

IMPACT STORIES

PPIAF Supports Groundbreaking Public-Private Partnerships in the Wastewater Sector in Egypt



PPIAF support to the Egyptian government has helped lay the groundwork for several public-private partnership (PPP) projects in a variety of sectors. Specifically, PPIAF provided support to two PPP transactions in the wastewater sector: the New Cairo Wastewater Treatment Plant, the first PPP in Egypt, and the 6th of October Wastewater Treatment Plant. In 2006 PPIAF assisted with the preparation of the conceptual framework and transaction model for the New Cairo plant. As part of broader capacity building support to Egypt's PPP Unit in 2008, PPIAF also analyzed options for the 6th of October plant relating to capacity, location, and design. A 20-year concession contract for the New Cairo Wastewater Treatment Plant was awarded in June 2009, worth \$482 million. The government is currently pursuing several other wastewater treatment plant PPPs, as well as PPPs in other sectors that are under consideration by the PPP Unit. The New Cairo plant offers a replicable model for future PPPs in Egypt and throughout the region.

By 2006 Egypt's water sector was characterized by limited service provision and faced several other significant challenges. Consequently, the Egyptian government identified water as a priority sector and began considering new approaches for financing and managing water supply and sanitation services that involve greater accountability for performance, improved operational efficiency, and reduced fiscal burden faced by the government. In New Cairo City, a satellite town of Greater Cairo created to alleviate overcrowding, the population of 550,000 was expected to increase to approximately 4 million over the next 20 years. The existing infrastructure was insufficient and of poor quality, and rapid population growth placed increasing pressure on water supply and sanitation services. In the 6th of October Governorate, current wastewater infrastructure was also deemed inadequate, especially given population projections that would see the Governorate's population rise from 150,000 in 2006 to 3 million in 2020. In both New Cairo and 6th of October, the government sought Public-Private Infrastructure Advisory Facility (PPIAF) support to consider the possibility of implementing a cost-effective, environmentally safe wastewater treatment facility that would mobilize private sector participation.

PPIAF SUPPORT

The Egyptian government requested \$75,000 from PPIAF in 2006 to prepare a capacity assessment, conceptual framework, and transaction model for the proposed New Cairo Wastewater Treatment Plant. The final report was presented in January 2008 to the Egyptian government's Ministry of Housing, Utilities, and Urban Development (MHUUD). The report recommended a PPP as the most suitable structure to create incentives to reduce the fiscal cost of the water system to the government, and reviewed PPP options that could be implemented. An important consideration was to structure the project so that it was locally financed, yet still attractive to international investors.

The New Cairo Wastewater Treatment Plant project was launched in 2007, amidst a difficult context for private investment in Egyptian infrastructure due to the country's recent difficult experience with private participation in the electricity sector. In order to avoid past failures, the Egyptian government launched the project as part of a broader PPP program that aimed to develop innovative infrastructure projects

in various sectors. To ensure the success of this program, the government requested a further \$450,000 in support from PPIAF in 2008 to define the mandate and operating environment of a PPP unit and provide on-the-job technical assistance to review policy issues arising in the design of PPP projects.

Included within this second PPIAF grant was transaction support to another wastewater plant, the 6th of October Wastewater Treatment Plant, situated in the 6th of October Governorate. For this plant, PPIAF assistance consisted of a capacity assessment, conceptual design of the plant, and the preparation of the project's bidding documents. Following the finalization of the PPIAF assistance, the government chose to tender the project.

OUTCOMES

Following PPIAF support, the government and PPP unit decided to proceed to bid out both the New Cairo and 6th of October wastewater treatment plants, with the MHUUD acting as the contracting authority on both projects.

In June 2009 the contract for the New Cairo Wastewater Treatment Plant was awarded to Orasqualia, a 50/50 joint venture between Egypt's Orascom Construction Industries and Aqualia, a division of Spanish construction firm FCC, which reached financial close in February 2010. The 20-year build, operate, transfer (BOT) concession contract, worth \$482 million, covers engineering, procurement, and construction as well as operation and maintenance of the plant.

Construction of the New Cairo plant began in February 2010. As of December 2010 Orasqualia had completed nearly 40% of New Cairo Wastewater Treatment Plant and expects construction to be completed in time for the plant to be delivered in March 2012. Once completed, the plant will have a capacity of up to 250,000 m³ per day—reaching 500,000 m³ per day by 2029—to treat wastewater.

The PPP unit and MHUUD decided to invite bids for the design, build, financing, operation, and maintenance of the 6th of October plant in December 2010. Ten bidders were prequalified to bid for the contract to finance, design, and build the 150,000 m³ per day facility. However, the government eventually decided not to proceed with the project due to technical and cost issues related to the need to pre-treat industrial wastewater and delays caused by the political effects of the Arab Spring. The project was cancelled in May 2012.

DONOR COORDINATION

PPIAF, International Finance Corporation (IFC) Advisory, and DevCo provided funding and advice to the Egyptian government's PPP program and the New Cairo plant, with PPIAF offering additional support to the transaction design of the 6th of October plant.

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Upon completion the New Cairo wastewater treatment plant will benefit approximately three million people in the New Cairo area. The treated contaminant-free effluent produced by the plant will be environmentally safe and non-polluting. Although not suitable for drinking water, the wastewater stream can be reused for irrigation purposes. The water reuse is especially important given Egypt's status as a water scarce country.

The New Cairo plant mobilized private investments totaling \$150–\$200 million, and has opened up the market for regional and international investors to work on other PPP projects in Egypt.

The New Cairo plant is best viewed as a replicable pilot for further PPPs within Egypt and more broadly, the Middle East and North Africa region as a whole. [The project](#) was recently awarded the bronze award and recognized among the 40 best PPPs in emerging markets in a report published by the Infrastructure Journal, IFC, and PPIAF. With a large pipeline of projects, it is to be hoped that Egypt's PPP unit will build on its PPIAF-supported experience in the wastewater sector. PPIAF continues to support the PPP unit, providing further capacity building training and exploring the viability of new projects through pre-feasibility studies in the transport, water, energy, and telecommunications sectors.

RELATED PPIAF ACTIVITIES IN EGYPT

- 2004: PPP Models in Irrigation, **\$75,000**
- 2006: Development of Regulatory and Institutional Arrangements for the West Delta Irrigation Project, **\$75,000**
- 2006: Options in PPPs in Operating and Maintaining Irrigation and Drainage Infrastructure, **\$75,000**
- 2007: PPP Conceptual Framework for a Water Treatment Plant in the New Cairo Area, **\$75,000**
- 2008: Public-Private Partnership Unit Capacity Building, **\$450,000**