



Ref: PAL10-00047395

Date: 11 April 2019

Subject: Construction of Sewage Treatment Plant and Main Pressure Line in Khan Younis (Construction of Khan Younis Waste Water Treatment Plant Project) – Progress Report

Your Excellency,

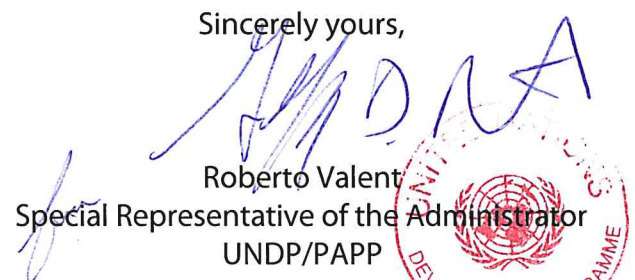
Reference is made to the contribution agreement between the Government of Japan and UNDP's Programme of Assistance to the Palestinian People for the "Construction of Sewage Treatment Plant and Main Pressure Line in Khan Younis" project, approved effective 04 January 2006.

I am pleased to submit herewith the first quarter progress report for the year 2019, as per the Representative Office of Japan's feedback and clearance.

The report summarizes the progress of the project during the period from 01 January to 31 March 2019. It also provides an overview of the achievements made, challenges, lessons learned and financial status.

I thank the Government of Japan for its contributions through UNDP and look forward to strengthening our partnership in support of the Palestinian People.

Sincerely yours,


Roberto Valent
Special Representative of the Administrator
UNDP/PAPP



Enclosure: Quarter One 2019 Progress Report

H.E. Takeshi Okubo
Ambassador for the Palestinian Affairs
Representative of Japan to Palestine
Ramallah



من الشعب الياباني
From the People of Japan



**United Nations Development Programme
Programme of Assistance to the Palestinian People**

Country: occupied Palestinian territory

Donor: Government of Japan

Project:

PAL10-00047395

Progress Report

01 January – 31 March 2019

Progress Report

1. Report Summary

- (1) **Title of the Project:** Construction of Sewage Treatment Plant and Main Pressure Line in Khan Younis (Construction of Khan Younis Waste Water Treatment Plant)
- (2) **Project No.:** PAL10-00047395, Award No.: 00041529
- (3) **Date of the approval:** January 2006
- (4) **Total Project budget:** USD 14,829,549
- (5) **Scheme of the project:** Emergency Grant
- (6) **Period covered by the report:** 01 January – 31 March 2019 (Progress Report No. 48)
- (7) **UNDP officer in charge:** Iman Al Hussein, Programme Specialist, Infrastructure Unit, UNDP/PAPP Gaza, Tel: 08-2863364 (ext. 148), Mobile: 059-9606775
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Mr. Monther Shoblak, Director General, Coastal Municipalities Water Utility, mobile: 059-9267108, e-mail: monthersh@cmwu.ps
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2. Contents

(1) Summary of the project:

Background:

Khan Younis city is the second largest city in the Gaza Strip with a total administrative area of 59 square kilometres and inhabited by more than 240,000 residents. The city has a rapidly growing population with an annual growth rate of 3.3%. At present, around 60% of the population of Khan Younis city is served by public sewerage collection system. However, due to the absence of a wastewater treatment plant, the collected wastewater was pumped without treatment to the existing main storm water box culvert to flow out by gravity to a storm water infiltration pond located in the north-western side of Khan Younis city. In 2008, the collected wastewater was diverted to other six ad-hoc collection lagoons established temporarily in the western side of Khan Younis city. These lagoons are currently discharging more than 15,000 cubic metres of partially treated wastewater to the Mediterranean Sea. The wastewater generated from unserved areas is still being evacuated by vacuum trucks and disposed of in the environment without any treatment.

This situation is posing serious risks to the Khan Younis residents' public health as well as contaminating the ground water aquifer. The concentration of Nitrate in some Khan Younis water wells reaches around 458 mg/l, which is almost nine times more than WHO's recommended level of 50 mg/l. The presence of Nitrate in water has been associated with methaemoglobinaemia (or blue baby Syndrome), especially in bottle-fed infants¹.

Therefore, the construction of the Khan Younis wastewater treatment plant project (KY WWTP) comes as an emergency response to the vital hygienic and environmental needs of Khan Younis residents.

The primary beneficiaries of the project are the 250,000 residents of Khan Younis city. Other beneficiaries include:

- The Khan Younis Municipality, the Coastal Municipalities Water Utility and the Palestinian Government, as the project will contribute to enhancing the management of water and wastewater services.
- The families of the unemployed workers who will have the opportunity to work on the project.
- The local contracting sector through gaining additional experience in implementing similar large-scale wastewater treatment projects.

