



The World Bank

Northern Gaza Emergency Sewage Treatment (NGEST) Project (P074595)

REPORT NO.: RES30311

DOCUMENT OF THE WORLD BANK

RESTRUCTURING PAPER

ON A

PROPOSED PROJECT RESTRUCTURING

OF

NORTHERN GAZA EMERGENCY SEWAGE TREATMENT (NGEST) PROJECT

APPROVED ON SEPTEMBER 7, 2004

TO

PALESTINIAN LIBERATION ORGANIZATION

WATER

MIDDLE EAST AND NORTH AFRICA

| | |
|----------------------------------|---|
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**I. BASIC DATA****Product Information**

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|---|--|
| Project ID P074595 | Financing Instrument Investment Project Financing |
| Original EA Category Full Assessment (A) | Current EA Category Full Assessment (A) |
| Approval Date 07-Sep-2004 | Current Closing Date 31-Dec-2017 |

Organizations

| | |
|---|---|
| Borrower Palestinian Liberation Organization | Responsible Agency Palestinian Water Authority |
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Project Development Objective (PDO)

Original PDO

The project objectives are to: (i) mitigate the immediate gathering health and environmental safety threats to the communities surrounding the effluent lake at BLWTP; and (ii) Provide a satisfactory long-term solution to the treatment of wastewater for the Northern Government in Gaza.

Summary Status of Financing

| Ln/Cr/Tf | Approval | Signing | Effectiveness | Closing | Net | | |
|----------|-------------|-------------|---------------|-------------|------------|-----------|-------------|
| | | | | | Commitment | Disbursed | Undisbursed |
| TF-16844 | 17-Jun-2014 | 17-Jun-2014 | 01-Oct-2014 | 31-Dec-2017 | 3.00 | 1.49 | 1.51 |
| TF-16501 | 08-May-2014 | 08-May-2014 | 18-Nov-2014 | 31-Dec-2017 | 5.00 | 2.21 | 2.79 |
| TF-97081 | 25-Oct-2010 | 25-Oct-2010 | 10-Nov-2010 | 31-Dec-2017 | 7.00 | 7.00 | 0 |
| TF-92196 | 30-Jun-2008 | 30-Jun-2008 | 30-Jun-2008 | 31-Dec-2017 | 12.00 | 7.36 | 4.64 |
| TF-57595 | 07-Dec-2006 | 07-Dec-2006 | 07-Dec-2006 | 31-Aug-2015 | 6.53 | 7.68 | 0 |
| TF-57109 | 02-Oct-2006 | 02-Oct-2006 | 02-Oct-2006 | 31-Dec-2017 | 6.95 | 6.28 | 1.17 |



| | | | | | | | |
|----------|-------------|-------------|-------------|-------------|------|------|---|
| TF-56186 | 18-Jan-2006 | 18-Jan-2006 | 18-Jan-2006 | 31-Dec-2013 | 6.85 | 6.42 | 0 |
| TF-54208 | 27-Oct-2004 | 27-Oct-2004 | 17-Nov-2004 | 30-Jun-2014 | 7.80 | 7.80 | 0 |

Policy Waiver(s)

Does this restructuring trigger the need for any policy waiver(s)?

No

II. SUMMARY OF PROJECT STATUS AND PROPOSED CHANGES

A. Project Status

1. Project Background.

The Northern Gaza Emergency Sewage Treatment Project (NGEST) was approved on September 7, 2004 for an initial amount of US\$ 7.8 million with the objectives of: (i) mitigating the immediate gathering health and environmental safety threats to the communities surrounding the effluent lake at Beit Lahia; and (ii) providing a satisfactory long-term solution to the treatment of wastewater in Northern Gaza. These objectives were originally to be met through the sequential implementation of two parts:

