

Ref: PAL10-00047395

Date: 10 December 2019

### Subject: Construction of Khan Younis Waste Water Treatment Plant Project (KY WWTP) – Progress Report

Dear Mr Awadat,

Reference is made to the contribution agreement between the Islamic Development Bank and UNDP's Programme of Assistance to the Palestinian People for the Construction of Khan Younis Waste Water Treatment Plant project, effective 05 September 2013.

I am pleased to submit herewith the narrative and financial progress report for the abovementioned project. The report summarizes the progress of the project as of 31 December 2019, and provides an overview of the achievements, challenges, financial status and way forward.

I thank the Islamic Development Bank for its contributions to UNDP, and look forward to strengthening our partnership in support of the Palestinian people.

Sincerely yours,

Yvonne Helle Special Representative of the Administrator UNDP/PAPP

Attached: Construction of Khan Younis Waste Water Treatment Plant project Progress Report No. 19 – December 2019

Mr Abdallah Awadat Manager of Palestine Projects Portfolio Special Funds Department Islamic Development Bank Kingdom of Saudi Arabia

Programme of Assistance to the Palestinian People برنامج الأمم المتحدة الإنمائي/ برنامج مساعدة الشعب الفلسطيني



| Progress Report No.19 December 2019 |   |  |  |  |
|-------------------------------------|---|--|--|--|
| Project Name                        | Construction of Khan Younis Waste Water Treatment Plant (KY WWTP)                     |  |  |  |
| Donor                               | Kuwait Fund for Arab Economic Development through the Islamic Development Bank (IsDB) |  |  |  |
| Project No.                         | KDF - 03  |  |  |  |
| Funding Amount                      | US\$ 42 million   |  |  |  |

#### **Project Goals**

The overarching goals of the project are:

- 1. Protecting public health and environment of Khan Younis residents;
- 2. Contributing to the development of public and social infrastructure in the Gaza Strip;
- 3. Preserving the limited water resources in the Gaza Strip, especially the coastal water 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.

In order to reach these goals, the project seeks to construct a comprehensive, functional and operational waste water treatment plant in accordance with international standards to serve the residents of Khan Younis starting 2019.

|                     | <del>-</del>  |  |  |  |  |  |
|---------------------|---|--|--|--|--|--|
|                     | The project comprises of the following main components:   |  |  |  |  |  |
| Project Description | <ul> <li>Reviewing design and tender documents and construction supervision for the project         This activity includes providing an international consultancy firm to carry out the design review, prepare the final tender documents and to carry out the on-site construction supervision for the project's works; under the direct management of the United Nations Development Programme/Programme of Assistance to the Palestinian People (UNDP/PAPP).     </li> <li>Constructing the first phase of the waste water treatment plant and operating it for one year after commissioning         This activity includes constructing a comprehensive waste water treatment plant with a capacity of 26,600 cubic metres per day to serve the residents of Khan Younis, as a first phase of operation; in     </li> </ul> |  |  |  |  |  |



|                          | addition to operating the plant for one year after commissioning by the same contactor, who will also commission the construction works.  Constructing the infiltration basins for the treatment plant The waste water treatment plant will include constructing infiltration basins on an area of 100 dunums to recharge the treated effluent into the aquifer. The implementation of this component falls in line with the Palestinian Water Authority (PWA) strategy, contributing to increased availability of underground water by 09 million cubic metres annually as a result of operating the plant.  Constructing effluent and emergency pressure pipelines to infiltration basins and sea In order to ensure appropriate and environmentally acceptable disposal of waste water according to the PWA strategy, the waste water treatment plant will include constructing an effluent and emergency pressure pipeline of around 18.6 kilometres' length to convey the treated waste water to the infiltration basins, and to the sea in emergency cases.  Constructing the main electrical power supply line for the treatment plant Medium tension (MT/22kv) transmitting lines will be installed from the main power network at Salah Eddin street to the project site in Sofa. With around 3,000 metres of length, inclusive of poles, clamps, cement foundations and transformers, this will provide a total power of around 4.2 mega volt-ampere to operate the plant. This will be done in full coordination with the Palestinian electrical company/Gaza Electrical Distribution Corporation. |  |  |  |
|--------------------------|---|--|--|--|
| Beneficiaries            | The Palestinian Water Authority (PWA), the Coastal Municipalities Water Utility (CMWU) and Khan Younis Municipality   |  |  |  |
| Implementer              | United Nations Development Programme/ Programme of Assistance to the Palestinian People (UNDP/PAPP)   |  |  |  |
| Starting Date            | September 2013  |  |  |  |
| Ending Date              | December 2020   |  |  |  |
| Brief Progress<br>Report | <ul> <li>Reviewing design and tender documents and construction supervision for the project</li> <li>UNDP signed the contract of the design review, pre-contract and construction supervision services with Artelia and Universal Group (Artelia&amp;UG) consultant in the total amount of US\$ 2,944,594 on 30 July 2015. The work activities commenced on 10 August 2015.</li> </ul>  |  |  |  |