Project Objective:

The project seeks to construct a comprehensive, functional and operational wastewater treatment plant, at a flow capacity of 26,600 cubic metres per day, in accordance with international standards. It aims at protecting public health, water resources and environment of Khan Younis residents, while contributing to developing public and social infrastructure in the Gaza Strip.

Additional Fund:

The significant fund from the Government of Japan paved the way to secure additional fund to construct the project in a full-scale to meet the above-mentioned objective.

In September 2013, UNDP and the Islamic Development Bank (IsDB) signed an agreement for the implementation of the project with a total additional fund amounting to USD 42 million from the Kuwait Fund for Arab Economic Development and USD 1.175 million from UNDP, in addition to the available fund from the Government of Japan (GoJ).

Within the substantial fund from the Government of Japan and this additional fund, the project comprises the construction of the first phase of KY WWTP at a flow capacity of 26,600 cubic metres per day, its effluent and emergency pressure pipeline, infiltration basins and electrical power supply line, in addition to undertaking one-year operation after commissioning by the same contractor who will commission the construction works of the plant.

¹ Guidelines for Drinking-water Quality, Third Edition, Volume 1, Recommendations, WHO, Geneva, 2004

Project Execution Modality:

The project is directly executed by UNDP in coordination with the project counterparts: the Palestinian Water Authority (PWA) as sector regulator; the Coastal Municipalities Water Utility (CMWU) as service provider and final operator of the project, and the Municipality of Khan Younis as a direct beneficiary.

According to the agreement between UNDP and the IsDB, and aiming at enhancing the implementation capacity of national partners, the CMWU will implement two components of the project namely; the construction of 70 percent of effluent and emergency pressure pipeline and the construction of infiltration basins under UNDP's full coordination and supervision of the project.

(2) Project Components (GoJ Contribution):

Component	Budget USD	Revised Budget USD *	Project Site
a. Constructing main steel pressure pipeline from pump station No. 8 to KY WWTP	1,000,000	527,303	Khan Younis / Eastern Side
b. Providing the detailed design for the construction of KY WWTP	1,100,000	946,804	Khan Younis WWTP sites
c. Constructing KY WWTP, Phase I, including one-year operation after commissioning	11,450,000	11,274,745	Khan Younis WWTP site (East of Khan Younis)
d. Carrying out the design review, pre-contract and construction supervision services	0	795,255	Khan Younis WWTP sites

* Revised based on the letter of approval from the Government of Japan to reallocate budget lines dated 10 September 2015.

(3) Project Components/Revised Budget (GoJ Contribution):

No	Project Activities/Components	Budget - USD			
		Original Budget according to Note Verbale 2005	Revised Budget July 2007	Revised Budget as per UNDP/ IsDB agreement September 2013	Revised/Reallocated Budget September 2015
1	Constructing main steel pressure pipeline from Pump Station No. 8 to KY WWTP	1,000,000	1,000,000	527,303	527,303
2	Providing the detailed design for the construction of KY WWTP	0	1,100,000	946,804	946,804
3	Constructing of KY WWTP, Phase I, including one-year operation after commissioning	12,550,000	11,450,000	11,700,000	11,274,745
4	Carrying out the design review, pre-contract and construction supervision services for the construction of KY WWTP	0	0	370,000	795,255
5	UNDP Direct Implementation Cost	150,000	150,000	150,629	150,629
6	Sub-total 1	13,700,000	13,700,000	13,694,736	13,694,736
7	Contingencies and Miscellaneous	31,064	31,064	36,328	36,328
8	Sub-total 2	13,731,064	13,731,064	13,731,064	13,731,064
9	Total GMS (GoJ 8%)	1,098,485	1,098,485	1,098,485	1,098,485
10	Grand Total	14,829,549	14,829,549	14,829,549	14,829,549

