

Ministry of Water & Environment
Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ)
German Technical Cooperation



Yemen Urban Water Supply and Sanitation Sector Reform

gtz



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GTZ Yemeni-German Technical Cooperation Water Sector Program
Technical Secretariat (TS)/Reform of the Institutional Framework
in the Urban Water and Sanitation Sector

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List of Abbreviations

AUWSSU	Autonomous urban water supply and sanitation utility
CMW	Community mobilisation worker
EKN	Embassy of the Kingdom of the Netherlands
FC	Financial cooperation
GTZ	Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) (German Technical Cooperation)
HRD	Human resource development
JAR	Joint annual review
KfW	Kreditanstalt für Wiederaufbau (German Development Bank)
LC	Local Corporation
MEW	Ministry of Electricity & Water
MoF	Ministry of Finance
MWE	Ministry of Water and Environment
NWSA HQ	National Water and Sanitation Authority headquarters
NWSSIP	National Water Sector Strategy and Investment Program
O&M	Operation and maintenance
PIIS	Performance Indicator Information System
PPP	Public private partnership
SWAp	Sector-wide approach for planning
TC	Technical cooperation
TS	Technical Secretariat (TS)/Reform of the Institutional Framework in the Urban Water and Sanitation Sector
UWSS	Urban water supply and sanitation
WB	World Bank

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Foreword



The Government of Yemen is committed to a policy of water sector reform. In particular, the urban water supply and sanitation (UWSS) sector reform process has led to the accumulation of a wealth of experience through more than

13 years of evolution, an experience that has had profound positive impacts, not only on the structure and functions of the UWSS sector, but also increased coverage in water supply and sanitation and applied a pro poor approach. It is a success story that is inspiring better ways of service provision and new visions of governance, nation wide.

Natural water-scarcity has given water a prominent role in shaping the Yemeni ethos. Historically, an elaborate system of formal and informal norms and laws slowly evolved to govern the use of surface water in a sustainable and fairly equitable manner. With the onset of modernisation, characterised by population increase, rising food demands, urbanisation, industrialization, and the infusion of modern technology, this situation began to change.

The reality of the water situation began to impose on the country the challenge of reducing the existing unsustainable use of water resources through improved management and planning rational utilisation of such resources, and the challenge of making clean drinking water available to the great majority of the inhabitants of urban and rural areas, and of providing sanitation services to inhabitants still lacking such services.

Water security became a key component of national security, especially in a country as water-scarce as Yemen. Water scarcity and the increased competition for water resources can become a source of economic and social disturbance affecting social stability and consequently national security.

Urban water supply and sanitation (UWSS) reform process: To address this situation, it was necessary to take reform measures and the process evolved along with a strategy to reform UWSS sector institutions and policies on both the supply side and the demand side as well as taking due consideration of environmental impacts. The UWSS reform process gained the support of the political leadership and the assistance of development partners mainly World Bank and Germany. An added value was the long-term advisory services provided by GTZ Yemeni-German Technical Cooperation (TC) Water Sector Program combined with the financial cooperation provided by KfW (German Development Bank). External funds were a contributing factor to the reform's success and increased service provision through the decentralisation of responsibility to locally accountable utilities, which will ultimately become self-financing, autonomous water supply and sanitation public companies. UWSS institutions are going through a critical but interesting phase of change and achievement. Despite the far-reaching positive changes achieved by the reform process, many tasks, like enhanced human resource development, remain to be addressed. But that is the nature of progress – it is continuous quest for change for the better.

Finally, it is worth mentioning that the Yemeni UWSS reform process is considered as one of the best reform agendas implemented in the MENA region.

I wish to thank the German Government, all development partners and whoever worked to make the reform process a success.

Abdul Rahman Fadhl Al-Eryani,
Minister of Water & Environment



Overview of UWSS sector reform



*By Eng. Anwer Sahooley,
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Institutional Frame-
work in the Urban
Water and Sanitation
Sector*

Access to water is a silent crisis experienced by all, particularly the poor, and tolerated by those who have means. This brochure is a narrative story of the UWSS sector reform implementation agenda. It explains how people, the environment, development and institutions interact during the course of change, and how imbalances could willfully and rationally be redressed in a sustainable way.

Why urban sector reform?

Key problems of the water sector

The water crisis in Yemen was first recognised in the mid 80s. The critical equilibrium of available water resources and domestic water use which existed for centuries began to break down. Overdraft of groundwater resulted from an incentive structure that makes water affordable for intensive agricultural use and does not encourage conservation, in the absence of an effective regulatory capacity and a system of tradable water rights for domestic water use. At the same time, demand for domestic water use, particularly in towns, was rising due to rapid population growth and rural-urban migration. The response of UWSS sector institutions in the country was inadequate in dealing with water shortage and increasing domestic demand. Meanwhile, the sector structure of the sector was evolving in a chaotic manner with two contradictory trends: namely, a wide dispersion of agencies being responsible for water on the one hand, and over-centralisation of UWSS on the other. Productivity and efficiency in urban service delivery were of secondary importance, while service coverage expansion was reaching the limits of institutional ineffectiveness. Moreover, the Yemeni water sector was highly influenced by

political interference.

An inadequate level of service was provided by the centralised National Water and Sanitation Authority (NWSA) which resulted in poor collection efficiency. Moreover, service coverage was poor and national tariffs were too low to cover O&M costs. Investment was not always distributed adequately to cover demand nor implemented efficiently, a situation that was also reflected in widespread frustration and low morale among employees and customers. The proportion of unaccounted for water (UFW) handled by urban water supply utilities was very high, approaching 45 to 50 % of total water production. A significant part of this was down to physical losses caused by neglected or deferred maintenance, the result being wastage of both water and financial resources. With regard to sanitation, cities and industries started to discharge untreated domestic and industrial wastewater into aquifers in urban areas. These indicators of inefficiencies were attestations to the absolute necessity to reform the UWSS sector.

Thanks to political will and donor involvement, attention has been focused to make water affordable to the poor. Some poor households were unable to pay for expensive water services. Poor people living in areas not adequately served by public water supply utilities are forced to use lower quality water or buy expensive water supplied by tankers or private networks.

The reform process

In the early 1990s, three parallel processes triggered the UWSS reform. Due to the poor performance and resistance to change of the over-centralised NWSA, the World Bank proposed a sector reform study to facilitate proper implementation and sustainability of future projects. At the same time, the Embassy of the Kingdom of the Netherlands (EKN) and GTZ discussed with NWSA the first branch that was to become independent in order to maintain the good performance achieved with the help of financial and technical assistance. The first autonomous Rada'a branch was assured by the Rada'a Principles which were developed by the EKN, NWSA, the World Bank and GTZ and approved

by the Ministry of Electricity and Water in 1995. These developments came about with the national reform and decentralisation policy of the Yemeni Government which backed and reinforced the whole process to be endorsed and implemented. The Technical Secretariat (TS)/Reform of the Institutional Framework in the Urban Water and Sanitation Sector/GTZ was launched in 1995 to implement the sector reform that was founded on the reform study. The TS/GTZ facilitated the reform process and conducted intensive investigations among stakeholders by running awareness- and consensus-building workshops, which resulted finally in the adaptation and transformation of the study recommendation to become Cabinet resolution 237 of November 1997 for the "Urban Water Supply and Sanitation Policy and Strategy Reform Agenda". The main pillars of the reform embrace decentralisation, corporatisation, commercialisation, community participation, capacity building, staff motivation, separation of service delivery and regulatory function, as well as public private partnership, with decentralisation, commercialisation and community participation spearheading the reform process. Consequently, the centralised structure of NWSA with its headquarters in Sana'a and branches in towns and cities throughout the country, is gradually being replaced by a decentralised system of UWSS local corporations (LCs) and their branches and autonomous UWSS utilities (AUWSSUs). The reform process is a sound combination of infrastructure investment with long-term advisory services in organisation development and restructuring of the institutional landscape to gain better service delivery, increased coverage and a 'pro poor' approach.