Programme of Assistance to the Palestinian People برنامج الأمم المتحدة الإنمائي/ برنامج مساعدة الشعب الفلسطيني



- After commencing the on-site work activities of the project's different components on 22 January 2017, and afterwards, the consultant continued providing the needed construction supervision services on site and at home office as planned.
- Constructing the first phase of the wastewater treatment plant and operating it for one year after commissioning
  - ➤ UNDP signed the contract ITB-2016-158, Construction of Khan Younis Waste Water Treatment Plant and Buildings, with the contractor, Metito (Overseas) LTD, at a total contract price of US\$ 18,935,575.73 on 14 December 2016. The contract price was increased to read US\$ 21,700,133.66 after adopting and approving by the IsDB the variation orders no.1, 2 and 3 summarized in previous reports.
  - ➤ The site was handed over to the contractor on 18 January 2017, and the work activities commenced on 22 January 2017.
  - ➤ UNDP managed to keep the on-site construction works moving ahead without stoppage despite of the issuance of the Israeli approvals to access the construction materials and equipment into Gaza in fragmented intervals as briefed in previous reports.
  - ➤ The on-site construction works started on 13 April 2017 with the excavation works for the administrative building, workshop, aeration tank, clarifiers and drying beds. Up to December 2019, more than 85,000 m² of surface soil have been stripped and 122,000 m³ of soil have been excavated after stripping for the different structural components.
  - The construction works continued by casting reinforced concrete for the foundations of the administrative building, and plain concrete for the aeration tank (on 17 May 2017), followed by casting massive amounts of concrete for the foundations, walls, columns and slabs of the different structural components. Up to December 2019, more than 13,970 m² of plain concrete and 19,700 m³ of reinforced concrete have been casted for the administrative building, workshop, aeration tank, drying beds, clarifiers, thickeners, pre-treatment building, manholes and distributers, sand filter, composting area, blowers and generator rooms.
  - More than 2,700 m<sup>2</sup> of concrete blocks have been constructed and 12,200 m<sup>2</sup> of internal and external plastering have been executed for the administrative building, workshop, aeration tank, pre-treatment building, sand filter and blowers and

Programme of Assistance to the Palestinian People برنامج الأمم المتحدة الإنمائي/ برنامج مساعدة الشعب الفلسطيني