(4) Project Overall Co-financed Budget/Reallocated Budget

No	Project Activities	Total	Kuwait Fund/IsDB Contribution	GoJ Contribution	UNDP Contribution
1	Constructing Main Steel Pressure Pipeline from Pumping Station No. 8 to KY WWTP	527,303	0	527,303	0
2	Providing the Detailed Design for the Construction of KY WWTP	946,804	0	946,804	0
3	Constructing KY WWTP, Phase I, Part of the Effluent and Emergency Pressure pipeline with 5.6 kilometres Length and Electrical Power Supply Line with One Year Operation	30,487,903	19,213,158	11,274,745	0
4	Constructing the Effluent and Emergency Pressure Pipeline with Total Length of 13 Kilometres (CMWU Implementation)	5,792,912	5,792,912	0	0
5	Constructing the Infiltration Basins (CMWU Implementation)	7,144,591	7,144,591	0	0
6	Consultancy services for the construction supervision, design review and preparing tender documents of KY WWTP (Carrying out the Design Review, Pre-contract and Construction Supervision Services)	2,944,594	2,149,339	795,255	0
7	CMWU Direct Implementation Cost	517,500	517,500	0	0
8	UNDP Direct Implementation Cost	1,203,629	0	150,629	1,053,000
9	Miscellaneous (GoJ)	36,328	0	36,328	0
10	Sub-Total 1	49,601,564	34,817,500	13,731,064	1,053,000
11	UNDP GMS (8% GOJ & 7% Kuwait Fund/IsDB)	3,535,710	2,437,225	1,098,485	0
12	Sub -Total 2	53,137,274	37,254,725	14,829,549	1,053,000
13	Contingencies	4,867,275	4,745,275	0	122,000
14	Grand Total	58,004,549	42,000,000	14,829,549	1,175,000



(5) Project timeframe, schedule status, progress of activities, and tasks & measures

Indicated output	Activities	Timeframe								Schedule Status	Activities done in the reporting period	Remaining Work	Tasks & Measures
		2018				2019							
		1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q				
Output 1: Main Pressure line supplied and installed.	Installing 996.3 metres of steel pressure pipes of 24 inches diameter, 1,070.4 metres of reinforced concrete pipes of 1,000 mm diameter and constructing 15 reinforced concrete manholes of 1.5mx1.5 m and 2mx2m dimensions.									Completed	The on-site activities were completed and handed over in November 2006.		
Output 2: Detailed Design and tender documents for the construction of KY WWTP provided.	Carrying out procurement processes to solicit a joint venture of international and local consultants to provide the detailed design. Providing the detailed design and tender documents for the construction of KY WWTP.									Completed	An Expression of Interest (EOI) to prequalify consultants for the detailed design assignment was posted in December 2007 and the evaluation process was completed in February 2008. Request for Proposal (RFP) was posted for the shortlisted consultants in April 2008 and the evaluation process was completed in July 2008.		



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										<p>date due to Israeli's denial to issue access permits for the international contractors to access Gaza to attend the pre-bid meeting and the site visit.</p>	<p>SS 304 to SS 316, variation order no.2 for the additional quantities in the BOQs and variation order no.3 for the items of change for civil, mechanical and electrical works.</p> <p>The site was handed over to the contractor on 18 January 2017 and the work activities commenced on 22 January 2017.</p> <p>UNDP sent the contractor's final list of materials to the CLA on 11 March 2017 for approval to access the construction materials and equipment into Gaza (more than 1,000 items). UNDP received the Israeli approval for the ABC materials (cement, steel and aggregate) on 19 April 2017. The Israeli concerned authorities requested to classify the list of materials for four stages and their approvals were issued between 07 August 2017</p>	<p>securing the required additional fund through the IsDB in February 2011.</p> <p>UNDP conducted intensive negotiation sessions with the IsDB, PWA and CMWU, which ended by signing the total additional fund's agreement (amounting to USD 42 million) between UNDP and the IsDB in September 2013.</p>
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											<p>columns and slabs of the different structural components. Up to March 2019, more than 13,800 m² of plain concrete and 19,500 m³ of reinforced concrete have been casted for the administrative building, workshop, aeration tank, drying beds, clarifiers, thickeners, pre-treatment building, manholes and distributors, sand filter, composting area, blowers and generators' rooms.</p> <p>More than 2,500 m² of concrete blocks have been constructed and 10,000 m² of internal and external plastering have been executed for the administrative building, workshop, aeration tank and pre-treatment building and sand filter and blowers and generators rooms.</p> <p>More than 900 m² of wall and floor tiles have been fixed at the administrative building.</p>		
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										<p>More than 35,000 m³ of clean sand and Kurkar have been backfilled around different structural components and for the composting area and 18,000 m³ of clay, sand and gravel layers have been backfilled under and around 4,900 m of PVC perforated pipes installed for the drying beds.</p> <p>The majority of the required mechanical and electrical equipment have been delivered and installed on site. Up to March 2019, more than 3,000 m of ductile iron, steel, stainless steel and high-density polyethylene pipes, 40 pumps, 190 valves, 16 mixers, 05 air blowers, 06 jet aerators, 4,000 air diffusers, 13,000 filter nozzles, 04 fine and coarse screens, 02 conveyor, 01 grit classifier, 02 grit and grease scraper bridges, 04 suction scraper</p>		
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											bridges, 10 flowmeters, 03 diesel generators, 02 fuel tanks, 01 surge tank, main electrical panels, equipment fittings and cables have been supplied and installed on site for different structural components.		
Output 4: Design review, pre-contract services and construction supervision for the construction of KY WWTP performed.	Carrying out the design review, pre-contract and construction supervision services for the construction of KY WWTP.	X	X	X	X	X	X	X	X	After kicking off works in August 2015, the activities of this component are on-going with three months delay due to partners' requests to change the design and due to extending the bids submission date due to Israeli's denial to issue access permits for the international	UNDP signed the contract of the design review, pre-contract and construction supervision services with Artelia and Universal Group (Artelia&UG) consultant in the total amount of USD 2,944,594 on 30 July 2015. The work activities commenced on 10 August 2015. After finalizing the design review stage, UNDP and CMWU concluded the procurement processes for the project's main packages, as updated in previous reports, and achieved the following milestones: ➤ UNDP signed the	Completing the construction supervision services for the construction of KY WWTP project.	Constructability Review (CR) for design and tender documents was requested by the IsDB to be done ahead of launching the construction stage of KY WWTP. UNDP posted an RFP for the CR in December 2013 and completed the evaluation of the submitted offers in February 2014. However, the start of this component was delayed by more than 12 months due to the requests for changing the scope of work from the "Constructability