Achievements

Since decentralisation was started, the reform process in the UWSS sector has advanced to cover about 95% of the urban population served by local public utilities. Legal responsibility is being shifted to the LCs and decentralised public utilities at the local level which includes investment planning and implementation, financial viability and responsibility, gradual commercialisation as well as institutional and human resource development



(HRD). The proportion of the urban population connected to the water supply increased in the period from 2002 to 2007 from 47% to 56%, that is, from 2.4 million (2002) to 3.6 million (2007). With respect to sanitation, coverage increased from 25% to 31% in the same period, which in actual figures meant an increase from 1.3 million (2002) to 2.1 million (2007). The increase in water supply and sanitation coverage was achieved despite huge national population growth of 3.5%, this figure even reaching 7% in some urban areas. The German Government provided technical cooperation through GTZ Yemeni-German TC Water Sector Program and financial cooperation through KfW to the UWSS, which resulted in providing and improving the service level for about 1 million people in urban areas since interventions of German Development Cooperation, giving them access to a safe water supply. Service delivery has been improved, as manifested in an increase in collection efficiency to 92.2%, and the autonomous utilities have adapted a local tariff in which the first block is considered to be the 'pro poor' lifeline tariff.

Box 1: Success factors of Yemeni UWSS sector reform

- Continued political will and donor support
- Effective processes facilitation in UWSS sector reform of change through long-term commitment and a multi-level approach by GTZ Yemeni-German TC Water Sector Program at the national level and through the support of the TS/GTZ and at the local level through the utility support and capacity development program;
- Sound combination of technical and financial assistance especially within the milestone concept of German development cooperation supported by GTZ Yemeni-German TC Water Sector Program and KfW;
- Gradual approach towards introducing autonomous local utilities;
- Corporatisation instead of public private partnerships (PPPs) as the first step;
- Institutional development focusing on policy and strategy development and organisational restructuring combined with capacity development;
- Issuance of the local administration law;
- Monitoring of reform achievements.



1. The Reform Process

Early reform attempts

Focusing on UWSS and NWSA performance, as early as 1993 the World Bank (WB) and the German Government's development cooperation institutions, KfW and GTZ, found that it was difficult to implement any reform measures necessary or improve coverage significantly to make an impact on NWSA performance, due to very strong resistance to change and over-centralisation of the NWSA structure. At that time, only the technical functions and selected financial functions are assigned to the branches, to centralise power at NWSA headquarters (HQ). The principal constraints of this structure were as follows: tariffs were set by the national government at levels insufficient to meet O&M; the revenues were controlled by NWSA HQ; civil service salaries were too low to motivate staff; the branches were dependent on NWSA HQ for hiring and firing staff and were unable to maintain adequate staffing levels for efficient management; budgets allocated to branches were inadequate; and NWSA procedures and management systems were inadequate to run the branches on a more efficient cost recovery basis.

Reform triggers

Decentralisation in Yemen

Decentralisation of local authorities was high on the political agenda of the Yemeni Government. This led to the preparation of the local administration law No. (4) issued in 2000, which was aimed at implementing a pro-decentralisation policy. In addition, Law No. (35) was amended by Law No.(7) in 1997, which concerned public corporations, authorities and companies. These laws, even while under preparation, paved the way for the water sector policy and strategy recommendations to reform the UWSS sector in accordance with decentralisation principles.

UWSS Sector Policy & Strategy Study

In October 1994, the Government of Yemen asked the WB to extend the loan agreement for the Mukalla water project. The World Bank stipulated UWSS tariff increase and sector reforms as conditions for extension of the contract and NWSA accepted. Agreement was reached between NWSA and the WB on sector reform

framework mechanisms in May 1995, including the appointment of a consultant to conduct the study and formation of the Steering Committee and the TS for the day to day implementation of the reform by Prime Minister resolution.

The study was funded by the WB loan as it increasingly became clear that a strategic framework was needed for developing and changing the way Yemen manages its UWSS sector if it was to become more sustainable. This framework was provided by the Policy & Strategy Study (PSS).

This study, which would become the blueprint of the reform process, was conducted by John Kalbermatten during 1995-6.

The Policy & Strategy Study proposed a seven pronged strategy:

1. Separation of regulatory and executive functions
2. Financial sustainability
3. Decentralisation
4. Commercialisation
5. Human resource development
6. Community participation
7. Private sector participation

Decentralisation of the 1st UWSS branch

Evolving from the investment by the Embassy of the Kingdom of the Netherlands (EKN) in a new water and sewerage project in Rada'a and technical assistance within a concept of community participation in project planning, implementation, and operation including tariff setting during the period 1988-1997, a consensus building process was initiated involving five stakeholders: the Yemeni partners, the Ministry of Electricity and Water (MEW) and NWSA, and the donors, that is the EKN, the World Bank and the GTZ. This process was set up in order to continue the high quality of service, to enable the branch to operate and maintain its assets efficiently and to achieve financial viability. In 1995, the chief result of the discussion and consensus process was the development and adaptation of the Rada'a Principles. These principles still guide the decentralisation process today.

Box 2: Rada'a Principles

- 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.
- The Branch will be accountable to the community it serves through a Local Advisory Committee which will monitor and review the Branch's activities.
- 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.
- The Branch will appoint its own staff, except for the three main management posts which will be via Ministerial resolution on agreed criteria.
- The Branch will apply a staff incentive scheme based on actual performance to supplement staff remuneration according to civil service standards.
- 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.
- 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.

In 1995, it was agreed to operate the Rada'a branch, under the Rada'a Principles of decentralisation, as an independent NWSA branch outside the regular bureaucratic structure and which should only allow indirect control by the central government. The Rada'a pilot branch should be managed as a model for applying the recommendations of the PSS reform report and to monitor and to provide the first guidelines for subsequent UWSS decentralisation and reforms.

Start of reform

The three triggers described above have been put into effect by the Technical Secretariat/



GTZ established in 1995, in combination with intensive awareness-building among the decision-

makers and various stakeholders, to support the development, approval and implementation of the Cabinet Resolution.

Cabinet Resolution 237 of 1997 was based on the Policy and Strategy Study and spells out the policy and provides the legal framework of the UWSS sector reforms.

It states the general principles and basis of sector policy, defines the objectives of the Government's policy in the sector, defines the supervisory, executive, financial, HRD and community participation functions and PPPs of the sector, assigns the sector agencies concerned with implementation of the Resolution, sets out the stages of structural reform implementation, and provides for the role of the Minister.

The UWSS objectives set out in the Cabinet Resolution, are:

- increase coverage by WSS services
- financial sustainability of WSS utilities
- separation of sector regulatory and executive functions
- decentralisation
- knowledge and skills development
- community participation

Out of these 6 major tracks, decentralisation spearheaded the reform process, with community

participation in the setting-up of the new local administrations, human resource development, improved financial sustainability and the introduction of commercialised accounting structures also involved at the same time.

Reform management

In the early nineties, a niche existed within what was then the Ministry of Electricity and Water (MEW) for the emergence and evolution of a viable reform process. This made it possible for the UWSS reforms to take a role in the unfolding events of the water sector reform process. Following the reform study in 1995, an Inter-ministerial Steering Committee and the TS/GTZ were formed by Prime Minister resolution. The role of the Steering Committee was to oversee the reform process in general with the TS/GTZ (reporting directly to the Minister of MEW) as the day-to-day implementation arm. As the reform process matured, with the Ministry taking a greater role, the Steering Committee gradually lost its function and the TS/GTZ became an essential catalyst for reform operations, to develop, support and build capacity for the reform policy under the direct supervision of the Minister.

