

Chapter 3: The Urban Water Supply and Sanitation (UWSS) Programme

A. Subsector Issues and NWSSIP I

The NWSSIP I programme in urban water and sanitation was based on the ongoing sector reform objectives set out in Cabinet resolution (237/ 1997), namely: to increase coverage; to establish financial sustainability of the utilities; to separate sector regulatory and executive functions; to decentralize service provision; to develop knowledge and skills; and to involve the private sector.

To achieve these objectives, NWSSIP I was designed to continue the policy of progressively decentralizing responsibility for service provision by setting up further autonomous local corporations, consolidating the autonomy of existing local corporations, preparing the ground for an independent regulatory function, further strengthening MWE's monitoring, supporting and policy making role, and promoting a wider private sector and community role in sector funding and management.

The NWSSIP I action plan provided for nine actions grouped under three strategic heads:

Expanding coverage through: an increased investment programme

Continuing the reform process by: evaluating and deepening the reform programme; developing regulatory, monitoring, support and policy functions; working towards financial sustainability of water utilities; and promoting private investment and public private partnerships

Improving utility performance by: continuing capacity building and performance improvement; enhancing community participation; securing additional water sources for cities; and formulating a policy for sea water or brackish groundwater desalination.

Performance under NWSSIP I shows that reforms continue basically on track and are beginning to yield their fruits. According to JAR III, water supply coverage has increased from 2.4 million urban residents (47% of the then total urban population) in 2002 to 3.6 million, 56% of the (increased) urban population in 2007. Sanitation coverage has increased from 1.3 million urban residents (25% of the total) in 2002 to 2.0 million, 31% of the (increased) total in 2007.

In 2006, 18 out of 23 utilities reporting under the Performance Indicator Information System provided water on a daily basis. Water availability in 2007 averaged 58 litres per consumer per day, well within the NWSSIP I benchmarks of 40-100 litres per consumer per day. The institutional reform process has continued: by 2007, 95% of the urban population served was supplied by autonomous utilities.

These achievements are considerable, but nonetheless fall short of the expectations of NWSSIP I, particularly in regard to expansion of coverage. NWSSIP I set a high target of 4.9 million urban residents covered by water supply by 2009, 71% of the expected urban population: as noted above, the actual achievement by 2007 was only 3.6 million residents covered, 56% of the urban population. Achievements in sanitation are likely to fall even further short of the 2009 NWSSIP I targets (see Table 3.1).

Table 3.1: Service coverage of the urban population

	Base year 2002	Actual 2007	NWSSIP I target 2009
Water supply	47%	56%	71%
Sanitation	25%	31%	52%

Source JAR III

The most important factor that has constrained the achievement of NWSSIP I targets has been investment finance and the associated institutional capacity to implement investment programmes. NWSSIP I targets were based on an average investment of \$150 million a year. This has never been achieved (see Table 3.2). Financing allocated by government and donors has averaged only 62% of the NWSSIP I requirement. Then, institutional constraints both on the financing and budgeting side and on the implementation side have reduced actual spending to less than half of the proposed levels (45%). The trend is, however, improving with both financing approved and actual disbursements well up in 2007, suggesting improved confidence of financiers and strengthened implementation capacity.

**Table 3.2: Target and actual spending on urban water and sanitation
2005-7 (\$ millions)**

	Approved	% of NWSSIP target	Disbursed	% of NWSSIP target
NWSSIP I target	150		150	
2005	64	43%	45	30%
2006	100	66%	76	51%
2007	117	78%	83	55%
2005-7 average	94	62%	68	45%

Source: JAR III

Utilities in general have a more business-like approach, the performance monitoring system allows comparison over time and between utilities, and customer satisfaction has in many utilities improved. Investment efficiency is slightly less than NWSSIP I targets: the target cost per household connection was \$2,170, the actual in 2007 was \$2,382. Despite improvements, operational efficiency continues to require attention. Unaccounted for water in 2007 averaged 28%, against a NWSSIP I target of 20% (25% for older systems). Collection efficiency rose to 92% in 2007, compared to 90% in the baseline year (2005).

It is clear that the NWSSIP I expectations were over-ambitious. Targets need to be more realistic, and further institutional strengthening is needed in order to achieve the revised objectives. In addition, some fine tuning of the reforms is needed. Financial autonomy remains a distant prospect for many utilities. Tariff increases, despite improvement over the former centralized system, still prove problematic in some cases. Little progress has

been made on the private sector agenda, and much of the subsidy that is supposed to go to the poor in fact goes to the better off. The independent regulator has not yet been set up.

The NWSSIP Update has therefore introduced some key changes and improvements that are expected to get the programme fully on track and up to speed. These changes and improvements are discussed in Sections B and C below.

B. The NWSSIP Update

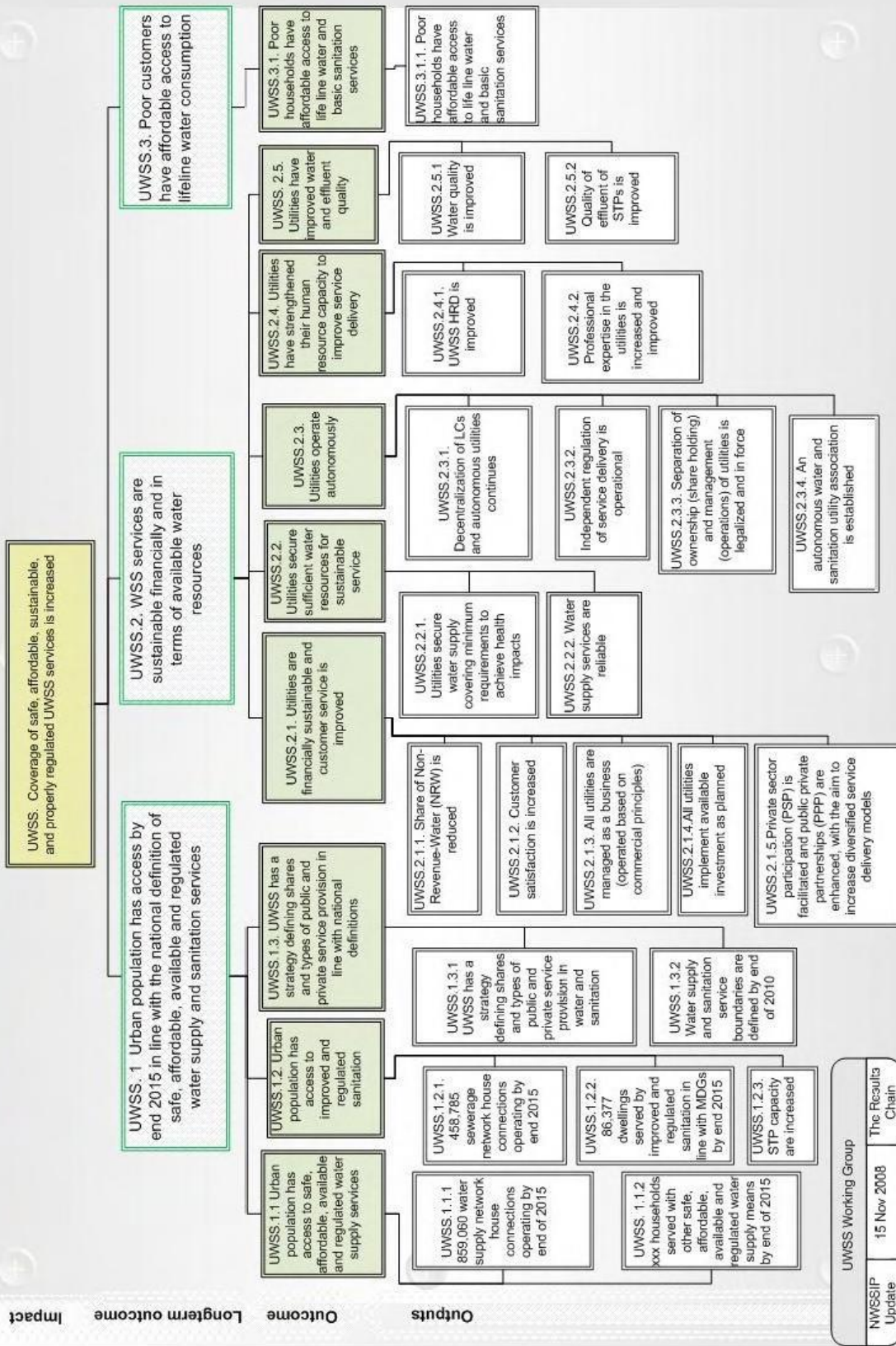
Programme Overview

The objectives set in the NWSSIP Update are broadly similar to those of NWSSIP I, slightly reordered and strengthened. The goal is *to increase urban water supply and sanitation coverage while keeping services affordable to the poor, safe, sustainable and properly regulated*. The target date is 2015. Three objectives are targeted: (1) to increase access for the entire urban population; (2) to keep services sustainable and affordable; (3) and to ensure that the poor have affordable access. The attached Results Chain shows how the outputs and outcomes of the Update contribute to these objectives.

In summary the main themes and changes in the Update are as follows:

- The criteria and definition of coverage have been amended to include regulated private supply and decentralized sanitation, and it is proposed to delink the monitoring of access under the NWSSIP Update from the criteria and definitions adopted and monitored under the MDG Joint Monitoring Programme.
- Coverage targets 2008-2015 have been reduced from NWSSIP I levels as implementation capacity and financial availability were less than expected
- The capacity building programme has been significantly strengthened in order to develop the institutional capability to implement the enlarged investment programme and to further improve service delivery.
- New decentralized sanitation technology has been included in the investment programme.
- The utility decentralization programme is to be completed by 2015, coupled with strengthened autonomy of the utilities on a business basis.
- Investment and management by the utilities places more focus on improved service delivery through management and rehabilitation investment, with lowered targets for network expansion.
- The public sector role is to be further strengthened and focused on policy making, regulation, monitoring and support functions.
- The private sector is to be systematically involved in both service provision and outsourcing of functions.
- Mechanisms to secure water resources are to be strengthened, respecting existing water rights and ensuring no uncompensated harm
- More investment and management will be devoted to water quality.
- The poverty focus is to be further sharpened.

UWSS – The results Chain, Based on 15 Nov edition



Proposed investment plan

A massive physical investment 2008-2015 of \$1,478 million is proposed (Table 3.3). Of this, \$529 million is programmed for the 2008-2010 period (an annual investment rate of \$176 million), and \$949 million for the 2011-2015 period (an annual investment rate of \$190 million). The physical investment plan covers only public providers. In addition, an investment of \$56 million in policy implementation and institutional development is proposed.

Table 3.3: Public sector investment in water and sanitation 2009-2015 (\$ millions)¹

	2008-2010	2011-2015	Total 2008-2015
	\$	\$	\$
Water supply			
- New programmes	59	361	420
- Ongoing programmes	173	13	188
- Rehabilitation	55	131	186
<i>Subtotal: Water supply</i>	<i>287</i>	<i>505</i>	<i>793</i>
Sanitation			
- New	41	228	269
- Ongoing	147	26	173
- Decentralized systems	15	90	105
- Sewage treatment plants	40	100	140
<i>Subtotal: Sanitation</i>	<i>243</i>	<i>445</i>	<i>688</i>
Total: Physical investment	529	949	1,478
Policy implementation and institutional development	20	36	56
TOTAL	549	985	1,534

Source: EAYRB

The proposed annual level of investment (\$192 million average 2008-2015) is higher than that proposed under NWSSIP I (\$150 million) and well above the actual disbursements under NWSSIP I (\$83 million in 2007, see Table 3.2 above). Considerable institutional support and improvements in efficiency are essential to enable the sector to absorb the level of resources being proposed.

¹ Costs for water supply rehabilitation needs are based on assumptions, as the detailed planning and assessment will be done in the next two years. The costs for sanitation derive from the estimation given by the utilities. The cost for capacity increase of sewage treatment plants is partially included. The cost and magnitude for decentralized sanitation will be fixed after investigating possibilities and targets of the utilities. The costs for sanitation on the household level, e.g. for septic tanks or other improved sanitation facilities, are not included in the investment plan as the costs are borne by private households and will not be part of the monitoring efforts of the water sector unless emptying is regulated.

Targets for water supply

The NWSSIP Update proposes revised, lower targets than those of NWSSIP 1 for water supply coverage: 6 million urban residents covered by public network supply by 2015 (see Table 3.4), against the NWSSIP 1 target of 8.90 million. Investment in 346,727 new connections added to the existing 512,333 will give a total of 859,060 house connections by 2015. In addition, 95,718 connections will be rehabilitated by 2015. Coverage of the (growing) urban population is expected to increase slightly from the current 56% to about the level of 60%: in effect, the expansion of public networks will just keep ahead of the pace of urban growth.

Table 3.4: Urban population covered by water supply

		Public Networks				Private Supply	
		Urban Population	Household connections	Population covered	%	Population covered	%
Base year	2002	5.20 mn		2.40 mn	47%	-	-
Latest actuals	2007	6.40 mn	512,333	3.60 mn	56%	-	-
NWSSIP Update target	2015	9.76 mn	859,060	6.00 mn	60%	0.49 mn	5%

The reasons for reducing the targets from NWSSIP I levels are:

- The rate of growth of urban populations (3-7% depending on the town) is more rapid than expected, so that increasing the percentage coverage has become increasingly difficult
- Experience has shown that the implementation and management capacity of the public utilities is less than expected
- The financing required to expand public network supply to reach 75% coverage by 2015 - an estimated \$4 billion 2009-2015 – is beyond what can be made available from government budgets or donor aid
- In many cities the investment priority is to rehabilitate existing systems and to maintain existing coverage and supply rather than to invest in expansion
- Some cities face problems in securing water sources for public network supply

Achievement of the proposed revised targets depends upon the availability of financing and on the implementation capacity of the utilities. It is expected that the introduction of the SWAp approach based on the NWSSIP Update will increase the finance available. The considerable investment in capacity building and the proposed establishment of procurement and implementation units in the major utilities should increase implementation capability. In addition, the investment program provides for a progressive increase in investment levels, reflecting the expected growth over time of both financing and absorptive capacity.

Nonetheless, the targets remain indicative. Lower levels of financing, or slower than expected improvements in implementation capacity, will result in slower extension of coverage. In view of the uncertainties about financing levels and the pace of implementation, the proposed investment program and related targets will be reviewed and adjusted after three years in a “mid-term review”, the results being presented at the JAR 2011.

To complement the reduced expectation from the public sector, the NWSSIP Update considers for the first time the contribution of private supply. Private water supply is the sole source of water in one form or another for the 40% of Yemen’s urban population not currently connected to public networks, and private businesses provide complementary water supply to most of the rest. Private supply will be considered for planning and monitoring purposes, provided that it meets the criteria for safe water coverage (see next section) and is within the regulatory, planning and monitoring framework. Much work remains to be done on this question (see below, Outcome 1.3) but an indicative contribution of 5% coverage by 2015 has been included in the NWSSIP Update target. This 5% will comprise both existing private supply brought within the regulatory framework and regulated new development. This target will be reviewed and adjusted at the time of the “mid-term review” presented at the JAR 2011.

Changed criteria and definitions for water supply

In NWSSIP I, Yemen adopted the MDG criteria and definitions for determining water supply coverage. However, in practice these criteria have proved to be too general and the definition of coverage to be too limited, and the NWSSIP Update has incorporated two changes: (1) to the criteria for water supply coverage; and (2) to the list of acceptable supply systems.

Instead of the MDG Joint Monitoring Programme criterion that access be simply to “improved” water, Yemen has adopted specific criteria, requiring that water be safe, affordable, available and regulated (see box). These criteria allow Yemen to meet WHO guidelines for safe and affordable water, but also reflect the reality of the local water resources scarcity and the large role played by the private sector in urban water supply.

Four criteria for water supply coverage under the NWSSIP Update

The Yemeni UWSS sub-sector considers urban population to be covered with water supply if the service meets four criteria:

- **Safe** according to WHO guidelines
- **Affordable** according to WHO guidelines that monthly household expenditure on water and sanitation should not exceed 5% of household income.
- **Available** every day for at least six hours and in water scarce areas at least once a week for six hours per day. This reflects the limited water availability in many Yemeni settlements, in particular Sana’a and Taiz.
- **Regulated** by the independent regulator for the sector (or MWE until the regulator is operational).

Regarding definition of acceptable supply systems, the NWSSIP Update adds to the six criteria recognized by the MDG Joint Monitoring Program a seventh system, tanker supply, provided that it meets the four criteria. This enlarged definition recognizes the reality that many Yemeni settlements are well served by the private tanker trade and that this will continue for the foreseeable future.

The seven water supply systems accepted for the NWSSIP Update

- Household connection
- Public standpipe
- Borehole
- Protected dug well
- Protected spring
- Rainwater collection
- Tanker supply*

** Not currently recognized by the MDG Joint Monitoring Programme*

Targets for sanitation

As for water supply, the sanitation targets have been reduced, and for the same practical reasons. The public utilities do not have the capacity or financing to implement so ambitious a programme. In addition, practical and economic difficulties have been encountered with network sewerage and centralized treatment systems due to the difficult Yemeni topography and the low flow of waste water.

Table 3.5: Urban population covered by sanitation

		Urban Population	Public centralized networks			Decentralized systems	
			House connections	Population covered	%	Population covered	%
Base year	2002	5.20 mn		1.30 mn	25%	-	-
Latest actuals	2007	6.40 mn	284,545	2.00 mn	31%	-	-
NWSSIP Update target	2015	9.76 mn	458,785	3.21 mn	33%	0.61 mn	6%

The problems with centralized systems have led to consideration of decentralized systems, which are in many cases the safest and most cost effective solution. Decentralized systems are therefore given priority in the Update. The action plan provides for a study of options for decentralized sanitation and treatment to be carried out by 2010 (1.2.2) and for strategic planning to incorporate the load coming from decentralized systems (1.2.3). The investment programme also provides for 86,377 households to be connected to decentralized systems by 2015, about 6% of all urban households.

In the light of the above, the NWSSIP Update targets a further 260,617 household connections by 2015 (of which 86,377 decentralized). Investment in central sewage treatment plant capacity of \$140 million 2009-2015 will bring capacity to a daily 325,000 m³ by 2015.

In addition, the action plan provides for joint efforts between the utilities and municipalities to introduce by 2010 regulated private cess pit emptying and delivery to sewage treatment plants.

Criteria and definitions for sanitation

The NWSSIP Update takes as its criterion for improved sanitation coverage that *the system should be within the regulatory and monitoring framework*. In addition to the five acceptable sanitation systems included in the MDG Joint Monitoring Programme, decentralized sanitation systems are also considered, provided that they are regulated and monitored. This enlarged definition reflects the fact that Yemeni topography and the low flow of waste water can make centralized sewage treatment systems uneconomic. The six sanitation systems accepted for the NWSSIP Update are shown in the box.

The six sanitation systems accepted for the NWSSIP Update
<ul style="list-style-type: none">▪ Connection to a public sewer▪ Connection to a septic system▪ Pour-flush latrine▪ Simple pit latrine▪ Ventilated improved pit latrines▪ Semi-decentralized options*
<p style="text-align: center;"><i>* Not currently recognized by the MDG Joint Monitoring Programme</i></p>

Policy implementation and institutional development

Total investment in policy implementation and institutional development is expected to be a sizeable \$56 million over the period to 2015. Annual investment will average \$7 million throughout the period.

This high level of investment in institution building – and the “front loading” of the investment programme in the first three years – is well justified by the need to achieve further gains in implementation efficiency and service delivery.

Over half of the investment (\$30.7 million, 2.3) will be devoted to completing the institutional development of the network of autonomous decentralized utilities. It is planned that there will be 23 autonomous Local Corporations and 40 autonomous utilities by 2015, with full financial accountability and autonomy. It is expected that by 2015 about eight of the Local Corporations will be converted to public company status under local ownership. The process will start with a pilot phase in 2009. The pilot will be monitored and evaluated, and the experience will be scaled up when the findings are conclusive. Service standards and affordability will be assured by independent regulation: the regulator will be in place by 2010. An interim regulatory unit will be established within MWE during 2009 in order to develop procedures without delegation of regulatory powers. MWE, not the interim unit, will act as the regulator until the independent regulator is operational.

To reinforce the viability of the utilities and to improve customer satisfaction, a major investment will be made in improving financially sustainable services (\$14.3 million, 2.1). Support to cost recovery and to reducing non-revenue water will improve income, and increased use of outsourcing should reduce costs and improve service standards. The preparation of business plans, strengthening of M&E, and the introduction of benchmarking will strengthen the business approach of the utilities.

Sourcing sustainable and adequate water supply has become an increasing problem and major investment (\$9.0 million, 2.2) will be made, in partnership with NWRA, to identify resources and to develop equitable and sustainable models for resource transfer. Although priority is accorded to water supply for human use, resource transfer arrangements will respect existing rights and the principle of “no uncompensated harm”. All new water sources and transfer arrangements will be licensed by NWRA. Desalination options will be studied for coastal cities. Alongside the major capital investment proposed for network rehabilitation (\$186 million 2008-2015), network management systems will be introduced or strengthened.