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										<p>contractors to access Gaza to attend the pre-bid meeting and the site visit.</p> <p>contract ITB-2016-158, Construction of KY WWTP and Buildings, with the contractor, Metito (Overseas) LTD, and the construction works are moving ahead on site as briefed in the above section of output 3.</p> <p>➤ 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 USD 1,757,992 on 14 December 2016. The contract price was increased to read USD 2,089,626.68 after adopting and</p>	<p>Review" to the "Design Review" in April 2014, and due to the subsequent 51-day hostilities on Gaza (08 July - 27 August 2014) which prevented performing any activity for the entire duration.</p> <p>UNDP managed the requests for change and moved ahead with the new design review, pre-contract and construction supervision assignment.</p> <p>After kicking off the activities in August 2015, the review of the design was delayed due to partners' requests for changing the design. UNDP managed to limit those delays to 2 months only, mobilizing in a transparent and competitive manner all partners to agree</p>
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											<p>approving by the IsDB on 02 August 2018 the variation order no.1 concerning the price adjustment of the unit rates of the ductile iron pipes as updated in previous report.</p> <p>The work activities commenced on 22 January 2017. UNDP uploaded the initial list of materials on the CLA system in September 2016. UNDP received the Israeli approval for the ABC materials on 23 February 2017. After the Israeli delay in issuing approval to access the ductile iron pipes to Gaza and exerting intensive coordination efforts by UNDP with the Israeli authorities to get this approval as updated in previous reports, the Israeli approval for accessing all the pipes was obtained on 09 January 2018 and their</p>	<p>on changes without jeopardizing the original design.</p>
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										<p>approval for the related donation number was obtained on 25 January 2018.</p> <p>The first shipment of pipes (1,824 m with a diameter of 900 mm) was successfully accessed to 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 March 2019, all required pipes for this contract have been accessed to Gaza and more than 5,500 m of these pipes have been installed on site.</p> <p>➤ 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</p>		
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											<p>delay of issuing approval to access the ductile iron pipes to Gaza and exerting intensive coordination efforts by UNDP, PWA and CMWU with the Israeli authorities to get this approval as updated in previous reports, the Israeli approval for accessing all the pipes was obtained on 13 February 2018.</p> <p>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 accessed to Gaza between 30 January and 18 March 2019. The remaining</p>		
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											<p>lot of pipes (3,249 m with a diameter of 900 mm and 2,451 m with a diameter of 1,000 mm) is rescheduled by the contractor to be manufactured in May 2019 and accessed to Gaza in July 2019.</p> <p>Up to the end of March 2019, 4,375 m of pipes (with a diameter of 900 mm) and 900.6 m of pipes (with a diameter of 1000 mm) have been installed on site.</p> <p>➤ CMWU signed the contract ITB 2016-220-CMWU, Construction of the Infiltration Basins in Al Fkhari for KY WWTP, with the contractor, Abu Shammala & Abu Dan Co. General Trade & Contracting LTD, at a total contract price of USD 5,636,000 on 08 February 2017. The work activities</p>		
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											<p>selected excavated materials have been transferred to the site to replace the excavated clay. More than 640 m³ of reinforced concrete have been casted for the administrative building, valve chambers and ground beams. 13,000 m² of nonwoven geotextile, 2,385 m³ of Macadam stones and 16,000 m² of plantation have be placed at the edges of the infiltration basins. More than 1,300 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</p>		
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											<p>KVA has also been supplied and installed on site. 06 investigation wells, 06 infiltration wells and 04 monitoring wells have been dug and accomplished in the basins. More than 4,000 m² of asphalt (in two layers) were laid for internal roads inside the site in addition to 1,800 m² interlock tiles for the access road.</p> <p>The infiltration basins were targeted by Israeli Air Force missile on 11 November 2018 night at around 9:20 p.m. The aerial strike targeted the internal road, which has a closed end inside the basins, causing damages for this newly constructed asphalt road, curb stones, sidewalk, shoulder of basins No.3, electrical cables</p>		
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											<p>for the external lighting and for the main water pipe. The cost for repairing the damages is USD 42,918.4. These damages have been repaired in February and March 2019 by the same contractor as a variation order after getting the IsDB's approval. More than 98% of the construction works of the infiltration basins have been completed on site and will be handed over in April 2019.</p> <p>➤ 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 USD 841,250 on 02 October 2018.</p>		
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											<p>The work activities commenced on 07 October 2018.</p> <p>The contractor is currently moving ahead with manufacturing and accessing the required electrical poles, cables transformers, switchgears, parts and fittings. Up to March 2019, 30 hot galvanized lattice steel poles and 275 m of underground cables have been supplied and installed on site.</p> <p>Since commencement and up to date, the consultant continued providing the needed construction supervision services on site and at home office as planned.</p>		
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Project Completion Date: Q2 2020 (25.5 months to finalize the detailed design (output 2, November 2008 - December 2010), and 27 months for the construction phase (output 3, Q1 2017 – Q2 2019) followed by one-year operation after commissioning.