The role of the TS/GTZ

TS/GTZ is providing assistance to MWE in the implementation of the reform agenda. The first task of the TS/GTZ was to gather support from various stakeholders to translate the reform study into a reform agenda that would receive the approval of the Cabinet. Upon issuing of Cabinet Resolution Nr. 237, the TS/GTZ implemented the reform agenda, which contained a huge variety of tasks, the most important of which are outlined in this paragraph. The TS/GTZ applied the change process and within conducted awareness campaigns for a better understanding of reform and institutional development, facilitated consensus-building, built up capacity, provided advice on all issues pertaining to UWSS sector reform and secured a sound combination of technical and institutional developments to implement the decentralisation process under commercial aspects. In particular, German technical and financial support was combined to draft milestone concepts for launching the change process and institutional intervention. In addition to the German financing, the TS/GTZ mobilised donor funding for decentralisation from the EKN, the EU and the World Bank. The TS/GTZ facilitated the PPP process for Sana'a and



participated actively in the contract development team and pre-bidding preparations. In the following years, the TS/GTZ supported financially and technically development and implementation of the Performance Indicator Information System (PIIS) for the national and the local levels. The TS/GTZ supervises the PIIS unit of the Ministry of Water and Environment (MWE) which has a mandate to monitor the performance of the decentralised utilities in order to assess the success of the institutional reform. In addition, the TS/GTZ is playing a pivotal role in facilitation, coordination and publication of the National Water Sector and Investment Program (NWSSIP) 2005 -2009 and has guided the sector stakeholder to conduct the joint annual review (JAR) of NWSSIP implementation for the years 2006, 2007 and 2008. Currently, the TS/GTZ is the major facilitator in the development process and follow-up to the final NWSSIP update with the water sector stakeholders. In light of donor alignment, the TS/GTZ, together with the World Bank, carried out a Poverty and Social Impact Analysis for the groundwater irrigated agriculture, rural water supply and sanitation (RWSS) and UWSS sectors into the success and shortcomings of reform implementation to feed back into the NWSSIP update. During the course of decentralisation, the TS/GTZ was conducting a study into consolidation of decentralisation to safeguard the autonomy of the public utilities. Last but not least, a regulation study was supervised by the TS/GTZ and financed by the World Bank. The TS/GTZ facilitated the decision process in respect of the kind of appropriate regulation model for Yemen in 2006/07. Currently, the TS/GTZ is financing the development of the decree to set up the interim unit within the MWE and support the decision process in the MWE to finalize and submit the decree.

Role of the development partners

Fragmented and incoherent, the donor community was reluctant before the mid 90s to provide continuous support and incentives for reform. By the mid 90s, changes in the situation of the political economy of Yemen and the growing awareness among donors of inefficiencies due to the lack of coordination meant the time was right for better alignment and launching of the sector reform process. Once the reform process was launched and the political will demonstrated, development partners collaborated to take a major role in this effort, at all levels by determining timing, policy, strategy and the pace of the reform process. Within the framework of the Paris Declaration and now the emerging sector-wide approach (SWAp), this effort is closely coordinated with other donors, such as the World Bank, Germany, UNDP, the UK's Department for International Development (DFID) and the EKN.

Legal framework of urban sector reform

The evolving legal framework supported decentralisation from the national level in the form of LCs, branches and AUWSSUs and the overall urban reform principles in Cabinet Resolution 237 of 1997.

Preparation of the Local Administration Law No. 4 of 2000 and the amendment of the Law no. (35) into Law no. (7) in 1997 which concerned public corporations, authorities and public companies was a stimulus in supporting the UWSS reform agenda in the field of decentralisation. The Law No. (7) states that public corporations must perform their operations in accordance with financial and economical principles, can enter into credit agreements and must formulate a plan to pay off these credit. Furthermore, public corporations can distribute part of their net profits to provide employee incentives and are supervised by a Board of Directors (BoD). In addition to the topics covered by the Law No. (7), the Republican Decree on the Establishment of Local Corporations allows utilities to develop their own investment plans and programmes and to make use of external grants and loans. The decree stipulates that the LCs operate in accordance with sound economic and commercial principles and encourages LCs to enter into PPPs.

The Water Law, which was passed in 2002 and was amended in 2006, provided the legal basis for controlling groundwater abstractions and gave top priority to the allocation of resources for the domestic water supply.

The move towards an integrated sector governance structure involving all agencies dealing with water and environment (other than those for irrigation) was consolidated in the establishment of the Ministry of Water and Environment (MWE) in 2003 and the issuance of its organisational bylaw under the Republican Decree No. (218) of 2004.

The National Water Sector Strategy and Investment Program (NWSSIP) for the period from 2005 to 2009 is the guideline document for the development of Yemen's water sector. It was developed in a multi-stakeholder process involving the entire water sector and was approved by the Cabinet. The NWSSIP defines policy, strategy and a detailed action plan, including goals and indicators and a comprehensive investment plan. The objectives for UWSS are derived from Cabinet Resolution No. 237 and strongly supported the reform process and its accomplishments. Implementation of the NWSSIP is monitored by means of the joint annual review (JAR).

Reform mechanism

The focus of the UWSS reform mechanism is on reforming sector institutions to enable them to be managed in a sustainable way. While implementing water supply and sanitation projects, utilities should aim at increasing coverage. With a policy and a legal framework now in place, it became possible to focus on institutional structures and functions. The main thrust of this effort was on decentralisation. To establish a feedback loop between outputs and inputs of the reform process and to ensure smooth and continuous, adaptive and corrective action, three tracks were developed: i) Apply change process, ii) Enhance the role of community and stakeholder participation and keep them informed; and iii) Build up customer relations.

Apply change process

The reform of the UWSS sector succeeded through a sound combination of technical and institutional development (figure 1) based on the four main steps of change management. These steps are:

analysis and diagnosis as carried out in the policy and strategy study of UWSS by Kalbermatten; designing interventions materialised broadly in Cabinet Resolution No. 237, which were described in more detail in the NWSSIP; implementing the change programme supported on a long-term basis by GTZ, through different short-term interventions by other consultants and the partner side; and monitoring and evaluating all levels in the sector, as done by means of the annual joint review of the implementation of the NWSSIP and in the case of the urban public sector utilities, by MWE by means of the Performance Indicator Information System (PIIS).

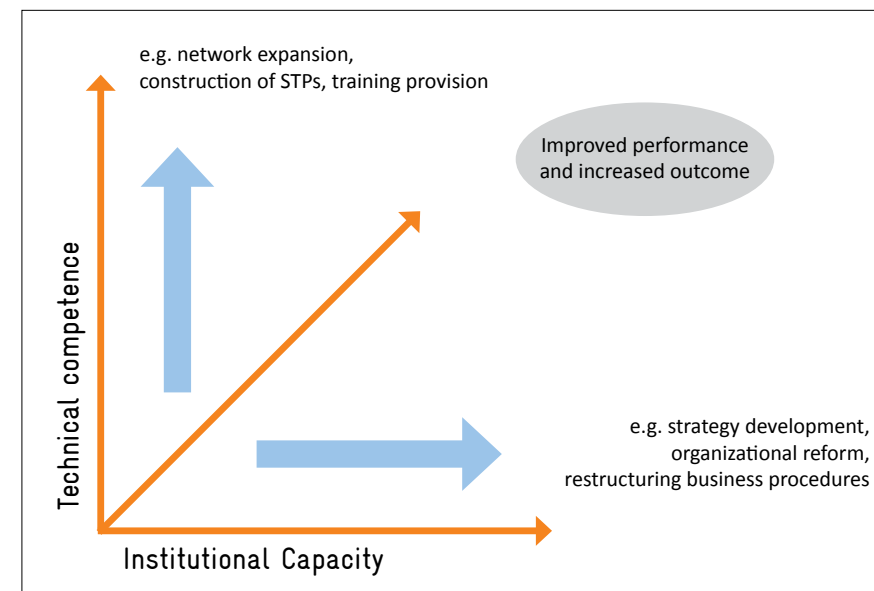


Figure (1): Technical competence and institutional development (Source: AWW; Christine Laures; Jochen Renger 2007)

GTZ Yemeni-German TC Water Sector Program has supported selected towns in the change process while technical assistance was continued or phased out in areas where the utility was able to cope independently. Another mechanism employed to build capacity was to provide coaching to utilities.