Investment will be made in human resource development (\$1.1 million, 2.4) according to a roadmap being developed. In addition, progressive rebalancing of staff in line with national benchmarks will increase the proportion of professional and technical staff in the workforce.

A small but vital investment (\$85,000, 1.3) would be made in developing a strategy for public private partnership and for private sector participation, in order to harness the considerable further potential of the private sector for affordable and effective water supply services. It is expected that the strategy will provide for the private sector to be eligible for subsidies (e.g. on the basis of output-based aid) but only after qualification and decision of the MWE (or the independent regulator, once in place). Complementary strategies would be prepared by the utilities to identify services that will be outsourced to the private sector (2.1.5).

The NWSSIP Update outcomes, outputs and costs are summarized in Table 3.6 and discussed in more detail in Section C below.

**Table 3.6: NWSSIP Update of the urban water supply and sanitation program
Outcomes, key outputs and costs**

Outcome	Key outputs	Leading indicators	Costs (\$ '000s)		
			2008-10	2011-15	2008-15
Objective 1: to increase access for the entire urban population					
1.1 Increase access to network water supply	346,727 new house connections,	Public network covers 60% of urban population by 2015	231,416	374,091	605,506
1.2 Increase access to safe sanitation	174,240 new centralized connections, 86,377 decentralized connections by 2015	Public network covers 33%, public decentralized network covers 6% of urban population by 2015.	202,663	344,786	547,449
1.3 UWSS strategy	Role of public and private sector defined (1.3.1) Water services mapped (1.3.2)	Public private partnership and private sector participation strategy developed by 2010 GIS map posted on web from 2009	185	-	185
Objective 2: to keep services sustainable and affordable					
2.1 Improved financially sustainable services	Non-revenue water reduced technical and physical losses (2.1.1) Financial autonomy increased (2.1.1) Customer satisfaction increased (2.1.2) Business plans (2.1.3) Procurement and implementation unit (2.1.4) Outsourcing (2.1.5)	Collection efficiency rises to 95% by 2010 Revenues cover 100% of O&M and 50% of EM dep'n by 2010 (100% by 2015) 95% of repairs within two days 17 BPs by 2010, 23 by 2015 Sana'a, Aden, Hudeidah, Ibb, Mukallah by 2010 Five more by 2012 Plan by 2010	61,487	166,998	200,119
2.2 Securing sufficient water resources	Adequate water supplies secured (2.2.1) Water services are adequate and reliable (2.2.2)	Utilities provide at least 40 lcd to domestic consumers in the mountain area and 60 lcd to consumers in the coastal area by 2015 Water supply for at least h hrs a day (6 hrs a week in water scarce areas) by 2015.	2,598	6,353	8,951

Outcome	Key outputs	Leading indicators	Costs (\$ '000s)		
			2008-10	2011-15	2008-15
2.3 Utilities to be autonomous	Decentralization completed (2.3.1)	17 LCs and 36 AUs by 2010. 23 LCs and 40 AUs by 2015	9,665	21,007	30,672
	Regulation operational (2.3.2)	Regulator in place by 2010			
	Public companies established (2.3.3)	5 PCs by 2010 8 PCs by 2015			
	Water Utility Assoc established (2.3.4)	Association operational by 2009			
2.4 Human resource development	Increased capacity in the sector (2.4.1, 2.4.2)	Human resource development plan implemented	562	532	1,094
2.5 Water quality	Improved effluent quality (2.5.2)	90% of samples reach standards	67	-	67
Objective 3: to ensure that the poor have affordable access					
3.1 Pro-poor strategy	Poor households have affordable access	Cost for the poor with network access does not exceed 5% of income	50	-	50
Total physical investment in water supply and sanitation			528,750	950,004	1,478,754
Total policy implementation and institutional development			20,175	35,554	55,729
TOTAL			548,925	985,558	1,534,483

Actions that will need to be jointly planned and implemented

For urban water supply and sanitation, the principal programme areas that need to be jointly planned and implemented are²:

Table 3.7: Inter-agency approaches for urban water and sanitation (lead agency in bold)

Cross cutting topic	Agencies	Joint Actions	Reference
3. Sourcing water	MWE/utilities, NWRA, Basin Committees, WUAs, private sector	<ul style="list-style-type: none"> identify resources within basin plans develop equitable and sustainable models for resource transfer recognizing water rights and “no uncompensated harm” 	2.2.1 2.2.1
4. Developing alternative water sources	MWE/utilities, NWRA, private sector, NGOs	<ul style="list-style-type: none"> developing desalination, rainwater harvesting and other options 	2.2.1
5. Increasing water use efficiency	MWE/utilities, NWRA, consumers and the private sector	<ul style="list-style-type: none"> implementing a loss reduction programme improving network management and efficiency 	2.1.1 2.2.2
8. Wastewater treatment and reuse	MWE/utilities, NWRA, EPA, MAI, private sector	<ul style="list-style-type: none"> cost effective and safe water treatment and reuse 	1.2.3

² See Chapter 1B for a discussion of the whole range of actions that need to be jointly planned and implemented within an IWRM approach.

C. The Action Plan

Outcome 1.3 Urban water supply and sanitation strategy

Outcome	Key outputs	Leading indicators	Costs (\$ '000s)		
			2008-10	2011-15	2008-15
1.3 UWSS strategy	Role of public and private sector defined (1.3.1)	Public private partnership and private sector participation strategy developed by 2010	185	-	185
	Water services mapped (1.3.2)	GIS map posted on web from 2009			

The NWSSIP Update provides for service-oriented and business-like public utilities with realistic investment programmes and for the private sector to be systematically involved in service provision.

The public sector alone cannot achieve the target of improving and extending access to safe water. The private sector which already meets more than 40% of urban demand, has the capacity and resources to take part. The NWSSIP Update objective is to develop and implement public private partnership service delivery models and to progressively bring the private sector within the regulatory framework.

Challenges include: lack of knowledge about the private sector; reluctance of the private sector to work with government or to accept regulation; the small scale of most private water supply operations; and absence of models of public private partnership in water supply in Yemen. Some progress is being made towards meeting these challenges. Studies of the local private sector have been conducted³ and a study of the private sector in Sana'a is currently being undertaken by WEC. Initial discussions with medium and large private suppliers conducted during the Poverty and Social Impact Assessment on urban water (Urban PSIA) have shown a willingness to consider partnerships if on commercial terms. Several small and medium scale "concession" models are being tested.⁴

During 2008/9, the action plan (1.3.1) provides for MWE to work with the utilities on identifying alternative service provision models and providers, and on developing a *strategy for public private partnership and for private sector participation* by 2010.

³ See for example: Al-Aroosi, Mohamed and Mohamed Haza'a Kassim 1997. *Reform Initiatives and Options in Yemen: the Development of Public and Private Water Supply in Sana'a*; Handy, Chris 1997. *Reform Initiatives and Options in Yemen: Water Markets in Yemen*; and NWRA 2007: *Inventory of wells and tankers selling water in the Sana'a Municipality* (in Arabic, NWRA, Sana'a Branch).

⁴ For example, the contractual arrangement between the Ibb Local Corporation and a private well owner to convert from selling water to tankers for qat to local metered private network supply with control on price and quality.

Public private partnership contracts or concessions will be developed wherever possible, and private suppliers will be progressively brought within sector planning and regulation.

As a complement to this strategy, a *GIS map of all water supply and sanitation services by governorate* will be prepared and posted on the web by 2009, and updated regularly (1.3.2).

Outcome 2.1 Improved financially sustainable services

Outcome	Key outputs	Leading indicators	Costs (\$ '000s)		
			2008-10	2011-15	2008-15
2.1 Improved financially sustainable services	Non-revenue water reduced (2.1.1)	Collection efficiency rises to 95% by 2010	61,487	166,998	200,119
	Financial autonomy increased (2.1.1)	Revenues cover 100% of O&M and 50% of electro-mechanical depreciation by 2010 (100% by 2015)			
	Customer satisfaction increased (2.1.2)	95% of repairs within two days			
	Business plans (2.1.3)	17 by 2010, 23 by 2015			
	Procurement and implementation units set up (2.1.4)	Sana'a, Aden, Hudeidah, Ibb, Mukallah by 2010 Five more by 2012			
	Outsourcing (2.1.5)	Plan by 2010			

Consistent with the shift in emphasis in the NWSSIP Update away from purely quantitative targets of increased connections to improved quality, cost effectiveness and sustainability of service, the action plan provides for a shift to running the utilities as financially sustainable businesses with a service orientation.

Five key actions are envisaged under this outcome: to improve financial viability and reduce non-revenue water (2.1.1); to improve customer satisfaction (2.1.2); to ensure that all utilities are run on a business-like basis (2.1.3); to set up procurement and implementation units in the main Local Corporations (2.1.4); and to form partnerships with the private sector for outsourcing of functions (2.1.5).

Improving financial viability is a key objective. NWSSIP I set a target of cost recovery of 100% of operation and maintenance costs and 50% of electromechanical depreciation, but without specifying when this target was to be achieved or what were the mechanisms to achieve it. The NWSSIP Update has set the date of 2010 to achieve the original target, and sets also the additional target of full recovery of electro-mechanical depreciation by 2015. To achieve this, the action plan (2.1.1) provides for: a loss reduction programme; improvements in collection efficiency; alignment of staffing to national benchmarks; and the introduction of replacement cost accounting. Inevitably tariff adjustments will be

needed over time but these will be determined by the governance structure of each utility – they are not specifically mandated in the action plan. A governmental guideline regarding tariff adjustments is that the lifeline tariff should only apply to those in the first block, and that other consumers would pay the rate of their highest block for the entire bill.

In order to improve *customer satisfaction* (2.1.2), the action plan provides for improved customer services and monitoring in all utilities.

The action plan (2.1.3) includes a number of measures designed to *strengthen the business approach of the utilities*. Performance monitoring by the utilities’ board and management – and MWE’s oversight capacity - will be improved by strengthening of the Performance Indicator Information System (PIIS), by preparation of business plans, by strengthening of the M&E system, and by the introduction of benchmarking.

In order to improve investment performance, the action plan (2.1.4) provides for the establishment of procurement and implementation units in the larger utilities, beginning by 2010 with Sana’a, Aden, Hodeidah, Ibb and Mukalla. A further five LCs, to be decided, will set up these units by 2012.

The action plan (2.1.5) provides for the potential of the private sector for *outsourcing of functions* to be evaluated by all utilities during 2009, and for a plan to be ready for 2010.

Outcome 2.2 Securing sufficient water resources

Outcome	Key outputs	Leading indicators	Costs (\$ ‘000s)		
			2008-10	2011-15	2008-15
2.2 Securing sufficient water resources	Adequate water supplies secured (2.2.1)	Utilities provide at least 40 lcd to domestic consumers in the mountain area and 60 lcd consumers in the coastal area by 2015	2,598	6,353	8,951
	Water services are adequate and reliable (2.2.2)	Water supply for at least 6 hrs a day (6 hrs a week in water scarce areas) by 2015			

Sourcing water for cities has become increasingly difficult, and is a massive challenge for Taiz and Sana’a. Old sources are depleting – five local corporation wells on average run dry each year in Sana’a. New sources are hard to identify and social and political opposition to their extraction from source area communities is fierce. No equitable and sustainable model for rural urban water transfer has been developed. Under the action plan (2.2.1) utilities will work with NWRA on *identifying resources* and on *developing equitable and sustainable models for resource transfer*, observing the two principles of respecting water rights and no uncompensated harm. In addition, from 2009, *desalination options* will be studied for coastal cities.

Measures to *improve the reliability of water services* (2.2.2) include preparation of network management systems, introduction of GIS and use of pressure reducing valves and elevated tanks.

In addition to the above institutional and management measures, the NWSSIP Update provides considerable investment for network rehabilitation (\$175 million 2008-2015). As a result of the measures and investment combined, it is expected that water services will improve considerably and that:

- by 2015, all utilities should be able to deliver the equivalent of 40 lcd to domestic customers in mountain areas, and 60 lcd in coastal areas.
- water supply will be available for at least six hours daily in 70% of utilities by 2015, and will be available for at least six hours a week for the remaining utilities, which are those in the very water scarce areas (notably Taiz and Sana'a).

Outcome 2.3 Increasing the autonomy of the utilities

Outcome	Key outputs	Leading indicators	Costs (\$ '000s)		
			2008-10	2011-15	2008-15
2.3 Utilities to be autonomous	Decentralization completed (2.3.1)	17 LCs and 36 AUs by 2010 23 LCs and 40 AUs by 2015	9,665	21,007	30,672
	Regulation operational (2.3.2)	Regulator in place by 2010			
	Public companies established (2.3.3)	5 PCs by 2010 8 PCs by 2105			
	Water Utility Assoc established (2.3.4)	Association operational by 2009			

The NWSSIP Update provides for the continuation of the sector reform program to complete the decentralization process, to improve the autonomy of the utilities and to ensure that they achieve independence of management.

At the same time, the NWSSIP Update provides for strengthening and focusing the role of the public sector. As set out in NWSSIP I, central government's role in the water sector has been progressively shifting away from involvement in service provision towards a focus on policy making, regulation, monitoring and support functions.

The action plan (2.3.1) provides for *completion of the decentralization process*. It is expected that there will be a total of 17 decentralized LCs and 36 autonomous utilities by 2010, rising to 23 LCs and 40 autonomous utilities by 2015.

One long standing objective is to *set up the regulatory function*. The preparatory studies and design are complete and under the action plan (2.3.2) a provisional unit will be authorized and established by 2009, and the relevant law will be passed and the full

regulatory system and agency will be in place by the end of 2010. Establishment costs of about \$1.0 million are provided for 2009-2010.

The action plan (2.3.3) provides for adoption of the model of the “*public company*” as the final status of the decentralized public utilities. The public company model is designed to separate ownership of assets (which is expected to be vested in the local authorities) from management. In addition, consumers are expected to be represented in the General Assembly and to have voting rights there. The results expected from the conversion to public companies are:

- the separation of the political agenda from service provision
- minimized political interference
- enabled professional management
- management and not the owners responsible for the quality of service
- the management is accountable for financial results.

An initial pilot phase will be conducted beginning in 2009. The results will be evaluated and the programme will be revised. It is currently expected that about five of the best managed and most viable utilities will become public companies by the end of 2010, and a further three by the end of 2015.

The autonomous *Yemeni Water Utility Association* is expected to be established in 2008 (2.3.4) to represent the industry vis a vis government, the regulator and customers.

Outcome 2.4 Strengthening human resource capacity for service delivery

Outcome	Key outputs	Leading indicators	Costs (\$ '000s)		
			2008-10	2011-15	2008-15
2.4 Human resource development	Increased capacity in the sector (2.4.1)	Human resource development plan implemented	562	532	1,094

Strengthening human resource capacity is a major objective of the NWSSIP Update. Under the action plan, a roadmap for *human resource development* in the subsector will be presented for approval by the end of 2008, and a comprehensive capacity development programme will begin in 2009 (2.4.1). In addition, support to improved *human resource management, skills and incentives* will be provided (2.4.2). A study will be carried out during 2008 to prepare a performance related incentives system or a special pay structure for the utilities.

Outcome 3.1 Making the strategy more pro-poor

Outcome	Key outputs	Leading indicators	Costs (\$ '000s)		
			2008-10	2011-15	2008-15
3.1 Pro-poor strategy	Poor households have affordable access	Cost for the poor with network access does not exceed 5% of household budget	50	-	50

NWSSIP I proposed a study of the block tariff system and revisions to make it more pro-poor. Current practice – that the first 10 m³ each month is priced by the utilities at a low, highly subsidized rate – has been examined in two studies⁵, and is currently under review in the Urban Water PSIA. Findings are that the current system benefits not only the poor but also many non-poor, and the access of such a large part of the customer base to the low lifeline tariff impairs the revenue raising capacity of the utilities. The action plan (3.1.1) provides for the PSIA study process to be completed in 2008 and for decisions to be taken thereafter. The targets proposed under the NWSSIP Update are that the lifeline block should be defined so that only poor consumers fall within it (based on the poverty rate for the locality); and tariffs for the “lifeline” block would be set at levels so that the costs of water and sanitation services for poor households with network connections will not exceed 5% of their household budget. This would allow utilities to raise tariffs for the higher blocks, and to follow the guidelines discussed above that the lifeline tariff should only apply to those in the first block, and that other consumers would pay the rate of their highest block for the entire bill. Other pro-poor measures may be introduced, based on the recommendations of the upcoming PSIA.

⁵ **CPAS 2005**. Poverty Orientation of Yemeni-German Urban Water and Sewerage Projects. Report by Dr Solveig Buhl for the Advisory service on Conflict Transformation and Poverty Reduction. Eschborn. July 2005; and **GTZ/KfW 2005**. The Poverty Relevance of Interventions in Urban Water and Sanitation Projects. GTZ/KfW, August 2005.

UWSS Sub Sector: Log Frame

Goal: Coverage of safe, affordable, sustainable and properly regulated UWSS services is increased

Hierarchy of Results	Performance Indicators
Overall Impact	
Coverage of safe, affordable, sustainable, and properly regulated UWSS services is increased	<ul style="list-style-type: none"> ▶ Water supply service coverage increases from 56% to 60% by 2010 and to 65% by 2015 ▶ Sanitation coverage has increased from 31% in 2007 to 33% by 2010 and to 50% by 2015
Long term outcome 1	
Urban population has access by end 2015 in line with the national definition of safe, affordable, available and regulated water supply and sanitation services	<ul style="list-style-type: none"> ▶ Urban Population with access to network water supply services increased from 3.60 million (JAR 2007) to 6 million by end 2015 ▶ Urban Population with access to network sanitation services increased from 2 million (JAR 2007) to 3.21 million by end 2015 <p>Following are consolidated indicators (including regulated private services) to be used after establishment of regulation:</p> <ul style="list-style-type: none"> ▶ Urban population with access to safe, affordable, available and regulated water supply increased from xx million (future study) to xx million by end 2010 and to xx million by end 2015 ▶ Urban population with access to improved and regulated sanitation increased from xx million (future study) to xx million by end 2010 and to xx million by end 2015
Outcome 1.1	
Urban population has access to safe, affordable, available and regulated water supply services	<ul style="list-style-type: none"> ▶ Urban population covered with water supply network services increases to 60% by end 2015 ▶ Urban population served with other safe, affordable, available and regulated water supply services increased from (percent) in 2009 (future study) to (percent) in 2010 and to (percent) in 2015
Outputs	
1.1.1 859,060 water supply network house connections operating by end of 2015	<ul style="list-style-type: none"> ▶ Number of public water supply network house connections increased from 512,333 in 2007 to 859,060 by end 2015 ▶ Number of non-public water supply network house connections increased from (number) in 2004 (census) to (number) end 2010 and to (number) end 2015
1.1.2 Number of households served with other safe, affordable, available and regulated water supply means by end of 2015	<ul style="list-style-type: none"> ▶ Urban population served with other safe, affordable, available and regulated water supply services increased from (number) in 2009 to (number) in 2010 and to (number) in 2015 (baseline from future study)

Hierarchy of Results	Performance Indicators
Outcome 1.2	
Urban population has access to improved and regulated sanitation	<ul style="list-style-type: none"> ▶ Urban population covered with sewerage network services increase from 31% 2007 to 33% in end of 2015 ▶ Urban population served with other improved and regulated sanitation services increased from (per cent) in 2009 (future study) to (percent) in 2010 and to 6% in 2015
Outputs	
1.2.1 458,785 sewerage network house connections operating by end 2015	▶ Number of sewerage network house connections increased from 284,545 (JAR 2007) to 458,785 by end 2015
1.2.2 86,377 dwellings served by improved and regulated sanitation in line with MDGs by end 2015	▶ Number of dwellings served by improved sanitation increased from 8,810 in 2009 to 18,029 by end 2010 and to 86,377 by end 2015 (baseline from future study)
1.2.3 STP capacity is increased	▶ Design treatment capacity of STP increased from 219,178 cbm/day in 2006 to 232,277 cbm/day by end of 2010 and to 324,407 cbm/day by end of 2015
Outcome 1.3	
UWSS has a strategy defining shares and types of public and private service provision in line with national definitions	▶ Public private partnership (PPP) and private sector participation (PSP) strategy is developed by 2010
Outputs	
1.3.1 UWSS has a strategy defining shares and types of public and private service provision in water and sanitation	<ul style="list-style-type: none"> ▶ Types and share of acceptable non-network based service provision for all LCs defined by 2010 ▶ Share and options for public, PPP and PSP defined and budgeted by end 2009 ▶ A strategy on private water quality monitoring is defined end of 2010
1.3.2 Water supply and sanitation service boundaries are defined by end of 2010	<ul style="list-style-type: none"> ▶ Utilities have established their service coverage baselines per Governorate by 2010 (all types of service options) ▶ Service boundaries are defined and mapped for each utility / governorate by end of 2010
Long term outcome 2	
WSS services are sustainable financially and in terms of available water resources	<ul style="list-style-type: none"> ▶ Average revenues of all utilities cover 100% of O&M costs and at least 50% of electromechanical (EM) equipment depreciation by 2010 ▶ Average revenues of all utilities cover at least 100% O&M and 100% of EM equipment depreciation by 2015
Outcome 2.1	
2.1. Utilities are financially sustainable and customer service is improved	▶ Collection efficiency increases from 82% in 2006 to 95% by end 2010
Outputs	
2.1.1 Share of Non-Revenue-Water (NRW) is reduced	<ul style="list-style-type: none"> ▶ National average of NRW declines from combined 27.6 % in 2006 to ≤ 20% by end 2015 ▶ Reduction in average debt period to 100 days by end 2015