3. Financial report

Budget items (according to the proposal)	A. Original Budget - Note Verbale USD	B.1 Revised Budget 1 USD ²	B. Revised Budget 3 USD ³	C. Disbursement USD ⁴	D. Balance (B-C) USD	E. Rate of disbursement (%) (C/B*100)
Constructing Main Steel Pressure Pipeline from Pump Station No. 8 to KY WWTP ⁵	1,000,000	1,000,000	527,303	527,303.15	- 0.15	100.0%
Providing the Detailed Design for the Construction of KY WWTP ⁶	0	1,100,000	946,804	946,804	0.00	100.0%
Construction of KY WWTP, Phase I, including one-year operation after commissioning	12,550,000	11,450,000	11,274,745	9,267,593.80	2,007,151.20	82.2%
Carrying out the Design Review, Pre-Contract and Construction Supervision	0	0	795,255	540,773.40	254,481.60	68.0%
UNDP Direct Implementation Cost	150,000	150,000	150,629	150,629.19	-0.19	100.0%
Contingencies and Miscellaneous	31,064	31,064	36,328	20,749.48	15,578.52	57.1%
Sub-total	13,731,064	13,731,064	13,731,064	11,453,853.02	2,277,210.98	83.4%
GMS (8%)	1,098,485	1,098,485	1,098,485	916,308.24	182,176.76	83.4%
Realized Loss and Gain ⁷	0	0	0	18.08	-18.08	
Total	14,829,549	14,829,549	14,829,549	12,370,179.34	2,459,369.66	83.4%

2 Project Budget was revised based on letter of clearance from the Government of Japan dated 24 July 2007.

3 Project Budget revised based on the letter of approval from the Government of Japan to reallocate budget lines dated 10 September 2015.

4 It is important to highlight that the financial figures in this report are temporary figures and may be corrected at a later stage due to exchange rate fluctuations, realized gain/loss or any other possible corrections. UNDP/PAPP's financial system operates in such a manner that the financial system closes in early December of each year and that final expenditure reports reflecting the disbursements and GMS of the previous year are only published in March of the following year.

5 USD 1,000,000 was originally allocated for the implementation of main inlet steel pressure pipeline. 996.3 metres of steel pressure pipes of 24-inch diameter and 1070.4 metres of reinforced concrete pipes of 1,000 mm diameter were installed at a total contractual cost of USD 527,303.15 paid to the contractor. The remaining balance is utilized to cover the implementation of the treatment plant component as distributed in budget lines in the agreement signed between UNDP and IsDB on 05 September 2013 and reallocated on 10 September 2015. The remaining part of the pressure pipeline to the treatment plant site should be implemented by UNRWA and CMWU through a committed Italian fund and around one kilometre is still not implemented.

6 Based on the revised budget on July 2007, USD 1,100,000 was allocated for carrying out and providing the detailed design. The contract was signed between UNDP and the joint venture consultant; Sogreah Consultants & Universal Group, at a total amount of USD 946,804. The detailed design assignment was successfully completed without change orders or financial claims at the same contractual amount. The remaining balance of this component amounting USD 153,196 is utilized to cover the implementation of project components as distributed in budget lines in the agreement signed between UNDP and IDB on 5 September 2013 and reallocated on 10 September 2015.