- Part A, consisting of the construction of a new terminal pumping station and 9 infiltration basins, as well as the installation of a pressure pipeline to support the transfer of effluent from Beit Lahia to the proposed new wastewater treatment plant (WWTP) site, would cater to the objective of alleviating the immediate environmental and health threats associated with the old and overburdened Beit Lahia WWTP; and
- Part B, consisting of the construction of a new WWTP, would support the objective of providing a long-term, sustainable wastewater management solution. At the time of Board approval, financing for Part B was tentative, based on co-financing pledges from the Belgian Government (Euro 4.0 million), the Swedish International Development Cooperation Agency (SIDA, US\$ 6.85 million equivalent), and the European Commission (Euro 5.88 million), as well as parallel financing from the French Development Agency (AFD, US\$ 13.0 million equivalent), in addition to supplementary financing from the World Bank. The parallel- and co-financing arrangements were confirmed and approved by the respective donors in 2005.

The political and security situation in Gaza deteriorated after Israel’s disengagement from Gaza in September 2005. Frequent border closures and restrictions on the movement of people and materials resulted in significant cost overruns, as well as delays in the completion of contracts under Part A and the construction of the WWTP under Part B. In addition, there were three major outbreaks of severe hostilities, the latest in 2014, leading to thousands of casualties and massive damage to infrastructure, including the new WWTP under construction. Project cost overruns were exacerbated by the exchange rate fluctuations and global increases in energy prices, and additional financing to cover financing gaps, cost overruns, environmental risk mitigation measures as well as financing for 3 years of operation and maintenance (O&M) of the WWTP were approved by the Bank in 2008 for US\$ 12.0 million (P091314), in 2010 for US\$ 7.0 million (P117446), and in 2014 for US\$ 10.5 million (P146065). The additional financing also allocated funds to address parts of the scheme to manage the indirect reuse of the treated wastewater returned to the aquifer through the infiltration basins, and use of monitoring and recovery wells to manage any potential risks impacting the overall groundwater supply (referred to as Part C).

2. Performance ratings and disbursements.



The Project Development Objective (PDO) and Implementation Progress (IP) ratings, as well as ratings for Procurement, Project Management and Overall Safeguards are rated Moderately Satisfactory (MS), whereas the rating for Financial Management (FM) is rated Satisfactory. Nevertheless, as these satisfactory ratings reflect recent improvements to the overall implementation progress, they will require continued significant efforts in order to be maintained. In terms of monitoring and evaluation (M&E), most of the indicators hinge on the start of the NGEST WWTP operation, and it is expected that targets will be achieved for most of them by the proposed project closing date. In addition, disbursements have reached 75 percent as of November 30, 2017.

3. Background on implementation progress.

Due to the continued high implementation risk associated with the Gaza environment, a Level II Restructuring was approved on April 10, 2017 to help the Project focus on implementing activities which could increase the likelihood of achieving the PDO and outcome indicators by the December 31, 2017 closing date. This restructuring mainly focused on: (i) revising one PDO and a few intermediate level indicators, as well as clarifying the project scope accordingly; and (ii) updating the environmental and technical analyses in light of the revised activities and their risk assessments. As a result of this restructuring, the construction of the reuse scheme, site remediation works, and part of the financing of the O&M were removed from the NGEST scope, and were to be considered for financing by other donors and/or existing or future Bank operations.

4. Results to date.

For the Project to achieve its PDO, the following building blocks of the NGEST wastewater management scheme need to be in place over the course of the next 6 months: (i) the WWTP is built, commissioned and has entered the operational phase; (ii) a minimum number of infiltration basins are rehabilitated to allow for the treated wastewater to be safely infiltrated back into the aquifer; (iii) as a result of (i) and (ii), the effluent lake can be progressively drained; and (iv) the recovery wells planned under NGEST are completed and commissioned. Progress on each of these building blocks is summarized below:

