Capacity development in the Arab Region: The role of ACWUA in promoting the exchange of experiences and expertise

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Type of tool: cost recovery and financing, capacity development
Issue: Cities, watersheds
Location: the Arab Region, Western Asia

Challenges

The Middle East and North Africa Region (MENA) or the Arab region is the most water scarce region in the world. One half of the Arab's population lives under conditions of water stress. Moreover, with the population expected to grow from around 300 million today to around 500 million in 2025, per capita water availability is expected to halve by 2050. The water sector in the Arab region suffers from chronic problems, such as water scarcity, weak water and environmental policies, high investment needs, lack of management and technical expertise, increasing demand due to growing populations, and regional conflicts.

The source of water varies from one country to another. While Egypt and Iraq rely mostly on surface water from large international rivers, others, like Yemen, Djibouti and the Gulf Cooperation Council countries depend almost entirely on groundwater and desalination, while others use a mixture of surface and groundwater. Most Arab countries have mobilised almost all available surface water, and many major rivers do not reach the ocean.

More than any other region, water resources in the Arab region are considered as a development issue. In this respect, Arab countries have responded to scarcity by heavily investing in water related infrastructure. Many have heavily invested in water storage infrastructure and in expanding their irrigation systems. Additionally, the Arab region leads the world in using non-traditional water resources through the use of desalinated water and reuse of treated wastewater is increasingly gaining importance in many countries of the region. However, these large investments have not always been accompanied by the necessary institutional and policy changes, and are often not generating optimum economic returns. Non-water policies in particular create incentives for inefficient water use in agriculture for example, which uses 85

percent of the region's water, and unsustainable pumping of groundwater, which is similarly encouraged in some countries through heavy energy subsidies[1].

The drivers of change

With respect to water supply and sanitation infrastructure, large disparity exists within the Arab region on the level of population access to these facilities. In the Third Arab Report on the Millennium Development Goals prepared in 2010, Arab countries were classified into 4 categories[2]. Overall water supply coverage of the first category comprising the GCC countries (Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and the United Arab Emirates) is estimated at 93 per cent while sanitation coverage at 98 per cent. Only Oman stands out as it lags behind other fellow GCC countries due to its high percentage of rural population. The second category comprises countries that are on track to achieve the water supply and sanitation targets (From the Mashreq region Egypt, Jordan, Lebanon and the Syrian Arab Republic and from the Maghreb region Algeria, Libyan Arab Jamahiriya, Morocco and Tunisia). Overall water supply and sanitation coverage stands at 96 per cent and 89 per cent, respectively for the Mashreq countries and 87 per cent for both for the Maghreb countries. The third category comprises the Least Developed Countries (LDCs) (Yemen, Comoros, Djibouti, Mauritania and Sudan) that are not currently on track to reach their WSS target. Overall water supply and sanitation coverage is estimated at 66 and 46 per cent, respectively in Yemen while for the LDCs as a group it stands at 67 and 38 per cent, respectively. The fourth category comprises countries in which their respective water and sanitation infrastructure deteriorated due to political instability, occupation and/or internal strife and as such face an uncertain prospect of reaching the desired water supply and sanitation goal. These countries include Iraq, the Occupied Palestinian Territory and Somalia. Overall water supply coverage is estimated at 78 per cent for Iraq and the Occupied Palestinian Territory and less than 30 per cent for Somalia.

The water situation in the Arab region is increasing the cost of supplying water to the Arab population and by association is increasing the pressure on water operators to improve their efficiencies and capacities. In order to improve and promote regional cooperation and exchange of experiences towards improving the efficiency of water utilities in charge of water supply and sanitation, the Arab Countries Water Utilities Association (ACWUA) was founded as a result of an initiative by key water sector representatives in the Arab region. This Association is expected to provide a platform for communications and exchange of experience for water utilities for improving the level of services and benefits. This will be achieved through the development of

[1] The world Bank, Water Sector Brief: http://go.worldbank.org/JQVM8LMP70

[2] ESCWA MDG report 2010

performance indicators, the development of modern technical standards, building capacity and improving the management of large investment projects.

The approach

1- Creation of the association

At the end of July 2009, the Arab Countries Water Utilities Association (ACWUA) was officially launched in Amman, Jordan. Since its creation, the ACWUA had the support of the Economic and Social Commission for Western Asia of the United Nations (UN-ESCWA) and the German Technical Cooperation (GTZ). Through its working groups, ACWUA focuses on the management of utilities, water resources management, water and health, utilities reform, benchmarking as well as capacity building and training.

ACWUA, as a regional centre of excellence, partners with water supply and wastewater utilities in Arab countries to provide best practice service delivery to their members through:

1. Serving as a regional platform for exchange of knowledge and best practice amongst member experts and professionals.

2. Developing resources, facilitating training programmes, and advocating for professional certification to enable member utility staff to perform their duties in a professional, reliable and cost-effective manner.