Hierarchy of Results	Performance Indicators
2.1.2 Customer satisfaction is increased	<ul style="list-style-type: none"> ▶ By end of 2015, 95% of requested repairs are solved within 2 days or less ▶ By end of 2015, 100% of administration complaints are acted on within 2 weeks and 50% are solved within 1 month
2.1.3 All utilities are managed as a business (operated based on commercial principles)	<ul style="list-style-type: none"> ▶ By end of 2010, Board of Directors (BOD) meetings of all utilities are properly protocolled ▶ By end 2010, 17 LCs have acceptable business plans (23 by 2015) ▶ By end of 2010, all BODs discuss performance indicator results and act on respective recommendations / conclusions as set out in the MoMs
2.1.4 All utilities implement available investment as planned	<ul style="list-style-type: none"> ▶ By end of 2010, Sana'a, Aden, Hudeidah, Ibb, Mukallah LCs have set up and fully staffed procurement and implementation units ▶ By end 2012, five more utilities have established procurement and implementation units
2.1.5 Private sector participation (PSP) is facilitated and public private partnerships (PPP) are enhanced, with the aim to increase diversified service delivery models	<ul style="list-style-type: none"> ▶ By end of 2010, all utilities have explored PSP / PPP potentials thru respective studies and surveys ▶ By end of 2015, PSP / PPP is part of service delivery in all suitable utilities
Outcome 2.2	
Utilities secure sufficient water resources for sustainable service	<ul style="list-style-type: none"> ▶ Strategy for sourcing and transferring water agreed with NWRA by 2010 and implemented 2010-2015 ▶ Utilities negotiate with NWRA respective water allocation (all sources) in the framework of WRM plans
Outputs	
2.2.1 Utilities secure water supply covering minimum requirements to achieve health impacts	▶ All utilities are able to provide at least 40 lcd to domestic consumers in the mountain area and 60 lcd consumers in the coastal area by 2015 (national average domestic water consumption)
2.2.2 Water supply services are reliable	<ul style="list-style-type: none"> ▶ Number of utilities that supply water for at least 6 hours per day (every day) to all of their customers increased from 57 % in 2006 to 70 % by end 2015 ▶ By end of 2015, also utilities in water scarce areas (Taiz, Sana'a, Al Bayda, Al Qaida, Al Shehr; Jiblah and Yarim) secure water supply at least once a week for 6 hours/day
Outcome 2.3	
Utilities operate autonomously	<ul style="list-style-type: none"> ▶ UWSS decentralization law / by-laws separating ownership and management of utilities are approved by 2010 ▶ All utilities operate autonomously with independent management by end 2015
Outputs	
2.3.1 Decentralization of LCs and autonomous utilities continues	<ul style="list-style-type: none"> ▶ Decentralised LCs increase from 13 in 2006 to 17 by 2010 and to 23 by end 2015 ▶ Autonomous utilities increase from 28 in 2006 to 36 by end of 2010 and to 40 by end of 2015

Hierarchy of Results	Performance Indicators
2.3.2 Independent regulation of service delivery is operational	▶ Independent regulator established, operational and financially viable by end of 2010
2.3.3 Separation of ownership (share holding) and management (operations) of utilities is legalized and in force	▶ Separation of ownership and management of utilities is legalized and is being implemented in 5 utilities by end 2010 and in 8 utilities by end 2015
2.3.4 An autonomous water and sanitation utility association is established	▶ The autonomous water and sanitation utility association (YAWSSU) is established, registered and legalized by end 2009
Outcome 2.4	
Utilities have strengthened their human resource capacity to improve service delivery	▶ Share of professional staff in all utilities increased from 13% in 2006 to 15 % by end of 2010 and to 20 % by end of 2015 ▶ All utilities spend at least 5% of total personnel cost on training by end 2010 and beyond
Outputs	
2.4.1 UWSS HRD is improved	▶ UWSS HRD strategy is developed and approved by end of 2009 ▶ UWSS HRD strategy's main reform measures are implemented by end 2015
2.4.2 Professional expertise in the utilities is increased and improved	▶ Training days provided by utilities increase from average 4.4 day/staff/yr in 2006 to 6.6 day/staff/yr by end of 2010 and to 8.8 day/staff/yr by end of 2015
Outcome 2.5	
Utilities have improved water and effluent quality	▶ All utilities have to achieve 100% disinfection of their drinking water by end 2010 ▶ Operational programs in all utilities by 2015 for registered water supply from rainwater harvesting combined with home-based filter systems ▶ All STPs reach BoD effluent standard in 90% of their sampling by end of 2015 ▶ Utilities have inventoried and certified private wells supplying water to tankers by 2010 ▶ Utilities provide residual water demand to tankers from designated public wells by 2015 ▶ Utilities have published water tanker hygiene standards by 2010 and have established a certification system and are certifying all tankers by 2015
Outputs	
2.5.1 Water quality is improved	▶ By end 2010, 95% of residual chlorine samples taken by utilities for network water supply are according to standards 0.2-0.5 ppm per total number of samples taken
2.5.2 Quality of effluent of STPs is improved	▶ By end of 2015, 90% of all effluent samples taken by utilities are according to standards (BoD <30mg/l)
Long term outcome 3	
The poor have affordable access to safe water and sanitation	▶ All utilities have a pro-poor tariff structure by end 2010

Hierarchy of Results	Performance Indicators
Outcome 3.1	
Poor customers have affordable access to lifeline water consumption	▶ All utilities have a prop-poor strategy in the business plan to expand coverage for the poor, including through innovative business models and technology.
Outputs	
3.1.1 Poor households have affordable access to life line water and basic sanitation services	<p>▶ Households with incomes below the poverty line and which are utility customers have access to lifeline water supply and basic sanitation services with payments not exceeding 5% of average monthly household income (WHO guideline)</p> <p>▶ LCs evaluate access of very poor households (with income below the food poverty line) to safe water and sanitation services from charitable and other sources and report each year on the situation and on measures to be taken.</p>

NWSSIP Update

UWSS Sector: Action Plan and Budget

Activities	P ⁶	Monitorable steps	Due date	Key actor	Budget	Financing ⁷
Output # 1.1.1 : 859,060 WS house connections operating by end 2015						
Activity # 1.1.1.1 Increase operational water supply household connections	1		2010 2015	Utilities, MoF, donors	\$234.4 million \$559.7 million	KfW World Bank
		Step 1.1.1.1.1 Undertake investment planning	Annual	Utilities		
		Step 1.1.1.1.2 Apply for donor or governmental funds	Annual	Utilities		
		Step 1.1.1.1.3 Fund approved	Annual	MoF and/or donors		
		Step 1.1.1.1.4 Projects tendered and awarded	Case by case	Utilities		
		Step 1.1.1.1.4 Fund released / disbursed	Continuous	Utilities via MoF/donors		
		Step 1.1.1.1.5 Construct and connect WS HC connections	Annual targets	Utilities via contractors		
Output # 1.1.2 : xxx households served with other safe, affordable, available and regulated water supply means by end of 2015						
Activity # 1.1.2.1 Increase other safe, affordable, available and regulated WS		Step 1.1.2.1.1 Establish other WS and develop implementation process	Annual	Utilities; Private		
Output # 1.2.1 : 458,785 Sewerage network house connections built and connected by end 2015						
Activity # 1.2.1.1 Increase operational sewerage network house connections	1		2010 2015	Utilities, MoF, donors	\$202.7 million \$344.8 million	KfW World Bank
		Step 1.2.1.1.1 Undertake investment planning	Annual	Utilities		
		Step 1.2.1.1.2 Apply for donor or governmental funds	Annual	Utilities		
		Step 1.2.1.1.3 Fund approved	Annual	MoF and/or donors		
		Step 1.2.1.1.4 Projects tendered and awarded	Case by case	Utilities		
		Step 1.2.1.1.5 Funds released /	Continuous	Utilities via MoF/donors		

⁶ P = Priority: 1 = High, 2 = Less High

⁷ Financing amount and source

Activities	P ⁶	Monitorable steps	Due date	Key actor	Budget	Financing ⁷
		disbursed				
		Step 1.2.1.1.6 Construct and connect Sewerage network connections	Annual targets	Utilities via contractors		
Output # 1.2.2 : 86,377 dwellings connected to improved sanitation in line with MDGs by end 2015						
Activity # 1.2.2.1 Increase decentralized sanitation and treatment	2		2010 2015		\$15.0 million \$90.0 million	
		Step 1.2.2.1.1 Carry out a study to analyze options of decentralized sanitation including treatment	2010	Utilities with donor support		
		Step 1.2.2.1.2 Develop agreement and payment structure for the utility or with the Municipality (or private owners) on private cesspit content delivery to STP	2010	Utilities		
Activity # 1.2.2.2 Increase dwellings connections to improved	1		2010 2015	Utilities		
		Step 1.2.2.2.1 Undertake investment planning	Annual	Utilities		
		Step 1.2.2.2.2 Apply for donor or governmental funds	Annual	Utilities		
		Step 1.2.2.2.3 Fund approved	Annual	MoF and/or donors		
		Step 1.2.2.2.4 Projects tendered and awarded	Case by case	Utilities		
		Step 1.2.2.2.4 Funds disbursed	Continuous	Utilities via MoF/donors		
		Step 1.2.2.2.5 Construct and connect dwelling connections	2015	Utilities via contractors		
Output # 1.2.3 : STP efficiency and capacity increased to 324,407 cbm/day by end 2015						
Activity # 1.2.3.1 All utilities increase centralised STP efficiency and capacity to 324,407 cbm/day by 2015	1		2010 2015	Utilities, MoF, donors	\$40.0 million \$100.0 million	
		Step 1.2.3.1.1 Monitoring the waste water in every waste water treatment plant at least	2008			

Activities	P ⁶	Monitorable steps	Due date	Key actor	Budget	Financing ⁷
		one sample has to be taken every week at the effluent and one sample every month at the inflow.				
		Step 1.2.3.1.2 Number of BOD-samples according to standards (<30mg/l) per total number of samples taken has to be 90%	2008			
		Step 1.2.3.1.3 Develop 5 and 10 years strategic plans on extension of STP capacity for planned additional sewerage network connections and STP load coming from decentralized systems	2009	Utilities		
		Step 1.2.3.1.4 Undertake project planning	Case by case	Utilities		
		Step 1.2.3.1.5 Apply for donor or governmental funds	Annual	Utilities		
		Step 1.2.3.1.6 Fund approved	Annual	MoF and/or donors		
		Step 1.2.3.1.7 Projects tendered and awarded	Case by case	Utilities		
		Step 1.2.3.1.8 Fund disbursed	Annual	Utilities via MoF/donors		
		Step 1.2.3.1.9 Construct STP	2010/15	Utilities via contractors		
		Step 1.2.3.2.8 Construct STP	2010/15	Utilities via contractors		
Activity # 1.2.3.2 All utilities elaborate on options to re-use STP effluent	2					
		Step 1.2.3.2.1 Develop re-use strategies of the effluent of STPs	2009/14	Utilities		
		Step 1.2.3.2.2 Secure funding for measures	Case by case	Utilities from MoF and/or donors		
		Step 1.2.3.2.3 Implement re-use options	2010/15	Utilities via contractors or others		
Output # 1.3.1 : UWSS has a strategy defining shares and types of public and private service provision in water and sanitation by 2009						
Activity # 1.3.1.1 Develop a strategy for the future urban set up to cope with national coverage targets					\$83,000	
		Step 1.3.1.1.1 Study to investigate the current situation	2008	Utilities/MWE		

Activities	P ⁶	Monitorable steps	Due date	Key actor	Budget	Financing ⁷
		regarding public and private UWSS sector is accomplished				
		Step 1.3.1.1.2 Develop strategies how much LCs are able to cover via other means than network (e.g. tanker, bulk supply, taps) and what other task may evolve from this approach like PPP approaches, licensing, water quality checks of private sector by LCs	2009	Utilities/MWE		
		Step 1.3.1.1.3 Formulate a strategy including a financial implications/plan for public and private sector about how much percent of the urban population will be covered by public and private sector and affiliated needs by 2010	2009	Utilities/MWE/private sector/MoF/MoPIC		
		Step 1.3.1.1.4 Approve the strategy how much percent of the urban population will be covered by public and private sector with all stakeholders by 2010	2009	Utilities/MWE/private sector/MoF/MoPIC		
		Step 1.3.1.1.5 Undertake project planning	Case by case	Utilities/private sector		
		Step 1.3.1.1.6 Apply for donor or governmental funds	Annual	Utilities/private sector		
		Step 1.3.1.1.7 Fund approved	Annual	MoF and/or donors/private sector		
		Step 1.3.1.1.8 Projects tendered and awarded	Case by case	Utilities/private sector		
		Step 1.3.1.1.9 Fund disbursed	Annual	Utilities via MoF/donors/private sector		
		Step 1.3.1.1.10 Implement connection options apart from network and monitoring checks	2015	Utilities via contractors/private sector via contractors		
Output # 1.3.2 : Water and sanitation service map per Governorate is published by end 2010						
Activity # 1.3.2.1 All Water and Sanitation services are mapped					\$100,000	
		Step 1.3.2.1.1 Develop a Geographic Information System (GIS) Map of all Water and	2009	MWE		

Activities	P ⁶	Monitorable steps	Due date	Key actor	Budget	Financing ⁷
		Sanitation services by Governorate				
		Step 1.3.2.1.2 Publish the map web based	2009	MWE		
Activity # 1.3.2.2 Build up a GIS unit in MWE and train the MWE staff						
		Step 1.3.2.1.1 Develop GIS unit in MWE	2009			
		Step 1.3.2.1.2 Train MWE staff in GIS	2009			
		Step 1.3.2.1.3 Up date the map annually and publish it web based	Annual	MWE		
Output # 2.1.1 : Share of Non-Revenue-Water (NRW) is reduced						
Activity # 2.1.1.1 All utilities increase revenue	1				\$ 384,198 (technical and financial efficiency)	World Bank, KfW, GTZ
		Step 2.1.1.1.1 Design a loss reduction program, implement administrative measures	2009	Utilities		
		Step 2.1.1.1.2 Plan loss reduction investments	2009	utilities		
		Step 2.1.1.1.3 Apply for funding	2009	Utilities		
		Step 2.1.1.1.4 Funds approved	For 2010 budget	MoF and/or donors and/or utilities		
		Step 2.1.1.1.5 Funds disbursed	Successively	MoF/donors/utilities		
		Step 2.1.1.1.6 Implement loss reduction physical measures	2010-11	Utilities or via contractors		
Activity # 2.1.1.2 All utilities improve collection efficiency	1					GTZ \$200.000
		Step 2.1.1.2.1 Analyze weaknesses in collection efficiency	2009	Utilities		
		Step 2.1.1.2.2 Develop solutions to improve collection efficiency and implement them	2009	Utilities		
		Step 2.1.1.2.3 Outsource collection to private company on an incentive base	Optional 2009	Utilities		
Activity # 2.1.1.3 All utilities adjust staffing	1					

Activities	P ⁶	Monitorable steps	Due date	Key actor	Budget	Financing ⁷
according to national benchmarks						
		Step 2.1.1.3.1 Evaluate current staff regarding their capacity and qualification	2009	Utilities		
		Step 2.1.1.3.2 Develop possible outsourcing and social plan to improve the capacity of utilities and reduce staff if needed	2009	Utilities		
		Step 2.1.1.3.3 Increase professional staff	2009 onwards	Utilities		
		Step 2.1.1.3.4 (clerical) staff reduction programs	2009 onwards	Utilities		
Activity # 2.1.1.4 All utilities improve asset management	1					GTZ \$300.000
		Step 2.1.1.4.1 Prepare/update asset inventory	2008/09	Utilities via specialized consultants		
		Step 2.1.1.4.2 Purchase and implement asset management software	2008/09	Utilities (consultants)		
		Step 2.1.1.4.3 Training in Asset management	2008/09	Utilities (consultants)		
		Step 2.1.1.4.4 Manage a modern asset registry system, including depreciation on a replacement cost basis, and currency adjustments	2008/09	Utilities		
Output # 2.1.2 : Consumer satisfaction increased by end 2015						
Activity # 2.1.2.1 Increase consumer satisfaction	1				\$866,000	GTZ \$200.000
		Step 2.1.2.1.1 Carry out customer surveys, analyze them and draw conclusions to improve customer service	2009 Continuous annually	Utilities		
		Step 2.1.2.1.2 Improve or build up customer service units or procedure within a utility	2009 Continuous annually	Utilities		
		Step 2.1.2.1.3 Train staff on customer service	2009	Utilities		
		Step 2.1.2.1.4 Purchase customer complaint software (optional)	2009	Utilities		

Activities	P ⁶	Monitorable steps	Due date	Key actor	Budget	Financing ⁷
		Step 2.1.2.1.5 Collect customer complaints and follow the process of clarification via a computerized system	2009 Continuous annually	Utilities		
Activity # 2.1.2.2 Improve monitoring of customer complaints	1					GTZ \$20.000
		Step 2.1.2.2.1 Extend PIIS with customer service indicators	2008	PIIS unit MWE, GTZ		
		Step 2.1.2.2.2 Connect customer complaint software with PIIS	2008	Utilities		
Output # 2.1.3 : All utilities are managed as a business by end 2015						
Activity # 2.1.3.1 Board of Directors (BOD) assesses utility performance according to analysis of Performance Indicator (PI) from PIIS	2				\$500,000	GTZ \$50.000
		Step 2.1.3.1.1 BOD receive introduction on the analysis of PI	2008	BOD/MWE/GTZ		
		Step 2.1.3.1.2 Analysis of up to 5 PIs is integral part of BOD agenda	2008 Continuous	BOD/MWE		
		Step 2.1.3.1.3 Analysis of the utility through PI in BOD is increased from 1 to 17 in 2010 and 23 in 2015	2009	BOD/MWE		
Activity # 2.1.3.2 Utility management of general departments are based on the analysis of PI	1					GTZ \$50.000
		Step 2.1.3.2.1 Top management receive training on the analysis of PI	2008	Utilities /MWE/ GTZ		
		Step 2.1.3.2.2 Decision in management meeting is based on PI analysis	2008	Utilities		
		Step 2.1.3.2.3 Department management based on PI is increased from 0 to 17 in 2010 and 23 in 2015				

Activities	P ⁶	Monitorable steps	Due date	Key actor	Budget	Financing ⁷
Activity # 2.1.3.3 Utilities prepare and submit business plans to the BOD/ MWE	1					GTZ \$50.000
		Step 2.1.3.3.1 Utilities receive training on business plans	2009	Utilities/MWE		
		Step 2.1.3.3.2 Submission of business plans to MWE is in good quality and on time and increased from 0 in 2008 to 17 in 2010 and 23 in 2015	2009	Utilities/MWE		
Activity # 2.1.3.4 Utilities monitor their performance in accordance with the benchmarks						GTZ \$50.000
		Step 2.1.3.4.1 MWE issues decree for national benchmarks	2008			
		Step 2.1.3.4.2 Utilities monitor their performance in accordance to the benchmarks and submit the data to MWE	2009			
		Step 2.1.3.4.3 MWE evaluates the utilities against the benchmarks and formulates implications for future investment for utilities	2010			
Output # 2.1.4 : All utilities implement available investment as planned						
Activity # 2.1.4.1 Set up procurement and implementation unit in utilities	1		2010 2012	Utilities	\$200.000	GTZ \$50.000
		Step 2.1.4.1.1 Set up procurement and implementation unit Sana'a, Aden, Hudeidah, Ibb, Mukallah	2010			
		Step 2.1.4.1.2 Decide on 5 more utilities to build up a procurement and implementation unit	2010			
		Step 2.1.4.1.3 Set up procurement and implementation unit in five	2012			

Activities	P ⁶	Monitorable steps	Due date	Key actor	Budget	Financing ⁷
		more utilities				
Output # 2.1.5 : Enhanced public private partnership (PPP) to increase diversified service delivery models by end 2015						
Activity # 2.1.5.1 All utilities identify possible areas/activity for the involvement of the private sector within the utilities ⁸	2				\$155,000	
		Step 2.1.5.1.1 Carry out a study on possible involvement of private sector in the utilities	2009	Utilities/MWE	\$30,000 for each large town/authority; and \$20,000 for each of the others.	
		Step 2.1.5.1.2 Analyze the ability of the private sector to deliver services to utilities	2009	Utilities/MWE		
		Step 2.1.5.1.3 Analyze the ability of outsourcing services	2009	Utilities/MWE		
		Step 2.1.5.1.3 Introduce PPP in utilities (if applicable)	End 2009	Utilities/MWE		
Output # 2.2.1 : All utilities are able to provide at least 40 lcd to domestic consumers in the mountain area (60 lcd in the coastal area) by 2015						
Activity # 2.2.1.1 All utilities secure water availability through strategic planning, protection and monitoring of water sources	1				\$75,000	
		Step 2.2.1.1.1 Water production inventory and production wells monitoring	2009	Utilities		
		Step 2.2.1.1.2 Submit annual water demand to NWRA	2009 Continuous	Utilities/NWRA/MWE		
		Step 2.2.1.1.3 Apply for additional access to water resources from NWRA	2009 Continuous	Utilities		
		Step 2.2.1.1.4 Develop with NWRA a strategy for sourcing and transferring bulk water, including - if necessary – purchase of land and/or water				

⁸ Under 1.3.1 wd be the PPP approaches **outside** the utilities e.g. concessions, joint projects etc.)