7 Total USD 18.08 is realized as loss and gain in our Financial System (ATLAS) without collecting GMS for this amount.

4. Any special notes or remarks:

4.1 The cost estimate for the construction of Khan Younis Waste Water Treatment Plant "KY WWTP", phase I, dramatically increased due to the following reasons:

- The design capacity of WWTP, Phase I, was increased by 10,000 cubic metres per day (cm/d), based on the recommendations of the preliminary design carried out by the Palestinian Water Authority (PWA). The preliminary scope of work was identified to design an extendable wastewater treatment plant to be implemented in two phases; with inflow capacity of 16,100 cm/d and load estimates for 2018. In parallel, temporary treatment lagoons were proposed to be constructed before the construction of the permanent wastewater treatment plant, to handle 10,000 cm/d of the collected wastewater during an emergency. However, these temporary treatment lagoons had not been constructed and accordingly the scope of work was modified to design and construct an extendable WWTP to treat the 26,100 cubic metres per day. (The final detailed design's capacity for KY WWTP, Phase I, is 26,600 cubic metres per day).
- The scope of work of the project was also modified to ensure environmentally sound disposal of the treated wastewater. The ToR of the detailed design was developed accordingly and approved by the project counterparts. The infiltration scheme (that includes the infiltration basins and emergency outflow) was added to the project components to ensure optimum utilization of the treated wastewater as an alternative non-conventional water source. By that, the treated wastewater will be recharged into the aquifer to ultimately be used for irrigation purposes and to release the pressure on the water aquifer. Thus, the detailed design assignment had included designing the components of the ultimate disposal facilities (the infiltration basins and the effluent and emergency pressure pipelines); where no budget lines were allocated in the original project document for the construction of these additional components.
- The cost for the provision of pre-contract and construction supervision by an international consultancy firm as well as the cost for the one-year operation after commissioning of the treatment plant were also not included in the original project document, in addition to the cost of the design review for the existing design and tender documents of KY WWTP.

4.2 Revised cost estimate for the construction of KY WWTP, phase I, and additional fund required

According to the detailed design's cost estimates, it was evident that the available fund of USD 11.45 million would neither be enough to construct phase I of KY WWTP nor to construct the necessary complementary components of the project (infiltration basins and effluent and emergency pressure pipelines). To ensure successful implementation and operation of the project, the following activities and their corresponding budget lines were identified for additional funding:

- Constructing KY WWTP, Phase I; including carry out one-year operation after commissioning of the plant to exchange knowledge and proper codes of practice to CMWU as final operator

- Constructing the effluent and emergency pressure pipelines to the infiltration basins and to the sea shore outfall, with a total length of around 18.6 Km
- Constructing infiltration basins to recharge the treated waste water effluent into the water aquifer to ultimately be used for irrigation purpose
- Constructing the main electrical power supply line to KY WWTP
- Carrying out the design review, the pre-contract and construction supervision services for the construction of KY WWTP, Phase I

Based on the final detailed design report, UNDP revised and developed the overall cost estimate required to implement KY WWTP, Phase I; with its necessary and complementary components, to be a comprehensive, functional and operational project. UNDP mobilised resources to secure the required additional fund. The Kuwait Fund for Arab Economic Development committed in February 2011 to secure the required total additional fund amounting USD 43 million for the construction of KY WWTP, Phase I, through the Islamic Development Bank (IsDB).

UNDP conducted intensive negotiation sessions with the IsDB, PWA and CMWU about the management arrangements and the cost estimates, which ended by signing the total additional fund agreement between UNDP and the IsDB on 05 September 2013.

By signing this agreement, the overall project budget is co-financed by the Government of Japan with a total fund amounting to USD 14,829,549 and by the Kuwait Fund through the IsDB with a total fund amounting to USD 42 million and by UNDP with a total fund amounting to USD 1.175 million.

4.3 Completion of the detailed design and the IDB's request for doing Constructability Review /Overall Design Review

The detailed design assignment was completed by providing the final detailed design report and tender documents in December 2010. By that, the project was ready to launch the construction stage upon the availability of the required additional fund.

Throughout the negotiations between UNDP and the IsDB to secure the additional fund, the IsDB requested in a meeting in Cairo on 01 October 2012 to carry out a Constructability Review for the available design and tender documents of KY WWTP.