- generators rooms. More than 990 m<sup>2</sup> of wall and floor tiles have been fixed at the administrative building.
- ➤ More than 83,000 m³ of selected excavated materials, clean sand and Kurkar have been backfilled around different structural components and for the composting area. 18,450 m³ of clay, sand and gravel layers have been backfilled under and around 4,930 m of PVC perforated pipes installed for the drying beds.
- ➤ More than 7,800 m² of asphalt and 2,290 m² of interlock tiles (06 cm thick) have been laid for internal roads. Around 16,300 m² of natural lawn have been planted. More than 1,550 m of aluminium hand railing and 1,520 m of galvanized steel fence were installed.
- The required mechanical and electrical equipment have been delivered and installed on site. Up to December 2019, more than 3,000 m of ductile iron, steel, stainless steel and high-density polyethylene pipes, 42 pumps, 190 valves, 16 mixers, 05 air blowers, 06 jet aerators, 4,000 air diffusers, 13,000 filter nozzles, 10 sluice gates, 20 stop logs, 04 fine and coarse screens, 02 conveyor, 01 grit classifier, 02 grit and grease scraper bridges, 04 suction scraper bridges, 02 surge skirt, 12 cranes, 10 flowmeters, 03 diesel generators, 02 fuel tanks, 01 surge tank, 01 biofilter system, PV system 18 KW, 01 vacuum truck, 02 front loaders, lab instruments and main electrical panels, equipment, fittings, sensors and cables have been supplied and installed on site for different structural components.
- After completing the civil, mechanical and electrical works on site, the dry tests for the equipment were finalized on 08 August 2019. Waste water was successfully introduced to the plant on 09 September 2019 marking the start of the 45 days commissioning stage on 25 September 2019. After reaching high rates of quality requirements for the treated effluent, the treated effluent was pumped to the infiltration basins on 27 September 2019.
- After achieving the quality parameters of the treated effluent as required by the design, the commissioning stage ended on 07 November 2019 and the start of the one-year operation after commissioning commenced on 08 November 2019.

Programme of Assistance to the Palestinian People برنامج الأمم المتحدة الإنمائي/ برنامج مساعدة الشعب الفلسطيني



- ➤ The Taking-Over certificate was issued on 17 November 2019.
- ➤ Up to December 2019, the electrical power required to operate the plant was provided from GEDCO main grid on a continuous basis. However, the Coastal Municipalities Water Utility (CMWU), as the final operator of the plant, did not provide the 14 staff required to work with the contractor and assist them during the one-year operation after commissioning.
- ➤ The overall percentage of achievement of this package is around 95%. The remaining part will be achieved when the one-year operation after commissioning is completed.

#### Constructing the infiltration basins for the treatment plant

- ➤ In close cooperation between UNDP and CMWU, CMWU signed the contract ITB 2016-220-CMWU, Construction of the Infiltration Basins in Al Fukhari for KY WWTP, with the contractor, Abu Shammala & Abu Dan Co. General Trade & Contracting LTD, at a total contract price of US\$ 5,636,000 on 08 February 2017. The work activities commenced on 23 February 2017.
- ➤ CMWU uploaded the initial list of materials on the GRAMMS system in December 2016. However, the necessary materials such as steel pipes, valves and screens were lately approved on 13 February 2018, and the required electrical cables, parts and fittings were coordinated later through the Israeli private sector and finally accessed to the site.
- The excavation works started on site on 01 April 2017. Up to April 2019, 604,039 m³ of soil have been excavated and 592,406m<sup>3</sup> of unwanted clay have been disposed outside the site to approved dumping location. 375,149 m<sup>3</sup> of clean sand and selected excavated materials have been transferred and backfilled in the basins to replace the excavated clay. 647 m<sup>3</sup> of reinforced concrete have been casted for the administrative building, valve chambers and ground beams. 13,055 m<sup>2</sup> of nonwoven geotextile, 2,387 m<sup>3</sup> of Macadam stones and 16,297 m<sup>2</sup> of plantation have be placed at the edges of the infiltration basins. 1,379 m of main steel pipes and 06 motorized valves with related fittings and 06 chain hoist have been installed inside the basins. 19 lighting poles of 08 m length and 07 poles of 06 m length, with their electrical network, have been installed. 01 prime diesel generator with a capacity of 50 KVA has also been supplied and installed on site. 06 investigation

Programme of Assistance to the Palestinian People برنامج الأمم المتحدة الإنمائي/ برنامج مساعدة الشعب الفلسطيني



wells, 06 infiltration wells and 04 monitoring wells were dug and accomplished in the basins. 4,026 m<sup>2</sup> of asphalt was laid for internal roads inside the site, in addition to 1,885 m<sup>2</sup> interlock tiles for the access road.

