Construction of Khan Younis Waste Water Treatment Plant (KY WWTP)

Khan Younis Governorate is located at the southern part of the Gaza Strip and is currently inhabited by more than 340,000 residents. It has been sustaining for a long time an absolute absence of a functional wastewater treatment plant. The raw sewage is still being disposed off in the environment without treatment through cesspits and ad-hoc lagoons, which is posing serious risks to the residents' public health as well as contaminating the ground water aquifer.

The construction of Khan Younis waste water treatment plant is prioritized by the Palestinian Water Authority (PWA) as a strategic environmental project that is not only needed to respond to the vital hygienic and environmental needs of Khan Younis residents, but to also fulfil the PWA’s objectives in achieving water security in the Gaza Strip.

The implementation, construction and co-financing of the USD 58 million Plant is through UNDP with funds from the Government of Japan and the Kuwait Fund for Arab Economic Development through the Islamic Development Bank.

The project seeks to construct a comprehensive, functional and operational wastewater treatment plant at a flow capacity of 26,600 cubic metres per day to serve the residents of Khan Younis for 2018 as a first phase of operation.

The overarching goals of the project aim at:

1. Protecting public health and environment of Khan Younis residents;
2. Contributing to develop public and social infrastructure in the Gaza Strip;
3. Preserving the limited water resources in the Gaza Strip, especially the coastal aquifer;
4. Providing a new non-conventional water source through recharging the treated waste water into the aquifer to ultimately be used for agricultural purposes;
5. Enhancing the operational capacity of the Coastal Municipalities Water Utility (CMWU) as final operator of the treatment plant.
6. Creating job opportunities for unemployed local Palestinian workers that will contribute to improving their socio-economic conditions.

The project comprises the following components:

- Constructing main inlet pressure pipeline from pumping station No.8 to KY WWTP
- Providing the detailed design for the construction of KY WWTP
Project Overview

Status:
Active

Project Start Date:
January 2006, Launch in 2015

Estimated End Date:
February 2020

Donor:
- Government of Japan
- Kuwait Fund for Arab Economic Development through the Islamic Development Bank (IsDB)
- UNDP

Partners:
- Palestinian Water Authority (PWA), Coastal Municipalities Water Utility (CMWU) and Khan Younis Municipality

Geographic Coverage:
- Gaza Strip - Khan Younis

Focus Area:
- Environment - Infrastructure

Sustainable Development Goals
- Clean water and Sanitation

Project Officer:
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Contact: 00970–59-9606792

Project Number: 00047395
Award Number: 00041529

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Challenges and Constraints

- Potential delay of accessing the required construction materials and equipment to the Gaza Strip, due to the blockade.
- Potential restriction of accessing international staff to Gaza and mobility of workmanship on site due to security conditions.
- Potential deficiency of the electrical power to operate the plant.

Accomplishments and Progress

- Carrying out the design review, pre-contract and construction supervision services for the construction of KY WWTP
- Constructing KY WWTP and carrying out one year operation after commissioning
- Constructing the effluent and emergency pressure pipelines to the infiltration basins and sea outfall with a total length of 18.6 KM
- Constructing the infiltration basins on an area of 95 dunums to recharge the treated waste water into the aquifer to ultimately be used for agricultural purposes
- Constructing the main electrical power supply line to KY WWTP

Finances and Delivery

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<tr>
<th>Donor</th>
<th>Amount Contributed</th>
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<td>Government of Japan</td>
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<td>UNDP</td>
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