Activities	P ⁶	Monitorable steps	Due date	Key actor	Budget	Financing ⁷
		rights, water markets, agreements with communities etc.,				
		Step 2.2.1.1.4 After approval of NWRA, drill wells to access additional water resources	2009 Continuous	Utilities/NWRA		
		Step 2.2.1.1.5 Train managers and local council in management and protection of water sources	2009	Utilities		
		Step 2.2.1.1.5 Investigate other water resource possibilities e.g. study on desalination and others	2009 Continuous	Coastal utilities, Aden, Al Shehr, Hodeidah, others: Taiz, Sana'a		
Output # 2.2.2 : Water supply is reliable with at least 6 hours per day for 70 % of utilities by end 2015						
Activity # 2.2.2.1 Most utilities supply reliably water at least for 6 hours per day	1				\$8,876 000 (for activities 2.2.2.1 and 2.2.3.1)	GTZ \$400.000
		Step 2.2.2.1.1 Prepare or update study to develop and to monitor a proper network management system	2009 Continuous	Utilities		
		Step 2.2.2.1.2 Introduce Geographic Information System (GIS) in LCs which are not based on gravity water supply	2008 Continuous	Utilities		
		Step 2.2.2.1.3 Add pressure reducing valves and elevated tanks to the water supply systems	2009 Continuous	Utilities		
Output # 2.2.3 : Water supply is reliable with at least once a week (6 hours/day) for utilities in water scarce areas Taiz, Sana'a, Al Bayda, Al Qaida, Al Shehr; Jiblah and Yarim by end 2015						
Activity # 2.2.3.1 Some utilities supply reliably water at least once a week	1				see above	GTZ \$150.000
		Step 2.2.3.1.1 Study to develop and to monitor a proper network management plan/system in water scarce utilities	2008 Continuous	Utilities		
		Step 2.2.3.1.1.2 Introduce GIS in water scarce utilities	2008 Continuous	Utilities		
		Step 2.2.3.1.1.3 Add pressure reducing valves and elevated	2009 Continuous	Utilities		

Activities	P ⁶	Monitorable steps	Due date	Key actor	Budget	Financing ⁷
		tanks to the water supply systems in water scarce utilities				
Output # 2.3.1 : 17/2010 and 23/2015 decentralized LCs plus 6/2010 and 10/2015 autonomous utilities created and operational by end 2015						
Activity # 2.3.1.1 Present decentralization plans for all sub-sector institutions, define future role of NWSA	1				\$29,411,000	GTZ \$100.000
		Step 2.3.1.1.1 Future role of NWSA is defined and legalized	2009	MWE/NWSA		
		Step 2.3.1.1.2 Implement TA package for weak LCs	2009	MWE/NWSA/GTZ/WB		
		Step 2.3.1.1.3 Implement emergency rehabilitation needs	2009	MWE/NWSA/GTZ/WB		
		Step 2.3.1.1.4 Establishment of one LC every year to 17 in 2010 and 23 in 2015	2010 2015	Cabinet		
		Step 2.3.1.1.5 Utilities under LCs operating independently increased to 6 until 2010 and to 10 by 2015	4 in 2009; 2 in 2010, rest until 2015	MWE/GTZ		
		Step 2.3.1.1.6 Thirteen utilities under NWSA operating independently, yearly increment targets;	7 in 2009; 6 in 2010	MWE/NWSA		
Output # 2.3.2 : Independent regulator established, operational and financially viable by end 2010						
Activity # 2.3.2.1 Undertake transitional arrangements to establish (a) a provisional unit; and (b) a permanent unit	1				\$1,036,000	MoF 50 %, Donor 50 %; WB 100.000 US\$, 80.000 US\$ GTZ finance equipment, consultancy
		Step 2.3.2.1.1 Cabinet approval to establish a provisional unit within MWE, and MWE requesting MoF/donor funding	End May 2008	MWE, cabinet, TS		
		Step 2.3.2.1.2 MWE gets approval of financial support from donors and agrees cost sharing with MoF	End August 2008	MWE / MoF		
		Step 2.3.2.1.3 Provisional unit is fully set up and ready for	End 2010	Unit		

Activities	P ⁶	Monitorable steps	Due date	Key actor	Budget	Financing ⁷
		transfer into the Jihaz				
		Step 2.3.2.1.4 Law establishing the regulation system and agency approved and adopted	End 2010	Parliament		
		Step 2.3.2.1.5 Provisional unit is transferred to the fully independent regulator which is fully operational	End 2010	National Jihaz		
Output # 2.3.3 : Separation of ownership and management of utilities is legalized and implemented in 5 utilities by end 2010 and additional 3 utilities by end 2015						
Activity # 2.3.3.1 Separate ownership of company and utility management	2				\$200,000	GTZ \$100.000
		Step 2.3.3.1.1 Legalize separation of company ownership and utility management	2008	MWE/MoLA/Legal affairs		
		Step 2.3.3.1.2 Establish financial instruments for public companies with MoF	2008/9	MWE/MoF/MoLA/Legal Affairs		
		Step 2.3.3.1.3 Support utilities during the transition with business plan development and in the transition process	2008/9	MWE		
		Step 2.3.3.1.4 Supervise and monitor public utilities	2010	MWE/MoLA/regulator		
Output # 2.3.4 : Establishment of UWSS utility association under independent management by end 2009						
Activity # 2.3.4.1 Establishment of UWSS utility association	1				\$25,000	
		Step 2.3.4.1.1 Establishment of YWUA (constitution agreed, association formally registered)	End 2009	Utilities/Ministry of Legal Affairs/Social Affairs		
Output # 2.4.1 : UWSS HRD plan implemented by end 2015						
Activity # 2.4.1.1 Launch a comprehensive HRD capacity development support initiative for newly established LCs	1				\$244,000	
		Step 2.4.1.1.1 The framework	Mid 2009	MWE/LCs/GTZ/MoCS		GTZ \$70.000

Activities	P ⁶	Monitorable steps	Due date	Key actor	Budget	Financing ⁷
		concept for human resources development is adopted by the MWE will be approved by Ministry of Civil Service				
Output # 2.4.2 : Professional standards/qualification in the utilities is improved by end 2015						
Activity # 2.4.2.1 HRD capacity dev. program	1				\$850,000	GTZ 650,000 WB 200,000
		Step 2.4.2.1.1 All utilities will adjust and up date job description for their staff	Continuous up to 2015	MWE/utilities		
		Step 2.4.2.1.2 Training courses implemented according to the outcomes of the Training Need Assessment (TNA) for the management of the LCs.	Continuous until 2015	MWE/utilities		WB/GTZ
		Step 2.4.2.1.3 Develop/up date training need assessment for utility staff	Continuous until 2015			
		Step 2.4.2.1.4 Implement training courses based on demand (TNA) for utility staff	Continuous until 2015			
		Step 2.4.2.1.5 Propose and introduce a performance related incentive system	Continuous until 2015	MWE/utilities		
		Step 2.4.2.1.6 Consider options for special pay structure for water utilities	Continuous until 2015	MWE/utilities/MoCS		
Output # 2.5.1 : Water quality is improved by end 2010						
Activity # 2.5.1.1 All utilities take samples according to benchmarks and perform residual chlorine tests					\$67,000	GTZ \$20.000
		Step 2.5.1.1.1 The results of the tested sample will be send via PIIS to MWE	2010	Utilities/private sector supplies		
		Step 2.5.1.1.3 Utility inform customer and authority in charge if the water quality is below the standard	2010	Utilities/private sector supplies/NWRA/local authorities/public health		
Output # 2.5.2: Effluent quality is improved by end 2015						
Activity # 2.5.2.1 All						

Activities	P ⁶	Monitorable steps	Due date	Key actor	Budget	Financing ⁷
utilities take samples according to benchmarks and perform BOD sample					\$67,000	GTZ \$20.000
		Step 2.5.2.1.1 The results of the tested sample will be send via PIIS to MWE	2015			
		Step 2.5.2.1.3 Utility inform authority in charge if the effluent water quality is below the standard	2015			
Output # 3.1.1 : Poor household (below the official poverty line) have access to life line water and sanitation and their expenditures for water and sanitation is up to 5 % of their monthly income by end 2015						
Activity # 3.1.1.1 Utilities apply a pro poor tariff with financial sustainability	1				\$50,000	GTZ \$40,000 World Bank \$10,000
		Step 3.1.1.1 Carry out UWSS PSIA to gain knowledge about the poor target group	Mid 2008	MWE		
		Step 3.1.1.2 Include investigations about poor households in the customer survey	2008			
		Step 3.1.1.3 Adjust tariff if necessary	2008 Continuous	utilities/MWE		

Yemen
NWSSIP
Expenditure Accounts by Years -- Base Costs
Urban Water Supply and Sanitation (US\$ '000)

	Base Cost								
	2008	2009	2010	2011	2012	2013	2014	2015	Total
1. Urban WS									
a. New Urban WS	-	-	58,774	62,797	67,130	71,826	77,119	82,219	419,864
b. UWS Ongoing Projects	84,665	81,478	6,500	6,500	6,500	-	-	-	185,642
c. Rehab Urban WS	2,220	26,225	26,225	26,225	26,225	26,225	26,225	26,225	185,798
Subtotal Urban WS	86,885	107,703	91,499	95,522	99,855	98,051	103,344	108,445	791,305
2. Urban Sanitation									
a. New Urban Sanitation	276	6,497	34,362	40,825	43,095	45,523	48,013	50,861	269,453
b. U Sanitation Ongoing Projects	56,668	77,059	13,085	12,565	12,091	440	458	476	172,844
d. Urban Decentralized Sanitation	-	-	14,716	15,720	16,802	17,979	19,347	20,588	105,153
e. Sewage Treatment Plants	-	40,000	-	50,000	50,000	-	-	-	140,000
Subtotal Urban Sanitation	56,944	123,556	62,163	119,111	121,988	63,943	67,818	71,926	687,449
3. UWSS Institutional Support									
UWSS Strategy	-	185	232	32	32	32	32	32	575
Improved Sustainable Services	50	4,626	2,141	1,726	1,826	1,726	1,114	1,114	14,321
Sustainable Water Resources	6	1,318	1,274	1,274	1,274	1,268	1,268	1,268	8,951
Utilities Decentralization and Corporatization	-	4,327	5,338	4,202	4,202	4,202	4,202	4,202	30,672
Human Resource Development	106	350	173	106	106	106	106	106	1,161
Pro-poor Policy	50	-	-	-	-	-	-	-	50
Subtotal WSS Institutional Support	212	10,805	9,157	7,339	7,439	7,333	6,721	6,721	55,729
Total Investment Costs	144,041	242,065	162,819	221,973	229,283	169,327	177,884	187,092	1,534,483
	144,041	242,065	162,819	221,973	229,283	169,327	177,884	187,092	1,534,483
Physical Contingencies	5,596	7,530	13,408	14,557	15,325	16,155	17,070	17,989	107,631
Price Contingencies	4,136	12,995	25,704	43,338	63,327	85,163	113,040	145,879	493,582
TOTAL	153,773	262,589	201,931	279,868	307,935	270,646	307,994	350,960	2,135,696

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NWSSIP

Project Components by Year -- Base Costs

Urban Water Supply and Sanitation (US\$ '000)

	Base Cost							Total	
	2008	2009	2010	2011	2012	2013	2014		2015
1. Urban WSS Institutional Support									
b. Sewage Investment Planning 1.2.1	-	-	32	32	32	32	32	32	190
c. Study on Decentralized Sanitation 1.2.2	-	-	200	-	-	-	-	-	200
d. UWSS Strategy 1.3									
UWSS Public/Private Strategy 1.3.1	-	85	-	-	-	-	-	-	85
WSS Service Mapping 1.3.2	-	100	-	-	-	-	-	-	100
Subtotal UWSS Strategy 1.3	-	185	-	-	-	-	-	-	185
e. Improved Financially Sustainable Services 2.1									
Technical and Financial Efficiency 2.1.1	-	4,240	1,810	1,555	1,555	1,555	943	943	12,600
Increase Consumer Satisfaction 2.1.2	-	141	121	121	121	121	121	121	866
LCs Managed as Businesses 2.1.3	50	150	50	50	50	50	50	50	500
Utilities implement investment plans 2.1.4	-	-	100	-	100	-	-	-	200
Enhanced Public/Private Partnership 2.1.5	-	95	60	-	-	-	-	-	155
Subtotal Improved Financially Sustainable Services 2.1	50	4,626	2,141	1,726	1,826	1,726	1,114	1,114	14,321
f. Sustainable Water Resources 2.2									
Sustainable Water Availability 2.2.1	6	50	6	6	6	-	-	-	75
Reliable Daily Water Supply 2.2.2	-	1,268	1,268	1,268	1,268	1,268	1,268	1,268	8,876
Subtotal Sustainable Water Resources 2.2	6	1,318	1,274	1,274	1,274	1,268	1,268	1,268	8,951
g. Utilities Decentralization and Coporatization 2,3									
Support to LCs Decentralization 2.3.1	-	4,202	4,202	4,202	4,202	4,202	4,202	4,202	29,411
Establishment of Independent Regulator 2.3.2	-	-	1,036	-	-	-	-	-	1,036
Separation of Ownership and Management 2.3.3	-	100	100	-	-	-	-	-	200
UWSS Utility Association 2.3.4	-	25	-	-	-	-	-	-	25
Subtotal Utilities Decentralization and Coporatization 2,3	-	4,327	5,338	4,202	4,202	4,202	4,202	4,202	30,672
h. Human Resource Development 2.4									
UWSS HRD Plan 2.4.1	-	244	-	-	-	-	-	-	244
Improvement of Professional Standards 2.4.2	106	106	106	106	106	106	106	106	850
Subtotal Human Resource Development 2.4	106	350	106	106	106	106	106	106	1,094
i. Improved Water Quality and Effluent 2.5									
Effluent Quality Improvement 2.5.2	-	-	67	-	-	-	-	-	67
j. UWSS Pro-Poor Strategy 3.1	50	-	-	-	-	-	-	-	50
Subtotal Urban WSS Institutional Support	212	10,805	9,157	7,339	7,439	7,333	6,721	6,721	55,729

	2008	2009	2010	2011	2012	2013	2014	2015	Total
2. NWSA 1 Urban Water Supply and Sanitation									
a. UWSS Al Ghada N									
Al Ghadah Urban Water Supply N	-	120	120	120	120	120	120	120	841
Al Ghadah UWS Ongoing Projects	555	759	-	-	-	-	-	-	1,315
Al Ghadah Rehab Urban Water Supply	-	-	583	630	681	737	796	859	4,285
Al Ghada U Sanitation Ongoing Projects	240	-	-	-	-	-	-	-	240
Subtotal UWSS Al Ghada N	795	879	703	750	802	857	916	979	6,681
c. UWSS Sheban N									
Shebam N Urban Water Supply	-	-	134	140	144	147	150	156	871
Sheban N UWS Ongoing Projects	259	771	-	-	-	-	-	-	1,030
Shebam N Urban Sanitation	-	-	150	155	160	164	169	173	971
Shebam N U Sanitation Ongoing Projects	137	141	-	-	-	-	-	-	278
Shebam N Decentralized Sanitation	-	-	51	54	55	56	57	60	333
Subtotal UWSS Sheban N	395	912	336	349	358	367	376	389	3,483
d. UWSS Al Mahweet N									
Al Mahweet Urban Water Supply	362	870	131	134	137	144	147	150	2,075
Al Mahweet Rehab Urban Water Supply	-	133	133	133	133	133	133	133	931
Al Mahweet Urban Sanitation	36	36	-	-	-	-	-	-	73
Subtotal UWSS Al Mahweet N	399	1,039	264	267	270	277	280	283	3,079
e. UWSS Manakha N									
Manakha Urban Water Supply	-	-	128	134	137	144	150	156	849
Manakha UWS Ongoing Projects	311	332	-	-	-	-	-	-	643
Manakka Rehab Urban Water Supply	-	76	76	76	76	76	76	76	534
Subtotal UWSS Manakha N	311	408	204	210	214	220	226	233	2,026
f. UWSS Khamer N									
Khamer Urban Water Supply	-	-	236	247	259	275	287	302	1,606
Khamer UWS Ongoing Projects	207	445	-	-	-	-	-	-	653
Khamer Rehab Urban Water Supply	-	74	74	74	74	74	74	74	520
Subtotal UWSS Khamer N	207	520	310	322	333	349	361	377	2,779
g. UWSS Amran									
Amran Urban Water Supply	-	-	854	905	959	1,017	1,078	1,142	5,955
Amran UWS Ongoing Projects	-	574	-	-	-	-	-	-	574
Amran Rehab Urban Water Supply	-	188	188	188	188	188	188	188	1,315
Amran Urban Sanitation	239	252	265	279	292	309	322	339	2,298
Subtotal UWSS Amran	239	1,014	1,307	1,372	1,439	1,514	1,588	1,669	10,142
h. UWSS Al Dalah N									
Al Dalah Urban Water Supply	-	-	616	662	711	763	817	877	4,447
Al Dalah UWS Ongoing Projects	506	1,641	-	-	-	-	-	-	2,147
Subtotal UWSS Al Dalah N	506	1,641	616	662	711	763	817	877	6,594

	2008	2009	2010	2011	2012	2013	2014	2015	Total
i. UWSS Attaq N									
Attaq Urban Water Supply	-	-	405	434	463	495	530	568	2,895
Attaq UWS Ongoing Projects	-	964	-	-	-	-	-	-	964
Attaq Urban Sanitation	155	-	-	-	-	-	-	-	155
Subtotal UWSS Attaq N	155	964	405	434	463	495	530	568	4,015
j. UWSS Maber N									
Maber Urban Water Supply	-	-	175	187	199	211	225	238	1,235
Maber Rehab Urban Water Supply	-	143	143	143	143	143	143	143	1,000
Subtotal UWSS Maber N	-	143	318	330	342	354	367	381	2,235
Subtotal NWSA 1 Urban Water Supply and Sanitation	3,009	7,522	4,463	4,697	4,931	5,195	5,461	5,756	41,033
3. NWSA 2 Urban Water Supply and Sanitation									
a. UWSS Damt N									
Damt Urban Water Supply N	-	-	358	382	409	437	464	496	2,545
Damt UWS Ongoing Projects	362	441	-	-	-	-	-	-	803
Damt Rehab Urban Water Supply	-	147	147	147	147	147	147	147	1,027
Subtotal UWSS Damt N	362	587	505	528	556	583	611	642	4,375
b. UWSS Seyout N									
Seyout Urban Water Supply	-	-	292	315	339	368	398	427	2,140
Seyout Rehab Urban Water Supply	-	112	112	112	112	112	112	112	781
Subtotal UWSS Seyout N	-	112	403	427	450	480	509	539	2,921
c. UWSS Hawf N									
Hawf Urban Water Supply	-	120	142	142	145	145	149	152	996
d. UWSS Raimah N									
Raimah Urban Water Supply	-	-	125	131	134	140	147	153	830
Raimah Rehab Urban Water Supply	-	76	76	76	76	76	76	76	534
Raimah UWS Ongoing Projects	362	93	-	-	-	-	-	-	455
Subtotal UWSS Raimah N	362	169	201	207	210	217	223	229	1,819
e. UWSS Hazm Al Jawf N									
Hazm Al Jawf Urban Water Supply	-	-	81	81	84	87	90	96	517
Hazm Al Jawf UWS Ongoing Projects	207	741	-	-	-	-	-	-	948
Hazm Al Jawf Rehab Urban Water Supply	-	23	23	23	23	23	23	23	164
Subtotal UWSS Hazm Al Jawf N	207	764	104	104	107	110	113	119	1,629
f. UWSS Mareb N									
Mareb Urban Water Supply	-	-	169	176	185	195	201	211	1,136
Mareb UWS Ongoing Projects	2,072	814	-	-	-	-	-	-	2,886
Subtotal UWSS Mareb N	2,072	814	169	176	185	195	201	211	4,022

