

Summary Report

Semi Annual Report (January – June 2014)

Water Sector Program
Area 1 Water Sector Policies, Strategies and
Coordination

Performance Monitoring of Urban Water Supply and Sanitation Utilities

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1. Introduction

MWE¹ in cooperation with the technical assistance provided by the GIZ WSP/Area 1 were able to monitor the performance indicators of the UWSS² on regular basis with a flexible process via the PIIS³ to collect the basic data from the Water Utilities and generate semi-annual and annual performance reports.

This report covers the period of January-June 2014 through which we can measure the performance trends of the Water Utilities and compare it with year of 2013, and through which the final results shows how the situation had improved in some utilities, remained as it is in other utilities, and declined in other ones .

PIIS was adopted as monitoring tool installed in most UWSS paying efforts for regular reporting of data indicators, and used to strengthen sector performance both at the local and the national level. Most of the LCs/Utilities involved in the reporting process (10 LCs out of 13 and 6 utilities out of 9) are limited as per the table below:

LCs	Utilities
Sana'a LC	Mocha U
Aden LC	Zabid U
Taiz LC	Al-Mansouriah U
Seyuon (LC)	Bait Al-Faqih U
Mukalla (LC)	Al-Sheher U
IBB (LC)	Yareem U
Hodeida LC	
Hajjah (LC)	
Amran (LC)	
Dhamar (LC)	

Other LCs/Utilities were not able to submit their data for reasons related to Security, accessibility and Functionality such like Abyan, Sa'dah, Al-Dalea, Bajil, Al Mahweet and Rada'a.

2. Fact Sheet

It was preferably observed to present average values of performance indicators Jan-June 2014 for each LCs/Utilities in a separate matrix and compares it with average value of 2013, and reasonably identifies the performance trends per each indicator (Rising or falling).

Further detailed data of indicators on monthly basis will be illustrated in the Annex attached within this report.

It was also observed that most Utilities were not efficient to show results of all indicators due to shortage of filling and follow data from other departments which have to be address with them on regular monitoring process.

¹ Ministry of Water & Environment

² Urban Water & Sanitation Sector

³ Performance Indicator Information System

1- Sana'a LC

Indicator		Unit	Present Value	Reference Value	Trend/ Status
			Jan-June 2014	Year 2013	
1	No. of staff per 1000 water con.	no	12	12	→
2	No. of staff per 1000 water and sewerage con.	no	6	6	→
3	Non-revenue water	%	31	33	↑
4	No. of repaired leakages per no. of reported leakages	%	129	103	
5	Bacteriological quality of water distributed	%	100	100	→
6	Effluent quality of treatment plants	%	50	0	
7	Continuity of water supply	category	6 h/day	8 h/day	↓
8	Total water produced (with 1 st half 2013)	m3	7068330	9854240	↓
9	Total sewerage treated (with 1 st half 2013)	m3	9593634	9260000	↑
10	Effluent treatment ratio	%	113	99	↑
11	Operational actual cost coverage	%	81	90	↓
12	Operational billed cost coverage	%	100	102	↓
13	Actual cost coverage of O&M and electro-mechanical equipment	%	0	92	
14	Billed cost coverage of O&M and electro-mechanical equipment	%	0	105	
15	Personnel cost per total operational costs	%	48	43	↑
16	Energy cost per total operational costs	%	39	42	↓
17	Investment implementation progress	%	0	0	
18	Collection efficiency	%	88	88	→
19	Water expenses per poor household income using up to 5 m3.	%	0	4	
20	Expenses for sewerage per poor household income using up to 5 m3.	%	0	3	
21	Average applied tariff per m3 for water billed domestic	yr/m3	269	255	↑
22	Average total water consumption	lpcd	0	34	
23	Average domestic water consumption	lpcd	0	32	
24	Water supply services coverage	%	0	39	
25	Sewerage services coverage	%	0	36	
26	Population served with water	no	0	976602	
27	Population served with sewerage	no	0	896995	
28	Number of water connections	no	93678	92786	↑
29	Implementation progress ratio for approved investments (local and foreign)	%	0	0	