After signing the project agreement between UNDP and the IsDB, UNDP moved with the activities to conduct the Constructability Review and issued the relevant request for proposal in December 2013. The technical and financial evaluation of the three submitted offers was completed on 26 February 2014. However, the IsDB and counterparts requested, in April 2014, to cancel the Constructability Review and to go, instead, for an in-depth design review to be done by the construction supervision consultant.

UNDP managed the request for change and shared the new TOR of the design review, pre-contract and construction supervision services with the IsDB for approval in June 2014, but, the approval and activities delayed due to the war launched on Gaza from 08 July to 27 August 2014.

On 03 September 2014, the IsDB requested again to change the scope of the design

review from in-depth design review to overall design review. UNDP managed this last request for change and proceeded with the provision of the design review, pre-contract and construction supervision in October 2014.

UNDP highlighted that the repeated request of changing the scope of the design review has seriously delayed launching the project's first activity and impacted the project's overall progress.

4.4 COGAT "Israeli Authorities" approval to facilitate entry of construction materials into Gaza

The main list and quantities of needed construction materials were prepared through the detailed design stage and submitted to the Israeli authorities. An Israeli approval regarding the implementation of KY WWTP and facilitating entry of materials for this project was granted on 11 July 2010.

Through the procurement processes, UNDP uploaded the initial list of materials for the treatment plant and the main pressure line (UNDP Packages) on the CLA system in August and September 2016 respectively. CMWU uploaded the initial list of materials for the infiltration basins and the main pressure line (CMWU packages) on the GRAMMS system in December 2016 and January 2017 respectively. UNDP sent the contractors' final list of materials to the CLA on 11 March 2017 for approval to access the construction materials to Gaza Strip.

The Israeli approval for the ABC materials for the plant was issued on 19 April 2017. It was followed by issuing approval for 192 items (out of 1,000 items) required for the first construction stage on 07 August 2017, for 420 items required for the second construction stage on 09 January 2018, updated approval for 351 items required for the third construction stage on 26 September 2018 and for 200 items required for the fourth construction stage on 03 and 19 December 2018. UNDP intensified efforts to get approval for the rejected electrical/control cables. The electrical panels and the control cables were lately approved on 27 February 2019 and 10 March 2019.

The Israeli approval for accessing only 818 metres of ductile iron pipes for the pressure line (CMWU package) was issued on 18 October 2017. The Israeli approval for accessing only 1,000 metres of ductile iron pipes for the pressure line (UNDP package) was issued on 28 November 2017. The Israeli approval for accessing all pipes for UNDP package was obtained on 09 January 2018 and for all pipes for CMWU package on 13 February 2018.

The expedited Israeli approval to access the pipes, valves and fittings required for the remaining part of the influent pressure line from pumping station no. 8 to KY WWTP is necessary to move with the commissioning of the treatment plant as scheduled.

4.5 Utilizing the saved amount of fund allocated for providing the detailed design to cover the provision of the design review, pre-contract and construction supervision services/ Reallocation of budget lines

Since 2006 to date, the UNDP's Project/Programme Manager has been managing the

project's different tasks and activities, and the total amount of USD 150,000, allocated as per the project budget lines to cover the salaries of project engineers for 24 months, has been totally disbursed to cover the salaries of project staff by the end of December 2011, as seen in the financial report in section 3.

During the negotiations with the IsDB to sign the agreement of the additional fund committed by the Kuwait Fund, and aiming at bridging the financial gap concerning the UNDP's direct implementation cost, UNDP approached the Government of Japan to revise the allocated fund to allow for the utilization of USD 300,000 for the UNDP direct implementation cost. The Government of Japan kindly approved utilizing this amount on 30 April 2013. Through final negotiations, this amount was modified to USD 370,000 allocated for the provision of the design review, pre-contract and construction supervision services for KY WWTP, as per the agreement signed between UNDP and the IsDB on 05 September 2013.

After evaluating the submitted proposals for the assignment of the provision of design review, pre-contract and construction supervision services for the construction of KY WWTP under RFP 2014-287, it has been found that the Artelia&UG consultant who attained the highest technical scores has the lowest financial offer amounting to USD 3,067,285. Whereas, the total allocated budget for this component as per the project's agreement between UNDP and the IsDB amounts to USD 1.37 million, and whereas the allocated/available contingencies from the Kuwait Fund for Arab Economic Development amounts to USD 4,725,480, UNDP approached the IsDB on 22 January 2015 to approve utilizing the deficit amount for this component from the project's allocated contingencies. On 26 February 2015, the IsDB issued an in-principle approval/no objection to cover the deficit amount from the donors' contributions after finalizing negotiation with the consultant. The negotiation was concluded on 27 May 2015 by scaling down the consultant's financial offer to USD 2,944,594 instead of USD 3,067,285.

