



<b>1. Project Data:</b>		<b>Date Posted :</b> 06/12/2002	
<b>PROJ ID:</b> P035783		<b>Appraisal</b>	<b>Actual</b>
<b>Project Name:</b> Siauliai Environment	<b>Project Costs (US\$M)</b>	22.85	24.43
<b>Country:</b> Lithuania	<b>Loan/Credit (US\$M)</b>	6.2	6.01
<b>Sector(s):</b> Board: ENV - Water supply (81%), Sub-national government administration (10%), Sewerage (8%), Other industry (1%)	<b>Cofinancing (US\$M)</b>	8.65	10.55
<b>L/C Number:</b> L3963; LP284			
	<b>Board Approval (FY)</b>		96
<b>Partners involved :</b>	<b>Closing Date</b>		
<b>Prepared by :</b>	<b>Reviewed by :</b>	<b>Group Manager :</b>	<b>Group:</b>
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**2. Project Objectives and Components**

**a. Objectives**

The overall objective was to promote regional environmental cooperation, address pollution sources in the Upper Lielupe River Basin and promote its environmentally sustainable management and development . Specifically it proposed to:

- a) reduce various pollutant loads from the Siauliai area into the Upper Lielupe River Basin, thus decreasing transboundary pollution into the river and the Gulf of Riga ;
- b) improve the quality, reliability and cost efficiency of water supply and waste water services in Siauliai;
- c) assist in establishing financially sustainable provision of municipal services; and
- d) improve the regional and local environmental quality monitoring and enforcement system in the Upper Lielupe River Basin

**b. Components**

**Water and Wastewater Improvement Component (WWIC) to be implemented by Siauliai Water (SW) - US\$21.0 million**

- Water supply and distribution/Wastewater collection and treatment
- Technical assistance and training for Siauliai

**Environmental Management Component EMC ) - US \$ 1.85 million**

- Support for the Lielupe River Basin Commission
- Regional environmental monitoring and water quality laboratory system
- Small point source pollution control
- Non-point source pollution control

**c. Comments on Project Cost, Financing and Dates**

Actual project costs were \$24.43 million of which IBRD provided \$6.02 million, and Government of Lithuania (GoL) \$ 9.72 million. Cofinanciers (Sweden, Finland and Norway) provided \$10.55 million, the majority borne by Sweden. There were cost overruns of \$ 3.43 million for the Wastewater Treatment Plant which was covered by GoL and cofinanciers. \$0.18 million of IBRD was cancelled. The project closed on June 30, 2001 one year behind schedule.

**3. Achievement of Relevant Objectives:**

The project has partially achieved its overall objectives of promoting regional environmental cooperation and addressing pollution sources in the Upper Lielupe River . Specifically:

- a) Pollution discharges from the Siauliai area were reduced because increased water tariffs led to decreasing water consumption from both domestic and commercial consumers .
- b) Quality, reliability and efficiency of water supply services were substantially improved, but only partially achieved for waste water services. At project closure the wastewater treatment plant was not constructed .
- c) Financially sustainable provision of municipal services was not achieved, although the Siauliai Water Utility (SW) was successfully restructured into a shareholding company with a modern management structure .
- d) Local / regional environmental monitoring and enforcement systems have been substantially strengthened but the

joint "river basin management concept" by Lithuania and Latvia did not fully materialize .

#### 4. Significant Outcomes/Impacts:

- Successful restructuring of SW into a shareholding company with a modern management structure - it has a marked demonstration effect in the area of strategic planning on other Baltic States
- Significant cost savings and environmental benefits from elimination of leaks and infiltration in the water & waste water networks.
- Implementation difficulties (due to overestimation of demand, delays in raising tariffs, adherence to old norms and standards and the bureaucratic procurement procedures ) prolonged the transition process but resulted in a fuller appreciation of principles of costs and efficiency in environmental management by SW, Siauliai Regional Environmental Protection Department and the Ministry of the Environment .
- Good demonstration value was achieved from the success in controlling small point source and non -point source pollution by managing pig manure and developing environmentally sound farming practices .

#### 5. Significant Shortcomings (including non-compliance with safeguard policies):

- Water demand at appraisal was overly optimistic with prediction of increase to 170 lcpd for domestic users. Consumption actually dropped by 60% to 55 lcpd because of tariff increases . As a result, project facilities were "overdimensioned", adding to financial burden of SW and its customers .
- The financial sustainability of SW is at risk, as it is unable to achieve cost recovery due to declining water sales . This may worsen when SW begins to assume the foreign exchange risk once the Litas is pegged to the Euro . The situation also weakens the demonstration value (to the SW and other utilities) of an otherwise successful transition process to a market-based financially independent utility .
- ICR proposes the further and continual increase in tariffs by additional 25 % in 3 successive years to assist in cost recovery efforts, without the contribution from the Water tariff study which was planned at SAR but not implemented. Alternatively, the ICR expects the Siauliai Municipality to continue to subsidize SW, which is unlikely, given demonstrated loss of interest during project implementation .
- At project completion, work had not yet begun on construction of the wastewater treatment plant due to disagreements over its designed capacity .
- Neither the sludge management plan nor the industrial pollution management system were fully operational at the end of the project.
- Joint river basin management between Lithuania and Latvia did not materialize during the life of the project, but both governments have reaffirmed their commitment to this concept shortly after project closed .

6. Ratings:	ICR	OED Review	Reason for Disagreement /Comments
<b>Outcome :</b>	Satisfactory	Moderately Satisfactory	OED's rating is consistent with the judgment expressed by the ICR in the text, even though it formally rated it as "satisfactory", given that a "moderately satisfactory" rating is not available in the four-point scale.
<b>Institutional Dev .:</b>	Substantial	Substantial	
<b>Sustainability :</b>	Likely	Non-evaluable	The financial sustainability of the central player, Siauliai Water Utility, is highly uncertain pending further action on tariff increase or municipal subsidy as proposed in the ICR.
<b>Bank Performance :</b>	Satisfactory	Satisfactory	Bank performance is marginally satisfactory. Gross miscalculation of water demand at appraisal was the primary reason for less than fully satisfactory project outcome . Unfortunately, concerted attempts by Bank to rectify did not meet with borrower support.
<b>Borrower Perf .:</b>	Satisfactory	Satisfactory	
<b>Quality of ICR :</b>		Satisfactory	

NOTE: ICR rating values flagged with '\*' don't comply with OP/BP 13.55, but are listed for completeness.

#### 7. Lessons of Broad Applicability:

- Water demand estimates in a transition economy, is better based on "elasticity of demand", than on "affordability analysis".
- Given the uncertainties of water demand forecasts in transition economies, investments in water supply and treatment should be phased to avoid building significant overcapacity .

- Elimination of market distortions and price disequilibriums, can lead to higher than expected price increases in operations and maintenance
- "Twinning" is a low cost but effective method of teaching, training and networking to improve utility performance with mutual benefits to both parties.

**8. Assessment Recommended?**  Yes  No

**Why?** This is one of several near identical projects in transition Baltic economies in Eastern Europe, all of which experienced overly sized systems based on miscalculation of water demand .

**9. Comments on Quality of ICR:**

ICR quality is satisfactory overall. It is unclear however why there were no references to the Water Tariff Study, especially in light of ICR recommendations to raise tariffs by 25 % for 3 successive years. This does not appear to be sufficiently sensitive to the elasticity of demand for water .