Summary about Non-Revenue Water (NRW) knowledge sharing workshop

Date of meeting: 3-4 December 2018
Location: Landmark hotel/Jordan
Subject: Non-Revenue Water (NRW) knowledge sharing workshop

The knowledge sharing workshop aimed to announce the Jordan NRW Master Plan and exchange knowledge from sharing regional and local case studies. The plan is a unified roadmap towards achieving sustainable and accountable control over NRW in Jordan through the use of reliable phased transitions that address the local challenges holistically.

The workshop also showcased a number of NRW management case studies locally and regionally that elaborated the successes, challenges, and lessons learned.

The two-day workshop was opened by H.E. the Secretary General of the Water Authority of Jordan Eng. Iyad Dahiyat, and opening statements were made by Deputy Director, Water Resources & Environment Office of USAID, Ms. Razia Baqai, the Chief of Part of Water Management Initiative (WMI) project, Mr. Jose Valdez, and H.E. the Secretary General of the Arab Countries Water Utilities Association (ACWUA), Eng. Khaldoun Khashman.

In the first session of the first day, the NRW Master Plan was introduced. Mr. Bambos Charalambous and Mr. Mohammed Shafei, ACWUA consultants, presented the assessment methodology and results, the formulation of the NRW strategy and roadmap, and an overview of the NRW Master Plan. The key messages presented included:

- Large investments have been made in the past, however sustainable performance in NRW reduction has not been achieved.
- The entire life-cycle of NRW management practices is required to achieve sustainable performance.
- Independent auditing of practice performance is key to gain an impact from future investments.
- A gradual phased approach focusing on priority areas will allow the utilities to prove sustainability and address the most urgent issues first.
- A clear understanding of the expected results and a common language are required to establish and sustain water systems will assist utilities in achieving their NRW targets.

The second session of the first day showcased regional case studies:

- Prof. Ahmed Moawad, the Vice Chairman of the Holding Company for Water and Wastewater in Egypt presented an overview of NRW management in Egypt and recent achievements that focused on establishing DMA/PMAs that allow for controlling and monitoring of leakage, including efforts in hydraulic analysis, MNF analysis, leak detection, GIS update, meter inspection and remote reading, and NRW analysis.
- Mr. Daniel Nammour, the GD consultant at the South Lebanon Water Establishment presented an update on NRW management in the South of Lebanon that focused on taking the lead in coordinating various donor-funded projects, improving staff size and capacity, and upgrading the information systems including the GIS, ERP, and SCADA.
Mr. Atef Fourati, the Director of studies and standards of SONEDE presented the case of the AQUAKNIGHT project in Tunis, especially the investigation of customer meter accuracy and approaches used to improve customer metering performance.

Mr. Bambos Charalambous, the Director of Hydrocontrol, and the previous Head of Technical Services at the Water Board of Lemesos presented the work done in Lemesos to manage NRW, damaging effects of experiencing intermittent water supply on infrastructure and the efforts made to reduce losses after transitioning back to continuous water supply.

The first session of the second day of the workshop showcased local case studies:

- Eng. Mobadda Allabadi, the Head of Project Management Division at Miyahuna presented the case of a FARA project aiming at NRW reduction in a distribution zone in Amman, using tools such as network replacement, pressure reduction, meter replacement, and leak detection and repair.

- Eng. Mustafa Dardasawi, the Head of SCADA Section at Aqaba Water presented the case of a FARA project aiming at the remote monitoring of DMAs and customer meters, as well as commercial loss reduction using smart meters, and the integration of this technology with the other utility information systems.

- Eng. Mona Qabbani, the Organizational Development & Performance Monitoring Expert of GIZ presented the case of technical assistance to the Yarmouk Water Company-Mafraq ROU that aimed at improving the utility’s capacity for billing and collection, with emphasis on creating a successful example and on-the-job coaching.

- Eng. Yousef Al Aitan, the Secretary General Assistant - Operation of Water and Governorates of Waj and Eng. Abeer Eidi, the NRW Director of Karak Water Governorate presented the case of the pilot area in Bathan and Barada that aimed at identifying and addressing water losses in the area, with emphasis on commercial losses, and quantified and corrected conditions that affect metering accuracy and unauthorised consumption.

- Eng. Amer Matalqa, the Customer Services Director presented the case of the WMI intervention in Zarqa that aimed at evaluating data handling and data acquisition errors that affect billing, and efforts to reduce commercial losses with better process control.

The second session of the second day closed the workshop with some key messages:

- Mr. Bambos Charalambous, ACWUA consultant, and Eng. Tamer Al Assad, WMI Team Leader presented on the misleading use of percentages in evaluating and benchmarking NRW, and how other indicators better reflect the performance of utilities in reducing leakage, and caveats of misusing water loss performance indicators under intermittent water supply.

- Mr. Mohammed Shafei, ACWUA consultant presented an example of applying the NRW Master Plan, including the integration of plan components, cost estimation, and the auditing process that ensures sustainable plan implementation.

The workshop also allowed the participants to reflect on current shortcomings in NRW management, how to best promote the capacity of water utilities to sustain the challenge, and the extent of involving the private sector in this process.