

Water Supply and Sanitation

Water Supply Services

18. Water and Sanitation System, Bucharest, Romania

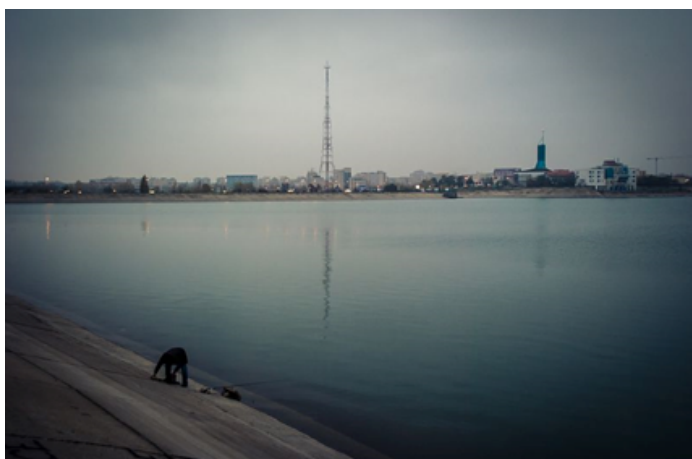


Photo Credit³⁹

Background

The municipality of Bucharest was facing numerous challenges related to its water supply and sanitation system, including leaks in its water supply distribution network and an inadequate metering system. This contributed to high water losses (nearly 50 percent) and lower revenue collected by the municipality. The municipality also imposed relatively low tariffs and maintained a complicated ownership structure over the water infrastructure assets, which led to a lack of incentives to improve efficiency. At the same time, the municipality's water and sanitation system needed to be brought into compliance with European Union (EU) standards.

To address these issues, the municipality decided to pursue a PPP for the operation and maintenance of its water and sanitation system with assistance from the International Finance Corporation (IFC) as its transaction adviser. In designing this PPP, the municipality aimed to: (i) improve the consumer service level with minimal tariff increases through efficiency gains; (ii) make the system as self-sufficient as possible by transferring most of the investment responsibilities to the private sector, and (iii) avoid a private monopoly.

Project Structure

Based on the municipality's goals, IFC recommended a long-term concession that would allow the municipality to retain ownership of the assets while delegating responsibility for the provision of water and sanitation services and all

related capital investments to a private partner. Upon approval by the municipality, IFC helped conduct the prequalification process and drafted the concession contract.

Six large, multinational companies were prequalified and, in 2000, Vivendi of France (now Veolia) won the bid to operate and maintain the water and sanitation system for 25 years. The award was based in large part on Vivendi having proposed the lowest average net present value tariff, which was about EUR 0.17 (or USD 0.19) per cubic meter. Subsequently, Vivendi entered into a subsidiary joint venture, named Apa Nova București, which would serve as the operating entity and counterparty to the concession agreement. Apa Nova București was owned 80-percent by Vivendi and 20-percent by the municipality. The joint venture concessionaire is responsible for all operations and capital investments.

The contract included time-based performance targets for improvements in service quality and delivery as the key performance indicators for the private partner, as well as penalties for non-compliance. It also included a periodic tariff review scheduled at five, ten, and fifteen years, with readjustments in the event of project returns above or below a predefined band.

The project was financed by loans provided by multilateral development banks and commercial banks, including the European Bank for

³⁹ Mihai Burlacu (https://commons.wikimedia.org/wiki/File:Sector_6,_Bucharest,_Romania_-_panoramio.jpg), „Sector 6, Bucharest, Romania - panoramio”, <https://creativecommons.org/licenses/by-sa/3.0/legalcode>

⁴⁰ Apa Nova. 2019. "Who we are." Apa Nova Bucuresti. Accessed February 12, 2019. <https://www.apanovabucuresti.ro/en/company/who-we-are/the-concession-contract/>;

International Finance Corporation. 2010. Public-Private Partnership Impact Stories Romania: Bucharest Water and Sanitation. Washington, D.C: World Bank Group. Accessed November 27, 2019. https://www.ifc.org/wps/wcm/connect/234b1a1c-feaf-4829-9257-a0700af9acb9/PPPStories_Romania_BucharestWaterAndSanitation.pdf?MOD=AJPERES&CVID=IHJa0WD;

Earhardt, David, Melissa Rekas, and Martina Tonizzo. *Water in Bucharest: A Utility's Efficiency Gain under a Concession*. Washington, D.C: World Bank Group, 2011. Accessed February 13, 2019. <http://documents.worldbank.org/curated/en/579001468330990816/pdf/655980BRI00PUB0arest0water00PUBLIC0.pdf>;

Teicher, Julian, Bernadine Van Gramberg, Marius Profirou, and Cristina Neesham. 2013. *Sharing Concerns: Country Case Studies in Public-private Partnerships*. Newcastle: Cambridge Scholars Publishing;

World Bank Group. 2016. "PPI Project Summary: Romania, Bucharest – Concession Agreement for Water and Sanitation Services." PPPLRC. Accessed May 25, 2019. <https://ppp.worldbank.org/public-private-partnership/ppi-project-summary-romania-bucharest-concession-agreement-water-and-sanitation-services>.

Reconstruction and Development. Vivendi also contributed approximately EUR 35 million (USD 39 million) in equity.

Lessons Learned

This project is reported to have achieved quite a number of positive outcomes during the concession period. It obtained 100 percent compliance with EU water quality standards, recorded an increase in overall customer satisfaction (up from 46 percent in 2002 to 75 percent in 2009), expanded the coverage area (covering 92 percent of the city), and reduced leakage, non-revenue water, and commercial losses related to under-billing and theft. By 2008, efficiency gains had produced cost savings totaling USD 49 million. As of 2010, Apa Nova București had invested more than USD 250 million in upgrading and servicing the system without public subsidies. Despite operating without a subsidy, the project has been able to provide a relatively high level of service quality. It has also kept tariffs below the Romanian average. Of Apa Nova București's USD 250 million investment, USD 66 million was invested in pipe replacement and other measures to reduce leakage, which should help keep costs and tariffs low in the long term.

This project displayed several characteristics that bear highlighting:

- Tariff increases were tied to improvements in service delivery, providing an additional incentive for the project company to operate efficiently.
- The largest factor in efficiency gains came from the improvement in labor productivity. This was obtained in part by investing in new equipment that increased employee safety and productivity, delegating more responsibility to the staff, and selling 10 percent of the shares in Apa Nova București to workers in 2007 to improve relations between management and workers. Increased energy efficiency, collection efficiency, reduced leakage, and reduced non-revenue water further contributed to the efficiency gains.⁴⁰

19. Small Scale Water Infrastructure, Busembatia, Uganda



Photo Credit⁴¹

Background

Busembatia is a small town in Uganda with a population of about 14,500. Its water sources are limited and the ones it has are often contaminated, affecting the health and economic well-being of its people. A locally run facility was able to provide water of an acceptable quality, but only served 200 people and provided a very low standard of service. The town was struggling to fund efforts to provide a more reliable supply of water without grants from either donors or the national government, as local funding for public capital investments was tightly constrained. While the private sector was active in operating water

distribution networks in small towns throughout Uganda, this participation was limited mainly to basic management contracts, with little to no private financing of new investments.

Project Structure

In 2010 the International Finance Corporation (IFC), with support from the Austrian Development Agency, the Public-Private Infrastructure Advisory Facility (PIIAF), and DevCo, a multi-donor facility affiliated with the Private Infrastructure Development Group (PIDG), helped to deliver a small-scale water PPP in Busembatia by providing three types of assistance: (i) transaction advice; (ii) public sector