

Blended Financing for the Expansion of the As-Samra Wastewater Treatment Plant in Jordan

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Summary Overview

Location: Amman and Zarqa, Jordan, Middle East and North Africa

Approach to Blended Finance: A blended financial package was put in place to finance the expansion of the As-Samra Wastewater Treatment Plant. The project was undertaken by the Samra Wastewater Treatment Plant Company Limited (SPC), a private operator that was recruited through a Build-Operate-Transfer (BOT) contract to finance, upgrade, and operate the treatment plant.

The private operator was required to mobilize private financing, which it did through an equity contribution and a syndicated limited recourse loan provided by domestic banks in local currency. The overall financial package also included public funds provided as viability gap funding (VGF), including contributions from the Government of Jordan and a grant from the Millennium Challenge Corporation (MCC). Public funding was critical to help structure the deal and to convince private financiers to step in and provide what was, at the time, the longest maturity ever achieved for a Jordanian dinar-denominated limited recourse loan.

Context

Jordan is one of the most water-scarce countries in the world. Available water resource levels have fallen with an annual per capita quantity of water approximated at 155 m³ as of 2013. While water demand outstrips supply, it is estimated that two-thirds of available water resources are used for agriculture. Scarce water resources combined with high population growth have caused extensive stress on water infrastructure, requiring rehabilitation and



extension work. Water scarcity is considered the most important natural constraint to growth and development in the country.

The As-Samra Wastewater Treatment Plant was initially designed in 2003 to treat wastewater for the 2.3 million inhabitants of Amman, while supplying quality irrigation water to the surrounding region. Construction of the plant was completed in 2008. However, the country's rapid population growth and a large influx of refugees led to the approach of the plant's capacity limits (both in terms of the volume of wastewater received and solids processing) sooner than anticipated. For this reason, the Government of Jordan, through the leadership of the Ministry of Water and Irrigation (MWI), prioritized the expansion of the treatment plant in order to meet the needs of the population in two of Jordan's most populous cities, Amman and Zarqa.

Financial Structure and Approach to Blended Finance

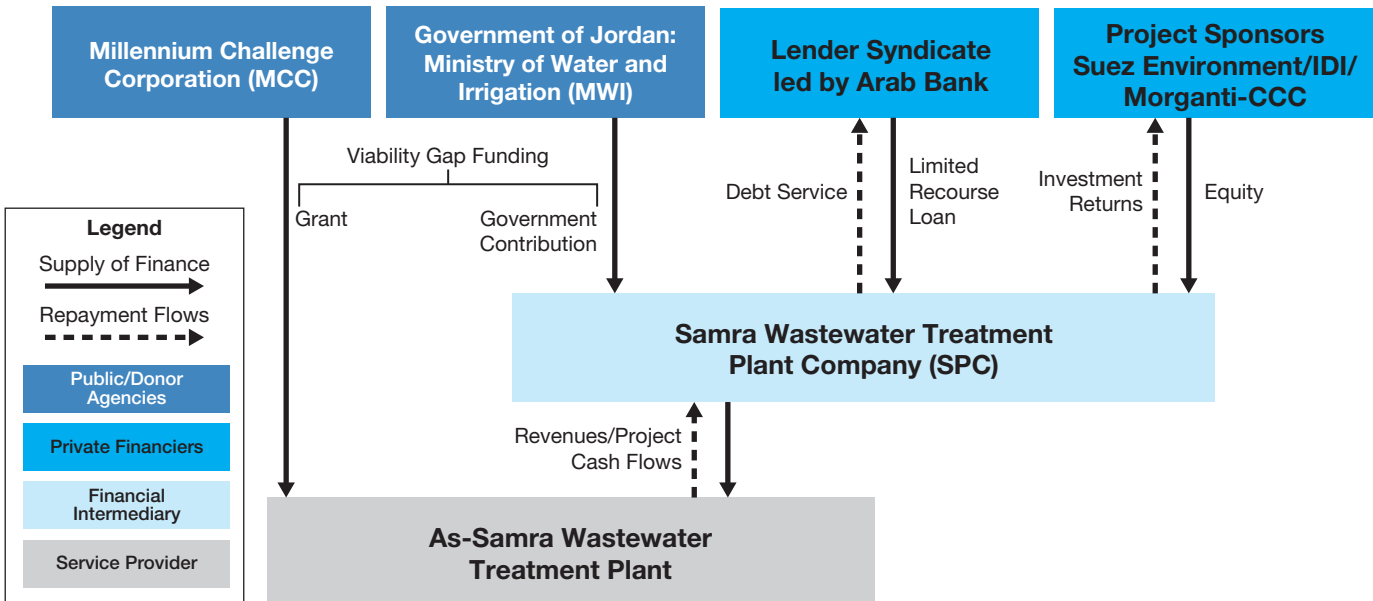
The Millennium Challenge Corporation (MCC) committed to assist the MWI with the expansion project by providing transaction advisors and viability gap funding (VGF). This proved crucial to securing private financing for expansion of the wastewater treatment plant through a build-operate-transfer (BOT) contract, a form of public-private partnership. The BOT contract was signed in 2012 between the MWI and Samra Wastewater Treatment Plant Company Limited (SPC), a private company whose investors include Morganti, Infilco Degrémont, and Suez Environment. Responsibilities for financing, project design, construction, operation, and maintenance were awarded to the SPC for a 25-year period. Construction on the expansion began soon after financial closure, and the project became operational in October 2015. The plant expansion was a key part of a water re-use program that also improved the allocation of water resources by enabling the use of high-quality treated wastewater from As-Samra in agriculture, thereby freeing up freshwater for higher value use in municipalities.