The IsDB issued the written no objection to award the contract of the design review, pre-contract and construction supervision services for the construction of KY WWTP to Artelia and Universal Group consultant in the total amount of USD 2,944,594 on 2 July 2015. The IsDB requested that the deficit of budget for this component amounting to USD 1,574,594 to be deducted from the donors' contributions, according to their percentage of contribution, and from the construction component mentioned in the UNDP and IsDB's agreement

UNDP received the initial clearance from the IsDB's consultant (EMCC) on budget reallocation on 11 July 2015. The Government of Japan confirmed its agreement to utilize/reallocate USD 425,255 from their contribution allocated for the construction works to cover part of the deficit amount for this component. The Government of Japan issued their official approval on 10 September 2015. The IsDB issued their written no objection on the budget reallocation on 29 September 2015.

5. Pictures of project indicating before the project and progress of the project:



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



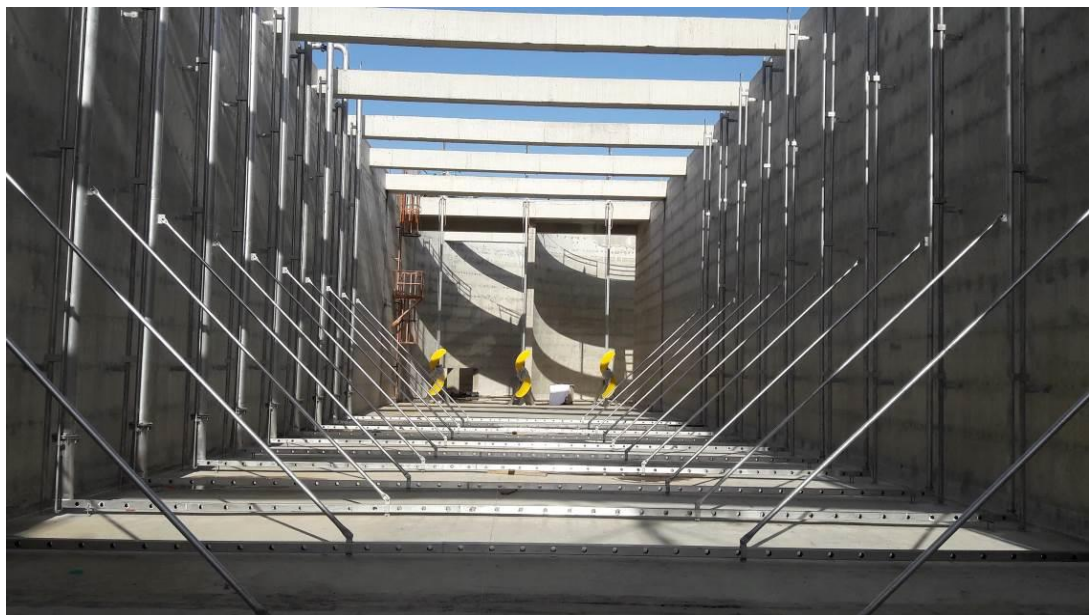
Starting Casting Reinforced Concrete for Admin Building and Plain Concrete for Aeration Tank on 17 May 2017



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



General View for Accomplished Works of KY WWTP in March 2019



Structural and Mechanical Works for the Aeration Tank in March 2019



Structural and Mechanical Works for the Clarifiers in March 2019



Structural and Mechanical Works for the Pre-Treatment Building in March 2019



Structural and Mechanical Works for the Sand Filter in March 2019



Structural and Mechanical Works for the Air Blowers in March 2019



Installed Manifold and Surge Tank for Effluent Pumping Station up to March 2019



Installed Electrical Panels up to March 2019



Accomplished Works of the Infiltration Basins before November 2018



Damages Caused by the Israeli Aerial Strike on the Internal Road of the Infiltration Basins on 11 November 2018



Repairing Damages Caused by the Israeli Aerial Strike in the Infiltration Basins in February and March 2019



Digging Infiltration Wells and Installing Screens in the Basins from January to March 2019



Admin Building for the Infiltration Basins up to March 2019



Ductile Iron Pipes Accessed to Gaza and Installed on Site for UNDP Package up to March 2019





Ductile Iron Pipes Accessed to Gaza and Installed on Site for CMWU Package up to March 2019



Installed Electrical Poles of the Main Electrical Line for KY WWTP up to March 2019

6. Report authorization by UNDP/PAPP

Reporting person and title: Ashraf Abu Shamala, Programme Manager	
Reviewed by: Iman Al Hussein, Programme Specialist, Infrastructure Unit (Gaza Office)	
Supervisor's name and signature: Iman Al Hussein, Head of UNDP Gaza Office (OIC)	
Date of submission: 11 April 2019	