Stakeholder Participation

The TS/GTZ conducted workshops at every stage of the reform process, encouraging and obtaining a wide range and high level of stakeholder participation. About 54 workshops were organised by the TS/GTZ between 1996 and 2008. These workshops employed creative consensus-building and problem-solving techniques such as brainstorming and problem formulation and adopted a combination of educational and decisions-making objectives to build consensus or educate stakeholders in certain topics. The Yemeni water sector stakeholders went even further in strategic planning and sector coordination by developing the NWSSIP, which demonstrates their status as owners and offers guidance for future approaches and investment. In the NWSSIP, objectives are broken down into action plans whose implementation is monitored in the joint annual reviews.

Community participation

Enhancing community participation was crucial to the success of the reform process. This approach was systematically adopted right from the start in the form of two main tracks: the first was a series of workshops with wide stakeholder participation by all public, private and local entities concerned with the UWSS reforms; in second, the boards of director (BOD) or advisory boards of decentralised utilities acts as effective tools in involving local councils, civil society, private-sector and other community representatives in the decision-making process, as well as getting them



to represent of community interests and enhance LCs with community experience. Despite this, active involvement of customer representatives needs to be strengthened in future. In general at the operational level, efforts are being made to enhance the philosophy and understanding of the benefits of customer-friendly attitudes in utilities and to design, build and manage utilities accordingly. Further work is still needed to improve customer orientation approach.

Information sharing

Sector stakeholders, the community at large and civil society in general were kept informed and aware of changes going on in the sector through good public relations work, regular public awareness campaigns, press releases and television interviews.

Customer relations

The establishment of the first customer relations departments and the information centres in Hodeidah and the AUWSSUs of the Tihama region were opened by the GTZ Yemeni-German TC Water Sector Program. Community representation on the boards of the utilities heightened the focus on customers with the creation of communication and awareness departments for dealing with consumer complaints and offering information. Particularly in towns benefiting from support from GTZ, the customer relations departments and information centres conducted awareness activities and information campaigns during the construction phase of water supply and sanitation schemes (including wastewater treatment plants) financed by KfW and also after they had actually gone into operation. Women have been heavily involved in the awareness activities conducted among the population. Consumers have been informed about the advantages, benefits and cost implications of connecting houses to water supply and sewerage systems -including treatment - which add about 70% to utility revenue. These awareness activities and information campaigns are carried out by community mobilizing workers (CMWs). The towns have chosen the CMWs in a gender oriented matter. They are playing a vital role in building a good relationship between the water utilities and communities. Some of the CMWs have afterwards been taken on by utilities to continue running awareness activities, information campaigns and to deal with customer complaints. Customer relation offices at the utilities maintain healthy and



responsive relations with customers on a day-to-day basis by assisting them solve their complaints relating to the respective utility.

Some LCs, such as the ones in Sana'a and Aden, established a number of area offices within the LCs to handle the payment of bills, deal with customer's technical complaints and carry out minor technical repairs. What's more, they also installed a system by which customers can pay their bills at a post office.

Decentralisation process

The decentralisation process was started in line with the Rada'a Principles and those utilities that are able to cover their operation and maintenance (O&M) costs have been decentralized. In the course of time, few utilities have been given the mandate to become independent even if they have not yet reached full O&M cost coverage due to local demand and political interventions. This was accepted on the understanding that they will improve their performance to cover O&M at a later stage. The common process for decentralisation was to analyse the institutional situation to design interventions for institutional strengthening through technical and financial assistance.

According to the analysis, interventions have for the most part been designed in line with the following topics to be tackled by the newly independent utilities:

- Setting-up of the supervisory board with local administration and customer representation and instructing its members on their tasks
- Identification of investment needs

- Strengthening of local decision-making and introduction of modern management tools
- Setting-up of the organisation structure and chart with the minimum possible number of staff per 1000 connections
- Application of commercial accounting and reporting practice; installation of the necessary computer software for billing, accounting, payrole, inventory, Performance Indicator Information System (PIIS) and trained utilities staff in computer skills and use systems and analysis for utility management; supporting discussions with newly appointed external auditors
- Supporting of human resource planning pertains to a transparent selection process and the appointment of management staff by the Minister of MWE when needed, the hiring of subordinate staff by the utility, the reduction of overstaffing, the drawing-up of job descriptions, training need assessment and the configuration and implementation of staff training programmes
- Tariff analysis in relation to cost estimates, adjustments to cover O&M and the introduction and operation of a pro poor lifeline tariff in the first block
- Asset re-evaluation and the introduction of asset management and depreciation accounts
- Introduction of the concept of consumer satisfaction and consumer relation departments
- Setting-up of service agreements eg. for maintenance between Local Corporations and utilities within their administrative boundaries
- Private sector participation through the outsourcing of services



Box 3: Institutional strengthening

Improvements in the institutional framework and utility processes gathered pace in line with the sector reform policy. In addition to implementing investment programmes for infrastructures by Financial Cooperation, the GTZ Yemeni-German TC Water Sector Programme supported the provision of small-scale hardware, installed the necessary computer software for billing, accounting, payroll, inventory and utility monitoring, trained utilities staff in computer and management skills and placed emphasis on water quality. The German-financed Provincial Towns Project of KfW was implemented in parallel with GTZ's Yemeni-German TC Water Sector Program institutional strengthening programme and projects such as those at the Hajjah, Al Mokah, Mansouria, Bajil, Zabid and Bait Al Faqih utilities became good candidates for implementation of the reform principles.

With decentralisation becoming a reality, sometimes intervention shifted from the central to the regional and local levels. The fear of interventions from LCs to AUWSSUs and the local Government were echoed in a number of utilities. In 2007, a study into consolidation of decentralisation aimed at providing more autonomy to LCs and AUWSSUs and suggested ways to become more financially independent. The study recommended establishing public companies to enhance autonomy, to reduce political intervention and to gain financial independency.



Public private partnership (PPP)

Lease contract for Sana'a LC

In 2000, Sana'a was the first NWSA branch to be established as an autonomous Local Corporation. In addition, Sana'a was the only utility where a Board of Directors (BOD) was established for improving performance prior to the establishment of the LC. In 1999, the technical and institutional capacity of the Sana'a utility was analysed with the main focus on staffing, tariffs, business procedures and infrastructure. The PPP options study in 1999 recommended a lease contract and foresaw a high estimated annual impact of YR 1.275 billion per annum through selected improvements in operational and financial efficiency with the private provider. An 8 -10 - years lease contract was designed to half the amount of unaccounted for water (UFW), increase sewer connections 5-fold and raise collection efficiency from 60% to 95%. A contract development team (CDT) was set up comprising an international legal expert, the Sana'a LC BOD, the International Development Association (IDA) and the TS/GTZ. The process from prequalification through to submission of the bids took around 18 month. Three international private operators submitted prequalification documents. Unfortunately, no bid was received from the prequalified potential bidders. The contract development team together with IDA later came to the conclusion that the lease contract was not an attractive and secure option for private operators due to the lack of information, scarce water resources, overstaffing (with a condition of the lease arrangement being to maintain staff level), low household incomes, poor data availability from socioeconomic and affordability studies and as well as the absence of a regulatory body. After this failure, a management contract was envisaged but never materialised due to opposition from LC staff and BoD. Hence, the LC continued to implement the identified interventions under the corporate structure and clearly advanced to be one of the good players in the sector.

Table (1) below shows a comparison of the current performance of the Sana'a LC and the improvements promised in the lease contract in order to demonstrate that corporatisation was a good way to enhance performance, bearing in mind that international experience offered little prospect of the planned targets being achieved. The situation with respect to UFW and sewer connections has improved greatly, but the figures are still lower than the planned 8 to 10-year lease target. On the other hand, collection efficiency is even higher than planned under the lease contract.