- Status of WWTP construction and commissioning. The construction of the WWTP has been completed, and the contractor is now focused on performing so-called dry tests on all the equipment installed at the new facility (95 percent progress). The completion of these tests will allow the contractor to request the emission of the Works Completion Certificate (WCC) and move on to the commissioning phase. This is planned to take place by the end of December 2017. During the commissioning phase, the WWTP will be progressively brought into full operation, and the successful completion of this phase will culminate in the emission of the Operational Acceptance Certificate (OAC) which is set to take place in May 2018. At the start of the commissioning phase in January 2018, the 2-year O&M contract will also be initiated to ensure full readiness to operate by the time the OAC is released. While funds have been secured under NGEST to pay for this O&M contract throughout the commissioning phase, discussions are ongoing internally, as well as with the PWA and other donors to secure financing for the remaining balance;
- Status of infiltration basins. While Part A concluded with the effluent lake at Beit Lahia being evacuated and dried, delays in the construction of the new WWTP and clogging of the infiltration basins have forced the Palestinian Water Authority (PWA) since March 2016 to resort back to using the lake as a temporary measure to control and manage sewage flows until they can be treated at the new site. Partially treated wastewater was infiltrated through these basins at the NGEST site for a longer period than originally planned, straining the existing system. In response, the Project financed a feasibility study to identify the required measures to restore the infiltration basins' ability to receive treated effluent once the WWTP comes into operation, and works on 2 of the 9 infiltrations basins are currently under way with financing from the World Bank-financed Gaza Water Supply and Sewage System Improvement Project (WSSSIP);
- Status of effluent lake at Beit Lahia and site remediation. With currently no wastewater infiltrated at the NGEST WWTP site, the temporary ponds in the sand dunes to the north of Beit Lahia as well as the effluent lake continue to



receive raw wastewater. This will continue until the WWTP becomes fully operational in May 2018, at which time the effluent lake will be drained. In addition, the Project is financing the development of a detailed plan for site remediation, including the rehabilitation of the lake and the decommissioning of the original Beit Lahia WWTP;

- Status of recovery wells construction. Out of the 14 recovery wells planned under NGEST to monitor water quality in the relevant sections of the aquifer, and to serve as a means to extract contaminated water, if necessary, 9 have so far been drilled. Drilling and equipping of all wells is expected to be completed by the end of December 2017, and commissioning is expected to be completed by end of March 2018.

5. Relevant legal, fiduciary and safeguards aspects.

All legal covenants are complied with, and the team confirms that all requirements of OP/BP10.00 are expected to be met: (i) the PDOs remain achievable; (ii) the performance of the Recipient remains satisfactory; (iii) the World Bank and the Recipient agree on actions that will be undertaken by the Recipient to complete the Project; (iv) the Project is not subject to suspension of disbursements; and (v) the Recipient has no outstanding audit reports or interim financial reports, or such reports which are not deemed satisfactory to the World Bank. In addition, implementation of environmental and social safeguards remains MS. Nevertheless, maintaining this rating will depend on the Project's ability to ensure that the effluent lake is safely drained, and the groundwater aquifer quality is restored. For this to happen, the Bank Team requested that the PWA prepare: (i) a contingency plan including public awareness about the identified environmental and social risks, particularly in Um-Alnassr community adjacent to the random lake, signs of failures of the system, and a hotline to report any incidents or grievances; (ii) an operational plan for all potential scenarios of operation for the WWTP, infiltration basins, recovery wells, and the effluent lake, including clear institutional responsibilities, is developed to help minimize the likelihood of the pollution plume reaching the municipal wells; and (iii) a final groundwater quality monitoring report to quantify the risks to public health, if any, associated with the infiltration of the untreated wastewater in the aquifer via the infiltration basins of NGEST.