2- Aden LC

Indicator Name		Unit	Present Value	Reference Value	Trend/ Status
			Jan-June 2014	Year 2013	
1	No. of staff per 1000 water con.	no	16	16	→
2	No. of staff per 1000 water and sewerage con.	no	9	9	→
3	Non-revenue water	%	41	37	↓
4	No. of repaired leakages per no. of reported leakages	%		100	
5	Bacteriological quality of water distributed	%		65	
6	Effluent quality of treatment plants	%			
7	Continuity of water supply	category	15 h/day	17 h/day	↓
8	Total water produced	m3	20976098	38889985	↑
9	Total sewerage treated	m3			
10	Effluent treatment ratio	%			
11	Operational actual cost coverage	%	88	71	↑
12	Operational billed cost coverage	%	124	112	↑
13	Actual cost coverage of O&M and electro-mechanical equipment	%	88	71	↑
14	Billed cost coverage of O&M and electro-mechanical equipment	%	121	110	↑
15	Personnel cost per total operational costs	%	71	64	↓
16	Energy cost per total operational costs	%	23	27	↓
17	Investment implementation progress	%			
18	Collection efficiency	%	67	64	↑
19	Water expenses per poor household income using up to 5 m3.	%			
20	Expenses for sewerage per poor household income using up to 5 m3.	%			
21	Average applied tariff per m3 for water billed domestic	yr/m3	102	102	→
22	Average total water consumption	lpcd		93	
23	Average domestic water consumption	lpcd		77	
24	Water supply services coverage	%		80	
25	Sewerage services coverage	%		68	
26	Population served with water	no		655062	
27	Population served with sewerage	no		559866	
28	Number of sewerage connections	no	104495	102740	

3- Taiz LC

	Indicator Name	Unit	Present Value	Reference Value	Trend/ Status
			Jan-June 2014	Year 2013	
1	No. of staff per 1000 water con.	no	15	14	↑
2	No. of staff per 1000 water and sewerage con.	no	8	8	→
3	Non-revenue water	%	17	19	↓
4	No. of repaired leakages per no. of reported leakages	%	108	111	
5	Bacteriological quality of water distributed	%	55	90	↓
6	Effluent quality of treatment plants	%		0	
7	Continuity of water supply	category	3 time/Month	Every 40 days	↑
8	Total water produced (with 1st half 2013)	m3	2182373	2269741	↓
9	Total sewerage treated	m3			
10	Effluent treatment ratio	%	2	2	
11	Operational actual cost coverage	%	76	57	↑
12	Operational billed cost coverage	%	91	88	↑
13	Actual cost coverage of O&M and electro-mechanical equipment	%	77	61	↑
14	Billed cost coverage of O&M and electro-mechanical equipment	%	98	97	↑
15	Personnel cost per total operational costs	%	56	57	↓
16	Energy cost per total operational costs	%	27	31	↓
17	Investment implementation progress	%	0	0	
18	Collection efficiency	%	80	65	↑
19	Water expenses per poor household income using up to 5 m3.	%		2	
20	Expenses for sewerage per poor household income using up to 5 m3.	%		1	
21	Average applied tariff per m3 for water billed domestic	yr/m3	252	241	↑
22	Average total water consumption	lpcd		26	
23	Average domestic water consumption	lpcd		21	
24	Water supply services coverage	%		97	
25	Sewerage services coverage	%		77	
26	Population served with water	no		334075	
27	Population served with sewerage	no		266168	
28	Number of sewerage connections	no	43089	40995	