	1999	Lease target in 8/10 years	2007
UFW (%)	50	25	38
Sewer connection	19 000	90 000	70 245
Collection (%)	60	95	97

Table (1): Comparison data gathered by the Sana'a LC in 1999 (option study) and the PIIS in 2007

Utility support program in Taiz

The Utility Support Program (USP) is a public private partnership arrangement between Taiz Water and Sanitation Local Corporation (TWSLC), Vitens NV and the Royal Netherlands Government, which was developed following field visits made by Vitens and at the request of MWE to enter into a PPP to combat the deteriorating situation in Taiz. In 2005, TWSLC was not able to cover its operation and maintenance costs. Outstanding bills were very high due to poor service delivery and management. The level of coverage provided

by the public utility was 60%, while the level of unaccounted for water in Taiz was around 40%. The quality of the water supply is deteriorating with regard to salinity and nitrates coming from the source. The main obstacle is the seasonal water shortage, which results in frequent service delivery failures that occur between once every 7 and once every 25 days.

The PPP was set up with a performance-related payment scheme linked to the following performance indicators and annual targets.

Performance indicator	Definition
Improvement in energy efficiency	The reduction of overall energy consumption (in percent) in operation and maintenance of the facilities per cubic metre of water produced compared with the base year
Operating efficiency	The increase in the total volume of water billed to customers as a percentage of the total volume of water production, as measured by metres at well heads.
Supply of water	The percentage of connected households supplied 3 m ³ of water once in a 6-day rotation cycle (according to actual field measurements at preselected sites identified in the equitable distribution plan).
Collection of outstanding debt	The gross outstanding debt collected expressed as a percentage of the total outstanding debt.

Table (2) Performance indicators on which the performance-related payment scheme is based

Performance Indicator	Targets		
	Year (1)	Year (2)	Year (3)
Improvement in energy efficiency	10%	10%	5%
Operating efficiency	5%	5%	5%
Supply of water	60%	70%	80%
Collection of outstanding debt	20%	20%	20%

Table (3) Targets set for the payment-related performance indicators

Several activities have been launched, but owing to some shortcomings, the technical auditing team of the utility support program (USP) has concluded that no significant change in the performance indicators mentioned above in table (2) was achieved. Moreover, it is even difficult to evaluate the achievements and the current status of the USP as objectives, tasks and activities of the PPP contract have not been clearly linked to the performance indicators. In addition, reporting procedures are either inadequate or not in place, which hampering the assessment of the current situation of the USP.

The main shortcomings of the USP are twofold: on the one hand unclear implementation procedures and on the other hand vague and malfunctioning lines of communication between Vitens and TWSLC. These have hindered proper implementation of activities introduced to improve the quality of service delivery by TWSLC. Together with the lack of absorption capacity and lack of commitment shown at TWSLC, this has made progress practically impossible. Despite all the obstacles, the technical auditing team – which was set up by MWE, TWSLC and Vitens to monitor the PPP arrangement – has also noted that two years is far too short a period

to expect any substantial changes in the difficult situation of Taiz. All parties are currently assessing the situation, so that they can decide on whether they wish to extend the current contract or not. The consensus is that Taiz will require the assistance of a long-term advisory service to improve its situation with a more suitable set-up.



Box 4: PPP GTZ/VAG

The goal of the PPP project is to reduce technical water losses by means of effective and adjusted pressure management, to enable the utility to distribute water more equally in the project area and to increase know-how in efficient and modern network management which can lead to both water and costs savings. The PPP contract is between the German company VAG Armaturen GmbH and TS/GTZ, with the beneficiary being Sana'a LC, which provides staff, equipment, civil works, training facilities and transport.

The water resources of the Sana'a watershed are scarce. At present, the water losses of the Sana'a LC amount to around 38%. It is estimated that about 50% of the losses are due to bad network conditions and another 15% due to leakages from system valves. Big differences in supply pressure are responsible for a large number of leakages.

A valve with pressure sensor, flow meter and programmable logic controller (PLC) recorder are installed in the project area to reduce the supply pressure and the risk of new leakages. Trainings will be conducted.

2. What has been achieved so far

Sector governance structure

The Ministry of Water and Environment set up in 2003 reflected political awareness of sector problems and commitment to tackle them and the tremendous level of water scarcity in Yemen, which affects all other sectors of the economy and economic development in general. The Ministry is charged with the task of reorganising the water sector particularly with regard to creating an institutional structure for integrated water management, preparing the necessary institutional and investment framework, carrying out strategic planning and monitoring and evaluating the progress made.

Since the successful launch of the Rada'a pilot project, the centralised structure of NWSA is gradually being replaced by a decentralised system of UWSS LCs, LC branches and AUWSSUs. Decentralised UWSS utilities are currently responsible to provide services and UWSS planning for about 95% of the urban population. This is not equal to current urban coverage. Currently, LCs and their branches, AUWSSUs and NWSA are responsible for urban service provision as shown in figure (2).

Box 5: Dates of foundation of independent utilities

The number of LCs, which are for the most part located in the capitals of governorates, was progressively increased from 1 (3/2000) to 7 (1/2005) and to 15 (7/2008). 2 LCs (Sana'a city and Aden) were established in 2000, 5 LCs (Hudeidah, Mukallah coastal areas, Wadi Hadramout, Taiz and Ibb) in 2001, 2 LCs (Hajjah and Al-Bayda) in 2005, 4 LCs (Sadah, Abyan, Lahj and Dhamar) in 2006, and 2 further LCs (Amran and Ad-Dalle) were established in 2008. In addition, 10 AUWSSUs have been decentralised to date. Some LCs have affiliated utilities within their administrative boundaries of the same governorate without prejudicing the autonomy of such branches.

