



## Reform of the urban water supply and sanitation sector in Yemen

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**Issue:** Cities

**Location:** Yemen, Western Asia

### Abstract

This paper summarises the experience of on-going reform in the urban water supply and sanitation (UWSS) sector in Yemen. The reform is supported financially and technically by several international players including the GIZ, World Bank, the Embassy of the Kingdom of the Netherlands (EKN). The reform has dramatically reshaped the UWSS sector shifting power away from a central authority to local agencies. Better customer services, more financial stability, and better protection of the least advantaged groups are some of the most positive outcomes of the reform initiative.

### Challenges and objectives

Being one of the least water endowed countries with a high population growth, Yemen is facing a serious water scarcity problem that threatens its socio-economic development. Prior to recent reforms, poor financial performance and inadequate services characterised the Urban Water Supply and Sanitation (UWSS) sector in Yemen chiefly attributable to centralisation of these services in one national agency, the National Water and Sanitation Authority (NWSA). Badly kept infrastructure, weak technical capacity and very high unaccounted-for-water (UFW) rates have adversely impacted the quality of NWSA services and its financial viability. To address these problems, in the early 1990s, the Yemeni Government with financial and technical support from several donors including the GIZ, World Bank, and the Embassy of the Kingdom of the Netherlands (EKN) embarked on a long-term plan to reform the UWSS sector by decentralising services at the governorate level. The main goal of the reform programme is to restructure the UWSS sector to a system composed of several local corporations (LCs) each managed autonomously and independent of the NWSA to serve a specific governorate in Yemen. The reform process was facilitated by an overall national policy for reform and decentralisation.

The framework of the reform process was set in place in 1996 by a Policy and Strategy Study (PSS) authorised by the government and funded by the World Bank<sup>1</sup>. The study highlighted several objectives to be achieved by the reform process including: creating an independent regulatory body separate from the executive, financial sustainability, decentralisation,

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<sup>1</sup> John Kalbermatten and Associates (1996). "Yemen Water Supply and Sanitation Sector Policy and Strategy Study.", Washington, D.C, John Kalbermatten and Associates.



commercialisation, human resources development, stakeholder participation, and private sector participation. The recommendations of the study were adopted by the National Cabinet in 1997 which passed a resolution (#237) setting the legal framework for the reform of the UWSS sector. The resolution specially set several targets – that parallel PSS recommendations – including increasing UWSS coverage, achieving financial sustainability, separation of the regulatory body from the executive one, decentralisation, capacity development, and community participation.

In parallel to this process, a new water and sewerage project was developed in the city of Rada’ a where principles of cost-recovery based tariff setting, community participation, and high quality services were emphasised. Learning from the successful implementation of this project the Yemeni government and donors, EKN, the World Bank and GIZ, developed through extensive discussions and consultation, the “Rada’a Principles” to guide the UWSS reform programme. The Rada’a Principles (see Table 1) are essentially a design blueprint of a model autonomous local utility. They emphasise independence from the central agency, separation of regulations and operation, setting local cost-recovery tariffs, and independent auditing.

**Table 1. Rada'a Principles**

<ul style="list-style-type: none"> <li>• The Branch will operate independently of NWSA Head Office while remaining accountable to NWSA on regulatory matters and to the Minister of Electricity and Water on policy issues.</li> </ul>
<ul style="list-style-type: none"> <li>• The Branch will be accountable to the community it serves through a Local Advisory Committee which will monitor and review the Branch’s activities.</li> </ul>
<ul style="list-style-type: none"> <li>• The Branch will set its own local cost-recovery tariff, apply this upon approval by the Minister, operate its own billing system and retain revenues in its own bank accounts separate from any NWSA authority, while paying an overhead contribution to NWSA Head Office for regulatory/technical services.</li> </ul>
<ul style="list-style-type: none"> <li>• The Branch will appoint its own staff, except for the three main management posts which will be via Ministerial resolution on agreed criteria.</li> </ul>
<ul style="list-style-type: none"> <li>• The Branch will apply a staff incentive scheme based on actual performance to supplement staff remuneration according to civil service standards.</li> </ul>
<ul style="list-style-type: none"> <li>• The Branch will prepare monthly operational reports and quarterly and annual statements of account for NWSA Head Office and the Minister of Electricity and Water.</li> </ul>



- The Branch will have its accounts audited by a private auditor appointed by the Central Audit Board while retaining the right of NWSA also to audit the Branch accounts as necessary.

The Technical Secretariat (TS), funded by GIZ,<sup>2</sup> was formed in 1995 to oversee and guide the implementation of the reform programme. The TS articulated the findings of the Policy and Strategy Study into a reform agenda that was adopted in the Cabinet Resolution #237. The reform agenda contained an elaborate array of tasks to carry out the reform process including conducting awareness raising, supporting technical and institutional capacity development. The TS supported the public private partnership (PPP) process in Sana'a LC including contract preparation. The TS also provides technical and financial support for the Performance Indicator Information System (PIIS) which was developed to monitor and assess the performance of LCs. The TS is instrumental in supporting of developing national policy documents and studies. It particularly provided support in the development of the National Water Sector Strategy and Investment Programme (NWSSIP) (2005-2009) and carrying out joint annual reviews (JARs) of the NWSSIP for the years 2006, 2007 and 2008.

### **Implementation of the reform process**

Three main activities were considered in implementing the reform process: support of the reform process, decentralisation and development of public private partnerships (PPPs).

#### *Support of the reform process*

To support the reform process several key activities were emphasised including technical and institutional development, stakeholder participation, community participation, information sharing, and customer relations. The process of technical and institutional development focused on policy analysis and diagnosis, implementation of the Cabinet Resolution #237, and monitoring and evaluation based on annual joint reviews.