- ➤ The damages caused by the Israeli Air Force missile on the basins on 11 November 2018 were repaired in February and March 2019, with an additional cost amounting to US\$ 42,918.4.
- ➤ All the construction works of the infiltration basins were completed on site and the infiltration basins were handed over on 16 April 2019.
- As a complementary part for the infiltration basins, CMWU signed the contract ITB-2019-001, Construction of the Boundary Wall for the Infiltration Basins in Al Fukhari with the contractor, Golden Steps Co., at a total contract price of US\$ 184,300. The site was handed over to the contractor on 15 July 2019. Up to December 2019, more than 1,500 metres length of the boundary wall was constructed. The overall percentage of achievement of this component is around 95%.

#### Constructing effluent and emergency pressure pipelines to infiltration basins and sea

According to the project agreement, UNDP will implement 30% of the pressure pipeline and the CMWU will implement 70% of the pressure pipeline.

#### UNDP Package:

- ▶ UNDP signed the contract ITB 2016-219-UNDP, Construction of Main Pressure Lines to the Sea and to the Infiltration Basins for KY WWTP, Lot #2 Ductile Iron Pipe (UNDP package with around 5.6-kilometre length) with the contractor, Handala Company for Engineering Contracting & General Trade, at a total contract price of US\$ 1,757,992 on 14 December 2016. The contract price was increased to read US\$ 2,089,626.68 after IsDB adopted and approved the variation order no.1 summarized in previous reports.
- ➤ The work activities commenced on 22 January 2017.
- After the Israeli delay of issuing approval to access the ductile iron pipes to Gaza for more than one year, their approval was obtained on 09 January 2018 and their approval for the related donation number was obtained on 25 January 2018.

Programme of Assistance to the Palestinian People برنامج الأمم المتحدة الإنمائي/ برنامج مساعدة الشعب الفلسطيني



- The first shipment of pipes (1,824 m with a diameter of 900 mm) successfully accessed Gaza on 25 June 2018.
- ➤ The remaining pipes (3,876 m with a diameter of 900 mm) were manufactured and shipped in November 2018 and unloaded in Ashdod port in December 2018.
- ➤ Up to December 2019, all required pipes for this contract entered Gaza, and more than 5,540 m of the pipes were installed and hydraulically tested on site. More than 2,100 m of the excavated trenches in the asphalt roads were reinstated.
- ➤ The remaining valves and fittings have been shipped and entered Gaza early October 2019 and installed on site on 21 November 2019, marking the finalization and completion of works in this package.
- ➤ The overall percentage of achievement of this package is around 98%. The Taking-Over session will be conducted before the end of December 2019.

#### ■ CMWU Package:

- In close cooperation between UNDP and CMWU, CMWU signed the contract ITB 2016-219-CMWU, Construction of Main Pressure Lines to the Sea and to the Infiltration Basins for KY WWTP, Lot #2 Ductile Iron Pipe (CMWU package with around 13.0-kilometre length) with the contractor, Handala Company for Engineering Contracting & General Trade, at a total contract price of US\$ 3,821,020 on 08 February 2017. The contract price was increased to read US\$ 4,607,904.46 after the IsDB adopted and approved the variation order no.1 summarized in previous reports.
- > The work activities commenced on 23 February 2017.
- After the Israeli delay of issuing approval to access the ductile iron pipes to Gaza for more than one year, their approval was obtained on 13 February 2018.
- ➤ The first lot of pipes (1,767 m with a diameter of 900 mm) was successfully accessed to Gaza in November 2018.
- ➤ The second lot of pipes (3,249 m with a diameter of 900 mm and 2,451 m with a diameter of 1,000 mm) was manufactured and shipped in December 2018, and entered Gaza between 30 January and 18 March 2019.