6. Risks.

The risk assessment remains the same, and the main risks continue to be associated with:

- (i) the lack of a comprehensive strategy or policy to work towards longer-term O&M arrangements for major water and wastewater infrastructure in Gaza. Of particular concern is the energy part of these O&M arrangements. With the absence of a reliable power source, the NGEST scheme indeed cannot be operated successfully, and the PWA estimates that around 3MW will be required to operate the entire wastewater management scheme during the commissioning period starting in January 2018. For these immediate needs, an ongoing dialogue between the GoI and the Palestinian Authority could lead to securing up to 6MW for NGEST through the Gaza Electricity Distribution Company (GEDCO), but if this agreement were to not materialize, there currently is capacity to operate the NGEST scheme through: (a) the use of existing on-site diesel generators (with a tax exemption needed to reduce the cost of purchasing diesel), as well as power generated by the WWTP's own anaerobic digesters, and (b) intermittent supply provided during the night by the electricity grid. For the medium- to long-term, options such as a dedicated line to the NGEST scheme from a reliable power source, either from Israel or within Gaza, or solar panels, are also being considered. The continued engagement of the Bank in Gaza is key to mitigating this risk, securing financing for both the diesel and the longer-term solutions remains a challenge; and
- (ii) the working conditions for contractors which continue to be challenging. For example, contractors have recently reiterated their concerns regarding the safety of their staff and the potential impact on the WWTP resulting from the dispersal of recurrent demonstrations in Gaza near the NGEST facility (but unrelated to NGEST). These concerns were raised with the Palestinian Authority who will work with local authorities and the GoI to ensure safe working conditions for the contractors until the proposed project closing date.

B. Rationale for restructuring



While the PWA, Bank Team and project contractors have put significant efforts in place after the last restructuring was approved in April 2017 to maintain an accelerated pace of execution until the current closing date, as well as to increase coordination efficiency with the Government of Israel (GoI) on the entry of materials critical to the completion of works, the full commissioning of the WWTP and recovery wells will miss the current deadline of December 31, 2017. It is expected that the 6-month extension will allow for all of the critical building blocks mentioned in the Results section to be completed and the WWTP to be fully operational by May 2018, and as the achievement of the PDO is largely contingent on completing the commissioning of these works and on ensuring that they are brought into operation, the proposed extension will have a direct incidence on reaching project objectives and most project targets. In addition, the requested extension of the closing date would ensure a continued World Bank presence in Gaza to engage in a dialogue with the Palestinian Authority, GoI and other donors on securing sustainable financing for the O&M of NGEST and for downstream reuse, recovery and remediation works, as well as on a long-term power supply solution for the WWTP and recovery wells.

III. DETAILED CHANGES

LOAN CLOSING DATE(S)

| Ln/Cr/Tf | Status | Original Closing | Revised Closing(s) | Proposed Closing | Proposed Deadline for Withdrawal Applications |
|----------|-----------|------------------|--|------------------|---|
| TF-16501 | Effective | 31-Dec-2017 | | 30-Jun-2018 | 30-Oct-2018 |
| TF-16844 | Effective | 31-Dec-2017 | | 30-Jun-2018 | 30-Oct-2018 |
| TF-54208 | Closed | 30-Jun-2010 | 01-Jan-1950, 30-Jun-2010, 30-Jun-2014, 29-Sep-2014 | | |
| TF-56186 | Closed | 31-Dec-2009 | 31-Dec-2013, 23-Apr-2014 | | |
| TF-57109 | Effective | 31-Dec-2013 | 31-Dec-2014, 31-Dec-2015, 31-Dec-2017 | 31-Dec-2017 | 30-Apr-2018 |
| TF-57595 | Closed | 31-Dec-2009 | 31-Mar-2010, 31-May-2010, 31-Dec-2013, 31-Dec-2010, 31-Dec-2013, 07-Apr-2014, 31-Aug-2015, 06-May-2016 | | |
| TF-92196 | Effective | 30-Jun-2012 | 30-Jun-2014, 31-Dec-2017 | 30-Jun-2018 | 30-Oct-2018 |
| TF-97081 | Effective | 30-Jun-2013 | 30-Jun-2014, 31-Dec-2017 | 31-Dec-2017 | 30-Apr-2018 |



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