	2008	2009	2010	2011	2012	2013	2014	2015	Total
g. UWSS Shahara N									
Shahara Urban Water Supply	476	3,362	3,300	3,300	3,300	-	-	-	13,738
h. UWSS Matna N									
Matna Urban Water Supply	415	40	19	19	22	22	22	22	583
Subtotal WSA 2 Urban Water Supply and Sanitation	3,895	5,968	4,844	4,903	4,977	1,752	1,828	1,914	30,081
4. Sana'a Urban Water Supply and Sanitation									
a. Sana'a Urban Water Supply									
Sana'a Urban Public Water Supply	-	-	12,102	13,072	14,116	15,246	16,466	17,784	88,786
Sana'a Rehab Urban Water Supply	14,469	4,489	4,489	4,489	4,489	4,489	4,489	4,489	45,895
Sana'a WS On-going Projects	7,304	15,778	-	-	-	-	-	-	23,082
Subtotal Sana'a Urban Water Supply	21,773	20,267	16,591	17,562	18,606	19,736	20,955	22,273	157,763
b. Sana'a U Sanitation									
Sana'a Urban Sanitation	27,866	15,778	12,104	12,829	13,599	14,415	15,277	16,193	128,061
Sana'a Sewage Treatment Plants	-	40,000	-	50,000	50,000	-	-	-	140,000
Subtotal Sana'a U Sanitation	27,866	55,778	12,104	62,829	63,599	14,415	15,277	16,193	268,061
Subtotal Sana'a Urban Water Supply and Sanitation	49,639	76,045	28,695	80,390	82,205	34,151	36,232	38,467	425,824
5. Aden Urban Water Supply and Sanitation									
a. Aden UWSS									
Aden New Urban Water Supply	-	-	12,102	13,072	14,116	15,246	16,785	17,784	89,106
Aden UWS Ongoing Projects	4,336	10,212	-	-	-	-	-	-	14,548
Aden Rehab Urban Water Supply	-	4,890	4,890	4,890	4,890	4,890	4,890	4,890	34,233
Subtotal Aden UWSS	4,336	15,102	16,992	17,963	19,007	20,137	21,675	22,675	137,887
b. Aden U Sanitation									
Aden Decentralized Sanitation	-	-	4,619	4,990	5,388	5,819	6,407	6,788	34,011
Aden Urban Sanitation	12,377	10,212	7,072	10,267	10,675	11,106	11,548	12,012	85,270
Subtotal Aden U Sanitation	12,377	10,212	11,691	15,256	16,063	16,925	17,955	18,801	119,281
Subtotal den Urban Water Supply and Sanitation	16,713	25,314	28,684	33,219	35,070	37,062	39,630	41,475	257,168
6. Hajjah Urban Water Supply and Sanitation									
a. Hajjah UWS									
Hajjah Urban Water Supply	-	-	757	785	817	852	884	919	5,015
Hajjah UWS On-Going Projects	2,010	1,472	-	-	-	-	-	-	3,481
Hajjah Rehab Urban Water Supply	-	405	405	405	405	405	405	405	2,835
Subtotal Hajjah UWS	2,010	1,877	1,161	1,190	1,222	1,257	1,289	1,324	11,331

	2008	2009	2010	2011	2012	2013	2014	2015	Total
b. Hajjah U Sanitation									
Hajjah Decentralized Sanitation	-	-	286	297	309	322	334	347	1,896
Hajjah U Sanitation Ongoing Projects	-	1,435	-	-	-	-	-	-	1,435
Hajjah Urban Sanitation	-	-	560	582	608	629	655	681	3,715
Subtotal Hajjah U Sanitation	-	1,435	846	879	916	951	989	1,028	7,045
Subtotal Hajjah Urban Water Supply and Sanitation	2,010	3,312	2,008	2,069	2,139	2,209	2,278	2,353	18,376
7. Ibb Urban Water Supply and Sanitation									
a. Ibb UWS									
Ibb Urban Water Supply	-	-	2,439	2,586	2,739	2,934	3,077	3,262	17,037
Ibb UWS Ongoing Projects	3,752	4,592	-	-	-	-	-	-	8,344
Ibb Rehab Urban Water Supply	-	628	628	628	628	628	628	628	4,396
Subtotal Ibb UWS	3,752	5,220	3,067	3,214	3,367	3,562	3,705	3,890	29,777
b. Ibb U Sanitation									
Ibb Urban Sanitation	-	-	2,293	2,433	2,576	2,733	2,894	3,068	15,997
Ibb U Sanitation Ongoing Projects	4,030	7,431	-	-	-	-	-	-	11,461
Ibb Decentralized Sanitation	-	-	931	987	1,045	1,120	1,175	1,245	6,503
Subtotal Ibb U Sanitation	4,030	7,431	3,224	3,420	3,622	3,853	4,068	4,313	33,961
Subtotal bb Urban Water Supply and Sanitation	7,783	12,651	6,291	6,633	6,989	7,414	7,774	8,204	63,738
8. Dhamar Urban Water Supply and Sanitation									
a. Dhamar UWS									
Dhamar Urban Water Supply	-	-	1,689	1,794	1,906	2,024	2,149	2,283	11,845
Dhamar UWS Ongoing Projects	2,325	1,710	-	-	-	-	-	-	4,035
Dhamar Rehab Urban Water Supply	-	866	866	866	866	866	866	866	6,061
Subtotal Dhamar UWS	2,325	2,576	2,555	2,660	2,772	2,890	3,015	3,148	21,941
b. Dhamar U Sanitation									
Dhamar Urban Sanitation	-	-	1,284	2,724	3,051	3,416	3,742	4,286	18,503
Dhamar Decentralized Sanitation	-	-	1,323	1,406	1,494	1,586	1,684	1,789	9,282
Subtotal Dhamar U Sanitation	-	-	2,607	4,130	4,544	5,003	5,426	6,075	27,786
Subtotal Dhamar Urban Water Supply and Sanitation	2,325	2,576	5,161	6,790	7,317	7,893	8,441	9,224	49,727
9. Costal Hadramout Urban Water Supply and Sanitation									
a. UWSS Mukkalah Local Corporation									
Mukkalah Urban WS	-	-	3,049	3,186	3,330	3,480	3,636	3,802	20,482
Mukkalah Rehab Urban WS	4,134	1,530	1,530	1,530	1,530	1,530	1,530	1,530	14,846
Mukallah UWS Ongoing Projects	7,314	7,064	-	-	-	-	-	-	14,379
Mukkalah Urban Sanitation	-	-	2,573	2,680	2,797	2,917	3,042	3,172	17,181
Mukallah U Sanitation Ongoing Projects	2,071	6,888	-	-	-	-	-	-	8,960
Mukkalah Decentralized Sanitation	-	-	1,152	1,204	1,258	1,315	1,374	1,437	7,741
Subtotal UWSS Mukkalah Local Corporation	13,520	15,483	8,304	8,601	8,915	9,242	9,583	9,941	83,588

	2008	2009	2010	2011	2012	2013	2014	2015	Total
b. UWSS Al Ghail Utility									
Al Ghail Urban WS	635	648	722	757	791	826	864	901	6,145
Al Ghail Rehab Urban WS	-	526	526	526	526	526	526	526	3,683
Subtotal UWSS Al Ghail Utility	635	1,174	1,249	1,283	1,318	1,352	1,390	1,428	9,828
c. UWSS Al Sher Utility									
Al Sher Urban WS	-	-	1,112	1,162	1,213	1,271	1,325	1,387	7,469
Al Sher UWS On-Going Projects	905	924	-	-	-	-	-	-	1,829
Al Sher Rehab Urban WS	-	487	487	487	487	487	487	487	3,410
Al Sher U Sanitation On-going Projects	-	2,550	2,550	2,550	2,550	-	-	-	10,200
Subtotal UWSS Al Sher Utility	905	3,961	4,149	4,199	4,250	1,758	1,812	1,874	22,908
d. UWSS Al Diss									
Al Diss Urban Water Supply	321	327	289	301	314	330	342	358	2,583
e. UWSS Al Raidah Utility									
Al Raidah Urban WS	366	373	310	326	345	354	370	386	2,830
Al Raidah Rehab Urban WS	-	215	215	215	215	215	215	215	1,506
Subtotal UWSS Al Raidah Utility	366	589	525	541	560	570	585	601	4,336
Subtotal Coastal Hadramout Urban Water Supply and Sanitation	15,746	21,534	14,515	14,925	15,356	13,251	13,712	14,202	123,242
10. Wadi Hadramout Urban Water Supply and Sanitation									
a. UWSS Seiyun Local Corporation									
Seiyun Urban WS	-	-	1,101	1,149	1,200	1,251	1,309	1,366	7,377
Seiyun UWS Ongoing Projects	3,336	2,819	-	-	-	-	-	-	6,155
Seiyun Rehab Urban WS	2,220	689	689	689	689	689	689	689	7,040
Seiyun Urban Sanitation	-	6,208	435	928	1,061	1,210	1,376	1,571	12,790
Seiyun U Sanitation Ongoing	-	6,591	-	-	-	-	-	-	6,591
Seiyun Decentralized Sanitation	-	-	420	439	458	478	500	522	2,816
Subtotal UWSS Seiyun Local Corporation	5,556	16,307	2,645	3,205	3,408	3,628	3,873	4,147	42,769
b. UWSS Tarim Utility									
Tarim Urban WS	1,904	1,741	747	779	814	849	887	926	8,648
c. UWSS Shibam Utility									
Shibam Urban WS	1,309	1,518	835	857	883	905	931	959	8,196
Shibam Decentralized Sanitation	-	-	196	205	214	223	233	244	1,315
Subtotal UWSS Shibam Utility	1,309	1,518	1,031	1,062	1,097	1,128	1,163	1,203	9,511
d. UWSS Al Qatan Utility									
Al Qatan Urban WS	1,247	1,097	469	488	511	533	555	581	5,481
Al Qatan Rehab Urban WS	-	293	293	293	293	293	293	293	2,054
Subtotal UWSS Al Qatan Utility	1,247	1,390	763	782	804	827	849	874	7,535

	2008	2009	2010	2011	2012	2013	2014	2015	Total
e. UWSS Sah Utility									
Sah Urban WS	232	213	101	104	111	117	120	126	1,125
Sah Rehab Urban Water Supply	-	46	46	46	46	46	46	46	325
Subtotal UWSS Sah Utility	232	260	148	151	157	163	167	173	1,450
Subtotal Wadi Hadramout Urban Water Supply and Sanitation	10,247	21,216	5,334	5,978	6,280	6,595	6,939	7,323	69,913
11. Lahj Urban Water Supply and Sanitation									
a. Lahj UWS									
Lahj Urban Water Supply	1,968	1,848	5,491	6,139	6,863	7,674	8,578	9,593	48,154
Lhaj Rehab Urban Water Supply	600	2,095	2,095	2,095	2,095	2,095	2,095	2,095	15,265
Subtotal Lahj UWS	2,568	3,943	7,586	8,234	8,958	9,769	10,673	11,688	63,419
b. Lahj U Sanitation									
Lahj Urban Sanitation	-	2,034	-	-	-	-	-	-	2,034
Lahj Decentralized Sanitation	-	-	2,096	2,343	2,620	2,929	3,274	3,661	16,923
Subtotal Lahj U	-	2,034	2,096	2,343	2,620	2,929	3,274	3,661	18,957
Subtotal Lahj Urban Water Supply and Sanitation	2,568	5,977	9,682	10,577	11,578	12,698	13,947	15,349	82,376
12. Hoddeidah Urban Water Supply and Sanitation									
a. Hoddeidah WSS									
Hoddeidah Urban Water Supply	-	4,194	4,194	4,194	4,194	4,194	4,194	4,194	29,358
Hoddeidah UWS Ongoing Projects	2,361	4,701	-	-	-	-	-	-	7,061
Hoddeidah Rehab Urban Water Supply	-	-	7,613	7,872	8,132	8,407	8,689	8,982	49,696
Subtotal Hoddeidah WSS	2,361	8,895	11,808	12,066	12,326	12,601	12,883	13,176	86,116
b. Hoddeidah U Sanitation									
Hoddeidah U Sanitation Ongoing Projects	4,053	4,700	-	-	-	-	-	-	8,753
Hoddeidah Decentralized Sanitation	-	-	1,744	1,806	1,870	1,939	2,008	2,080	11,446
Subtotal Hoddeidah U Sanitation	4,053	4,700	1,744	1,806	1,870	1,939	2,008	2,080	20,199
Subtotal Hoddeidah Urban Water Supply and Sanitation	6,414	13,595	13,551	13,872	14,197	14,539	14,891	15,256	106,315
13. Taiz Urban Water Supply and Sanitation									
a. Taiz UWS									
Taiz Urban Water Supply	-	-	4,073	4,278	4,492	4,715	4,951	5,200	27,709
Taiz UWS On-going Projects	9,808	4,474	-	-	-	-	-	-	14,282
Taiz Rehab Urban Water Supply	-	2,396	2,396	2,396	2,396	2,396	2,396	2,396	16,774
Subtotal Taiz UWS	9,808	6,870	6,470	6,674	6,888	7,111	7,348	7,597	58,765
b. Taiz U Sanitation									
Taiz Urban Sanitation	-	-	3,829	4,021	4,222	4,431	4,655	4,887	26,045
Taiz U Sanitation Ongoing Projects	4,281	5,206	-	-	-	-	-	-	9,487
Taiz Decentralized Sanitation	-	-	1,555	1,633	1,714	1,800	1,890	1,985	10,576
Subtotal Taiz U Sanitation	4,281	5,206	5,384	5,654	5,936	6,231	6,544	6,872	46,108

	2008	2009	2010	2011	2012	2013	2014	2015	Total
Subtotal Taiz Urban Water Supply and Sanitation	14,089	12,077	11,854	12,328	12,824	13,342	13,892	14,469	104,874
14. Saada Urban Water Supply and Sanitation									
a. Saada UWS									
Saada Rehab Urban Water Supply	-	133	133	133	133	133	133	133	931
Saada UWS Ongoing Projects	1,294	2,238	-	-	-	-	-	-	3,532
Saada Urban Water Supply	-	-	683	725	773	820	871	926	4,798
Subtotal Saada UWS	1,294	2,371	816	858	906	953	1,005	1,059	9,261
b. Saada U Sanitation									
Saada U Sanitation Ongoing Projects	-	6,310	5,735	5,215	4,741	440	458	476	23,376
Subtotal Saada Urban Water Supply and Sanitation	1,294	8,680	6,551	6,073	5,647	1,393	1,463	1,535	32,637
15. Abyan Urban Water Supply and Sanitation									
a. Abyan UWS									
Abyan Urban Water Supply	-	-	1,223	1,277	1,334	1,395	1,459	1,523	8,210
Abyan UWS On-Going Projects	5,181	5,037	3,200	3,200	3,200	-	-	-	19,818
Abyan Rehab Urban Water Supply	-	477	477	477	477	477	477	477	3,341
Subtotal Abyan UWS	5,181	5,514	4,900	4,954	5,012	1,872	1,936	2,000	31,370
b. Abyan U Sanitation									
Abyan Urban Sanitation	930	1,950	-	-	-	-	-	-	2,880
Abyan U Sanitation On-Going Projects	-	4,800	4,800	4,800	4,800	-	-	-	19,200
Subtotal Abyan U Sanitation	930	6,750	4,800	4,800	4,800	-	-	-	22,080
Subtotal Abyan Urban Water Supply and Sanitation	6,111	12,264	9,700	9,754	9,812	1,872	1,936	2,000	53,450
16. Al Beida Urban Water Supply and Sanitation									
a. Al Beida LC									
Al Beida LC WS	-	-	382	400	419	440	462	480	2,583
Al Beida UWS Ongoing Projects	263	254	-	-	-	-	-	-	517
Al Beida Rehab Urban WS	100	139	139	139	139	139	139	139	1,072
A Beida U Sanitation Ongoing Projects	100	201	-	-	-	-	-	-	301
Al Beida LC Decentralized Sanitation	-	-	82	85	89	94	99	102	551
Subtotal Al Beida LC	464	593	602	624	646	673	699	721	5,024
b. Rada Utility									
Rada Urban WS	812	785	591	620	649	678	711	743	5,591
Rada UWS Ongoing Projects	152	-	-	-	-	-	-	-	152
Rada Rehab Urban WS	-	192	192	192	192	192	192	192	1,342
Rada Urban Sanitation	-	-	585	613	641	673	705	736	3,953
Rada U Sanitation Ongoing Projects	427	832	-	-	-	-	-	-	1,258
Rada Decentralized Sanitation	-	-	223	234	245	256	268	280	1,506
Subtotal Rada Utility	1,391	1,809	1,591	1,659	1,727	1,799	1,875	1,951	13,802

	2008	2009	2010	2011	2012	2013	2014	2015	Total
c. Malah Utility									
Malah Urban WS	-	-	99	102	109	112	118	124	664
Malah UWS Ongoing Projects	131	126	-	-	-	-	-	-	257
Malah Decentralized Sanitation	-	-	38	39	41	43	45	48	253
Subtotal Malah Utility	131	126	137	141	150	154	163	172	1,174
Subtotal AI Beida Urban Water Supply and Sanitation	1,986	2,528	2,330	2,424	2,524	2,626	2,738	2,845	20,000
Subtotal Urban Water Supply and Sanitation	144,041	242,065	162,819	221,973	229,283	169,327	177,884	187,092	1,534,483
Physical Contingencies	5,596	7,530	13,408	14,557	15,325	16,155	17,070	17,989	107,631
Price Contingencies	4,136	12,995	25,704	43,338	63,327	85,163	113,040	145,879	493,582
	153,773	262,589	201,931	279,868	307,935	270,646	307,994	350,960	2,135,696

File: COMYRB

Yemen
NWSSIP
Expenditure Accounts by Financiers
Urban Water Supply and Sanitation (US\$ '000)

	Foreign		Foreign Gap		Budget GOY		Other Local		The Government		Total	
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%
1. Urban WS												
a. New Urban WS		-	575,268	85.5	-	-	31,966	4.8	65,289	9.7	672,523	31.5
b. UWS Ongoing Projects	86,851	44.2	-	-	105,755	53.8	2,058	1.0	1,938	1.0	196,601	9.2
c. Rehab Urban WS		-	238,074	84.5	-	-	13,667	4.8	30,166	10.7	281,907	13.2
Subtotal Urban WS	86,851	7.5	813,341	70.7	105,755	9.2	47,690	4.1	97,393	8.5	1,151,031	53.9
2. Urban Sanitation												
a. New Urban Sanitation		-	362,941	84.7	-	-	21,073	4.9	44,305	10.3	428,320	20.1
b. U Sanitation Ongoing Projects	121,715	63.8	-	-	65,171	34.2	3,180	1.7	565	0.3	190,631	8.9
d. Urban Decentralized Sanitation		-	115,737	68.9	-	-	33,068	19.7	19,175	11.4	167,980	7.9
e. Sewage Treatment Plants	90,000	64.3	50,000	35.7	-	-	-	-	-	-	140,000	6.6
Subtotal Urban Sanitation	211,715	22.8	528,678	57.0	65,171	7.0	57,321	6.2	64,045	6.9	926,930	43.4
3. UWSS Institutional Support												
UWSS Strategy	190	32.7	391	67.3	-	-	-	-	0	-	581	-
Improved Sustainable Services	1,158	7.1	15,158	92.9	-	-	-	-	0	-	16,316	0.8
Sustainable Water Resources	375	4.2	8,578	95.8	-	-	-	-	2	-	8,955	0.4
Utilities Decentralization and Corporatization	376	1.2	29,866	97.4	-	-	-	-	430	1.4	30,672	1.4
Human Resource Development	936	80.6	225	19.4	-	-	-	-	-0	-0.0	1,161	0.1
Pro-poor Policy	50	100.0	-	-	-	-	-	-	-	-	50	-
Subtotal WSS Institutional Support	3,086	5.3	54,218	93.9	-	-	-	-	432	0.7	57,735	2.7
Total Investment Costs	301,651	14.1	1,396,238	65.4	170,925	8.0	105,012	4.9	161,870	7.6	2,135,696	100.0

File: EXPFIN

Yemen
NWSSIP
Components by Financiers
Urban Water Supply and Sanitation (US\$ '000)