Programme of Assistance to the Palestinian People برنامج الأمم المتحدة الإنمائي/ برنامج مساعدة الشعب الفلسطيني



- The remaining lot of pipes (3,477 m with a diameter of 900 mm and 2,308.5 m with a diameter of 1,000 mm) were manufactured and shipped to Ashdod port in August and September 2019. Up to date, 5,300 m of the remaining pipes entered Gaza.
- ➤ Up to date, more than 7,720 m of pipes (with a diameter of 900 mm) and 4,260 m of pipes (with a diameter of 1000 mm) were installed on site. The overall percentage of achievement of this package is around 90%.
- Constructing the main electrical power supply line for the treatment plant
  - ➤ UNDP signed the contract (ITB-PAL-0000046488) Construction of Main Electrical Power Supply Line for KY WWTP with the contractor, Saqqa and Khoudary Co. Ltd, at a total contract price of US\$ 841,250 on 02 October 2018.
  - The work activities commenced on 07 October 2018.
  - The contractor moved ahead with the work activities mainly as scheduled. Up to July 2019, 34 hot galvanized lattice steel poles, 2,483 m of electrical wires, 1,163 m of underground cables, 840 m of single core cables, 03 main transformers, 02 switch gears, 02 auto re-closers with all required parts, fittings and accessories have been supplied and installed on site. In addition, more than 2,700 m of galvanized steel wire mesh 50x50x2.5 mm for fences have been installed on site.
  - ➤ The electrical power from GEDCO main grid successfully entered the plant for testing on 29 May 2019.
  - After completing the main/essential works of the electrical power supply line, and conducting the required tests by GEDCO, the completed works were partially handed over on 18 July 2019.
  - ➤ The remaining/postponed portion of the works (the asphalt work for road no. 14 in Al Fukhari) were accomplished on 07 December 2019 by spreading and compacting more than 14,000 m² of new layer of asphalt on the road, marking the finalization and completion of works in this package.
- Construction of Main Influent Pressure Line from Existing GRP Pipe to KY WWTP
  - UNDP signed the contract (ITB-PAL-0000058252) Construction of Main Influent Pressure Line from Existing GRP Pipe to KY

Programme of Assistance to the Palestinian People برنامج الأمم المتحدة الإنمائي/ برنامج مساعدة الشعب الفلسطيني



WWTP with the contractor, El Khaesie Co. Ltd, at a total contract price of US\$ 438,900 on 08 April 2019. The work includes constructing a permanent ductile iron pipe to transfer the waste water from the existing pumping station no. 8 to KY WWTP for the commissioning and operation of the plant.

- > The work activities commenced on 11 April 2019.
- ➤ UNDP uploaded the initial list of materials on the CLA system on 04 February 2019. UNDP received the Israeli approval to access the required pipes and materials on 28 April 2019. The Ministry of Finance sent their request for approval for the related donation number to the Israeli concerned authorities on 29 May 2019.
- ➤ However, the Israeli authorities issued their approval for the donation number; required to ship and facilitate accessing the required pipes and materials through the Israeli port without paying taxes, on 08 September 2019. Due to that, and while the pipes were manufactured in July 2019, the contractor was able to ship them in early October 2019.
- ➤ The pipes, valves and fittings arrived at Ashdod port at the end of November 2019. More than 980 m of pipes entered Gaza on 08 and 09 December 2019. These pipes, valves and fittings will be installed on site by the end of December 2019, and beginning of January 2020, marking the finalization and completion of works in this package.

#### Temporary Construction Works for Influent Pressure Line for the commissioning of KY WWTP

- ➤ UNDP signed the contract (PAL-0000070882) Temporary Construction Works for Influent Pressure Line for the commissioning of KY WWTP with the contractor, Mushtaha Co., at a total contract price of US\$ 84,400 on 26 May 2019. The work includes constructing a temporary UPVC pipe to enable transferring waste water from the existing pumping station no. 8 to KY WWTP to start the commissioning of the plant without delay. A variation order amounting to US\$ 19,000 was also adopted, after being approved by the IsDB, to clean the existing main sewer pipes located in Salah Eddin street and to enable the transfer of waste water from the city to the existing pumping station no.8.
- ➤ The work activities commenced on 26 May 2019.
- ➤ Up to July 2019, the required 1,227 m of UPVC pipes have been

