluation with separate reporting.*

### THE PROJECT

#### Background

The construction of the wastewater treatment plant started in the 1980s, but was abandoned when further funding dried up. About 40 per cent of the physical works had been completed. Ten years later construction resumed when new financing became available from a number of different sources: through bank loans, government grants and donations.

The project was the Bank's first operation in the country, in a very difficult environment and with a complex guarantee set-up. The financiers involved included the European Investment Bank (EIB), several other investment banks, environmental organisations and assistance funds.

#### Project rationale

Addressing the untreated city sewage entering the nearby sea has been one of the priority objectives of the involved regional environmental organisation. The finalisation of the wastewater treatment plant was, therefore, regarded as an important mitigating factor towards reducing the level of polluting discharges into the sea.

The purpose of the project was to complete the existing unfinished facilities and thereafter put the plant into operation. The pre-existing structures were partly of such poor quality that relocation of the site and/or demolition of part of the existing structures and their rebuilding were considered as options, but eventually refuted for technical, cost, political and other reasons. It was designed for an average sewage flow of 330,000 m<sup>3</sup>/d for a population of 700,000 (0.47 m<sup>3</sup>/person/day), a capacity that should comply with demand until 2015. It was ultimately meant to meet the regional environmental standards. Furthermore, it was also to demonstrate a successful private-sector involvement in a high-profile municipal infrastructure project.

From the outset, the EIB project definition comprised a holistic approach, extending the other financiers' project definition by also including the incinerator (42 000 kg dry solids/d or 71 000 m<sup>3</sup>/a of dewatered sludge) and associated works into the EIB project (connection sewer and chambers to a) partially existing sea outfall, and b) existing collection system and to another treatment plant, as well as priority network upgrading in the project area).

#### Cost and design structure

At the core of the wastewater treatment plant project are the following entities:

- A special purpose company (SPC) which was set up with the aim of attracting financing for the project and using it for the completion of the construction works by contracting and supervising a construction company under the turnkey contract.
- The municipality's water company, which was the EIB's borrower, who passed on a part of the funds to the SPC through a sub-loan. Following the completion of the construction, the plant was to be transferred from the SPC to the water company under a plant purchase agreement where the purchase price was to be paid by instalments over a 12-year period.
- The construction company, a consortium of three construction companies, contracted by the SPC to carry out the lump sum turnkey contract.
- The operating company, established as a separate special purpose company to operate the plant under a 12-year operational service agreement with the sponsor.

The project's structural complexity, the substantial financing required in view of its size and the dire economic situation in the country in general, and for the sponsor in particular, required the involvement of many financing sources for risk-sharing purposes.

Information provided by the promoter suggests a cost increase of some 45%, which is probably largely linked to increases in the general construction cost in the country over the past years, as well as the impact of exchange rate fluctuations.

Also included in the project scope was a sludge incineration plant (SIP). Although meant to be implemented in parallel with the wastewater treatment plant component, since process-wise they were interlinked, the SIP was implemented separately. The implementation of this component incurred a delay of about two years and was commissioned in 2007.

### **Project implementation**

When construction of the wastewater treatment plant was completed, ownership of the plant was transferred from the construction company to the SPC and then to the water company under a plant purchase agreement. The purchase price was agreed by the water company and to be paid by instalments over twelve years. The municipality provided a guarantee for the payment obligations. Furthermore, in 2005 the operating company assumed its obligations to operate and maintain the plant under the said operational service agreement. Following a joint request by the water company and the municipality, the project has recently been restructured. As part of the restructuring, it was envisaged that all loans and share capital of the SPC would be fully repaid to lenders and shareholders respectively, and the SPC would be liquidated at the end of the warranty period. Since operation and maintenance of the plant are with the operating company, of which the SPC is not a party, no immediate impact on the plant operation and maintenance is anticipated. However, some concerns exist as to the longer-term operational sustainability.

### **ACHIEVEMENT OF OBJECTIVES**

The Evaluation Team assigns a rating of "**SATISFACTORY**" to this operation overall at this mid-term review stage. This rating is very much driven by the significant relevance of the operation and the achievement of the overall (physical) and, in particular, environmental objectives of the project. The genuine commitment of the promoter and all other partners involved was instrumental in making this project successful. Political support was certainly an enabling factor in the project set-up, but does not guarantee successful project preparation and implementation.