4- Hodeidah LC

Indicator Name		Unit	Present Value	Reference Value	Trend/ Status
			Jan-June 2014	Year 2013	
1	No. of staff per 1000 water con.	no	13	12	↑
2	No. of staff per 1000 water and sewerage con.	no	8	8	→
3	Non-revenue water	%	33	36	↓
4	No. of repaired leakages per no. of reported leakages	%			
5	Bacteriological quality of water distributed	%	100		
6	Effluent quality of treatment plants	%			
7	Continuity of water supply	category	24 h/day	24 h/day	↑
8	Total water produced (with 1st half 2013)	m3	7266779	7081798	↑
9	Total sewerage treated (with 1st half 2013)	m3	3796840	2012170	↑
10	Effluent treatment ratio	%	52	28	↑
11	Operational actual cost coverage	%	87	66	↑
12	Operational billed cost coverage	%	130	91	↑
13	Actual cost coverage of O&M and electro-mechanical equipment	%		68	
14	Billed cost coverage of O&M and electro-mechanical equipment	%	132	94	↑
15	Personnel cost per total operational costs	%	56	53	↑
16	Energy cost per total operational costs	%	33	36	↓
17	Investment implementation progress	%			
18	Collection efficiency	%	72	73	↓
19	Water expenses per poor household income using up to 5 m3.	%			
20	Expenses for sewerage per poor household income using up to 5 m3.	%			
21	Average applied tariff per m3 for water billed domestic	yr/m3	142	94	↑
22	Average total water consumption	lpcd		57	
23	Average domestic water consumption	lpcd		48	
24	Water supply services coverage	%		836	
25	Sewerage services coverage	%		511	
26	Population served with water	no		417816	
27	Population served with sewerage	no		255458	
28	Number of sewerage connections	no	40069	39416	














5- IBB LC

Indicator Name	Unit	Present Value	Reference Value	Trend/ Status
		Jan-June 2014	Year 2013	
1 No. of staff per 1000 water con.	no	11	11	→
2 No. of staff per 1000 water and sewerage con.	no	6	6	→
3 Non-revenue water	%	24	24	→
4 No. of repaired leakages per no. of reported leakages	%	104	101	↑
5 Bacteriological quality of water distributed	%	90	89	↑
6 Effluent quality of treatment plants	%	93	94	↓
7 Continuity of water supply	category	2 times/week	2 times/week	
8 Total water produced (with 1st half 2013)	m3	2601124	2489608	↑
9 Total sewerage treated (with 1st half 2013)	m3	2021252	1837049	↑
10 Effluent treatment ratio	%	78	77	↑
11 Operational actual cost coverage	%	127	136	↓
12 Operational billed cost coverage	%	124	124	↑
13 Actual cost coverage of O&M and electro-mechanical equipment	%		139	
14 Billed cost coverage of O&M and electro-mechanical equipment	%	136	133	↑
15 Personnel cost per total operational costs	%	53	51	↑
16 Energy cost per total operational costs	%	34	33	↓
17 Investment implementation progress	%		0	
18 Collection efficiency	%	103	110	↑
19 Water expenses per poor household income using up to 5 m3.	%	2	2	
20 Expenses for sewerage per poor household income using up to 5 m3.	%	2	2	
21 Average applied tariff per m3 for water billed domestic	yr/m3	198	200	↓
22 Average total water consumption	lpcd	42	42	
23 Average domestic water consumption	lpcd	40	40	
24 Water supply services coverage	%	75	73	↓
25 Sewerage services coverage	%	64	62	
26 Population served with water	no	256784	247533	↑
27 Population served with sewerage	no	219626	209616	↑
28 Number of water connections		24160	23307	
29 Number of sewerage connections	no	20771	19845	