Programme of Assistance to the Palestinian People برنامج الأمم المتحدة الإنمائي/ برنامج مساعدة الشعب الفلسطيني



|                           | Empowered IIves.<br>Resilient nations.   |
|---------------------------|--|
|                           | supplied, installed and tested on site. Cleaning the existing main sewer pipes has also been accomplished as scheduled.  |
|                           | The temporary influent pressure line for the commissioning of<br>KY WWTP was handed over on 23 July 2019.  |
|                           | ➤ The completion of this package has enabled introducing the waste water from pumping station no. 8 to the plant on 09 September 2019 to start the commissioning stage. Pumping the waste water from pumping station no. 8 to KY WWTP has continued through this temporary line since starting the operation stage on 08 November 2019 up to date. This temporary line will be phased out after installing the permanent ductile iron pipe in January 2020.  |
|                           | The contract of the design review, pre-contract and construction supervision services was signed on 30 July 2015, and the activities commenced in August 2015. Despite a highly complex operating environment, the overall project is currently moving according to the established work plan:   |
| Achievement<br>Percentage | <ol> <li>The design review and the final draft tender documents were delivered.</li> <li>The prequalification process for international contractors for the treatment plant was undertaken.</li> <li>The prequalification processes for local contractors for the pressure line and infiltration basins were undertaken.</li> <li>The procurement/tendering processes for the treatment plant, the pressure lines, the infiltration basins, and the main electrical power supply line were undertaken.</li> <li>The construction contracts of the treatment plant and the pressure line (UNDP package) were signed on 14 December 2016 and the work activities of these components commenced on 22 January 2017.</li> <li>The construction works of the treatment plant have been completed on site. Waste water was successfully introduced to the plant on 09 September 2019 to mark the start of the 45 days commissioning stage on 25 September 2019. After achieving the quality parameters of the treated effluent as required by the design, the commissioning stage ended on 07 November 2019 to start the one-year operation after commissioning on 08 November 2019. The Taking-Over certificate was issued on 17 November 2019. The overall percentage of achievement of this package is around 95%. The</li> </ol> |

remaining part will be achieved when the one-year operation



|           | stage is completed.  7. The construction works of the pressure line (UNDP package) was completed on site on 21 November 2019. The overall percentage of achievement of this package is around 98%. The Taking-Over session will be conducted before the end of December 2019.   |
|-----------|---|
|           | 8. The construction contracts of the pressure line and the infiltration basins (CMWU packages) were signed on 08 February 2017, and the work activities of these components commenced on 23 February 2017.  |
|           | 9. The construction works of the infiltration basins have been  |
|           | completed and handed over on 16 April 2019.  10. The work activities of the pressure line (CMWU package) are moving ahead. The overall percentage of achievement of this package is around 90%. There was more than one-year delay in obtaining the Israeli approval to access the pipes. All shipment of pipes and construction is anticipated to be completed by end of January 2020.   |
|           | 11. The essential construction works of the main electrical power supply line were completed and partially handed over on 18 July 2019. The remaining asphalt work for road no. 14 in Al Fukhari was accomplished on 07 December 2019, marking the finalization and completion of works in this package.  |
|           | 12. The work activities of the permanent influent pressure line are moving ahead with overall percentage of achievement of around 50%. There was more than three months delay in obtaining the Israeli approval for the donation number. After the required pipes and fittings entered into Gaza in early December 2019, the pressure line will be installed on site by the end of December 2019 and beginning of January 2020 to mark the completion of works in this package. |
|           | 13. The construction works of the temporary influent pressure line, including cleaning the existing main sewer pipes located in Salah Eddin street, have been completed and handed over on 23 July 2019.  |
| Obstacles | 1. The start of the first component - the review of design and tender documents - was delayed by more than 12 months due to requests for changes on the scope of work and ToR in early 2014, and due to the subsequent 51-day hostilities on Gaza between 08 July and 27 August 2014, which prevented performing any activity for the entire period.  |
|           | 2. After initiating the activities, the review of the design and the  |



provision of the final tender documents were delayed due to partners' requests for changing the design as described in previous reports. UNDP managed to limit those delays to two months only, mobilizing in a transparent and competitive manner all partners to agree on changes without jeopardizing the original design.