The diverse blend of financing that was accessed to fund the US\$223 million project is what makes this a unique case. MCC provided a US\$93 million grant for the

expansion of the As-Samra Wastewater Treatment Plant, while the Government of Jordan contributed an additional US\$20 million. Donor and public funding, which can be referred to as “viability gap funding”, was critical for leveraging an additional US\$110 million in private financing, including US\$102 million from private debt and US\$8 million in equity mobilized by the SPC.

Commercial debt was secured through a standard project finance limited recourse loan, from a syndicate of Jordanian local banks and financial institutions arranged by the Arab Bank. The limited recourse loan tenor is for 13 years, with an option to extend up to 20. At the time, this was the longest maturity that had ever been obtained for a Jordanian dinar-denominated limited recourse loan. Additional security was ensured through a cash waterfall account structure, and the agreement included step-in rights for the banks. The denomination of the loan in local currency provided the clients with protection against foreign exchange risk. The interest rate during the three-year construction period for the treatment plant expansion was fixed (7.25 percent during year one; 7.75 percent during year two; and 8.25 percent during the final year). Following the commissioning of the plant, the loan evolved to a floating rate linked to the average prime lending rate of four local banks.

FIGURE 1 Viability Gap Financing for the As-Samra Wastewater Treatment Plant Expansion, Jordan: Financial Structure



Payments from the MWI are guaranteed through a reserve account, the replenishment of which is in turn backed by a guarantee from the Ministry of Finance. Figure 1 illustrates the financial structure for the expansion project.

A critical component in the financial structure is the existence of an efficient securitization of cash flows from the original plant (constructed between 2003-2008) to support the equity element of the financing (from project sponsors) invested in the expansion project. This meant the sponsors were able to invest internal cash flow from the original project as equity. The resulting debt-to-equity ratio is 80:20, including investments from the original plant. While the grant funding from MCC increased the investment appeal to private investors, the financial structure was designed to ensure that the grant would not subsidize the private sector participants, and instead be directed to benefit consumers connected to the system. The SPC project sponsors' investment returns are thus based on their portion of the capital investment.

Results

The As-Samra Wastewater Treatment expansion project became operational in October 2015. In line with its original design, the expansion increased the average daily capacity of As-Samra to treat wastewater from 267,000 to 365,000 m³ per day (over a one-third increase). While additional outcomes are still being assessed, it is clear that the expansion improved water resource management in Jordan. The proportion of blended wastewater used for irrigation has grown from 61 percent to 83 percent four years later, freeing up additional freshwater for domestic use for an estimated 2,020,000 people.

The MCC grant, coupled with the Government of Jordan's contribution, helped reduce the capital costs while enabling a project with important economic and environmental benefits to become financially viable. Without the blended finance approach, the private financiers would likely not have provided the debt component of the package, and the market-based equity costs would have rendered the project unaffordable to the Government of Jordan. This blended financing experience offers a model that holds potential for future infrastructure projects in Jordan and other emerging markets.

Lessons Learned

Viability gap funding can play a critical role. The MCC grant brought down the capital costs of the project and allowed it to be financially viable, while meeting the needs of all project participants. This proved critical for the mobilization of commercial finance.

Donor requirements led to nontraditional project finance agreements. Typical project finance is limited to debt and equity, but in this case, the blending of grant financing brought certain donor funding requirements to the project, and resulted in more complex negotiations compared with a normal project finance transaction. Among other requirements, it was necessary to adhere to MCC's and Jordan's strict standards for treatment, storage, management, and disposal of sludge to ensure environmental sustainability. Ultimately, the project's innovative approach to blending financial sources made it a success, and at financial close all stakeholders were extremely satisfied.

References

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This case study is part of a series prepared by the World Bank's Water Global Practice to highlight existing blended finance experiences in the water sector.

Blended finance refers to “the strategic use of development finance and philanthropic funds to mobilize private capital flows to emerging and frontier markets,” as per the OECD definition (WEF OECD, 2015). Concessional funds can be used in a catalytic manner to open up new opportunities for commercial financing, by providing technical assistance to borrowers and lenders to help them become more familiar with each other, help structure transactions, provide credit enhancement mechanisms, etc.

Private capital flows can help with meeting immediate financing needs for investment in the water sector but ultimately need to be repaid. Repayable financing from private sources to the water sector can come in various forms, including as commercial bank loans, bonds or equity. To obtain such financing, water-sector actors need to be able to repay the borrowed amounts and the associated funding costs, which means that they need to be deemed “creditworthy” by providers of finance.

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