6- Mukala LC

	Indicator Name	Unit	Present Value	Reference Value	Trend/ Status
			Jan-June 2014	Year 2013	
1	No. of staff per 1000 water con.	no	18	18	
2	No. of staff per 1000 water and sewerage con.	no	11	11	
3	Non-revenue water	%	35	40	↓
4	Number of average monthly reported leakages per 1000 water con.	no	4	13	↓
5	Bacteriological quality of water distributed	%	95	87	↑
6	Effluent quality of treatment plants	%			
7	Continuity of water supply	category	12 h/day	12 h/day	
8	Total water produced (with 1st half 2013)	m3	6110440	6927095	↓
9	Total sewerage treated	m3		0	
10	Effluent treatment ratio	%		0	
11	Operational actual cost coverage	%	118	81	↑
12	Operational billed cost coverage	%	118	94	↑
13	Actual cost coverage of O&M and electro-mechanical equipment	%	118	81	↑
14	Billed cost coverage of O&M and electro-mechanical equipment	%		94	
15	Personnel cost per total operational costs	%	62	61	↑
16	Investment implementation progress	%			
17	Collection efficiency	%	100	86	↑
18	Water expenses per poor household income using up to 5 m3.	%			
19	Expenses for sewerage per poor household income using up to 5 m3.	%			
20	Average applied tariff per m3 for water billed domestic	yr/m3	142	122	↑
21	Average total water consumption	lpcd		79	
22	Average domestic water consumption	lpcd		62	
23	Water supply services coverage	%		89	
24	Sewerage services coverage	%		63	
25	Population served with water	no		274862	
26	Population served with sewerage	no		194355	
27	Number of water connections	no	44447	43503	
28	Number of sewerage connections	no	30273	29738	

7- Seyuon LC

	Indicator Name	Unit	Present Value	Reference Value	Trend/ Status
			Jan-June 2014	Year 2013	
1	No. of staff per 1000 water con.	no	12	12	
2	No. of staff per 1000 water and sewerage con.	no	11	11	
3	Non-revenue water	%	33	33	
4	Number of average monthly reported leakages per 1000 water con.	no	23	24	
5	Bacteriological quality of water distributed	%			
6	Effluent quality of treatment plants	%			
7	Continuity of water supply	category	24 h/day	24 h/day	
8	Total water produced (with 1st half 2013)	m3	7216998	6,694,483	
9	Total sewerage treated	m3			
10	Effluent treatment ratio	%			
11	Operational actual cost coverage	%	87	77	
12	Operational billed cost coverage	%	105	103	
13	Actual cost coverage of O&M and electro-mechanical equipment	%		84	
14	Billed cost coverage of O&M and electro-mechanical equipment	%		110	
15	Personnel cost per total operational costs	%	56	56	
16	Energy cost per total operational costs	%	32	31	
17	Collection efficiency	%	83	75	
18	Water expenses per poor household income using up to 5 m3.	%			
19	Average applied tariff per m3 for total water billed	yr/m3	96	96	
20	Average applied tariff per m3 for water billed domestic	yr/m3	73	74	
21	Average total water consumption	lpcd		71	
22	Average domestic water consumption	lpcd		72	
23	Water supply services coverage	%		59	
24	Sewerage services coverage	%		3	
25	Population served with water	no		326144	
26	Population served with sewerage	no		15480	
27	Number of water connections	no	47341	46486	
28	Number of sewerage connections	no	2160	2150	

8- Amran LC

Indicator Name	Unit	Present Value	Reference Value	Trend/ Status
		Jan-June 2014	Year 2013	
1 No. of staff per 1000 water con.	no			
2 No. of staff per 1000 water and sewerage con.	no			
3 Non-revenue water	%	12	15	↓
4 Number of average monthly reported leakages per 1000 water con.	no	1	1	
5 Bacteriological quality of water distributed	%			
6 Effluent quality of treatment plants	%			
7 Continuity of water supply	category	1 time/Week	1 time/Week	
8 Total water produced (with 1st half 2013)	m3	305745	349842	↓
9 Total sewerage treated	m3		619149	
10 Effluent treatment ratio	%		98	
11 Operational actual cost coverage	%	111	103	↑
12 Operational billed cost coverage	%	112	119	↓
13 Actual cost coverage of O&M and electro-mechanical equipment	%	100	94	↑
14 Billed cost coverage of O&M and electro-mechanical equipment	%	100	107	↓
15 Personnel cost per total operational costs	%	61	46	↑
16 Energy cost per total operational costs	%	31	45	↓
17 Collection efficiency	%	103	86	↑
18 Water expenses per poor household income using up to 5 m3.	%		2	
19 Average applied tariff per m3 for total water billed	yr/m3	352	336	↑
20 Average applied tariff per m3 for water billed domestic	yr/m3	195	194	→
21 Average total water consumption	lpcd		38	
22 Average domestic water consumption	lpcd		33	
23 Water supply services coverage	%		71	
24 Sewerage services coverage	%		49	
25 Population served with water	no		37773	
26 Population served with sewerage	no		25857	
27 Number of water connections	no	4403	4319	
28 Number of sewerage connections	no	3296	3055	↑