- 3. After launching the Invitation to Bid for the Construction of Khan Younis Waste Water Treatment Plant and Buildings, the bids submission date was extended by five weeks due to the Israeli denial to issue permits for international bidders to accessing Gaza to attend the pre-bid meeting and the site visit.
- 4. The staff of the international contactor, Metito (Overseas) LTD, are still facing difficulties in getting visas and permits from the Israeli concerned authorities to access Gaza.
- 5. Delay of the Israeli approvals to access the construction materials and equipment to Gaza.
- 6. Delay for more than one year of the Israeli approval to access the ductile iron pipes and fittings for the effluent pressure lines to Gaza.
- 7. The closure of Karm Abu Salem crossing on 09 July 2018 prevented the access of any kind of construction materials to Gaza.
- 8. The Israeli aerial strike damaged the newly constructed internal road of the infiltration basins on 11 November 2018 delayed the completion and the handing over of the basins.
- 9. Delay for three months of the Israeli approvals to issue the donation number required for shipping and accessing, through the Israeli port, the ductile iron pipes and fittings for the permanent influent pressure line.
- 10. Delay of PWA and CMWU in making a commercial agreement with GEDCO to provide and cover the cost of the electrical power; required on a continuous basis to operate the plant.
- 11. After starting the operation stage of the plant on 08 November 2019, delay of the CMWU, as final operator of the plant, in providing the 14 staff required to work with the contractor and assist them during the one-year operation after commissioning.



### **Project Photos**





Starting Excavation Works at KY WWTP Site on 13 and 18 April 2017





Starting Casting Reinforced Concrete for Admin Building and Plain Concrete for Aeration Tank on 17 May 2017



Casting Reinforced Concrete for the Foundation of the Aeration Tank on 20 June 2017





General Overview for KY WWTP Filled with Waste Water in December 2019



Waste Water Introduced to the Plant from the Inlet Pipe at the Pre-Treatment Building on 09 September 2019







Pre-Treatment Building Filled with Waste Water up to December 2019







Aeration Tank Filled with Waste Water up to December 2019







Clarifiers Filled with Purified Waste Water up to December 2019

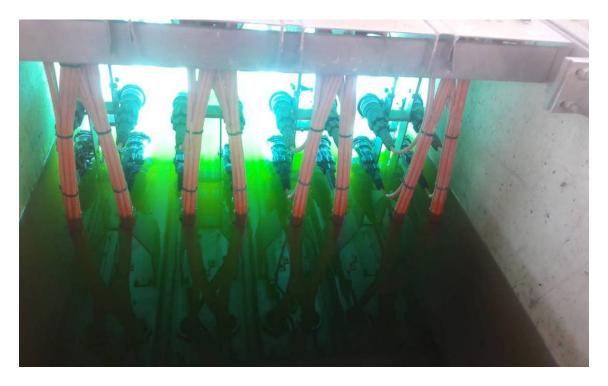






Tertiary Treatment - Purified Water in the Sand Filter up to December 2019





Ultra Violet Disinfection of Treated Effluent in the Sand Filter up to December 2019



Bio-filter for Treatment of Odour from the Pre-Treatment Building up to December 2019







Treated Effluent Pumped to the Infiltration Basins up to December 2019







Fittings and Valves entered Gaza and installed on Site for the Effluent Pressure Lines







Ductile Iron Pipes Entered Gaza and Installed on Site up to December 2019















Construction of the Boundary Wall for the Infiltration Basins up to December 2019







Installed Electrical Poles, Cables and Transformers of the Main Electrical Line for KY WWTP





