Evaluation Summary

Tubas Governorate water supply improvement and sanitation access enhancement project

Country: **Palestinian Autonomous Territories** | Sector: **Water and sanitation**

Evaluator: **ICEA&Universal Group for Engineering & Consulting**

Date of the evaluation: **February 2023**

Key data on AFD's support

Project numbers: CPS 1018 / CPS 1068

Amount: € 19.5 million

Disbursement rate: 100%

Signature of financing agreement: 04/06/2009 (CPS 1018) / 27/03/2013 (CPS 1068)

Completion date: 01/11/2019 (CPS 1018) / 01/01/2019 (CPS 1068)

Total duration: 10 years

Context

The project is located in the areas of Tubas and Maythalun, in the northern part of the West Bank. Prior to the project, this area had one of the lowest rates of drinking water consumption in the West Bank. Some communities, lacking a network, relied mainly on water tankers, which were prohibitively expensive. Sanitation was limited to the use of cesspits and septic tanks, emptied by private trucks for further disposal at illegal disposal sites. This system presented high risk for the environment and groundwater.

The project financed by AFD aimed to increase the quantity of water available by equipping two boreholes, to improve the quality of service by creating, rehabilitating and extending water supply networks in Tubas, Tammoun, Aqqaba and Tayaseer, and to set up a low-cost pilot WWTP in Misilya, whose treated water can be reused for agriculture.

Actors and operating method

The water and sanitation components were subject to two separate funding agreements: CPS 1018-01 (and CPS 1068 for complementary funding) and CPS 1018-02.

PWA, through its PMU, was the implementing agency for the project. The PMU was also in charge of the detailed design, the preparation of tender documents for the equipment and works and the supervision of the works under CPS 1018-01. Once completed, the boreholes and transmission lines fell under the responsibility of the WBWD, the water distribution systems were transferred to the Tubas JSC, and the sewerage system fell under the Maythalun JSC authority.

Objectives

The general objective was to improve the living conditions of the population of the villages located in the districts of Tubas and Jenin, in the north of the West Bank, through improved access to water and sanitation services.

The specific objectives of the project were to: 1) Ensure the supply and secure the availability of drinking water in the area, 2) Improve the sanitation system in the area, 3) Strengthen the institution environment.

Expected outputs

More specifically, the project's components included:

- Water component – CPS 1018-01: the equipment of Tubas and Tammoun wells, the construction of water reservoirs in Tammoun, the rehabilitation and extension of transmission networks and construction, rehabilitation and extension of distributions networks in Tubas, Tammoun and Tayaseer.
- Water component – CPS 1068: water supply facilities improvement, and capacity building of Tubas JSC.
- Sanitation component – CPS 1018-02 (firm phase financed by AFD funding): small scale and low running costs WWTP with reuse scheme, full conventional sewerage facilities for Misilya village, improved individual and semi-individual sanitation facilities for less dense area in Misilya village, public awareness campaigns.

Performance assessment

Relevance

The objectives and content of the project were in line with the needs of the sector and the beneficiaries. Municipalities and JSCs were involved from the early stages and throughout the project. The institutional setting for project definition, implementation and operation proved to be well adapted to the context and objectives of the project. The project was also consistent with the orientations and priorities of the PWA and AFD and was in line with other water and sanitation projects in the region.

Effectiveness

Both access to water and sanitation services have improved in the area. The water infrastructure has been installed and is functioning properly. More than 50,000 people in the area have now access to a stable, sufficient and secure water supply (SDG 6.1). The transfer of the municipalities' water competence to Tubas JSC has generated economies of scale and has helped to overcome the lack of technical capacity in the municipalities. The sanitation infrastructure was built without any particular difficulty, and more than 2,500 people in Misilya have been connected to the collective sewerage system and benefit from a service "safely managed" (SDG 6.2). However, the system experienced problems during the first months of operation due to the intrusion of rainwater in the sewage network, causing significant discharge of treated water at the outlet.

Efficiency

Both the water and sanitation components of the project were delayed for several years. Regarding the drinking water system, it soon turned out that funds would not be sufficient to finance all of the infrastructure, which led to the reprogramming of certain work packages and the mobilization of additional funds. In the case of the Misilya – Jarba sewerage project, the design phase moved very slowly due to lengthy procedures for the recruitment of the consultant and contractors, the acquisition of land, and multiple debates on design choices. Other delays can be explained by the difficulties encountered during the execution of the works, as well as for the supply of certain equipment coming from abroad. The cost of the water supply system work was nearly € 11.0 million, compared to the € 7.4 million originally budgeted. This is mainly due to the underestimation of some costs in the feasibility study, and additional costs incurred during construction due to the extension of the scope of works. The amount of the Misilya – Jarba works (€ 4.5 million) is in line with the amount of funding made available for the works.

Impact

The populations of Tubas, Tammoun, Tayaseer, Aqqaba and Misilya were the main beneficiaries of the project. The project had significant and positive changes on their quality of life, through improved access and quality of drinking water supply (about 50,000 people use a safely managed drinking water service), improved sanitation conditions (about 2,500 people use a safely managed sanitation service), reduced cost of water and sanitation services and reduced prevalence of waterborne diseases.

Sustainability

The water infrastructure is functioning well overall and provides good quality service. However, physical losses could be further reduced, NRW reduction should be a priority, and JSC's revenues are insufficient to cover all O&M expenses, which threatens the infrastructure's sustainability. The WWTP has experienced operational problems due to design errors, and technical solutions must be implemented to secure an alternative outlet of the WWTP and avoid intrusion of rainwater in the system. In both components, the staff are sufficiently qualified to carry out O&M tasks but could receive related trainings to further improve service performance. Relations between JSCs and local counterparts seem at peace, clients are satisfied with the service provided, and the level of public confidence in the JSC is high.

Added value of AFD's contribution

AFD's reputation among local counterparts is good, both because of the positive outcomes of the project and the way it was designed and implemented. AFD's continuity of action in the area is also a source of satisfaction and recognition for local stakeholders. At the national level, its intervention in the water and sanitation sector in Palestine is praised. The "Nexus North" project is a direct continuation of previous AFD projects in the region, notably CPS 1018/1068. It pursues the effort to improve the water service and strengthen the performance of the Tubas JSC.

Conclusions and lessons learnt

The implemented **drinking water system** is functioning well and providing a good quality service to the population. However, a few actions could be taken to further improve this service and strengthen its sustainability over time:

- Continue to improve the performance of Tubas JSC service, in particular decrease the NRW rate, and improve the bill collection efficiency,
- Resolve the disagreement between the JSCs of Tubas and Maythalun over the price of transferring water from one system to the other,
- Conduct a tariff study including a study of the willingness and ability to pay for water and connections,
- Conduct regular satisfaction surveys.

Regarding the **sanitation component**, the following recommendations are mainly addressed to the Maythalun JSC:

- Urgently solve the technical problems that caused excessive discharge of treated water in winter,
- Secure an alternative outlet of the WWTP to end the current temporary pumping on the south of Misilya and avoid creating new conflicts,
- Try to renew the dialogue with neighboring farmers to reinforce the acceptability of the project,
- Provide additional capacity building to the team in charge of the operation and maintenance of the WWTP,
- Separate the functions of Chief Operator of the WWTP and Executive Director of the Maythalun JSC, which both require a full-time commitment and are not easily compatible.
- Promote the reuse of treated water from the WWTP among farmers of the neighborhood to increase the number of beneficiaries and volumes of treated water used for agriculture.