The project is highly relevant and is achieving its overall (physical) and, in particular, environmental objectives. In fact, the level of untreated wastewater entering the sea has been significantly reduced. While certain aspects of the EIB project could have been better – incinerator implementation delays, cost increases - it is to be noted that the plant is performing according to most of the envisaged environmental standards.

The individual sub-criteria are rated as follows:

**Relevance - Good:** The project is fully in line with the special mandate, as well as EU and EIB objectives. In fact, the mandate criteria stipulate that eligible projects shall have a strong environmental objective and be of significant interest to the EU, and there must be cooperation and co-financing with other International Finance Institutions in order to ensure reasonable risk-sharing and appropriate project conditionality.

**Efficacy and Efficiency – Satisfactory:** While certain implementation aspects of the project could have been better, such as incinerator implementation delays, cost increases and procurement, it is to be noted that the project has achieved its overall (physical) objectives in a particularly difficult environment and is performing according to most of the envisaged environmental standards.

**Environmental performance – Good:** The level of untreated wastewater entering the sea from the city has been significantly reduced.

The project has been designed to meet the recommendations of the regional environmental organisation for effluent quality, which are mostly in line with the requirements of national law and EU standards. The wastewater treatment plant has been successfully constructed and is achieving targets for BOD5. The plant operators are making final modifications to achieve nitrogen removal levels. Finally, the plant has been able to achieve the target of the regional

environmental organisation for phosphorus removal, but initially not able to meet either national or EU standards. The recent addition of chemical treatment to remove the phosphorus levels has enabled the company to reach acceptable EU standards while increasing operational cost only marginally. The sludge generated at the wastewater treatment plant is incinerated at a plant (part of the EIB project definition), which has been designed to comply with EU emission standards.

**Sustainability – Satisfactory:** The next phases of the city's sewage treatment are under implementation and cost coverage seems to be given. However, according to recent rating reports, its municipal company's financial situation, in particular liquidity is weak, but direct support in the medium term by the city is ensured.

**EIB Contribution - Significant:** EIB's long-term funding and flexibility provided an important financial contribution to the project. Furthermore, EIB intervention had important positive signalling functions for the project.

**Conclusions on EIB Performance – Good:** Although certain improvements in the overall handling could have been made, it has to be acknowledged that this was the Bank's very first operation in the country, in a very difficult environment and with a complex guarantee set-up.

### **MAIN ISSUES AND LESSONS LEARNED**

The genuine commitment of the promoter and all other partners involved was instrumental in making this project successful. Political support was an enabling factor in the project set-up, but does not necessarily guarantee successful project preparation and implementation.

EIB's holistic project definition (including the sludge incinerator and associated works) proved to be fully correct, since without the incinerator the wastewater treatment plant project taken alone could be at risk in the short term due to landfill limitations. Delays in the implementation of the sludge incinerator project were important, mainly as it was not part of the project structuring.

The project's financial structure was unusually complex, which necessitated lengthy discussions and negotiations. However, it was set up to allow all funds (from different donor agencies and IFIs) to be appropriately channelled. The financial structure also required considerable flexibility with regard to the application of the Bank's procurement rules.

*Recommendation: In future, and to the extent possible, it should be envisaged to include separate project components in the project's overall financial structure.*

Since legislation in the country has developed significantly in the meantime, an easier financial structure could probably be envisaged for future projects.

EIB's long-term funding and flexibility provided an important financial contribution to the project. EIB intervention in the first project had important positive signalling functions for the project. Since this was the Bank's first operation in the country, in a very difficult environment and with a complex guarantee set-up, the internal EIB-management of the project cycle can be considered as good.

Project financial restructuring after completion, and in particular the way it is done, could have important effects on the operational performance and sustainability of EIB part-financed project components.

*Recommendation: Closer involvement of the EIB in possible financial restructuring, even if the Bank is not directly concerned, could ensure that a holistic overall project perspective is taken.*

#### **Answer from the Bank's services to the recommendations:**

*The first recommendation is accepted to the extent that the EIB's interests are adequately covered. For this specific project, the structure accepted by the Bank was adequate in order to preserve the EIB's interests and to allow the implementation of all elements considered as justified.*

*The second recommendation should be dealt with on a case-by-case basis. In this case, the Bank assessed that the restructuring would not have any negative impact on the operation of the plant, or on the EIB's position as a lender to the municipal water company.*