Asphalt Work in Road No.14 in Al Fukhari up to December 2019



### **Financial Report**

|     | Construction of Khan Younis WWTP, Phase I  |                            |   |                             |  |  |
|-----|--|----------------------------|---|-----------------------------|--|--|
|     |  |                            |   |                             |  |  |
|     | Kuwait Fund / IDB Contribution   |                            |   |                             |  |  |
|     |  |                            |   |                             |  |  |
|     |  |                            | Financial F   | Report                      |  |  |
| No. | Project Activities   | Contract<br>Amount<br>US\$ | Reallocated Amount US\$ Reallocation No.1 - 29 Sept. 2015 | Disbursed<br>Amount<br>US\$ | Comments   |  |
| 1   | Constructing KYWWTP, Phase I, Part of the Effluent and Emergency Pressure pipeline with 5.6 kilometres Length and Electrical Power Supply Line with One Year Operation (Including the DI Influent Pressure Line and the UPVC Temporary Influent Pressure Line) | 19,900,000                 | 19,213,158  | 12,243,776.09               | The contract price of KY WWTP was increased to US\$ 21,700,133.66 distributed as US\$ 10,425,388.66 from Kuwait Fund and US\$ 11,274,745 from GoJ. UNDP issued 30% advance payment and 20 payments to the contractor. The contract price of the pressure pipeline (UNDP package) was amended to US\$ 2,089,626.68 from Kuwait Fund. UNDP issued 30% advance payment and 07 payments to the contractor. The contract price of the electrical line is US\$ 841,250 from Kuwait Fund. UNDP issued 20% advance payment to the contractor and 04 payments to the contractor. The contract price of the DI influent pressure line is US\$ 438,900 from Kuwait Fund. UNDP issued 20% advance payment to the contractor. The US\$ 84,400 contract price of the UPVC temporary influent pressure line was increased to US\$ 99,300 from Kuwait Fund. UNDP issued 02 payments to the contractor. |  |
| 2   | Constructing the Effluent and Emergency Pressure Pipeline with Total Length of 13 Kilometres (CMWU Implementation)   | 6,000,000                  | 5,792,912   | 4,106,360.41                | The Contract Price of pressure pipeline (CMWU package) was increased to US\$ 4,607,904.46 from Kuwait Fund. CMWU issued 20% advance payment and 14 payments to the contractor.   |  |



| 3  | Constructing the Infiltration Basins Including the Boundary Wall for the Infiltration Basins (CMWU Implementation) | 7,400,000  | 7,144,591  | 5,378,728.46  | The contract price of the infiltration basins (CMWU package) is US\$ 5,636,000 from Kuwait Fund. CMWU issued 20% advance payment and 10 payments to the contractor. The contract price for the boundary wall (CMWU package) is US\$ 184,300 from Kuwait Fund. CMWU issued 03 payments to the contractor.                                  |
|----|--|------------|------------|---------------|---|
| 4  | Total Construction Cost  | 33,300,000 | 32,150,661 | 21,728,864.96 |   |
| 5  | Consultancy services for the Construction Supervision, Design Review and Preparing Tender Documents of KY WWTP     | 1,000,000  | 2,149,339  | 1,719,471.20  | The contract price for the consultancy services is US\$ 2,944,594 distributed as US\$ 2,149,339 from Kuwait Fund and US\$ 795,255 from GoJ. UNDP issued 20% advance payment and 07 payments to the consultant.  |
| 6  | Technical Services for CMWU (Direct Implementation Cost) (4% from item 2+3)  | 536,000    | 517,500    | 309,286.55    | US\$ 378,280.8 admin cost as per signed contracts. UNDP issued 1st advance payment amounting to US\$ 53,600 to CMWU in April 2014. UNDP issued 2nd advance payment amounting to US\$ 49,900 to CMWU in December 2015. UNDP issued US\$ 82,434.24 to CMWU in November 2016, US\$ 100,337.03 in April 2018 and US\$ 23,015.28 in July 2019. |
| 7  | UNDP Direct Implementation Cost  | 0          | 0          | 0.00          |   |
| 8  | GMS (7%)   | 2,438,520  | 2,437,225  | 1,663,033.59  |   |
| 9  | Total Administrative Cost  | 3,974,520  | 5,104,064  | 3,691,791.34  |   |
| 10 | Total Construction and Administrative Cost (Item 9+4)  | 37,274,520 | 37,254,725 | 25,420,656.30 |   |
| 11 | Contingency  | 4,725,480  | 4,745,275  | 0.00          |   |
| 12 | Grand Total  | 42,000,000 | 42,000,000 | 25,420,656.30 |   |



### Reported by:

Ashraf Abu Shamala, Programme Manager

Assis

### Reviewed by:

Iman Al Husseini, Assistant Specialist Representative (Gaza Office)

#### Supervisor's name and signature:

Chitose Noguchi, Head of UNDP Gaza Office

Chty