	Foreign		Foreign Gap		Budget GOY		Other Local		The Government		Total	
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%
1. Urban WSS Institutional Support												
Sewage Investment Planning 1.2.1	190	100.0	-	-	-	-	-	-	-	-	190	-
Study on Decentralized Sanitation 1.2.2	-	-	200	100.0	-	-	-	-	0	-	200	-
UWSS Strategy 1.3												
UWSS Public/Private Strategy 1.3.1	-	-	91	100.0	-	-	-	-	-	-	91	-
WSS Service Mapping 1.3.2	-	-	100	100.0	-	-	-	-	0	-	100	-
Subtotal UWSS Strategy 1.3	-	-	191	100.0	-	-	-	-	0	-	191	-
Improved Financially Sustainable Services 2.1												
Technical and Financial Efficiency 2.1.1	500	3.4	14,095	96.6	-	-	-	-	0	-	14,595	0.7
Increase Consumer Satisfaction 2.1.2	409	47.2	457	52.8	-	-	-	-	-	-	866	-
LCs Managed as Businesses 2.1.3	199	39.8	301	60.2	-	-	-	-	0	-	500	-
Utilities implement investment plans 2.1.4	50	25.0	150	75.0	-	-	-	-	0	-	200	-
Enhanced Public/Private Partnership 2.1.5	-	-	155	100.0	-	-	-	-	0	-	155	-
Subtotal Improved Financially Sustainable Services 2.1	1,158	7.1	15,158	92.9	-	-	-	-	0	-	16,316	0.8
Sustainable Water Resources 2.2												
Sustainable Water Availability 2.2.1	33	42.1	44	55.7	-	-	-	-	2	2.2	79	-
Reliable Daily Water Supply 2.2.2	342	3.8	8,534	96.1	-	-	-	-	0	-	8,876	0.4
Subtotal Sustainable Water Resources 2.2	375	4.2	8,578	95.8	-	-	-	-	2	-	8,955	0.4
Utilities Decentralization and Coporatization 2,3												
Support to LCs Decentralization 2.3.1	100	0.3	29,311	99.7	-	-	-	-	-	-	29,411	1.4
Establishment of Independent Regulator 2.3.2	176	17.0	430	41.5	-	-	-	-	430	41.5	1,036	-
Separation of Ownership and Management 2.3.3	100	50.0	100	50.0	-	-	-	-	-	-	200	-
UWSS Utility Association 2.3.4	-	-	25	100.0	-	-	-	-	-	-	25	-
Subtotal Utilities Decentralization and Coporatization 2,3	376	1.2	29,866	97.4	-	-	-	-	430	1.4	30,672	1.4
Human Resource Development 2.4												
UWSS HRD Plan 2.4.1	71	29.0	173	71.0	-	-	-	-	-	-	244	-
Improvement of Professional Standards 2.4.2	850	100.0	-	-	-	-	-	-	-	-	850	-
Subtotal Human Resource Development 2.4	921	84.2	173	15.8	-	-	-	-	-	-	1,094	0.1
Improved Water Quality and Effluent 2.5												
Effluent Quality Improvement 2.5.2	15	23.1	52	76.9	-	-	-	-	-0	-0.0	67	-
UWSS Pro-Poor Strategy 3.1	50	100.0	-	-	-	-	-	-	-	-	50	-
Subtotal Urban WSS Institutional Support	3,086	5.3	54,218	93.9	-	-	-	-	432	0.7	57,735	2.7

	Foreign		Foreign Gap		Budget GOY		Other Local		The Government		Total	
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%
2. NWSA 1 Urban Water Supply and Sanitation												
a. UWSS Al Ghada N												
Al Ghadah Urban Water Supply N	-	-	994	85.0	-	-	58	5.0	117	10.0	1,170	0.1
Al Ghadah UWS Ongoing Projects	-	-	-	-	1,480	100.0	-	-	0	-	1,480	0.1
Al Ghadah Rehab Urban Water Supply	-	-	5,544	90.0	-	-	308	5.0	308	5.0	6,160	0.3
Al Ghada U Sanitation Ongoing Projects	-	-	-	-	240	100.0	-	-	-	-	240	-
Subtotal UWSS Al Ghada N	-	-	6,538	72.2	1,720	19.0	366	4.0	425	4.7	9,049	0.4
c. UWSS Sheban N												
Shebam N Urban Water Supply	-	-	1,188	85.3	-	-	66	4.7	139	10.0	1,393	0.1
Sheban N UWS Ongoing Projects	-	-	-	-	1,100	100.0	-	-	-	-	1,100	0.1
Shebam N Urban Sanitation	-	-	-	-	-	-	-	-	1,552	100.0	1,552	0.1
Shebam N U Sanitation Ongoing Projects	-	-	-	-	294	100.0	-	-	0	-	294	-
Shebam N Decentralized Sanitation	-	-	-	-	-	-	-	-	532	100.0	532	-
Subtotal UWSS Sheban N	-	-	1,188	24.4	1,394	28.6	66	1.4	2,223	45.6	4,871	0.2
d. UWSS Al Mahweet N												
Al Mahweet Urban Water Supply	-	-	1,149	41.1	1,446	51.8	64	2.3	135	4.8	2,793	0.1
Al Mahweet Rehab Urban Water Supply	-	-	1,215	85.3	-	-	68	4.7	143	10.0	1,425	0.1
Al Mahweet Urban Sanitation	-	-	-	-	-	-	-	-	85	100.0	85	-
Subtotal UWSS Al Mahweet N	-	-	2,364	54.9	1,446	33.6	131	3.1	362	8.4	4,303	0.2
e. UWSS Manakha N												
Manakha Urban Water Supply	-	-	1,161	85.3	-	-	64	4.7	136	10.0	1,361	0.1
Manakha UWS Ongoing Projects	-	-	-	-	681	100.0	-	-	-0	-0.0	681	-
Manakka Rehab Urban Water Supply	-	-	697	85.3	-	-	39	4.7	82	10.0	817	-
Subtotal UWSS Manakha N	-	-	1,858	65.0	681	23.8	103	3.6	218	7.6	2,859	0.1
f. UWSS Khamer N												
Khamer Urban Water Supply	-	-	2,200	85.3	-	-	122	4.7	258	10.0	2,580	0.1
Khamer UWS Ongoing Projects	-	-	-	-	696	100.0	-	-	-	-	696	-
Khamer Rehab Urban Water Supply	-	-	677	85.0	-	-	40	5.0	80	10.0	796	-
Subtotal UWSS Khamer N	-	-	2,877	70.6	696	17.1	162	4.0	338	8.3	4,072	0.2
g. UWSS Amran												
Amran Urban Water Supply	-	-	7,682	90.0	-	-	427	5.0	427	5.0	8,536	0.4
Amran UWS Ongoing Projects	-	-	-	-	593	100.0	-	-	-	-	593	-
Amran Rehab Urban Water Supply	-	-	1,555	85.0	-	-	91	5.0	183	10.0	1,830	0.1
Amran Urban Sanitation	-	-	2,953	85.0	-	-	174	5.0	347	10.0	3,474	0.2
Subtotal UWSS Amran	-	-	12,190	84.5	593	4.1	692	4.8	957	6.6	14,433	0.7

	Foreign		Foreign Gap		Budget GOY		Other Local		The Government		Total	
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%
h. UWSS Al Dalah N												
Al Dalah Urban Water Supply	-	-	5,747	90.0	-	-	319	5.0	319	5.0	6,385	0.3
Al Dalah UWS Ongoing Projects	-	-	-	-	2,207	100.0	-	-	0	-	2,207	0.1
Subtotal UWSS Al Dalah N	-	-	5,747	66.9	2,207	25.7	319	3.7	319	3.7	8,592	0.4
i. UWSS Attaq N												
Attaq Urban Water Supply	-	-	3,983	85.3	-	-	221	4.7	467	10.0	4,671	0.2
Attaq UWS Ongoing Projects	-	-	-	-	1,040	100.0	-	-	0	-	1,040	-
Attaq Urban Sanitation	-	-	-	-	-	-	-	-	177	100.0	177	-
Subtotal UWSS Attaq N	-	-	3,983	67.6	1,040	17.7	221	3.8	644	10.9	5,888	0.3
j. UWSS Maber N												
Maber Urban Water Supply	-	-	1,696	85.3	-	-	94	4.7	199	10.0	1,989	0.1
Maber Rehab Urban Water Supply	-	-	1,305	85.3	-	-	72	4.7	153	10.0	1,530	0.1
Subtotal UWSS Maber N	-	-	3,001	85.3	-	-	167	4.7	352	10.0	3,519	0.2
Subtotal WSA 1 Urban Water Supply and Sanitation	-	-	39,744	69.0	9,777	17.0	2,228	3.9	5,839	10.1	57,588	2.7
3. NWSA 2 Urban Water Supply and Sanitation												
a. UWSS Damt N												
Damt Urban Water Supply N	-	-	3,498	85.3	-	-	194	4.7	410	10.0	4,103	0.2
Damt UWS Ongoing Projects	-	-	-	-	851	100.0	-	-	0	-	851	-
Damt Rehab Urban Water Supply	-	-	1,340	85.3	-	-	74	4.7	157	10.0	1,572	0.1
Subtotal UWSS Damt N	-	-	4,839	74.1	851	13.0	269	4.1	568	8.7	6,526	0.3
b. UWSS Seyout N												
Seyout Urban Water Supply	-	-	2,950	85.3	-	-	164	4.7	346	10.0	3,460	0.2
Seyout Rehab Urban Water Supply	-	-	1,019	85.3	-	-	57	4.7	119	10.0	1,195	0.1
Subtotal UWSS Seyout N	-	-	3,969	85.3	-	-	220	4.7	465	10.0	4,655	0.2
c. UWSS Hawf N												
Hawf Urban Water Supply	-	-	1,194	85.8	-	-	70	5.0	128	9.2	1,392	0.1
d. UWSS Raimah N												
Raimah Urban Water Supply	-	-	1,134	85.3	-	-	63	4.7	133	10.0	1,330	0.1
Raimah Rehab Urban Water Supply	-	-	697	85.3	-	-	39	4.7	82	10.0	817	-
Raimah UWS Ongoing Projects	-	-	-	-	475	100.0	-	-	0	-	475	-
Subtotal UWSS Raimah N	-	-	1,831	69.8	475	18.1	102	3.9	215	8.2	2,623	0.1
e. UWSS Hazm Al Jawf N												
Hazm Al Jawf Urban Water Supply	-	-	705	85.3	-	-	39	4.7	83	10.0	827	-
Hazm Al Jawf UWS Ongoing Projects	-	-	-	-	1,014	100.0	-	-	-	-	1,014	-
Hazm Al Jawf Rehab Urban Water Supply	-	-	214	85.3	-	-	12	4.7	25	10.0	252	-
Subtotal UWSS Hazm Al Jawf N	-	-	920	43.9	1,014	48.5	51	2.4	108	5.2	2,093	0.1

	Foreign		Foreign Gap		Budget GOY		Other Local		The Government		Total	
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%
f. UWSS Mareb N												
Mareb Urban Water Supply	-	-	1,555	85.3	-	-	86	4.7	182	10.0	1,824	0.1
Mareb UWS Ongoing Projects	-	-	-	-	3,026	100.0	-	-	0	-	3,026	0.1
Subtotal UWSS Mareb N	-	-	1,555	32.1	3,026	62.4	86	1.8	182	3.8	4,849	0.2
g. UWSS Shahara N												
Shahara Urban Water Supply	13,450	97.7	-	-	282	2.1	-	-	28	0.2	13,760	0.6
h. UWSS Matna N												
Matna Urban Water Supply	-	-	174	25.7	473	69.8	10	1.4	20	3.0	678	-
Subtotal WSA 2 Urban Water Supply and Sanitation	13,450	36.8	14,481	39.6	6,122	16.7	808	2.2	1,714	4.7	36,576	1.7
4. Sana'a Urban Water Supply and Sanitation												
a. Sana'a Urban Water Supply												
Sana'a Urban Public Water Supply	-	-	122,399	85.3	-	-	6,800	4.7	14,355	10.0	143,555	6.7
Sana'a Rehab Urban Water Supply	14,469	23.1	41,014	65.5	-	-	2,279	3.6	4,810	7.7	62,571	2.9
Sana'a WS On-going Projects	15,741	64.0	-	-	7,945	32.3	910	3.7	0	-	24,596	1.2
Subtotal Sana'a Urban Water Supply	30,210	13.1	163,413	70.8	7,945	3.4	9,989	4.3	19,166	8.3	230,722	10.8
b. Sana'a U Sanitation												
Sana'a Urban Sanitation	32,322	17.3	115,512	62.0	16,312	8.8	8,663	4.6	13,590	7.3	186,399	8.7
Sana'a Sewage Treatment Plants	90,000	64.3	50,000	35.7	-	-	-	-	-	-	140,000	6.6
Subtotal Sana'a U Sanitation	122,322	37.5	165,512	50.7	16,312	5.0	8,663	2.7	13,590	4.2	326,399	15.3
Subtotal Sana'a Urban Water Supply and Sanitation	152,532	27.4	328,925	59.0	24,257	4.4	18,652	3.3	32,755	5.9	557,121	26.1
5. Aden Urban Water Supply and Sanitation												
a. Aden UWSS												
Aden New Urban Water Supply	-	-	122,883	85.3	-	-	6,827	4.7	14,412	10.0	144,122	6.7
Aden UWS Ongoing Projects	8,113	52.3	-	-	5,222	33.7	676	4.4	1,502	9.7	15,514	0.7
Aden Rehab Urban Water Supply	-	-	44,539	85.0	-	-	2,620	5.0	5,240	10.0	52,399	2.5
Subtotal Aden UWSS	8,113	3.8	167,422	79.0	5,222	2.5	10,123	4.8	21,155	10.0	212,035	9.9
b. Aden U Sanitation												
Aden Decentralized Sanitation	-	-	38,507	70.0	-	-	11,002	20.0	5,501	10.0	55,011	2.6
Aden Urban Sanitation	15,741	12.3	86,146	67.5	9,182	7.2	6,379	5.0	10,135	7.9	127,583	6.0
Subtotal Aden U Sanitation	15,741	8.6	124,654	68.3	9,182	5.0	17,381	9.5	15,636	8.6	182,594	8.5
Subtotal den Urban Water Supply and Sanitation	23,854	6.0	292,076	74.0	14,404	3.7	27,504	7.0	36,791	9.3	394,629	18.5
6. Hajjah Urban Water Supply and Sanitation												
a. Hajjah UWS												
Hajjah Urban Water Supply	-	-	6,853	85.3	-	-	381	4.7	804	10.0	8,038	0.4
Hajjah UWS On-Going Projects	-	-	-	-	3,671	100.0	-	-	0	-	3,671	0.2
Hajjah Rehab Urban Water Supply	-	-	3,699	85.3	-	-	206	4.7	434	10.0	4,339	0.2

	Foreign		Foreign Gap		Budget GOY		Other Local		The Government		Total	
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%
Subtotal Hajjah UWS	-	-	10,552	65.8	3,671	22.9	586	3.7	1,238	7.7	16,047	0.8
b. Hajjah U Sanitation												
Hajjah Decentralized Sanitation	-	-	1,897	70.0	-	-	542	20.0	271	10.0	2,710	0.1
Hajjah U Sanitation Ongoing Projects	-	-	-	-	1,483	100.0	-	-	-	-	1,483	0.1
Hajjah Urban Sanitation	-	-	4,514	85.0	-	-	266	5.0	531	10.0	5,311	0.2
Subtotal Hajjah U Sanitation	-	-	6,412	67.5	1,483	15.6	808	8.5	802	8.4	9,504	0.4
Subtotal Hajjah Urban Water Supply and Sanitation	-	-	16,964	66.4	5,154	20.2	1,394	5.5	2,040	8.0	25,552	1.2
7. Ibb Urban Water Supply and Sanitation												
a. Ibb UWS												
Ibb Urban Water Supply	-	-	23,385	85.3	-	-	1,299	4.7	2,743	10.0	27,427	1.3
Ibb UWS Ongoing Projects	2,041	23.4	-	-	6,672	76.6	-	-	0	-	8,713	0.4
Ibb Rehab Urban Water Supply	-	-	5,737	85.3	-	-	319	4.7	673	10.0	6,728	0.3
Subtotal Ibb UWS	2,041	4.8	29,122	67.9	6,672	15.6	1,618	3.8	3,416	8.0	42,868	2.0
b. Ibb U Sanitation												
Ibb Urban Sanitation	-	-	21,956	85.3	-	-	1,220	4.7	2,575	10.0	25,751	1.2
Ibb U Sanitation Ongoing Projects	6,376	55.6	-	-	5,085	44.4	-	-	-	-	11,461	0.5
Ibb Decentralized Sanitation	-	-	7,328	70.0	-	-	2,094	20.0	1,047	10.0	10,469	0.5
Subtotal Ibb U Sanitation	6,376	13.4	29,285	61.4	5,085	10.7	3,314	6.9	3,622	7.6	47,681	2.2
Subtotal bb Urban Water Supply and Sanitation	8,417	9.3	58,406	64.5	11,757	13.0	4,931	5.4	7,038	7.8	90,550	4.2
8. Dhamar Urban Water Supply and Sanitation												
a. Dhamar UWS												
Dhamar Urban Water Supply	-	-	15,287	90.0	-	-	849	5.0	849	5.0	16,985	0.8
Dhamar UWS Ongoing Projects	-	-	-	-	4,111	100.0	-	-	-	-	4,111	0.2
Dhamar Rehab Urban Water Supply	-	-	7,168	85.0	-	-	422	5.0	843	10.0	8,433	0.4
Subtotal Dhamar UWS	-	-	22,455	76.0	4,111	13.9	1,271	4.3	1,693	5.7	29,529	1.4
b. Dhamar U Sanitation												
Dhamar Urban Sanitation	-	-	25,970	85.0	-	-	1,528	5.0	3,055	10.0	30,553	1.4
Dhamar Decentralized Sanitation	-	-	10,465	70.0	-	-	2,990	20.0	1,495	10.0	14,950	0.7
Subtotal Dhamar U Sanitation	-	-	36,435	80.1	-	-	4,518	9.9	4,550	10.0	45,503	2.1
Subtotal Dhamar Urban Water Supply and Sanitation	-	-	58,889	78.5	4,111	5.5	5,788	7.7	6,243	8.3	75,031	3.5
9. Costal Hadramout Urban Water Supply and Sanitation												
a. UWSS Mukkalah Local Corporation												
Mukkalah Urban WS	-	-	28,020	85.3	-	-	1,557	4.7	3,286	10.0	32,863	1.5
Mukkalah Rehab Urban WS	-	-	13,936	67.9	4,134	20.1	820	4.0	1,640	8.0	20,530	1.0
Mukallah UWS Ongoing Projects	4,646	30.6	-	-	10,151	66.8	-	-	408	2.7	15,205	0.7
Mukkalah Urban Sanitation	-	-	20,889	85.0	-	-	1,229	5.0	2,457	10.0	24,575	1.2

	Foreign		Foreign Gap		Budget GOY		Other Local		The Government		Total	
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%
Mukallah U Sanitation Ongoing Projects	5,264	57.2	-	-	3,558	38.6	-	-	388	4.2	9,210	0.4
Mukkala Decentralized Sanitation	-	-	7,753	70.0	-	-	2,215	20.0	1,108	10.0	11,076	0.5
Subtotal UWSS Mukkalah Local Corporation	9,910	8.7	70,599	62.2	17,843	15.7	5,820	5.1	9,287	8.2	113,459	5.3
b. UWSS Al Ghail Utility												
Al Ghail Urban WS	469	5.0	6,651	71.6	1,025	11.0	369	4.0	780	8.4	9,294	0.4
Al Ghail Rehab Urban WS	-	-	4,807	85.3	-	-	267	4.7	564	10.0	5,638	0.3
Subtotal UWSS Al Ghail Utility	469	3.1	11,458	76.7	1,025	6.9	637	4.3	1,344	9.0	14,932	0.7
c. UWSS Al Sher Utility												
Al Sher Urban WS	-	-	10,218	85.3	-	-	568	4.7	1,198	10.0	11,985	0.6
Al Sher UWS On-Going Projects	608	31.4	-	-	1,328	68.6	-	-	0	-	1,935	0.1
Al Sher Rehab Urban WS	-	-	4,450	85.3	-	-	247	4.7	522	10.0	5,219	0.2
Al Sher U Sanitation On-going Projects	10,200	100.0	-	-	-	-	-	-	-	-	10,200	0.5
Subtotal UWSS Al Sher Utility	10,808	36.8	14,668	50.0	1,328	4.5	815	2.8	1,720	5.9	29,339	1.4
d. UWSS Al Diss												
Al Diss Urban Water Supply	237	6.1	2,646	68.6	517	13.4	147	3.8	310	8.0	3,857	0.2
e. UWSS Al Raidah Utility												
Al Raidah Urban WS	270	6.4	2,860	67.9	590	14.0	159	3.8	335	8.0	4,214	0.2
Al Raidah Rehab Urban WS	-	-	1,960	85.0	-	-	115	5.0	231	10.0	2,306	0.1
Subtotal UWSS Al Raidah Utility	270	4.1	4,820	73.9	590	9.0	274	4.2	566	8.7	6,520	0.3
Subtotal Coastal Hadramout Urban Water Supply and Sanitation	21,693	12.9	104,190	62.0	21,303	12.7	7,693	4.6	13,227	7.9	168,107	7.9
10. Wadi Hadramout Urban Water Supply and Sanitation												
a. UWSS Seiyun Local Corporation												
Seiyun Urban WS	-	-	10,090	85.3	-	-	561	4.7	1,183	10.0	11,834	0.6
Seiyun UWS Ongoing Projects	3,266	50.3	-	-	3,233	49.7	-	-	-0	-0.0	6,500	0.3
Seiyun Rehab Urban WS	-	-	6,291	65.5	-	-	349	3.6	2,958	30.8	9,598	0.4
Seiyun Urban Sanitation	-	-	15,535	85.0	-	-	914	5.0	1,828	10.0	18,277	0.9
Seiyun U Sanitation Ongoing	3,777	57.3	-	-	2,814	42.7	-	-	-	-	6,591	0.3
Seiyun Decentralized Sanitation	-	-	3,162	70.0	-	-	903	20.0	452	10.0	4,517	0.2
Subtotal UWSS Seiyun Local Corporation	7,043	12.3	35,078	61.2	6,048	10.6	2,727	4.8	6,421	11.2	57,317	2.7
b. UWSS Tarim Utility												
Tarim Urban WS	2,428	19.8	6,842	55.8	1,810	14.8	380	3.1	802	6.5	12,262	0.6
c. UWSS Shibam Utility												
Shibam Urban WS	1,669	14.1	7,642	64.3	1,244	10.5	425	3.6	896	7.5	11,876	0.6
Shibam Decentralized Sanitation	-	-	-	-	-	-	-	-	2,109	100.0	2,109	0.1
Subtotal UWSS Shibam Utility	1,669	11.9	7,642	54.6	1,244	8.9	425	3.0	3,005	21.5	13,985	0.7

