

Palestinian Territories
Water and Sanitation Sector
Beit Liqya Cluster project

PROJECT COMPONENTS

1. **The Project concerns four cities:** Beit Liqya, Beit Nuba, Beit Sira and Kharbata Al Midsbah which are engaged in an amalgamation process and is divided into two components, (1) Water network rehabilitation and (2) Capacity building of Common Water Department (CWD). The content of the project has been discussed and adjusted as described below.
The main objective of the project is to insure a better access to water to the inhabitants of the area and to develop a Joint Water Service.

Located in Ramallah Al-Bireh governorate, the urban areas of these four villages are located in area B when the rural areas are located in Area C.

According to the last census from 2007, 17 542 people were living in Beit Sira Cluster. The population year growth is estimated at 2,5% which means that there should be 18 000 inhabitants in 2012 and almost 37 000 in 2037 (+ 25 years).

The repartition is summarized below:

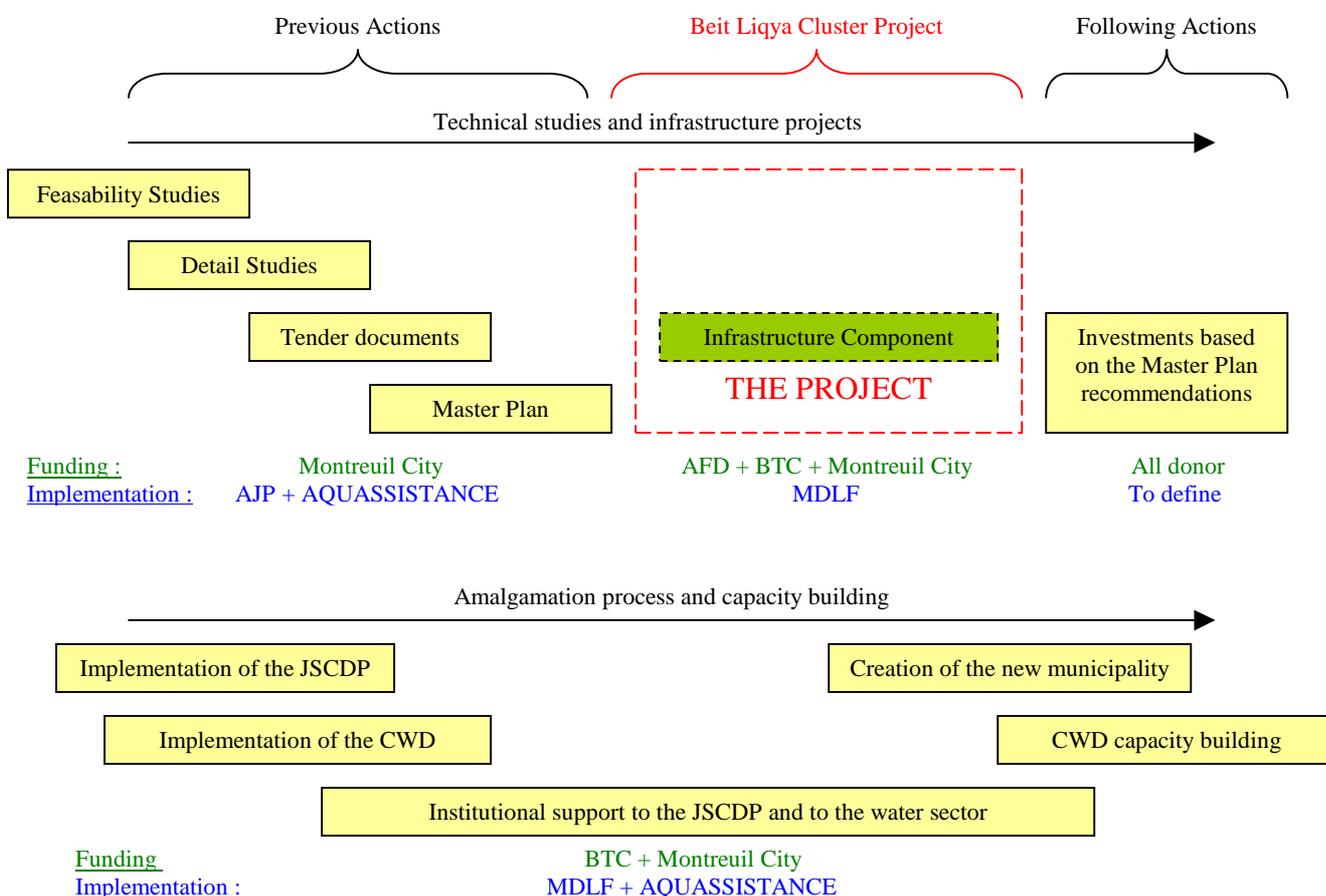
Village	Population 2012
- Beit Liqya and Beit Nuba	9,000
- Beit Sira	3,250
- Kharbata Al'Misbah	5,900
Total	18,150