9- Dhamar LC

	Indicator Name	Unit	Present Value	Reference Value	Trend/ Status
			Jan-June 2014	Year 2013	
1	No. of staff per 1000 water con.	no	15	15	→
2	No. of staff per 1000 water and sewerage con.	no	10	9	↑
3	Non-revenue water	%	40		
4	Number of average monthly reported leakages per 1000 water con.	no	3		
5	Bacteriological quality of water distributed	%			
6	Effluent quality of treatment plants	%			
7	Continuity of water supply	category	24 h/day	24 h/day	↕
8	Total water produced (with 1st half 2013)	m3	2172173	2286702	↕
9	Total sewerage treated	m3			
10	Effluent treatment ratio	%	79		
11	Operational actual cost coverage	%	86	80	↑
12	Operational billed cost coverage	%	105	100	↑
13	Actual cost coverage of O&M and electro-mechanical equipment	%	58	82	↓
14	Billed cost coverage of O&M and electro-mechanical equipment	%	70	102	↓
15	Personnel cost per total operational costs	%	66	64	↑
16	Energy cost per total operational costs	%	25	24	↑
17	Collection efficiency	%	82	80	↑
18	Water expenses per poor household income using up to 5 m3.	%	2	2	
19	Average applied tariff per m3 for total water billed	yr/m3	185	182	↑
20	Average applied tariff per m3 for water billed domestic	yr/m3	154	154	
21	Average total water consumption	lpcd	52	33	↑
22	Average domestic water consumption	lpcd	48	31	↕
23	Water supply services coverage	%	56	95	↕
24	Sewerage services coverage	%	33	56	↓
25	Population served with water	no		203665	
26	Population served with sewerage	no		120428	
27	Number of water connections	no	19907	19563	
28	Number of sewerage connections	no	11826	11698	

10- Hajjah LC

	Indicator Name	Unit	Present Value	Reference Value	Trend/ Status
			Jan-June 2014	Year 2013	
1	No. of staff per 1000 water con.	no	19	19	→
2	No. of staff per 1000 water and sewerage con.	no	12	12	→
3	Non-revenue water	%	9	13	↓
4	Number of average monthly reported leakages per 1000 water con.	no	3	0	
5	Bacteriological quality of water distributed	%	85	0	
6	Effluent quality of treatment plants	%	79	65	
7	Continuity of water supply	category	1-2 time/week	1 time/week	↑
8	Total water produced (with 1st half 2013)	m3	495420	523870	↓
9	Total sewerage treated (with 1st half 2013)	m3	285186	265112	↑
10	Effluent treatment ratio	%	58	52	
11	Operational actual cost coverage	%	97	98	→
12	Operational billed cost coverage	%	131	103	↑
13	Actual cost coverage of O&M and electro-mechanical equipment	%		101	
14	Billed cost coverage of O&M and electro-mechanical equipment	%	115	93	↑
15	Personnel cost per total operational costs	%	45	46	
16	Energy cost per total operational costs	%	39	35	
17	Collection efficiency	%	74	95	↓
18	Water expenses per poor household income using up to 5 m3.	%	4	4	
19	Average applied tariff per m3 for total water billed	yr/m3	470	441	
20	Average applied tariff per m3 for water billed domestic	yr/m3	258	247	
21	Average total water consumption	lpcd	43	44	
22	Average domestic water consumption	lpcd	29	29	
23	Water supply services coverage	%	94	97	
24	Sewerage services coverage	%	52	53	
25	Population served with water	no	56832	54696	
26	Population served with sewerage	no	31184	29920	
27	Number of water connections	no	7340	7207	
28	Number of sewerage connections	no	4087	4046	↑