	Foreign		Foreign Gap		Budget GOY		Other Local		The Government		Total	
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%
d. UWSS Al Qatan Utility												
Al Qatan Urban WS	1,560	20.1	4,292	55.3	1,163	15.0	238	3.1	503	6.5	7,756	0.4
Al Qatan Rehab Urban WS	-	-	2,681	85.3	-	-	149	4.7	314	10.0	3,144	0.1
Subtotal UWSS Al Qatan Utility	1,560	14.3	6,972	64.0	1,163	10.7	387	3.6	818	7.5	10,900	0.5
e. UWSS Sah Utility												
Sah Urban WS	286	19.5	875	59.4	213	14.5	49	3.3	49	3.3	1,473	0.1
Sah Rehab Urban Water Supply	-	-	407	90.0	-	-	23	5.0	23	5.0	453	-
Subtotal UWSS Sah Utility	286	14.9	1,283	66.6	213	11.1	71	3.7	71	3.7	1,925	0.1
Subtotal Wadi Hadramout Urban Water Supply and Sanitation	12,987	13.5	57,817	60.0	10,478	10.9	3,991	4.1	11,117	11.5	96,390	4.5
11. Lahj Urban Water Supply and Sanitation												
a. Lahj UWS												
Lahj Urban Water Supply	-	-	61,611	80.8	4,034	5.3	3,423	4.5	7,226	9.5	76,294	3.6
Lahj Rehab Urban Water Supply	-	-	19,140	83.0	600	2.6	1,063	4.6	2,245	9.7	23,048	1.1
Subtotal Lahj UWS	-	-	80,750	81.3	4,634	4.7	4,486	4.5	9,471	9.5	99,341	4.7
b. Lahj U Sanitation												
Lahj Urban Sanitation	-	-	-	-	2,414	100.0	-	-	-	-	2,414	0.1
Lahj Decentralized Sanitation	-	-	19,307	70.0	-	-	5,516	20.0	2,758	10.0	27,581	1.3
Subtotal Lahj Urban Sanitation	-	-	19,307	64.4	2,414	8.0	5,516	18.4	2,758	9.2	29,995	1.4
Subtotal Lahj Urban Water Supply and Sanitation	-	-	100,057	77.4	7,049	5.4	10,002	7.7	12,229	9.5	129,337	6.1
12. Hoddeidah Urban Water Supply and Sanitation												
a. Hoddeidah WSS												
Hoddeidah Urban Water Supply	-	-	38,197	85.0	-	-	2,247	5.0	4,494	10.0	44,937	2.1
Hoddeidah UWS Ongoing Projects	3,151	38.1	-	-	4,648	56.2	471	5.7	-0	-0.0	8,271	0.4
Hoddeidah Rehab Urban Water Supply	-	-	67,811	85.3	-	-	3,767	4.7	7,953	10.0	79,532	3.7
Subtotal Hoddeidah WSS	3,151	2.4	106,008	79.9	4,648	3.5	6,486	4.9	12,447	9.4	132,740	6.2
b. Hoddeidah U Sanitation												
Hoddeidah U Sanitation Ongoing Projects	-	-	-	-	9,273	100.0	-	-	-	-	9,273	0.4
Hoddeidah Decentralized Sanitation	-	-	12,830	70.0	-	-	3,666	20.0	1,833	10.0	18,328	0.9
Subtotal Hoddeidah U Sanitation	-	-	12,830	46.5	9,273	33.6	3,666	13.3	1,833	6.6	27,601	1.3
Subtotal Hoddeidah Urban Water Supply and Sanitation	3,151	2.0	118,838	74.1	13,921	8.7	10,151	6.3	14,280	8.9	160,341	7.5
13. Taiz Urban Water Supply and Sanitation												
a. Taiz UWS												
Taiz Urban Water Supply	-	-	37,949	85.3	-	-	2,108	4.7	4,451	10.0	44,509	2.1
Taiz UWS On-going Projects	1,644	11.0	-	-	13,305	89.0	-	-	0	-	14,949	0.7

	Foreign		Foreign Gap		Budget GOY		Other Local		The Government		Total	
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%
Taiz Rehab Urban Water Supply	-	-	21,824	85.0	-	-	1,284	5.0	2,568	10.0	25,676	1.2
Subtotal Taiz UWS	1,644	1.9	59,774	70.2	13,305	15.6	3,392	4.0	7,018	8.2	85,133	4.0
b. Taiz U Sanitation												
Taiz Urban Sanitation	-	-	35,670	85.3	-	-	1,982	4.7	4,184	10.0	41,835	2.0
Taiz U Sanitation Ongoing Projects	-	-	-	-	10,055	100.0	-	-	-	-	10,055	0.5
Taiz Decentralized Sanitation	-	-	11,892	70.0	-	-	3,398	20.0	1,699	10.0	16,989	0.8
Subtotal Taiz U Sanitation	-	-	47,562	69.1	10,055	14.6	5,379	7.8	5,882	8.5	68,879	3.2
Subtotal Taiz Urban Water Supply and Sanitation	1,644	1.1	107,336	69.7	23,361	15.2	8,771	5.7	12,901	8.4	154,013	7.2
14. Saada Urban Water Supply and Sanitation												
a. Saada UWS												
Saada Rehab Urban Water Supply	-	-	1,215	85.3	-	-	68	4.7	143	10.0	1,425	0.1
Saada UWS Ongoing Projects	-	-	-	-	3,756	100.0	-	-	0	-	3,756	0.2
Saada Urban Water Supply	-	-	6,590	85.3	-	-	366	4.7	773	10.0	7,729	0.4
Subtotal Saada UWS	-	-	7,805	60.5	3,756	29.1	434	3.4	915	7.1	12,910	0.6
b. Saada U Sanitation												
Saada U Sanitation Ongoing Projects	28,836	100.0	-	-	-	-	-	-	-0	-0.0	28,836	1.4
Subtotal Saada Urban Water Supply and Sanitation	28,836	69.1	7,805	18.7	3,756	9.0	434	1.0	915	2.2	41,747	2.0
15. Abyan Urban Water Supply and Sanitation												
a. Abyan UWS												
Abyan Urban Water Supply	-	-	11,232	85.3	-	-	624	4.7	1,317	10.0	13,174	0.6
Abyan UWS On-Going Projects	12,800	61.3	-	-	8,088	38.7	-	-	-	-	20,888	1.0
Abyan Rehab Urban Water Supply	-	-	4,360	85.3	-	-	242	4.7	511	10.0	5,114	0.2
Subtotal Abyan UWS	12,800	32.7	15,593	39.8	8,088	20.6	866	2.2	1,829	4.7	39,176	1.8
b. Abyan U Sanitation												
Abyan Urban Sanitation	-	-	-	-	2,880	100.0	-	-	-	-	2,880	0.1
Abyan U Sanitation On-Going Projects	19,200	100.0	-	-	-	-	-	-	-	-	19,200	0.9
Subtotal Abyan U Sanitation	19,200	87.0	-	-	2,880	13.0	-	-	-	-	22,080	1.0
Subtotal Abyan Urban Water Supply and Sanitation	32,000	52.2	15,593	25.5	10,968	17.9	866	1.4	1,829	3.0	61,256	2.9
16. Al Beida Urban Water Supply and Sanitation												
a. Al Beida LC												
Al Beida LC WS	-	-	3,525	85.0	-	-	207	5.0	415	10.0	4,147	0.2
Al Beida UWS Ongoing Projects	-	-	-	-	547	100.0	-	-	0	-	547	-
Al Beida Rehab Urban WS	-	-	1,265	79.6	100	6.3	74	4.7	149	9.4	1,588	0.1
A Beida U Sanitation Ongoing Projects	-	-	-	-	320	100.0	-	-	-	-	320	-
Al Beida LC Decentralized Sanitation	-	-	619	70.0	-	-	177	20.0	88	10.0	884	-

	Foreign		Foreign Gap		Budget GOY		Other Local		The Government		Total	
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%
Subtotal AI Beida LC	-	-	5,408	72.2	967	12.9	459	6.1	652	8.7	7,486	0.4
b. Rada Utility												
Rada Urban WS	-	-	5,465	66.1	1,858	22.5	304	3.7	641	7.8	8,268	0.4
Rada UWS Ongoing Projects	-	-	-	-	152	100.0	-	-	-	-	152	-
Rada Rehab Urban WS	-	-	1,746	85.0	-	-	103	5.0	205	10.0	2,054	0.1
Rada Urban Sanitation	-	-	5,393	85.0	-	-	317	5.0	635	10.0	6,345	0.3
Rada U Sanitation Ongoing Projects	-	-	-	-	1,258	100.0	-	-	-	-	1,258	0.1
Rada Decentralized Sanitation	-	-	1,692	70.0	-	-	483	20.0	242	10.0	2,417	0.1
Subtotal Rada Utility	-	-	14,296	69.8	3,269	16.0	1,207	5.9	1,723	8.4	20,494	1.0
c. Malah Utility												
Malah Urban WS	-	-	909	85.3	-	-	50	4.7	107	10.0	1,066	-
Malah UWS Ongoing Projects	-	-	-	-	272	100.0	-	-	0	-	272	-
Malah Decentralized Sanitation	-	-	285	70.0	-	-	81	20.0	41	10.0	407	-
Subtotal Malah Utility	-	-	1,194	68.4	272	15.6	132	7.6	147	8.4	1,745	0.1
Subtotal AI Beida Urban Water Supply and Sanitation	-	-	20,898	70.3	4,508	15.2	1,797	6.0	2,522	8.5	29,725	1.4
	301,651	14.1	1,396,238	65.4	170,925	8.0	105,012	4.9	161,870	7.6	2,135,696	100.0

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Yemen
NWSSIP
Physical Aggregations
Urban Water Supply and Sanitation

Unit	2008	2009	2010	2011	2012	2013	2014	2015	Total	
Urban House Connections										
1. Al Ghadah (NWSA) Urban Water Supply										
Urban House Connections Complex	Urban HC	-	-	148	160	173	187	202	218	1,088
Urban House Connections Simple	Urban HC	-	-	148	160	173	187	202	218	1,088
Ongoing Projects	Urban HC	260	427	-	-	-	-	-	-	687
Subtotal 1. Al Ghadah (NWSA) Urban Water Supply		260	427	296	320	346	374	404	436	2,863
2. Hawf (NWSA) Urban Water Supply										
Urban House Connections Complex	Urban HC	-	-	7	7	8	8	9	10	49
Urban House Connections Simple	Urban HC	-	-	7	7	8	8	9	10	49
Ongoing Projects	Urban HC	97	61	-	-	-	-	-	-	158
Subtotal 2. Hawf (NWSA) Urban Water Supply		97	61	14	14	16	16	18	20	256
3. Shebam (NWSA) Urban Water Supply										
Urban House Connections Complex	Urban HC	-	-	42	44	45	46	47	49	273
Urban House Connections Simple	Urban HC	-	-	42	44	45	46	47	49	273
Ongoing Projects	Urban HC	162	483	-	-	-	-	-	-	645
Subtotal 3. Shebam (NWSA) Urban Water Supply		162	483	84	88	90	92	94	98	1,191
4. Al Mahweet (NWSA) Urban Water Supply										
Urban House Connections Complex	Urban HC	-	-	41	42	43	45	46	47	264
Urban House Connections Simple	Urban HC	-	-	41	42	43	45	46	47	264
Ongoing Projects	Urban HC	227	545	-	-	-	-	-	-	772
Subtotal 4. Al Mahweet (NWSA) Urban Water Supply		227	545	82	84	86	90	92	94	1,300
5. Manaka (NWSA) Urban Water Supply										
Urban House Connections Complex	Urban HC	-	-	40	42	43	45	47	49	266
Urban House Connections Simple	Urban HC	-	-	40	42	43	45	47	49	266
Ongoing Projects	Urban HC	195	208	-	-	-	-	-	-	403
Subtotal 5. Manaka (NWSA) Urban Water Supply		195	208	80	84	86	90	94	98	935
6. Khamer (NWSA) Urban Water Supply										
Urban House Connections Complex	Urban HC	-	-	60	63	66	70	73	77	409
Urban House Connections Simple	Urban HC	-	-	60	63	66	70	73	77	409
Ongoing Projects	Urban HC	130	279	-	-	-	-	-	-	409
Subtotal 6. Khamer (NWSA) Urban Water Supply		130	279	120	126	132	140	146	154	1,227

	Unit	2008	2009	2010	2011	2012	2013	2014	2015	Total
7. Al Dalah (NWSA) Urban Water Supply										
Urban House Connections Complex	Urban HC	-	-	227	244	262	281	301	323	1,638
Urban House Connections Simple	Urban HC	-	-	227	244	262	281	301	323	1,638
Ongoing Projects	Urban HC	325	1,055	-	-	-	-	-	-	1,380
Subtotal 7. Al Dalah (NWSA) Urban Water Supply		325	1,055	454	488	524	562	602	646	4,656
8. Attaq (NWSA) Urban Water Supply										
Urban House Connections Complex	Urban HC	-	-	127	136	145	155	166	178	907
Urban House Connections Simple	Urban HC	-	-	127	136	145	155	166	178	907
Ongoing Projects	Urban HC	-	604	-	-	-	-	-	-	604
Subtotal 8. Attaq (NWSA) Urban Water Supply		-	604	254	272	290	310	332	356	2,418
9. Damt (NWSA) Urban Water Supply										
Urban House Connections Complex	Urban HC	-	-	91	97	104	111	118	126	647
Urban House Connections Simple	Urban HC	-	-	91	97	104	111	118	126	647
Ongoing Projects	Urban HC	227	276	-	-	-	-	-	-	503
Subtotal 9. Damt (NWSA) Urban Water Supply		227	276	182	194	208	222	236	252	1,797
10. Sayout (NWSA) Urban Water Supply										
Urban House Connections Complex	Urban HC	-	-	99	107	115	125	135	145	726
Urban House Connections Simple	Urban HC	-	-	99	107	115	125	135	145	726
Ongoing Projects	Urban HC	325	152	-	-	-	-	-	-	477
Subtotal 10. Sayout (NWSA) Urban Water Supply		325	152	198	214	230	250	270	290	1,929
11. Saada Urban Water Supply and Sanitation										
Urban House Connections Complex	Urban HC	-	-	214	227	242	257	273	290	1,503
Urban House Connections Simple	Urban HC	-	-	214	227	242	257	273	290	1,503
Ongoing Projects	Urban HC	811	1,402	-	-	-	-	-	-	2,213
Subtotal 11. Saada Urban Water Supply and Sanitation		811	1,402	428	454	484	514	546	580	5,219
12. Raymah (NWSA) Urban Water Supply										
Urban House Connections Complex	Urban HC	-	-	40	42	43	45	47	49	266
Urban House Connections Simple	Urban HC	-	-	40	42	43	45	47	49	266
Ongoing Projects	Urban HC	227	58	-	-	-	-	-	-	285
Subtotal 12. Raymah (NWSA) Urban Water Supply		227	58	80	84	86	90	94	98	817
13. Hazm Al Jawf (NWSA) Urban Water Supply										
Urban House Connections Complex	Urban HC	-	-	27	27	28	29	30	32	173
Urban House Connections Simple	Urban HC	-	-	27	27	28	29	30	32	173
Ongoing Projects	Urban HC	130	464	-	-	-	-	-	-	594
Subtotal 13. Hazm Al Jawf (NWSA) Urban Water Supply		130	464	54	54	56	58	60	64	940

	Unit	2008	2009	2010	2011	2012	2013	2014	2015	Total
14. Mareb (NWSA) Urban Water Supply										
Urban House Connections Complex	Urban HC	-	-	53	55	58	61	63	66	356
Urban House Connections Simple	Urban HC	-	-	53	55	58	61	63	66	356
Ongoing Projects	Urban HC	1,298	510	-	-	-	-	-	-	1,808
Subtotal 14. Mareb (NWSA) Urban Water Supply		1,298	510	106	110	116	122	126	132	2,520
15. Sana'a Urban Water Supply										
Urban House Connections Complex	Urban HC	-	-	3,791	4,095	4,422	4,776	5,158	5,571	27,813
Urban House Connections Simple	Urban HC	-	-	3,791	4,095	4,422	4,776	5,158	5,571	27,813
GOVT Projects	Urban HC	4,576	9,885	-	-	-	-	-	-	14,461
Subtotal 15. Sana'a Urban Water Supply		4,576	9,885	7,582	8,190	8,844	9,552	10,316	11,142	70,087
16. Matna Urban Water Supply										
Urban House Connections Complex	Urban HC	-	-	6	6	7	7	7	7	40
Urban House Connections Simple	Urban HC	-	-	6	6	7	7	7	7	40
Ongoing Projects	Urban HC	260	25	-	-	-	-	-	-	285
Subtotal 16. Matna Urban Water Supply		260	25	12	12	14	14	14	14	365
17. Aden Urban Water Supply										
Urban House Connections Complex	Urban HC	-	-	3,791	4,095	4,422	4,776	5,258	5,571	27,913
Urban House Connections Simple	Urban HC	-	-	3,791	4,095	4,422	4,776	5,258	5,571	27,913
Ongoing Projects	Urban HC	2,421	6,398	-	-	-	-	-	-	8,819
Subtotal 17. Aden Urban Water Supply		2,421	6,398	7,582	8,190	8,844	9,552	10,516	11,142	64,645
18. Hajjah Urban Water Supply										
Urban House Connections Complex	Urban HC	-	-	237	246	256	267	277	288	1,571
Urban House Connections Simple	Urban HC	-	-	237	246	256	267	277	288	1,571
Ongoing Projects	Urban HC	1,259	922	-	-	-	-	-	-	2,181
Subtotal 18. Hajjah Urban Water Supply		1,259	922	474	492	512	534	554	576	5,323
19. Ibb Urban Water Supply										
Urban House Connections Complex	Urban HC	-	-	764	810	858	919	964	1,022	5,337
Urban House Connections Simple	Urban HC	-	-	764	810	858	919	964	1,022	5,337
Ongoing Projects	Urban HC	97	2,877	-	-	-	-	-	-	2,974
Subtotal 19. Ibb Urban Water Supply		97	2,877	1,528	1,620	1,716	1,838	1,928	2,044	13,648
20. Dhamar Urban Water Supply										
Urban House Connections Complex	Urban HC	-	-	543	577	613	651	691	734	3,809
Urban House Connections Simple	Urban HC	-	-	543	577	613	651	691	734	3,809
Ongoing Projects	Urban HC	1,203	1,099	-	-	-	-	-	-	2,302
Subtotal 20. Dhamar Urban Water Supply		1,203	1,099	1,086	1,154	1,226	1,302	1,382	1,468	9,920
21. Amran Urban Water Supply										
Urban House Connections Complex	Urban HC	-	-	112	118	124	131	138	145	768
Urban House Connections Simple	Urban HC	-	-	543	577	613	651	691	734	3,809