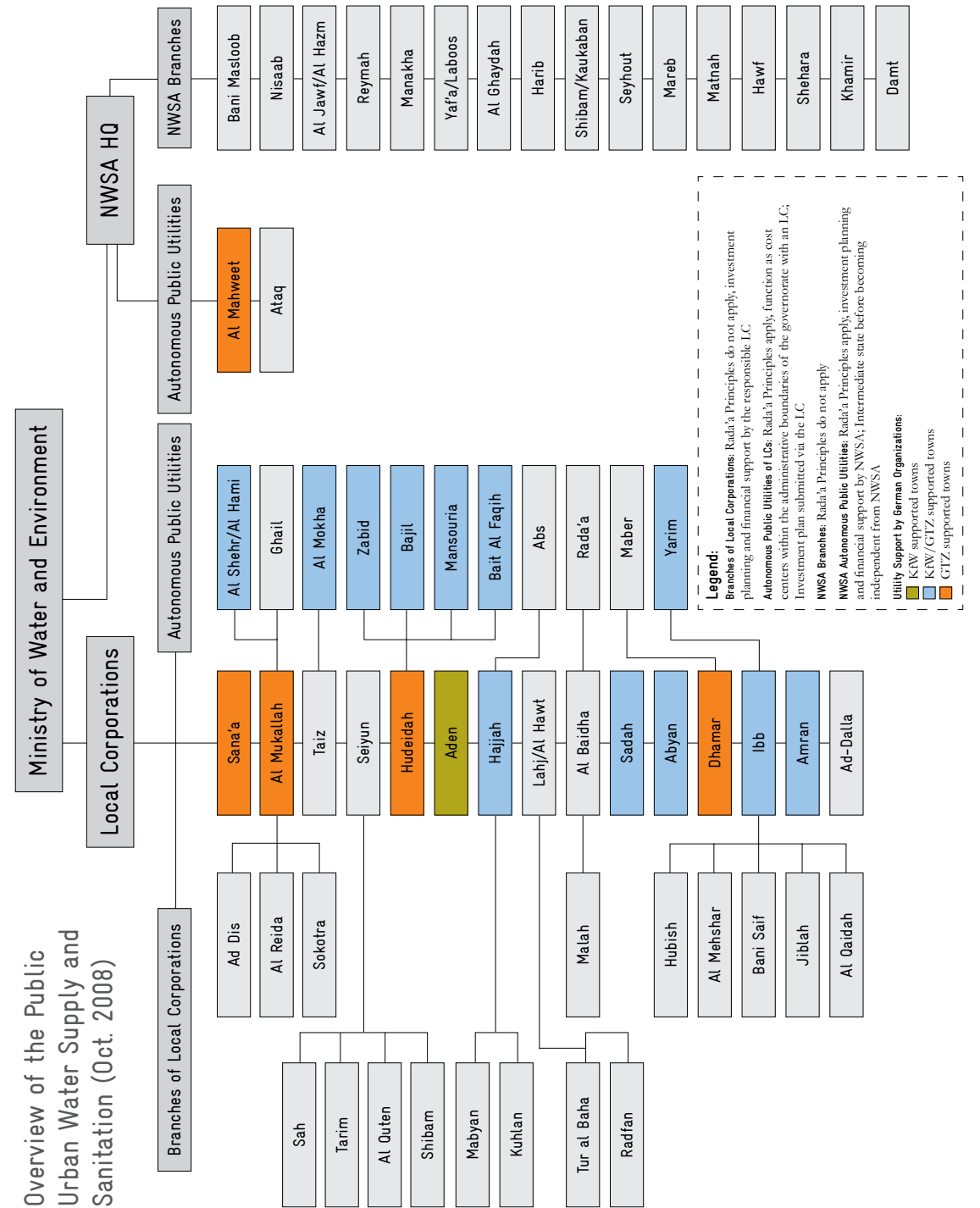


Figure (2): Overview of UWSS utilities October 2008

The ongoing decentralisation has resulted in increased ownership by LCs and AUWSSUs. The financial implications of this are that the utilities implement their investment programmes and operate their systems on a progressive, commercial basis founded on the fundamental principles of commercial accounting. Some overstaffing has been reduced by paying for early retirement, paying basic salaries to staff who stay at home and retraining staff to enable them to perform advanced services (such as in Hajjah, Al Mawheet, Sadah and Abyan). Nevertheless, inherited overstaffing is still a sensitive and difficult issue to solve in Yemen due to widespread poverty, unemployment and an inadequate social security system at the macro level.

Box 6: Overstaffing in utilities on the example of Hudeidah

Overstaffing has been substantially reduced at the Hudeidah LC. It boasts a ratio of just 6.1 employees per 1,000 connections compared with between 7.1 and 10.1 at other utilities of the same size. Hudeidah adopted a concept of intensive rather than extensive staffing, which means that a member of staff is commissioned to do more than one job. In addition to encouraging retirement and keeping new appointments to a minimum, staff streamlining was achieved by transferring staff to newly established branches, such as those in Salif and Qutey. This unfortunately is not a general trend, but something that can be encouraged and applied at other LCs.

The LCs' corporate structure means that autonomous management and operation are conducted at the local level. Each LC has a board of directors and each AUWSSU has an advisory committee with representatives such as the governor, who is the chairman of the LC, representatives of the utility, local administration, local level, private sector, consumers and MWE. They mainly supervise operations of the utility, decide on depreciation savings, propose tariff adjustments, approval of budget and endorse business and investment plans.



Coverage

The number of people with access to a safe water supply and sanitation is increasing. The table below shows the baseline manifested in the NWSSIP for water supply and sanitation coverage, the targets for 2009 and the achievements investigated in JAR 2007 by public utilities. Despite good results from reform of the sector, Yemen is struggling to cope with a huge national population growth rate of 3.02%, with up to 7% in some urban centres. Yemen has a total population of 22 million, with up to 6.2 million people living in urban areas according to the 2004 census, which was updated in 2008. The increase in coverage can barely match this rate of population growth.

	NWSSIP baseline 2002	NWSSIP target 2009	Achieved in 2007 (JAR 2007)
Water Supply	47%	71%	56%
Sanitation	25%	52%	31%

Table (4): Coverage targets

Water supply coverage of the country's urban population rose during the period from 2002 to 2009 from 2.4 to 3.6 million. With respect to sanitation, coverage increased from 1.3 million people in 2002 to 2.1 million people in 2007. Due to the German Government's support in the area of UWSS alone, more than 1 million people in urban areas have been given access to a safe water supply.

Financial sustainability

Cost recovery

The cost recovery practices of the various LCs differ according to the local situation. The accepted norm is for the tariff to be set such that the operation and maintenance costs are recovered at the least, with the Government financing new schemes, replacements and extensions. However, in some cases, such as Sana'a, financing is obtained through credits from international financing agencies, with a subsidiary loan agreement between the Sana'a LC and the Ministry of Finance (MoF), the loan having to be paid back to the MoF. According to JAR 2007, O&M costs are widely recovered and some LCs and AUWSSUs also recover the electro-mechanical depreciation. The main difficulty remains in achieving full cost recovery in the utilities due to the huge investment cost and the difficulty of increasing tariffs due to the high level of poverty in Yemen.



Box 7: Full cost recovery

Most LCs do not achieve full cost recovery. Hudeidah, for example, is suffering from high depreciation rates and is not able to adjust the tariff accordingly. However, new autonomous utilities such as Bait al Faqih have been able to achieve full cost recovery. It has a new system and low losses, indicating a functional and efficient network, no inherited staff, good consumer satisfaction and consequently greater leeway to set more optimum tariffs and to achieve good collection efficiency. Bait al Faqih was provided continuous assistance by GTZ with the goal of turning it into a well-functioning utility that runs and maintains the new system as it should be.

According to JAR 2007, unaccounted for water is down to 27.8% and collection efficiency has risen to 92.2% as a national average. However, some utilities have low collection efficiency which if increased could also add to their financial viability. Three of the main drivers for improving financial sustainability, namely unaccounted for water, collection efficiency and customer satisfaction, will be tackled within the framework of the NWSSIP update.

Pro poor orientation

Poor people are benefiting substantially from water supply and sanitation services. An affordable lifeline rate is charged on the first block or bracket of 5m³ to 10m³ 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%, which amounts to about YR 1,363, while the average monthly expenditure on qat, leaves to be chewed in the afternoon, is about eight times (YR 10,888) the amount paid for water according to the household budget survey (2005-2006).

Tariffs

Tariffs are set locally in accordance with Cabinet Resolution No. 237. During the reform process, the block tariff system was modified from six to three block tariffs. The three-tier block tariffs are common in Yemen and are designed to cover O&M costs at the very least and ideally also the full depreciation of electromechanical equipment. The first block is the cross-subsidised lifeline tariff. Some LCs and utilities designed the blocks for Governments, schools and commercial users to go straight into the full cost recovery tariff without benefiting from the lower tariffs. The table below shows an example of the range of water tariffs applied to the different blocks.

	Categories of Consumption	Water Tariff (YR/m ³)	Sewerage Tariff (YR/m ³)
Domestic	(0-5)	20-140	50-80%
	(6-20)	30-150	
	(11-20)	40-180	
	(over 20)	70-220	
Government and Schools	(0-10)	60-120	50-80%
	(over 10)	90-350	
Commercial and others	(0-10)	60-90	50-80%
	(over 10)	90-250	

Table (5): Example of the Yemeni local water and sanitation tariff structure 2007, USD 1 = YR 198 (Source: Presentation by Ziad Shawagfeh)

Box 8: Tariffs versus cost coverage

Tariffs are calculated according to the metered amount of water consumed and the type of customer. The table below shows that cost coverage is sometimes difficult to achieve due to the type of clients in the town: for example, Mahweet can not cover its costs, while Dhamar is able to. Mahweet has over 50% of its clients in the lifeline tariff. Altogether, 90% are in the domestic block, which means that 40% of clients benefit from the lifeline tariff for the first 5 m³ of water and only 10% of clients cover the full cost of the water from the first meterable amount they consume. This is not sufficient to cover the overall cost in the case of Mahweet. The clients in Dhamar are better distributed among the different blocks with 36% in the lifeline block and 44% in the higher block tariff. In addition to that, schools and the Government consume 12% of the total water supply, while 5% are commercial clients who are in the highest block tariff and consume at least 7% of the water supply. This client constellation enables Dhamar to cover its costs.