11- Bait Al-Faqih U

Indicator Name	Unit	Present Value	Reference Value	Trend/ Status
		Jan-June 2014	Year 2013	
1 No. of staff per 1000 water con.	no	10	9	→
2 No. of staff per 1000 water and sewerage con.	no	5	5	→
3 Non-revenue water	%	35	25	↑
4 No. of repaired leakages per no. of reported leakages	%	100	100	
5 Bacteriological quality of water distributed	%	0	0	
6 Effluent quality of treatment plants	%	83	88	
7 Continuity of water supply	category	14h/day	16h/day	↓
8 Total water produced (with 1st half 2013)	m3	692610	657350	↑
9 Total sewerage treated (with 1st half 2013)	m3	350762	357847	↓
10 Effluent treatment ratio	%	61	56	
11 Operational actual cost coverage	%	67	85	↓
12 Operational billed cost coverage	%	91	89	↑
13 Actual cost coverage of O&M and electro-mechanical equipment	%	60	77	↓
14 Billed cost coverage of O&M and electro-mechanical equipment	%	75	78	↓
15 Personnel cost per total operational costs	%	37	40	↓
16 Energy cost per total operational costs	%	25	23	
17 Collection efficiency	%	77	96	↑
18 Water expenses per poor household income using up to 5 m3.	%			
19 Average applied tariff per m3 for total water billed	yr/m3	142	146	
20 Average applied tariff per m3 for water billed domestic	yr/m3	128	132	
21 Average total water consumption	lpcd	0	48	
22 Average domestic water consumption	lpcd	0	45	
23 Water supply services coverage	%	0	101	
24 Sewerage services coverage	%	0	76	
25 Population served with water	no	0	54523	
26 Population served with sewerage	no	0	41146	
27 Number of water connections	no	8262	8088	
28 Number of sewerage connections	no	6326	6024	↑

12-Al-Mokha

Indicator Name		Unit	Present Value	Reference Value	Trend/ Status
			Jan-June 2014	Year 2013	
1	No. of staff per 1000 water con.	no	11	11	→
2	No. of staff per 1000 water and sewerage con.	no	11	11	→
3	Non-revenue water	%	24	24	→
4	No. of repaired leakages per no. of reported leakages	%	79		
5	Bacteriological quality of water distributed	%			
6	Effluent quality of treatment plants	%			
7	Continuity of water supply		24h/day	24h/day	↑
8	Total water produced (with 1st half 2013)	m3	299265	298443	↑
9	Total sewerage treated	m3	0	0	
10	Effluent treatment ratio	%	0	0	
11	Operational actual cost coverage	%	106	183	↑
12	Operational billed cost coverage	%	119	125	↓
13	Actual cost coverage of O&M and electro-mechanical equipment	%		177	
14	Billed cost coverage of O&M and electro-mechanical equipment	%	118	120	
15	Personnel cost per total operational costs	%	59	58	
16	Energy cost per total operational costs	%	13	12	
17	Collection efficiency	%	99	146	↓
18	Water expenses per poor household income using up to 5 m3.	%	1	1	
19	Average applied tariff per m3 for total water billed	yr/m3	164	166	
20	Average applied tariff per m3 for water billed domestic	yr/m3	108	103	
21	Average total water consumption	lpcd	71	71	
22	Average domestic water consumption	lpcd	65	64	
23	Water supply services coverage	%	103	104	
24	Sewerage services coverage	%	0	0	
25	Population served with water	no	16429	15988	
26	Population served with sewerage	no	0	0	
27	Number of water connections	no	2570	2494	
28	Number of sewerage connections	no	0	0	

