

Institutional Development of the Water Sector III 'IDWS' - Addressing Basic Needs



Project name	Institutional Development of the Water Sector III 'IDWS'- Addressing Basic Needs
Commissioned by	German Federal Ministry for Economic Cooperation and Development (BMZ)
Project region	Yemen
Partner	No political partner
Lead executing agency	Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH
Duration	October 2016 - May 2021

necessary administrative procedures and to plan and implement measures for maintenance and rehabilitation of the damaged infrastructure. Overall, Yemen urgently requires support from the international community to cope with the crisis-related challenges in the water sector.

Objective

The capacity of selected Urban Water Supply and Sanitation Local Corporations 'LCs' to cope with crisis related challenges of maintaining drinking water and sanitation services is improved.

Our approach

Due to the armed conflict, the LCs are facing enormous challenges in their ability to provide basic water supply and sanitation services. Consequently, the Yemeni-German Project 'Institutional Development of the Water Sector III – Addressing Basic Needs (IDWS III)', implemented by GIZ, focuses on addressing the basic needs of the Yemeni population and strengthening the resilience and capacities of the LCs to maintain water and sanitation services in the ongoing crisis through two main fields of action:

- Planning of investment and technical support measures to restore basic water and sanitation services as well as the measurement of performance indicators for these services.
- Provision of direct technical support to re-establish basic water and sanitation services in selected areas.

Measures are planned, implemented and followed up with selected LCs and local initiatives in a conflict-sensitive manner (do no harm approach) and under consideration of the security situation.

The Results : Building resilience

1. Damage Assessment

A Damage Assessment Study (DAS) was carried out in 2017/18 together with the LCs in 12 Governorates and their affiliated Utilities and Branch Offices, providing services to an estimated 7.5 million people. The study rendered a detailed overview of the urban water sector situation in 23 major cities and towns in Yemen, assessed the capacities of the LCs and ways to enhance



Context

Yemen is one of the most water-stressed countries with an availability of only about 83 m³ per person annually in 2018. The already critical supply situation has been dramatically aggravated by the armed conflict and its escalation following the interventions of regional actors since 2015. In 2019, an estimated 17.8 million Yemeni need humanitarian assistance to establish or maintain access to safe water, basic sanitation and hygiene facilities, out of which 12.6 million are in acute need. Water supply and sanitation services in the major urban centres, including the capital Sana'a, are only to a very limited extent being maintained. Parts of the infrastructure have been destroyed and the electricity supply has largely failed. Drinking water pumps and sewage lift stations can only insufficiently be operated with emergency power units. The Local Corporations for Water and Sanitation (LCs), which are in charge of the water supply and sanitation services for the urban population in Yemen, are weakened financially and regarding their personnel. The remaining skilled workers and specialists in the LCs face difficulties to secure the operation of the water and sanitation services, the



Installation of solar water pumping system as a project in selected LCs to mitigate financial hardship and enhance the reliability of water supplies.



Replacement and maintenance of electric generators, pumps and vehicles to maintain the water production and supply.



Rehabilitation and extension of Drinking Water Supply Network in Ibb city.



The introduction of water bill collection via handheld units 'PDAs' to improve the collection efficiency and customer satisfaction, Sana'a LC.



Left: Training of water sector employees in the area of solar energy technologies.

Middle: Training for female plumbers as a self-help initiative in maintenance of household water & sanitation systems.

Right: Provision of hygiene and personal protection equipment to promote good hygiene practices and safeguard the wellbeing of staff working in Water Utilities against COVID-19.

their resilience in restoring the water supply and sanitation services. and established the required investment and technical assistance needs. The study, thus, presents a detailed needs assessment and identified the requirements for both, technical assistance and investment plans with total estimated costs of about 350 million €, taking into consideration gender-specific needs and requirements.

The study's final results were shared in September 2018 with sector stakeholders and donors with the objective to mobilize the required support, and the implementation of the proposed measures by respective development and humanitarian partners has since been visible on the ground.

2. Establishment of Resilience-Oriented Performance Indicators

Quarterly monitoring reports of 39 resilience-oriented performance indicators were established and shared with sector stakeholders for the LCs of Sana'a, Aden, Taiz, Hodeidah and Ibb. These regular reports have supported informed decision-making and helped to measure the impact of interventions in the water supply and sanitation services.