Over 50 workshops were organised between 1996 and 2008 to engage a wide range of stakeholders. The workshops focused on education and building consensus. These workshops acted as a platform to involve local communities. These communities were also involved through the participation of local councils, civil societies, and others members of the communities in the

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<sup>2</sup> TS/GIZ refers to Technical Secretariat (TS)/Reform of the Institutional Framework in the Urban Water and Sanitation Sector and GIZ.



boards of director and the advisory boards of the LCs. Public awareness campaigns and media releases were used routinely to disseminate information on the reform programme.

A great emphasis was placed on customer relations. Dedicated departments were developed in LCs to handle customers inquires and complaints. Community mobilising workers (CMWs) were trained to reach out to the public through awareness activities. Women played a key role as part of the CMWs. In certain areas, such as Sana's and Aden, the LCs have offices that in addition to handling bill payments, respond to customer's complaints and minor technical problems.

### *Decentralisation*

Utilities were supported to achieve independence and maintain financial sustainability. Although LCs were initially required to recover at minimum their operation and maintenance cost (O&M), this requirement was relaxed given that these utilities achieve O&M cost recovery at a later stage<sup>3</sup>.

Support for decentralisation was in the form of providing technical and financial assistance to carry out several interventions including for example setting supervisory boards, assessment of investment needs, setting up organisation structure, and developing capacity in modern management tools, accounting, human resources management, tariff analysis, asset management and setting up service agreements.

### *Public private partnership (PPP)*

PPPs have not yet shown great promise in the reform programme. Sana'a LC attempted to establish a PPP. Despite some initial interest from the private sector during the pre-bidding process, no bids were made to undertake a lease offer for 8-10 years. Several reasons were cited for the lack of interest from the private sector including the acute water scarcity conditions in Sana'a, the provision to maintain the current staff, high level of poverty, lack of information on affordability and socioeconomic conditions, and the lack of independent regulation. There was also resistance from the LC staff and board of directors to enter on a management PPP.

Another example of a PPP is the Utility Support Programme (USP) between Taiz Water and Sanitation Local Corporation (TWSLC), Vitens NV and Netherlands government. The USP was established to deal with very poor water utility services. However, after two years the TWSLC could not manage to recover its O&M costs. This poor performance was attributed to weak

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<sup>3</sup> It is reported that these decisions are primarily in response to local demand and under the pressure of political interventions.



communications between TWSLC and Vitens, and the ambiguity of the implementation procedure.

### **Status of the reform programme**

The status of UWSS reform programme can be assessed based on changes in the following conditions: sector governance structure, level of coverage, financial sustainability, regulation and human resources development.

#### *Sector governance structure*

The reform programme has dramatically reshaped the UWSS sector. By 2008, 95% of the urban populations were served by the decentralised UWSS utilities that includes LCs, LC branches and autonomous UWSS utilities (AUWSSUs). These utilities are mostly running their own operation, making investment and staffing decisions. Although the overstaffing problem has been partially addressed through early retirement, this problem is still serious given the high poverty rates in the country and poor social security system.

#### *Level of coverage*

Table 2 shows the achieved and target level of coverage for water supply and sanitation. Although changes look modest, it is worth noting that Yemen has one of the highest population growth rates worldwide, with a national annual average of 3% and as high as 7-9% in the main urban centres.

Table 2. UWSS coverage rates

	<b>2002</b>	<b>2007</b>	<b>2009 (target)</b>
<b>Water supply</b>	47%	71%	56%
<b>Sanitation</b>	25%	52%	31%

#### *Financial sustainability*

Most LCs were able to achieve full recovery of operation and maintenance costs. Some were also able to recover the electro-mechanical depreciation. Full cost recovery is still not achieved mainly attributed to the substantial cost of capital investment and very low ability to pay due to widespread poverty.



Tariffs were restructured from six to three blocks. An affordable life line rate is charged on the first block or bracket of 5m<sup>3</sup> to 10m<sup>3</sup> to benefit the poor. The lifeline tariff assumes that the water and sanitation bill accounts for no more than 5% of the monthly household income of the poor and there are cross-subsidies from the higher block tariff. The average share of total monthly household expenditure on water is about 1.10%.

### *Regulation*

It was recognised from the onset of the reform initiative that regulation is necessary to maintain adherence to high quality services and financial transparency. A regulation study was completed in 2006 and recommended establishment of a provisional interim unit reporting directly to the Minister of Water and Environment. The unit will support the development of a regulating unit.

### *Human resources development*

The TS conducted a study to set up a human resources development programme, where 30 training modules for professional job categories were developed. 140 short training courses were implemented to enhance the technical capacity of the urban water supply and sanitation staff. It is estimated that the ratio of professionals has increased from 10.8% in 2005 to 12.9% in 2007. Staff with technical background increased from 18% to 24.6% during the same period.

### **Conclusion**

With technical and financial support from international donors including the GIZ, World Bank, and the Embassy of the Kingdom of the Netherlands (EKN), the urban water supply and sanitation sector in Yemen has undergone a major reform since early 1990's where operational and financial management has shifted from the central National Water and Sanitation Authority (NWSA) to several independent local corporations. This has been accompanied with redesign of the tariff structure, the introduction of regulation and an emphasis on cost recovery principles.

The experience has been generally successful with most of the urban users being currently served by LCs. Customer services have also improved. Level of technical competence among staff has increased as a result of an intensive programme of human resources development led by the GIZ. However, although most LCs were able to recover operational and maintenance costs and few recover electromechanical depreciation, none have achieved full cost recovery due to very high capital investment and high prevalence of poverty.

### **References**



Hanash, A.Q. (2007). “Performance Indicator Information System (PIIS).” Ministry of Water & Environment Annual Report 2006, MWE PIIS Unit.