3. Promoting standards of performance for the governance, management, operation and maintenance of water supply and wastewater utilities.

4. Supporting the interests of ACWUA members including the provision of advice and consultation in water legislation, policies, and sector management and reform.

5. Developing, promoting and disseminating publications and other knowledge products to meet the needs of members and other regional professionals.

2- Development of capacity building tools

Through its close cooperation with local governments, international associations, training specialists, donors, academic and research institutions, think-tanks, and international organisations, ACWUA was able to offers its members a strong networking platform. This platform included the identification and creation of Technical Working Groups (TWGs), developing training and capacity building programmes along with their associated tools, and the

establishment of an e-platform for knowledge management and network collaboration (ACWUA Wiki).

ACWUA Technical Working Groups comprise qualified experts from Arab region and deal with priority areas identified by its members at their general meetings. Members of the Working Groups deliberate on the identified issues and come up with a work plan to enhance exchange of experience and disseminate lessons learnt from best practices. The current technical working groups and associated sub-groups are detailed in table 1 below.

Table 1. Working Groups and associated sub-groups

No.	Technical Working Group	Sub-groups
1	Utilities Management	1.1 Cost Recovery 1.1.1 Non Revenue Water (NRW) 1.1.2 Water for the Poor 1.1.3 Energy Efficiency 1.2 Asset Management
2	Capacity Building and Training	2.1 Training Strategy 2.2 Certification
3	Water Resources Management	3.1 Governance 3.2 Master Planning 3.3 Protection of Resources 3.4 Adaption to Climate Change 3.5 Integrated Water Resources Management (IWRM)
4	Water and Health	4.1 Domestic Water Supply 4.2 Waste Water Treatment and Re-use
5	Utilities Reform	5.1 Autonomy/Commercialization 5.2 Public-Public Partnership 5.3 Private-Public Partnership
6	Benchmarking	

With respect to training and capacity building programmes and tools for water and wastewater utilities, the programmes cover institutional, managerial, technical and financial topics with the

aim of building up a regional pool of Arabic trainers to address the needs of the region. Figure 1 below provides an illustration of ACWUA's training practice.

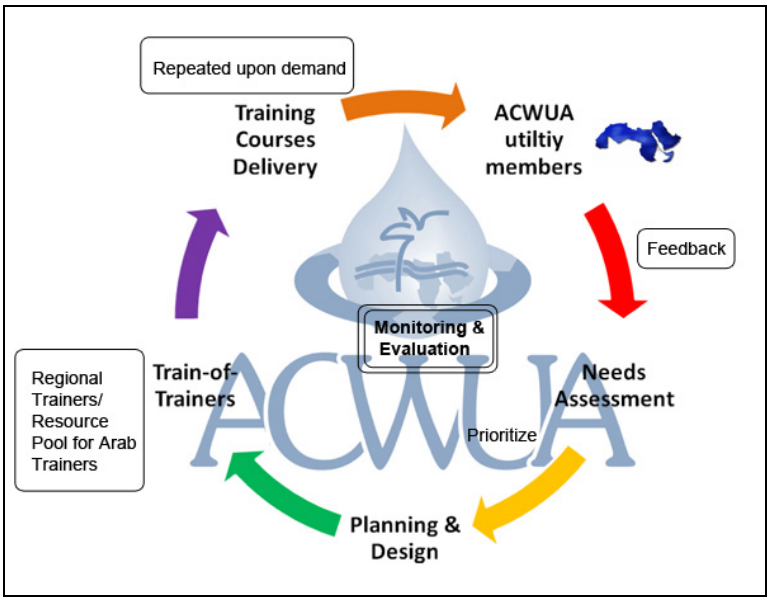

Figure 1. ACWUA training practice

The outcomes and exchange of lessons learnt

1- Development of an Improved Water Utilities Performance programme (WUP-TRAIN)

ACWUA in cooperation with GIZ developed and conducted regional capacity building programmes to improve the performance of water and wastewater operators in the Arab region. Since the launch of the programme, 220 top and middle management staff from the different Arab water and wastewater utilities have been trained. Modules prepared for this programme include:

1. ELAC - Effective leading and communication in water utility management
2. NCCG - Negotiation and cross sectoral coordination for enhanced water governance
3. PIAS - Key performance indicators and benchmarking
4. BPQS - Enhancing business performance of water utilities through quality management and standards

The WUP-Train programme is designed to benefit top management of water utilities and decision makers in the water sector; senior to mid management of technical and commercial

departments in utilities; senior professionals from government agencies involved in policy formulation, supervision and regulation; academia, representatives from the civil society and other water sector professionals and practitioners involved in programme development, formulation and implementation.

2- Water Utilities Management Capacity Building Programme (WUM-CBP).