3. Rehabilitation measures of Water Supply and Sanitation Systems

The provision of spare parts by the project, as well as the replacement and maintenance of electric generators, pumps and vehicles, along with the small-scale implementation of network rehabilitation and extension, have largely contributed to maintain the water production and supply by the LCs of Hodeidah, Ibb, Lahij, Taiz, Hajjah, Sa'adah, Amran and Ibb Branch Offices of Yarim, Bani Saif, Al-Ma'ashar and Al-Qa'adah to serve for a total of approximately 1,486,570 beneficiaries.

4. Support of IT-based Core Business Functions

The improvement of core business processes and the operational management of the LCs has always been a focal area of the technical assistance provided by the IDWS project within large scale of development measures in the urban water sector. In order to uphold core business functions during and despite the ongoing war, the project has provided the required office equipment and information system infrastructure to 18 LCs and affiliated Water Utilities and Branches.

5. Pilot and demonstration projects

The introduction of the on-site collection of water bills by Sana'a LC using mobile-enabled meter reading (Personal Digital Assistants 'PDA'), has improved the efficiency of the billing and collection system and sustained the LC's financial resources. Reports on the collection efficiency shared by Sana'a LC confirmed that revenues collected by the PDAs for 2018-2020 represent

approximately 1.7 billion YR and 20% of the total bills' collection, thus helped enormously to maintain the required service level for the population.

The replacement of diesel-operated generators with solar water pumping systems in Dhamar, Ibb and Mukalla LCs was a paradigm shift to mitigate the financial and operational hardship and assures the drinking water supply to serve about 40,000 beneficiaries. Furthermore, to build the capacity of water sector employees in the area of solar energy technologies, 127 trainees from 15 LCs, 6 Branch offices and representatives from other water sector institutions have participated in basic and advanced courses in 'Design, Installation and Maintenance of Solar Water Pumping Systems'.

In search of further applications of renewable energy in the urban water sector, Aden LC was chosen to execute a pilot project for harnessing wind energy in the production of electricity for water pumping stations. As an initial stage, a measurement instrument 'Anemometer' will be mounted for year-round monitoring of wind speed and direction to later assess the feasibility option of wind energy in the selected area.

Upon request of Sana'a LC, IDWS is rehabilitating the WASH facilities at the headquarters and six branches of Sana'a LC to improve the working conditions of their staff. To better meet the different needs of the staff, the WASH facilities were designed gender-friendly and disability-inclusive. It is expected that an improved access to sanitation and hygiene will reduce sick leaves and encourage attendance at work. At the same time, the new facilities will improve the awareness of employees and visitors on the importance of gender-sensitive and disability-inclusive approaches and serve as a good practice example that can be replicated in other public institutions.

6. COVID-19 and the Water Sector Services

Local containment of COVID-19 has been an additional strategic focus since mid-2020. After the first case was officially registered in Yemen in April 2020, Yemen quickly reported the highest casualty rate in relation to the number of reported infections. Due to the low capacity of health facilities to diagnose and treat COVID-19, it is assumed that there is a high number of unreported infections, including fatalities. Water and sanitation services play a fundamental role in the containment of COVID-19. Thus, it became a priority to protect the staff of the LCs from contracting the virus in order to maintain water and sanitation services during the pandemic. Therefore, IDWS procured hygiene and personal protection equipment for 38 LCs and affiliated Water Utilities and Branch Offices that serve to improve occupational safety, promote good hygiene practices and safeguard the wellbeing of the staff.

Published by

Deutsche Gesellschaft für
Internationale Zusammenarbeit (GIZ) GmbH

Registered offices Bonn and Eschborn, Germany

Institutional Development of the Water Sector
Dag-Hammarskjöld-Weg 1 – 5
65760 Eschborn
T +49 6196 79 - 0
F +49 6196 79 - 11 15
christine.werner@giz.de
www.giz.de/yemen

On behalf of

Federal Ministry for Economic Cooperation and
Development (BMZ)

Addresses of the BMZ offices

BMZ Bonn Dahlmannstraße 4 53113 Bonn, Germany T +49 228 99 535 - 0 F +49 228 99 535 - 3500	BMZ Berlin Stresemannstraße 94 10963 Berlin, Germany T +49 30 18 535 - 0 F +49 30 18 535 - 2501
--	---

poststelle@bmz.bund.de
www.bmz.de

Author Christine Werner

Layout Tareq Al-Dubai

Photos © GIZ/IDWS

As at March 2021

GIZ is responsible for the content of this
publication.