Type of Client	cbm	Mahweet		Dhamar	
		% of clients	% water con.	% of clients	% water con.
Domestic	> 0-5	53%	24%	16%	2%
	> 5-10	17%	14%	20%	12%
	> 10-15	20%	49%	44%	37%
	> 15-20			7%	10%
	> 20-30			5%	20%
	> 30				
Government	< 10				
	> 10				
Schools	< 10				
	> 10	7%	9%	3%	12%
Commercial	< 10				
	> 10	3%	4%	5%	7%
Others	< 10	Mahweet* (01/05)			
	> 10	First bracket 0-3			

Table (6): Percentage of clients and consumption in each tariff group based on the example of 2 utilities, Dec. 2007 (Source: Presentation by Ziad Shawagfeh)

Assigning clients to tariff blocks in a manner that enables full cost recovery is part of the challenge. However, tariff adjustments are infrequent and often take no due consideration of the high rate of inflation, frequent salary increases and currency exchange rates. This makes it difficult to meet cost coverage needs. However, the overriding objective of tariff policy has to remain the financial health of the utilities, with due consideration being paid to poor clients.

is an agreement between the Yemeni and donor side. The main task of the interim unit is to hire personnel on a competitive and transparent basis, to start with the capacity building, develop policies and build up the institutional and organization arrangements to be transferred to an independent regulator upon the issuing of the law.

Regulation

Critical to the reform programme is the creation of a regulatory institution, responsible for economic regulation like compatibility between performances of utilities, providing good water quality and good service levels on the onside and tariffs on the other. Economic regulation aiming at creating satisfaction between consumer and providers while providing good service at fair and economically sustainable cost. This is essential to protect the public and to attract the private sector.

The regulation study was completed in 2006, and the stakeholders in the sector have agreed that an independent regulator should be established. The draft law to establish and run the independent regulator is currently awaiting the approval of the Ministry of Legal Affairs. The set up of a provisional interim unit which will operate directly under the supervision of the Minister of MWE was agreed upon in the Water action plan which





Human resources development

The technical assistance provided during the first decade of sector reform focused mainly on training services alone. The TS/GTZ conducted the HRD study, in which 90 modules to include all job categories were prepared. Based on these job categories, 30 training modules for specific categories were developed and training courses set up. These modules were used to implement a total of 140 short courses with support from the GTZ Yemeni-German TC Water Sector Program between 2000 and 2006. During the period from July 2007 to May 2008, 12 additional courses with 227 participants were successfully implemented. This contributed to the current staffing conditions where the proportion of professionals increased between 2005 and 2007 (JAR) from 10.8% to 12.9% and staff with a technical background increased

from 18% to 24.6% out of 7,400 staff in UWSS. In contrast to the previous support provided, which focused on training the personnel of utilities, the current phase emphasizes a wider and more holistic approach to personnel development, adding important elements of institutionalising personnel development in all water utilities, introducing performance appraisal systems, incentive schemes, revised job descriptions and recruitment procedures and developing the necessary instruments to make training activities demand-oriented and well planned. Ten guiding principles were developed and agreed with the utilities and MWE. They form the backbone of the holistic HRD approach, reflecting the particular framework conditions in Yemen and good international practice.

Box 9: Human resource development guiding principles in brief are:

1. Clear responsibilities for HRD are established and reflected in clear job profiles/descriptions for HRD officers.
2. Sufficient budgets will be allocated for HRD.
3. Demand for HRD will be related to the roles, functions and mandate.
4. Annual training plans will be compiled indicating demand-based training activities.
5. Forecasts for human resources' needs will be made.
6. Emphasis to be placed on career development to enhance motivation and on retaining qualified staff.
7. Available options and systems will be devoted to transfer knowledge and skills.
8. Staff incentive schemes will be based on actual performance.
9. The transparency of recruitment procedures for staff will be increased.
10. Sector-specific terms of employment will be gradually developed to attract, retain and motivate qualified staff.

National Water Sector Strategy and Investment Program (NWSSIP) 2005 - 2009 and update 2009 - 2015

With technical support from TS/GTZ and the World Bank, the newly established Ministry of Water and Environment initiated in 2004 – 2005 a participatory process to elaborate a strategy outlining the priorities and resources needed to meet the challenges facing the sector and the Millennium Development Goals (MDGs) as reflected in the Government's Poverty Reduction Strategy (PRS) for the next five years.

MWE aimed at a shared vision with all partners to sector development by setting clear quantitative and qualitative targets for policy, strategy, institutional, legislative and investment actions, and addressing the problems of disintegrated responsibility dispersed between various bodies and the lack of adequate funds. The strategy aims to mobilise resources from the Government and

donor community by clearly outlining priorities, objectives, actions and necessary investment.

In terms of UWSS, the NWSSIP aims to increase the coverage of good water services as well as the water quality and to focus on the urban poor. It also focuses on decentralising and handing over service provision to the local utilities and on keeping policy-making, regulation, monitoring and the provision of support at the national level. Private-sector input and financing should increase. LCs should become financially and administratively independent. Implementation is monitored within the scope of the joint annual review of the NWSSIP. The NWSSIP was approved by the Cabinet and endorsed in a declaration of support by the donor community in Yemen, namely the World Bank, Germany, the EKN, Japan, DFID, the EU, and UNDP



Box 10: NWSSIP update

A multi-ministerial exercise, the NWSSIP update is in progress. The planned period for the update is 2009 – 2015. In a participatory approach, subsectors and institutional groups dealing with cross-cutting issues developed result chains, log frames and action plans that are connected to an investment programme. A Water Sector Support Program (WSSP) will be one of the financing instruments in the NWSSIP update. Donors like the World Bank, EKN, DFID and Germany are aligning their support under the umbrella of the Water Sector Support Program.

The TS/GTZ and the World Bank played a pivotal role in implementation of NWSSIP, the NWSSIP update and the Water Sector Support Program.

Monitoring and evaluation:

PIIS, benchmarks & JAR

Performance Indicator Information System (PIIS)

The PIIS was developed by the TS/GTZ in coordination with MWE, independent utilities and NWSA as part of the reform process. In 2004, the software-based PIIS was implemented at the local and national levels to gather operational, financial and technical data based on International Water Association (IWA) guidelines for utility and sector management. The task of MWE's PIIS unit is to monitor the performance of the decentralised utilities in order to assess the success of the institutional reform. The PIIS report 2006 has been widely distributed in the UWSS sector and among the donor community.



Benchmarks

In 2006, MWE, with technical assistance from TS/GTZ, embarked upon an analysis of all utilities using the PIIS to set benchmarks for the UWSS sector. This move aimed to increase competition among utilities, to ease comparison and to develop a tool for setting targets for improvement. These benchmarks help utilities define their priorities and design their annual investment programmes accordingly. Implementation of these benchmarks is still awaiting approval by MWE.