ACWUA in cooperation with Engicon O&M and the German Association with Water, Wastewater and Solid Waste (DWA) launched in 2011 the Water Utilities Management Capacity Building Programme (WUM-CBP). This programme works on building linkages with the private sector in water industry in order to provide a wider variety of training modules to its members in water utilities management aspects. Modules prepared for this programme include:

1. Operations & Maintenance of Water Pumping Stations
2. Operations & Maintenance of Water Distribution Networks
3. Operations & Maintenance of Water and wastewater Treatment Plants
4. Operations & Maintenance of Sewage Networks
5. Operations & Maintenance of Sewage Pumping Stations
6. Basic/ Medium/ Advanced levels of Non Revenue Water Management

3- Exchange of best practices in Arab Region

More than 100 water experts from the Arab region gathered at the Dead Sea on 15-16 October 2008 in order to exchange their experiences on utility management practices and to set the Arab Region's Standards of Operation and Maintenance (SOMPs) of water and wastewater systems. Such standards are considered essential for improving the efficiency and effectiveness of utility operations. These SOMPs act as risk management measures that reflect positively the delivery of services to consumers. The quality and quantity of distributed water should improve as these procedures are applied. Also, these procedures will act as a base for job descriptions, and help to set training guidelines. Accordingly, the efficiency and skills of the operating workers is expected to improve.

Almost 300 water experts from the Arab region exchanged their best practices on the issue of "Non-Revenue Water in the Arab Region" during a regional conference that was organised by ACWUA and other partners in Rabat, Morocco in January of 2010. The experts reviewed and discussed the situation in different cities of the region and provided up-to-date information and practical examples through numerous case studies on many topics including: rehabilitation

methods, company strategies, as well as monitoring and financial strategies to reduce water losses and management of customer relations.

Exchange of lessons from Arab countries on water cost recovery[3]

At present, the Alexandria Water Company (AWCO) is recovering its costs and is generating profit. AWCO's strategic plan till 2037 was prepared based on systematic thinking and scientific analysis methods. A population projection study of Alexandria was prepared and according to this study the future water demand was determined, a technical study of the water plants and networks current situation was performed, and accordingly a strategic plan of the necessary projects needed in the future was drafted and included all the economic and financial aspects. Within the strategic plan, the main factors that were considered in tariff setting were:

a. Preparing an overall business plan.
b. Increasing the efficiency and effectiveness of the working environment and reducing costs to the minimum.
c. Categorising the water fees in accordance with the social standards of customers.
d. Enhancing the water fees collection efficiency with an aim to increase it by 10% every 5 years.
e. Reducing both physical and administrative water losses by enhancing network management.

Since 1974, the National Water Supply Authority in Tunis (SONEDE) has been using an increasing block rate structure for charging water consumption. Currently, the modified structure includes five blocks, with a volume of 20 m^3 per quarter in the first block. Separate schedules are applied for standposts and tourism consumption. Through its new pricing policy, SONEDE aims to:

a. Enable the low-income socio-economic segment of the population, located in rural areas and in peripheral urban zones, to have access to drinking water at low cost.
b. Ensure that the water sector is more viable by covering operating and financing costs and partially the set-up costs.
c. Provide a pricing policy that orientates consumers' decisions while seeking an optimum utilisation of water.
d. Ensure that the pricing system is easily understood and accepted by water consumers.

[3] Extracted from the proceedings of the Arab Water Week held in Amman Jordan from 5-9 December 2010.

Since introducing the modified pricing structure, SONEDE, through the new tariff system, has been able to cover all the running costs, including depreciation, and increase the capacity of self-financing by around 40%.

In Palestine each local community is responsible for supplying water for the community, each applying a different tariff and not achieving cost recovery. To remedy the existing situation the Palestinian Water Authority prepared a tariff policy guideline. This policy guideline puts the basis and standards upon which tariff and prices are based. It explains and illustrates the procedures and steps for applying the Tariff Regulation. These standards must equally apply to all municipalities, utilities and other water providers. Although the standards have been unified for all service providers, the water prices may be different from place to place or from provider to another, because of the cost to access the different water sources. The Tariff Regulation must fulfil many of the main objectives of water policy. The tariff structure and prices set shall ensure cost recovery for the individual utilities whereby revenues are expected to exceed costs. The water utilities shall increase revenue collection in the following stages until full cost recovery is achieved.

In Yemen, the assessment of the general performance of Local Corporation for Water and Sanitation (LC) in IBB – Yemen took place in May 2007. It showed that the LC was working under difficult technical, administrative and financial conditions. Main recommendations of this assessment included the need for tariff adjustment according to inflation and electricity prices in coordination with Local Administration; restructuring the customer / management relation to improve process efficiency; starting of GIS based digital customer management systems; introducing GIS in meter reading and quality management for readings; application of DCMMS (Dorsch Consult Maintenance Management System) to improve networks maintenance; and the need for analysis of repair data to prioritise investments. The application of these recommendations resulted in recovery of O&M costs in 2009 and is expected to recover depreciation costs by the end of 2010. In addition to being rewarded the “best public service in 2009”, the decrease in total cost of maintenance and the additional services being provided to customers have generated additional income to the LC.