UPDATE ON WASTEWATER DEVELEPEMENT-PALESTINE

Prepared for SWIM-SM

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Water Sector Strategic Objective

- 1- Promote good governance and provide a legal and institutional environment, that guarantees equitable services, and sound management of the sector ensuring its sustainability;

- 2- Integrated water management ensuring equitable and continuous services as well as resource sustainability;

- ***3- Integrated wastewater management which ensures equitable and continuous services, contributes to preserving public health and safeguards the environment; and***

- ***4- Efficient and effective water and wastewater institutions engaging all segments of society***

CHALLENGES

Main Challenges to PWWS:

1- External Factors: The JWC Arrangement, And the Role of Civil Administration in construction Permits

2- Internal Factors: :Legal (Unclear Mandates and competencies of Different SH), institutional challenges; and fragmentation of Responsibilities/ conflict of Mandates.

PWA Strategic Plan 2011-2015

Goals of the strategic plan for the WW sector:

- To reduce flowing untreated WW to the Environment
- To raise the percent of served households by sewerage collection system by 10%.
- To construct Wastewater Treatment Plants (WWTPs).
- Treated effluent is a resource, To reuse treated WW for Agriculture .

Status of Wastewater Infrastructure Projects in the West Bank

- 32% -35% of total households connected to Wastewater (WW) collection system
- Less than 5% of the total generated WW treated inside of the WB (Al-Bireh TP)
- 20% of the generated WW treated inside of Israel (around 15 MCM) from Jenin, Tulkarm, Nablus, Ramallah, Beit Jala, and Hebron
- Remaining quantities either flowing in wadis (Nablus East, Wadi Al-Nar (Beitlehem, Beit Sahur), Jalazoun, Far'a and Al-Aroub camps, or the majority is stored in cesspits.

Ongoing and Committed WW Projects- to achieve the AP.*Several donors currently working in WW sector*

1. KFW:

- **Nablus West (Construction phase)**, 39.6 million Euro (construction TP for Nablus West and 5 villages, trunk line and supporting pretreatment of industrial waste). Expected to finish construction by March 2013. Design Capacity for 150,000 PE - 14,860 CM/day (2020)
- **Tulkarm sewerage project (Contracting phase)**, 16 million Euro (construction collection systems, trunk lines for Tulkarm and 8 surrounding communities and supporting pretreatment of industrial waste).
- **Ramallah-Beitunya TP (Design phase will start soon)**, 27 million Euro (construction TP (59,000 PE), collection systems and trunk line for Ramallah and Beitunia).

Ongoing and Committed WW projects

1. KFW:

- **Nablus East (Feasibility Study phase)**, 0.6 million Euro (construction TP for Nablus East and 7 villages). Expected to finish FS by August 2012. The FS will explore also reuse feasibility and propose schemes for Nablus West and East TPs.
- **Al-Bireh TP extension and modifications phase**, 1 million Euro (Sludge management and operational modifications to reduce running cost, i.e. electricity consumption).

Ongoing and Committed WW projects

2. Japan:

- **Jericho sewerage project phase 1: Implementation phase**

  32.5 million USD (construction TP, partially collection system in Jericho and to serve another 4 communities). Expected to finish construction by May 2014. Design Capacity 9800 CM (2020)

- **Peace Building project: Construction phase**,

  6.2 million USD (collection system completed in Baqa Sharqiya and **Habla (trans-boundary in 3 villages)). 30%** completed in Bart'a Sharqiya. To be connected with TP inside Israel. Negotiations with Israeli to sign service contracts.

Ongoing and Committed WW projects

3. EU:

- **Tubas-Tayasir sewerage project: Tendering for Design phase**
  22 million Euro (construction TP, collection system for Tubas and other 3 communities -Tayasir, Aqaba and Al'Aqaba).
- **Food Security project: Implementation phase**

  9.5 million Euro (construction of 6 collection systems- completed in Beit Dajan, under construction in Taybe, Ramoun, Anza, Sarra and Hajja- and construction of 5 small scale WTTP's (2 SBR, 1 RBC, 2 Wetland)). Design phase completed, Tendered for Implementation

Ongoing and Committed WW projects

4. AFD:

- **Misilya Sewerage Project: Design phase**

  Allocated budget 2.8 million Euro *-the budget is to be defined by the consultant in the primary design* (construction of WWTP, collection system and individual sanitation systems for Misilya and Al-Jarba). Design Capacity 500 CM (2035).

- **Bethlehem Industrial Zone Sewerage Project Phase 1: Implementation phase**

  0.5 Million Euro, construction of temporary compact TP (100 CM).

- **Bethlehem Industrial Zone sewerage project Phase 2: Planning phase**

  Allocated budget 3.4 million Euro- *the budget to be defined by the consultant in the primary design* (construction of WWTP (500 CM) and main trunk line from BIZ to WWTP).

Ongoing and Committed WW projects

5. AECID:

- **Wadi Al'Aroub WWTP : Design phase**

  Allocated budget 0.35 million Euro (construction of WWTP in Sa'ir Area to treat flowing WW from Al'Aroub refugee Camp). Design Capacity 1150 CM. Estimated cost for construction around 1.5 Million Euro, (through CENTA).

- **Beit Hasan Sewerage Project**

  0.31 Million Euro (construction of WWTP, collection and individual sanitation systems for Beit Hasan Village). Design capacity 200 CM (2025) , (through ACPP):

Ongoing and Committed WW projects

6. World Bank & AFD:

- **Hebron Regional WWTP project : FS and ESHIA phase**

World Bank (0.6 million USD), AFD (0.165 Euro) (construction TP, trunk line, reuse for Hebron and surrounding communities). Expected to finish FS by December 2012. World Bank committed 10 Million USD, AFD committed 10 Million Euro. Estimated cost for phase 1 around 45 million USD.

Ongoing and Committed WW projects

7. World Bank:

- **West Bethlehem Rural area: FS phase**

  0.4 million USD (construction of TP's and collection systems in 5 villages-Battir, Husan, Nahalin, Wadi F.ukin and Alwalajeh).

Ongoing and Committed WW projects

8. USAID:

- **Infrastructure Needs program II (Wastewater).**

  6 wastewater projects (Al-Yamoun, Qabatiya, Yabad, Azzun, Dura, Tarqumiya.

  - Completed EIA for all 6 projects
  - Completed design for collection systems and WWTP's.
  - Design capacity for each TP ranges from 3000 t0 5000 CM (2025).
  - Approved from the JWC and discussed with CA (Area C)
  - No Commitment for Implementation from USAID

Ongoing and Committed WW projects

8. USAID:

- **Infrastructure Needs program II (Wastewater)**

Feasibility study for compact Package WWTP.

- Started on March 2012 by B&V
- The objective of this study is to install compact package WWTP's in semi-urban and rural areas as temporarily, quick and less capital cost solution.

  Then can be connected with the central system.

Ongoing and Committed WW projects

9. Local Investments (MoF & private):

- **Hebron Industrial Zone project: construction and tendering phase** 2.8 million Euro (construction stone cutting slurry TP, trunk line for Hebron industrial zone).
- **Al-Tireh WWTP** (1000 CM). Tendering phase
- **Al-Rihan Compact WWTP** (500 CM). Implementation phase
- **The Diplomatic Compound WWTP** (1000 CM). Implementation phase

Issues Impacting Project Implementation

- Land Access/Acquisition
- Determination of Operational responsibility
- Israeli Imposed Mechanisms: JWC, Civil Administration,
- Consensus of Palestinian stakeholders
- Institutional Development issues
- Implementation of PWA Master plan for Wastewater.