The following benchmarks are proposed:

- An annual increase of UWSS coverage by 1% in addition to coverage due to population growth until 2012

- Reduction of non-revenue water by 20% in 2, 3 or 5 years regarding the number of water connections
- Lower the zero-reading ratio to 3% within 3 years
- Improve water quality by measuring number of residual chlorine samples according to standards (0.2-0.5 ppm) per total number of samples taken has to be 95% within 3 years
- Improve effluent by measuring number of BOD-samples according to standards (<30mg/l) per total number of samples taken has to be 90% within 5 years
- Increase cost coverage of O&M plus capital costs of electromechanical equipment to 100% within 3 years
- Increase collection efficiency to 95% within 2 years
- Reduce the domestic and commercial debt period to no longer than 90 days and reduce the Government debt period to no longer than 180 days within 3 years
- Decrease the number of staff per 1,000 water and sewer connections (individual value for each utility) within 7 years
- Resolve 100% of financial complaints and 90% of technical complaints (time period to be fixed)

Joint annual review (JAR)

In addition, the Government of Yemen and the donors' joint annual reviews (JARs) of the NWSSIP evaluate the progress made in implementing the action and investment plan and its objectives in the whole water sector. They look back at previous years, highlight key issues and summarise the analysis of capacity development and organisation strengthening in terms of decentralisation, the ratio of professional staff, the average number of training days and the implementation of monitoring tools. Furthermore, the reviews analyse outcome indicators such as coverage, water production, as well as financial indicators in the UWSS sector's budgetary performance and effective investments. These analyses form the basis for conclusions about the programme's performance. The participants include all key stakeholders, such as ministers, parliamentarians, members of the consultative council, members of the local councils, NGOs, water users associations and donors. All three JARs performed in 2006, 2007 and 2008 have been conducted with support of the TS/GTZ.

3. Challenges remaining

Water supply and sanitation coverage

To increase UWSS coverage, an annual investment of USD 150 million is required, and an extra 100 million m³ of water will be needed by 2015 according to the NWSSIP 2005 – 2009. As far as is feasible, coverage will be expanded to the poorer section of society. At the same time as extra financing has to be absorbed, measures such as utilities staff, local consultants and contractor capacity building should be conducted by the Government with the help of development partners to increase absorptive capacity for investment implementation, and criteria will be set to make sure that priority is given to pro poor investments. Measures include increasing the speed of project preparation and implementation and initiating steps toward a programme-based approach. However, improvement of absorption capacity is complementary to the provision of investments and additional water resources needed for infrastructure development. These remain a challenge for MWE to tackle and take the necessary action with the assistance of all development partners.

Promoting private investment and public private partnerships

Within the framework of the NWSSIP update, MWE is reviewing the possibility of improving the environment in order to enable the domestic private sector to consolidate and expand its urban water supply provision and investments, which are

currently constrained by an uncertain environment and absence of an independent regulatory body.

Regulation

MWE follows approval of the law for the independent regulator with the Ministry of Legal Affairs. Work is currently being done on preparing a decree to set up the interim regulation unit for a limited period. This unit will report directly to the Minister of MWE. The main task of the interim unit is to build up the institutional and organisational arrangements, develop policies and set working procedures until the unit can be transferred to the independent regulator. The development partners expressed readiness to finance the entire costs of capacity building, consultancy and equipment, while the operation costs and salaries will be shared equally between MWE and the development partners. The interim regulatory unit should start to be set up during the first quarter of 2009.

Consolidation of decentralisation

In 2007, a study clarified the relationships between LCs and AUWSSUs and the local Government and devised an appropriate set-up at the governorate and local levels to enhance autonomy of the utilities by recommending the creation of public companies. This proposal was widely accepted by stakeholders and was integrated in the NWSSIP update to be pursued gradually.

Box 11: Public company structure

In the public company structure, management will be separated from the ownership of assets. The owners will be represented in the General Assembly and the management is constituted in the management board. This structure supports the creation of checks and balances in the General Assembly. It gives voting rights both to shareholders – who are mainly local government – and to community representatives. The tasks of the General Assembly include the approval of business plans and the final accounts, and the appointment of an external auditor and the management board. It has no direct influence on operational matters, tariff decisions, staffing etc., which minimizes the potential for political interference. The functions of the management board include the formulation of internal regulations and business policy, determining fundamental production costs and performance criteria for the company's staff, following up the implementation of projects and responsibility for revenues and expenditures. The figure below shows one possibility of a public company set-up proposed by the consolidation study.

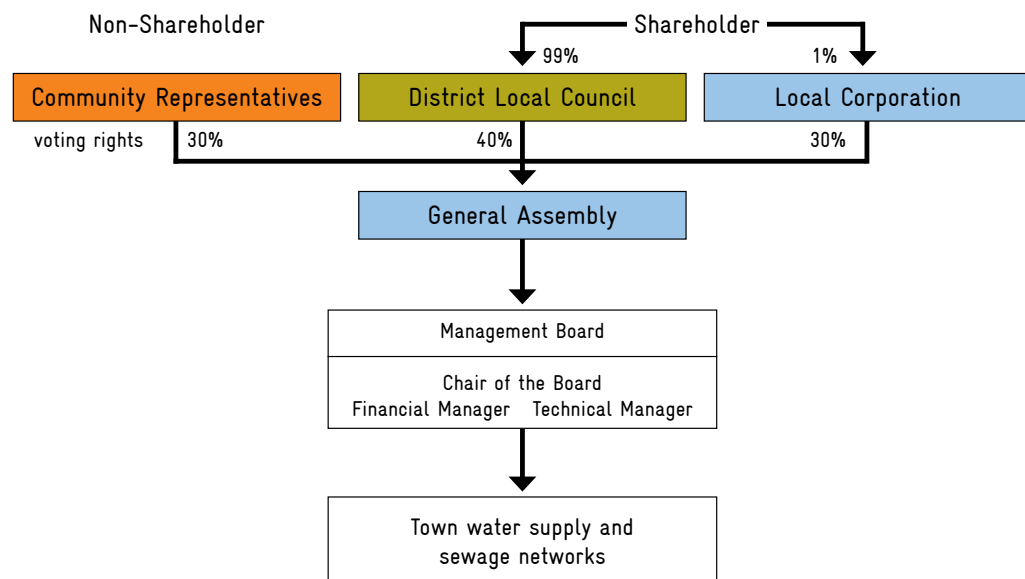


Figure (3): Town water supply and sanitation public companies
(Source: Consolidating the decentralisation in UWSS, MAC 2008)

The proposed set-up will have four supervision levels. Consumer and political supervision is carried out through the representatives in the General Assembly. The Assembly will supervise the implementation of the business policy of the management board on the utility level. The future regulator will supervise matters of financial viability and justifications for investment. The shift toward public companies also has implications for the roles of other players. MWE alone will define the subsidy policy, while Ministry of Planning and International Cooperation (MoPIC) will be responsible for mobilising donor funds. Ministry of Finance (MoF) is expected to establish annual financial ceilings, develop financial instruments and sign the financial contracts with the utilities.

The next steps in implementation of this approach will be the acceptance of the bylaw and the identification of pilot utilities to examine this approach. At the same time, setting-up of the regulator, the definition of an appropriate subsidy policy and the development of appropriate financial solutions with Ministry of Finance (MoF) will be key to the success of the approach.

Human resource development

Professional and competent human resources to carry out the huge management and development tasks in the water sector are very scarce in Yemen. The reasons for this are well known: low-paying government jobs, poor incentives and limited opportunities for career development. The major shift of HRD to a more holistic, systematic and functional approach, meeting the demand to upgrade personnel, will hopefully enhance sustainable capacity development. Parallel to HRD planning in the institutions, existing upgrading courses are still scattered and do not fully reflect the needs of the water utilities. In addition, there is a need for a long-term human resource development programme, including intensive professional and degree-oriented training. A systematic assessment of training needs will supply information on current needs and training institutions will be advised to respond to those needs in order to supplement training provision in a systematic way.

4. Lessons learned

Political will, local administration law, determination by Ministry of Water and Environment (MWE), continuous donor assistance, 11 years of long-term advisory services by TS/GTZ for implementation of the reform and internal reform dynamics combined to ultimately overcome all obstacles. Political will and local demand go hand in hand with public awareness. Furthermore, the right mix of financial assistance, technical know-how and institutional development from development agencies leads to a successful sector reform. Nevertheless, more attention should be paid to the consolidation of decentralisation and holistic human resources development at all levels during the decentralisation process, in addition to continued public awareness and a positive attitude towards customer relations.



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