2. Context

This project results from a partnership between the French Development Agency (AFD), the Belgian Technical Cooperation (BTC), and the city of Montreuil who's started a cooperation with Beit Sira since 2005.

- The BTC is implementing since 2011 a project named: the Local Government Reform and Development Programme (LGRDP), which aims at reinforcing capacities in four villages' clusters.
- The City of Montreuil is involved in the village of Beit Sira since 2008. The identification of priorities has oriented the cooperation to the water sector.

The schematic below describes how the project is included into the long term support provided by the BTC:



3. The access to water in the area

A technical and organizational diagnostic, for the water structures, was realized between July 2008 and June 2009 under the City of Montreuil financing.

Water services organisation:

The bulk water supply is realized through two delivery points controlled by the Israeli company Mekorot. The bulk water is sold to WBWD which is in charge of the conveyance till bulk water meters located at the entrance of every village. Each village council is in charge of the water services for the administrative and financial aspects (meters reading, bills recovery ...).

Maintenance works are shared by the employment of a plumber by the four cities, plus a fifth one not included in the present project. As the major village, Beit Lyqia is also employing in addition a part-time plumber.

4. Component 1 – Water supply works (co-financiers funding)

Technical studies have been financed by Montreuil city. They initially focused on Beit Sira but were expanded to the cluster. The last report was delivered in April 2012 at a preliminary design stage. The local consulting firm is Arabtech Jordaneh (AJP), assisted by a foreign consultant (Aquassistance). The study has delivered a complete diagnostic of the network and proposed rehabilitation works to answer to the water demand at the horizon 2037.

The actual situation is rather uniform; networks have been build 20 years ago. Two major weaknesses have been identified:

- Lack of reservoir: water is delivered on line which implies high variations of the hydraulic conditions (pressures and flow) and makes the water supply random (private installation subject to high pressure which can be damaged, lack of water in some areas...)
- Very bad state of the existing internal distribution networks of small diameters: These networks ($\varnothing < 50\text{mm}$ and private connections) were build in galvanized steel and are now internally and externally corroded. These pipes represent 80% of the total linear of the distribution network. Leakages are estimated between 25 and 40 % depending on the villages and are mostly due to these pipes according to the operation and maintenance works done by the plumbers.

The actual supply water is estimated to 80 L/d.inhabitant when the theoretical quantity available is 115 L/d.inh.

In accordance with the preliminary design, the project includes the following works:

- the renewal of 9 075 linear meter of pipes with a diameter equal or inferior to 50 mm in Beit Sira;
- the renewal of 15 000 linear meter of pipes with a diameter equal or inferior to 50 mm in Beit Liqya, Beit Nuba and Kharbata Al'Misbah;
- the renewal of 1 390 private connections related to the new pipes;
- the construction of a Booster Station to supply the houses located on the heights of Beit Sira and which suffer from a almost inexistent supply in summer.

5. Component 2 – Capacity building of CWD (under BTC and Montreuil support):

The Joint Water Service will benefit from a long term support as part of the amalgamation project financed by the CTB. Its capacity to operate and maintain water networks, its technical and financial display will continue to be strengthened by building capacities activities during and after the implementation of the project. These activities, financed by the BTC and supported by the City of Montreuil, will cover:

- Equipments: priority needs will be financed based on the performance assessment to handle the technical and administrative management of the service (car, electro-fusion tools, spare parts, safety equipments, computers...)
- Capacity building services (internal control procedures, commercial and accounting monitoring software...);
- Trainings (leakage detection, water quality analysis...).