	Unit	2008	2009	2010	2011	2012	2013	2014	2015	Total
Ongoing Projects	Urban HC	-	369	-	-	-	-	-	-	369
Subtotal 21. Amran Urban Water Supply		-	369	655	695	737	782	829	879	4,946
22. Mukkalah Urban Water Supply										
Urban House Connections Complex	Urban HC	-	-	955	998	1,043	1,090	1,139	1,191	6,416
Urban House Connections Simple	Urban HC	-	-	955	998	1,043	1,090	1,139	1,191	6,416
Ongoing Projects	Urban HC	4,336	4,426	-	-	-	-	-	-	8,762
Subtotal 22. Mukkalah Urban Water Supply		4,336	4,426	1,910	1,996	2,086	2,180	2,278	2,382	21,594
23. A Ghail Utility Urban Water Supply										
Urban House Connections Complex	Urban HC	-	-	230	241	252	263	275	287	1,548
Urban House Connections Simple	Urban HC	-	-	230	241	252	263	275	287	1,548
Ongoing Projects	Urban HC	398	406	-	-	-	-	-	-	804
Subtotal 23. A Ghail Utility Urban Water Supply		398	406	460	482	504	526	550	574	3,900
24. Al Sher Utility Urban Water Supply										
Urban House Connections Complex	Urban HC	-	-	287	300	313	328	342	358	1,928
Urban House Connections Simple	Urban HC	-	-	287	300	313	328	342	358	1,928
Ongoing Projects	Urban HC	567	579	-	-	-	-	-	-	1,146
Subtotal 24. Al Sher Utility Urban Water Supply		567	579	574	600	626	656	684	716	5,002
25. Al Diss Utility Urban Water Supply										
Urban House Connections Complex	Urban HC	-	-	92	96	100	105	109	114	616
Urban House Connections Simple	Urban HC	-	-	92	96	100	105	109	114	616
Ongoing Projects	Urban HC	201	205	-	-	-	-	-	-	406
Subtotal 25. Al Diss Utility Urban Water Supply		201	205	184	192	200	210	218	228	1,638
26. Al Raidah Utility Urban Water Supply										
Urban House Connections Complex	Urban HC	-	-	97	102	108	111	116	121	655
Urban House Connections Simple	Urban HC	-	-	97	102	108	111	116	121	655
Ongoing Projects	Urban HC	229	234	-	-	-	-	-	-	463
Subtotal 26. Al Raidah Utility Urban Water Supply		229	234	194	204	216	222	232	242	1,773
27. Seiyun Urban Water Supply										
Urban House Connections Complex	Urban HC	-	-	345	360	376	392	410	428	2,311
Urban House Connections Simple	Urban HC	-	-	345	360	376	392	410	428	2,311
Ongoing Projects	Urban HC	1,765	1,614	-	-	-	-	-	-	3,379
Subtotal 27. Seiyun Urban Water Supply		1,765	1,614	690	720	752	784	820	856	8,001
28. Tarim Utility Urban Water Supply										
Urban House Connections Complex	Urban HC	-	-	234	244	255	266	278	290	1,567
Urban House Connections Simple	Urban HC	-	-	234	244	255	266	278	290	1,567
Ongoing Projects	Urban HC	1,193	1,091	-	-	-	-	-	-	2,284
Subtotal 28. Tarim Utility Urban Water Supply		1,193	1,091	468	488	510	532	556	580	5,418

	Unit	2008	2009	2010	2011	2012	2013	2014	2015	Total
29. Shibam Hadramout Urban Water Supply										
Urban House Connections Complex	Urban HC	-	-	161	168	176	183	191	200	1,079
Urban House Connections Simple	Urban HC	-	-	161	168	176	183	191	200	1,079
Ongoing Projects	Urban HC	820	750	-	-	-	-	-	-	1,570
Subtotal 29. Shibam Hadramout Urban Water Supply		820	750	322	336	352	366	382	400	3,728
30. Al Qaten Utility Urban Water Supply										
Urban House Connections Complex	Urban HC	-	-	147	153	160	167	174	182	983
Urban House Connections Simple	Urban HC	-	-	147	153	160	167	174	182	983
Ongoing Projects	Urban HC	781	687	-	-	-	-	-	-	1,468
Subtotal 30. Al Qaten Utility Urban Water Supply		781	687	294	306	320	334	348	364	3,434
31. Al Sah Utility Water Supply										
Urban House Connections Complex	Urban HC	-	-	32	33	35	37	38	40	215
Urban House Connections Simple	Urban HC	-	-	32	33	35	37	38	40	215
Ongoing Projects	Urban HC	149	137	-	-	-	-	-	-	286
Subtotal 31. Al Sah Utility Water Supply		149	137	64	66	70	74	76	80	716
32. Lahj Urban Water Supply										
Urban House Connections Complex	Urban HC	-	-	1,720	1,923	2,150	2,404	2,687	3,005	13,889
Urban House Connections Simple	Urban HC	-	-	1,720	1,923	2,150	2,404	2,687	3,005	13,889
Ongoing Projects	Urban HC	1,233	1,158	-	-	-	-	-	-	2,391
Subtotal 32. Lahj Urban Water Supply		1,233	1,158	3,440	3,846	4,300	4,808	5,374	6,010	30,169
33. Hoddeidah Urban Water Supply										
Urban House Connections Complex	Urban HC	-	-	1,431	1,482	1,535	1,591	1,648	1,707	9,394
Urban House Connections Simple	Urban HC	-	-	1,431	1,482	1,535	1,591	1,648	1,707	9,394
Ongoing Projects	Urban HC	1,479	2,945	-	-	-	-	-	-	4,424
Subtotal 33. Hoddeidah Urban Water Supply		1,479	2,945	2,862	2,964	3,070	3,182	3,296	3,414	23,212
34. Taiz Urban Water Supply										
Urban House Connections	Urban HC	-	-	1,276	1,340	1,407	1,477	1,551	1,629	8,680
Urban House Connections Simple	Urban HC	-	-	1,276	1,340	1,407	1,477	1,551	1,629	8,680
Ongoing Projects	Urban HC	5,362	2,803	-	-	-	-	-	-	8,165
Subtotal 34. Taiz Urban Water Supply		5,362	2,803	2,552	2,680	2,814	2,954	3,102	3,258	25,525
35. Maber Urban Water Supply										
Urban House Connections Simple	Urban HC	-	-	89	95	101	107	114	121	627
Ongoing Projects	Urban HC	130	39	-	-	-	-	-	-	169
Subtotal 35. Maber Urban Water Supply		130	39	89	95	101	107	114	121	796
36. Abyan Urban Water Supply										
Urban House Connections Complex	Urban HC	-	-	383	400	418	437	457	477	2,572
Urban House Connections Simple	Urban HC	-	-	383	400	418	437	457	477	2,572

	Unit	2008	2009	2010	2011	2012	2013	2014	2015	Total
Ongoing Projects	Urban HC	3,246	1,151	-	-	-	-	-	-	4,397
Subtotal 36. Abyan Urban Water Supply		3,246	1,151	766	800	836	874	914	954	9,541
37. Al Baida Utility Urban Water Supply										
Urban House Connections Complex	Urban HC	-	-	67	70	73	77	81	84	452
Urban House Connections Simple	Urban HC	-	-	67	70	73	77	81	84	452
Ongoing Projects	Urban HC	165	159	-	-	-	-	-	-	324
Subtotal 37. Al Baida Utility Urban Water Supply		165	159	134	140	146	154	162	168	1,228
38. Rada Utility Urban Water Supply										
Urban House Connections Complex	Urban HC	-	-	183	192	201	210	220	230	1,236
Urban House Connections Simple	Urban HC	-	-	183	192	201	210	220	230	1,236
Ongoing Projects	Urban HC	509	492	-	-	-	-	-	-	1,001
Subtotal 38. Rada Utility Urban Water Supply		509	492	366	384	402	420	440	460	3,473
39. Malah Utility Urban Water Supply										
Urban House Connections Complex	Urban HC	-	-	31	32	34	35	37	39	208
Urban House Connections Simple	Urban HC	-	-	31	32	34	35	37	39	208
Ongoing Projects	Urban HC	82	79	-	-	-	-	-	-	161
Subtotal 39. Malah Utility Urban Water Supply		82	79	62	64	68	70	74	78	577
Subtotal. Urban House Connections		36,875	47,054	36,782	39,302	42,016	44,957	48,273	51,468	346,727
Urban Sanitation House Connections										
1. Shebam (NWSA) Urban Sanitation										
Urban House Connections Complex	Urban S HC	-	-	33	34	35	36	37	38	213
Urban House Connections Simple	Urban S HC	-	-	33	34	35	36	37	38	213
GOVT Projects	Urban S HC	60	62	-	-	-	-	-	-	122
Subtotal 1. Shebam (NWSA) Urban Sanitation		60	62	66	68	70	72	74	76	548
2. Al Mahweet (NWSA) Urban Water Supply										
GOVT Project	Urban S HC	16	16	-	-	-	-	-	-	32
3. Saada Urban Water Supply and Sanitation										
New Sanitation HC	Urban S HC	-	-	-	-	-	193	201	209	603
On Going Projects	Urban S HC	-	2,768	2,516	2,288	2,080	-	-	-	9,652
Subtotal 3. Saada Urban Water Supply and Sanitation		-	2,768	2,516	2,288	2,080	193	201	209	10,255
4. Sana'a Urban Sanitation										
Urban Sanitation House Connections	Urban S HC	-	-	2,655	2,814	2,983	3,162	3,351	3,552	18,517
Urban House Connections Simple	Urban S HC	-	-	2,655	2,814	2,983	3,162	3,351	3,552	18,517
Ongoing Projects	Urban S HC	12,225	6,922	-	-	-	-	-	-	19,147
Subtotal 4. Sana'a Urban Sanitation		12,225	6,922	5,310	5,628	5,966	6,324	6,702	7,104	56,181

	Unit	2008	2009	2010	2011	2012	2013	2014	2015	Total
5. Aden Urban Sanitation										
Urban Sanitation Connections	Urban S HC	-	-	1,264	1,835	1,908	1,985	2,064	2,147	11,203
Urban House Connections Simple	Urban S HC	-	-	1,264	1,835	1,908	1,985	2,064	2,147	11,203
Ongoing Projects	Urban S HC	5,430	4,480	-	-	-	-	-	-	9,910
Subtotal 5. Aden Urban Sanitation		5,430	4,480	2,528	3,670	3,816	3,970	4,128	4,294	32,316
6. Hajjah Urban Sanitation										
Urban House Connections Complex	Urban S HC	-	-	130	135	141	146	152	158	862
Urban House Connections Simple	Urban S HC	-	-	130	135	141	146	152	158	862
Ongoing Projects	Urban S HC	-	646	-	-	-	-	-	-	646
Subtotal 6. Hajjah Urban Sanitation		-	646	260	270	282	292	304	316	2,370
7. Ibb Urban Sanitation										
Urban House Connections Complex	Urban S HC	-	-	527	559	592	628	665	705	3,676
Urban House Connections Simple	Urban S HC	-	-	527	559	592	628	665	705	3,676
Ongoing Projects	Urban S HC	1,832	2,014	-	-	-	-	-	-	3,846
Subtotal 7. Ibb Urban Sanitation		1,832	2,014	1,054	1,118	1,184	1,256	1,330	1,410	11,198
8. Dhamar Urban Sanitation										
Urban Sanitation House Connections Complex	Urban S HC	-	-	295	626	701	785	860	985	4,252
Urban House Connections Simple	Urban S HC	-	-	295	626	701	785	860	985	4,252
Subtotal 8. Dhamar Urban Sanitation		-	-	590	1,252	1,402	1,570	1,720	1,970	8,504
9. Amran Urban Sanitation										
Urban Sanitation House Connections Complex	Urban S HC	55	58	61	64	67	71	74	78	528
Urban House Connections Simple	Urban S HC	55	58	61	64	67	71	74	78	528
Subtotal 9. Amran Urban Sanitation		110	116	122	128	134	142	148	156	1,056
10. Mukkalah Urban Sanitation										
Urban House Connections Complex	Urban S HC	-	-	597	622	649	677	706	736	3,987
Urban House Connections Simple	Urban S HC	-	-	597	622	649	677	706	736	3,987
Ongoing Projects	Urban S HC	-	3,100	-	-	-	-	-	-	3,100
Subtotal 10. Mukkalah Urban Sanitation		-	3,100	1,194	1,244	1,298	1,354	1,412	1,472	11,074
11. Seiyun Urban Sanitation										
Urban Sanitation Connections Complex	Urban S HC	-	1,498	105	224	256	292	332	379	3,086
Urban House Connections Simple	Urban S HC	-	1,498	105	224	256	292	332	379	3,086
Ongoing Projects	Urban S HC	-	2,996	-	-	-	-	-	-	2,996
Subtotal 11. Seiyun Urban Sanitation		-	5,992	210	448	512	584	664	758	9,168
14. Hoddeidah Urban Sanitation										
Urban House Connections Complex	Urban S HC	-	-	668	689	709	730	752	775	4,323
Urban House Connections	Urban S HC	-	-	668	689	709	730	752	775	4,323
Ongoing Projects	Urban S HC	1,778	2,062	-	-	-	-	-	-	3,840
Subtotal 14. Hoddeidah Urban Sanitation		1,778	2,062	1,336	1,378	1,418	1,460	1,504	1,550	12,486

	Unit	2008	2009	2010	2011	2012	2013	2014	2015	Total
15. Taiz Urban Sanitation										
Urban House Connections Complex	Urban S HC	-	-	840	882	926	972	1,021	1,072	5,713
Urban House Connections Simple	Urban S HC	-	-	840	882	926	972	1,021	1,072	5,713
Ongoing Projects	Urban S HC	1,878	2,284	-	-	-	-	-	-	4,162
Subtotal 15. Taiz Urban Sanitation		1,878	2,284	1,680	1,764	1,852	1,944	2,042	2,144	15,588
16. Al Baida Utility Urban Sanitation										
Urban House Sanitation Connections Complex	Urban S HC	-	-	38	40	42	44	46	48	258
Urban House Connections Simple	Urban S HC	-	-	38	40	42	44	46	48	258
Ongoing Projects	Urban S HC	44	88	-	-	-	-	-	-	132
Subtotal 16. Al Baida Utility Urban Sanitation		44	88	76	80	84	88	92	96	648
17. Rada Utility Urban Sanitation										
Urban Sanitation Connections Complex	Urban S HC	-	-	166	174	182	191	200	209	1,122
Urban House Connections Simple	Urban S HC	-	-	166	174	182	191	200	209	1,122
Ongoing Projects	Urban S HC	194	378	-	-	-	-	-	-	572
Subtotal 17. Rada Utility Urban Sanitation		194	378	332	348	364	382	400	418	2,816
Subtotal. Urban Sanitation House Connections		23,567	30,928	17,274	19,684	20,462	19,631	20,721	21,973	174,240
Urban Decentralized Sanitation										
1. Shebam (NWSA) Urban Sanitation										
Urban Decentralized Sanitation	HC San Decent	-	-	42	44	45	46	47	49	273
2. Aden Urban Sanitation										
Urban Decentralized Sanitation	HC San Decent	-	-	3,791	4,095	4,422	4,776	5,258	5,571	27,913
3. Hajjah Urban Sanitation										
Urban Decentralized Sanitation	HC San Decent	-	-	237	246	256	267	277	288	1,571
4. Ibb Urban Sanitation										
Urban Decentralized Sanitation	HC San Decent	-	-	764	810	858	919	964	1,022	5,337
5. Dhamar Urban Sanitation										
Urban Decentralized Sanitation	HC San Decent	-	-	543	577	613	651	691	734	3,809
6. Amran Urban Sanitation										
Urban Decentralized Sanitation	HC San Decent	-	-	543	577	613	651	691	734	3,809
7. Mukkalah Urban Sanitation										
Urban Decentralized Sanitation	HC San Decent	-	-	955	998	1,043	1,090	1,139	1,191	6,416
8. Seiyun Urban Sanitation										
Urban Decentralized Sanitation	HC San Decent	-	-	345	360	376	392	410	428	2,311
9. SHIBAM Utility Urban Sanitation										
Urban Decentralized Sanitation	HC San Decent	-	-	161	168	176	183	191	200	1,079
10. Lahj Urban Sanitation										
Urban Decentralized Sanitation	HC San Decent	-	-	1,720	1,923	2,150	2,404	2,687	3,005	13,889

	Unit	2008	2009	2010	2011	2012	2013	2014	2015	Total
11. Hoddeidah Urban Sanitation										
Urban Decentralized Sanitation	HC San Decent	-	-	1,431	1,482	1,535	1,591	1,648	1,707	9,394
12. Taiz Urban Sanitation										
Urban Decentralized Sanitation	HC San Decent	-	-	1,276	1,340	1,407	1,477	1,551	1,629	8,680
13. Al Baida Utility Urban Sanitation										
Urban Decentralized Sanitation	HC San Decent	-	-	67	70	73	77	81	84	452
14. Rada Utility Urban Sanitation										
Urban Decentralized Sanitation	HC San Decent	-	-	183	192	201	210	220	230	1,236
15. Malah Utility Urban Sanitation										
Urban Decentralized Sanitation	HC San Decent	-	-	31	32	34	35	37	39	208
Subtotal . Urban Decentralized Sanitation		-	-	12,089	12,914	13,802	14,769	15,892	16,911	86,377
Urban WS Rehabilitation										
1. Al Ghadah (NWSA) Urban Water Supply										
Urban House Connections Rehab	Urban HC Rehab	-	62	62	62	62	62	62	62	434
2. Hawf (NWSA) Urban Water Supply										
Urban House Connections Rehab	Urban HC Rehab	-	62	62	62	62	62	62	62	434
3. Al Mahweet (NWSA) Urban Water Supply										
Urban House Connections Rehab	Urban HC Rehab	-	68	68	68	68	68	68	68	476
4. Manaka (NWSA) Urban Water Supply										
Urban House Connections Rehab	Urban HC Rehab	-	39	39	39	39	39	39	39	273
5. Khamer (NWSA) Urban Water Supply										
Urban House Connections Rehab	Urban HC Rehab	-	38	38	38	38	38	38	38	266
6. Attaq (NWSA) Urban Water Supply										
Urban House Connections Rehab	Urban HC Rehab	-	64	64	64	64	64	64	64	448
7. Damt (NWSA) Urban Water Supply										
Urban House Connections Rehab	Urban HC Rehab	-	75	75	75	75	75	75	75	525
8. Sayout (NWSA) Urban Water Supply										
Urban House Connections Complex	Urban HC Rehab	-	57	57	57	57	57	57	57	399
9. Saada Urban Water Supply and Sanitation										
Urban House Connections Rehab	Urban HC Rehab	-	68	68	68	68	68	68	68	476
10. Raymah (NWSA) Urban Water Supply										
Urban House Connections Rehab	Urban HC Rehab	-	39	39	39	39	39	39	39	273
11. Hazm Al Jawf (NWSA) Urban Water Supply										
Urban House Connections Rehab	Urban HC Rehab	-	12	12	12	12	12	12	12	84
13. Sana'a Urban Water Supply										
Urban House Connections Rehab	Urban HC Rehab	-	2,295	2,295	2,295	2,295	2,295	2,295	2,295	16,065
15. Aden Urban Water Supply										
Urban House Connections Rehab	Urban HC Rehab	-	2,500	2,500	2,500	2,500	2,500	2,500	2,500	17,500

	Unit	2008	2009	2010	2011	2012	2013	2014	2015	Total
16. Hajjah Urban Water Supply										
Urban House Connections Rehab	Urban HC Rehab	-	207	207	207	207	207	207	207	1,449
17. Ibb Urban Water Supply										
Urban House Connections Rehab	Urban HC Rehab	-	321	321	321	321	321	321	321	2,247
18. Dhamar Urban Water Supply										
Urban House Connections Rehab	Urban HC Rehab	-	447	447	447	447	447	447	447	3,129
19. Amran Urban Water Supply										
Urban House Connections Rehab	Urban HC Rehab	-	97	97	97	97	97	97	97	679
20. Mukkahlah Urban Water Supply										
Urban House Connections Rehab	Urban HC Rehab	-	1,043	1,043	1,043	1,043	1,043	1,043	1,043	7,301
21. A Ghail Utility Urban Water Supply										
Urban House Connections Rehab	Urban HC Rehab	-	269	269	269	269	269	269	269	1,883
22. Al Sher Utility Urban Water Supply										
Urban House Connections Rehab	Urban HC Rehab	-	249	249	249	249	249	249	249	1,743
24. Al Raidah Utility Urban Water Supply										
Urban House Connections Rehab	Urban HC Rehab	-	110	110	110	110	110	110	110	770
25. Seiyun Urban Water Supply										
Urban House Connections Rehab	Urban HC Rehab	-	352	352	352	352	352	352	352	2,464
27. Shibam Hadramout Urban Water Supply										
Urban House Connections Rehab	Urban HC Rehab	-	164	164	164	164	164	164	164	1,148
28. Al Qaten Utility Urban Water Supply										
Urban House Connections rehab	Urban HC Rehab	-	150	150	150	150	150	150	150	1,050
29. Al Sah Utility Water Supply										
Urban House Connections Complex	Urban HC Rehab	-	24	24	24	24	24	24	24	168
30. Lahj Urban Water Supply										
Urban House Connections Rehab	Urban HC Rehab	-	1,071	1,071	1,071	1,071	1,071	1,071	1,071	7,497
31. Hoddeidah Urban Water Supply										
Urban House Connections Rehab	Urban HC Rehab	-	2,144	2,144	2,144	2,144	2,144	2,144	2,144	15,008
33. Taiz Urban Water Supply										
Urban House Connections Rehab	Urban HC Rehab	-	1,225	1,225	1,225	1,225	1,225	1,225	1,225	8,575
35. Maber Urban Water Supply										
Urban House Connections Rehab	Urban HC Rehab	-	73	73	73	73	73	73	73	511
36. Abyan Urban Water Supply										
Urban House Connections Rehab	Urban HC Rehab	-	180	180	180	180	180	180	180	1,260
37. Al Baida Utility Urban Water Supply										
Urban House Connections Rehab	Urban HC Rehab	-	71	71	71	71	71	71	71	497
38. Rada Utility Urban Water Supply										
Urban House Connections Rehab	Urban HC Rehab	-	98	98	98	98	98	98	98	686

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