13-Al-Shaher

Indicator Name	Unit	Present Value	Reference Value	Trend/ Status
		Jan-June 2014	Year 2013	
1 No. of staff per 1000 water con.	no	10	11	↓
2 No. of staff per 1000 water and sewerage con.	no	7	7	→
3 Non-revenue water	%	37	32	↑
4 No. of repaired leakages per no. of reported leakages	%		0	
5 Bacteriological quality of water distributed	%		0	
6 Effluent quality of treatment plants	%		0	
7 Continuity of water supply		24h/day	24h/day	↑
8 Total water produced (with 1st half 2013)	m3	1796406	1641811	↑
9 Total sewerage treated	m3		0	
10 Effluent treatment ratio	%	0	0	
11 Operational actual cost coverage	%	110	74	↑
12 Operational billed cost coverage	%	118	88	↑
13 Actual cost coverage of O&M and electro-mechanical equipment	%	102	70	↑
14 Billed cost coverage of O&M and electro-mechanical equipment	%	109	83	↑
15 Personnel cost per total operational costs	%	63	61	
16 Energy cost per total operational costs	%	26	26	
17 Collection efficiency	%	93	84	↑
18 Water expenses per poor household income using up to 5 m3.	%	0	1	
19 Average applied tariff per m3 for total water billed	yr/m3	139	117	↑
20 Average applied tariff per m3 for water billed domestic	yr/m3	112	94	
21 Average total water consumption	lpcd	0	65	
22 Average domestic water consumption	lpcd	0	65	
23 Water supply services coverage	%	0	96	
24 Sewerage services coverage	%	0	49	
25 Population served with water	no	0	87031	
26 Population served with sewerage	no	0	44653	
27 Number of water connections	no	14215	14021	
28 Number of sewerage connections	no	6962	6877	↑

14-Yarim

	Indicator Name	Unit	Present Value	Reference Value	Trend/ Status
			Jan-June 2014	Year 2013	
1	No. of staff per 1000 water con.	no	17	20	↓
2	No. of staff per 1000 water and sewerage con.	no	9	11	↓
3	Non-revenue water	%	18	19	→
4	No. of repaired leakages per no. of reported leakages	%	109	91	
5	Bacteriological quality of water distributed	%		0	
6	Effluent quality of treatment plants	%	33	33	
7	Continuity of water supply		2 time/month	2 time/month	→
8	Total water produced (with 1st half 2013)	m3	250107	275766	↓
9	Total sewerage treated (with 1st half 2013)	m3	183334	191168	↓
10	Effluent treatment ratio	%	74	68	
11	Operational actual cost coverage	%	69	74	↓
12	Operational billed cost coverage	%	76	88	↓
13	Actual cost coverage of O&M and electro-mechanical equipment	%	63	66	↓
14	Billed cost coverage of O&M and electro-mechanical equipment	%	67	75	↓
15	Personnel cost per total operational costs	%	55	60	↓
16	Energy cost per total operational costs	%	15	16	
17	Collection efficiency	%	89	84	↑
18	Water expenses per poor household income using up to 5 m3.	%	0	2	
19	Average applied tariff per m3 for total water billed	yr/m3	200	199	
20	Average applied tariff per m3 for water billed domestic	yr/m3	192	191	
21	Average total water consumption	lpcd	0	33	
22	Average domestic water consumption	lpcd	0	32	
23	Water supply services coverage	%	0	45	
24	Sewerage services coverage	%	0	36	
25	Population served with water	no	0	36001	
26	Population served with sewerage	no	0	28973	
27	Number of water connections	no	5331	5274	
28	Number of sewerage connections	no	4361	4292	↑

15-Zabid

Indicator Name	Unit	Present Value	Reference Value	Trend/ Status
		Jan-June 2014	Year 2013	
1 No. of staff per 1000 water con.	no	12	12	→
2 No. of staff per 1000 water and sewerage con.	no	6	6	→
3 Non-revenue water	%	24	10	↑
4 No. of repaired leakages per no. of reported leakages	%	100	100	
5 Bacteriological quality of water distributed	%	0	0	
6 Effluent quality of treatment plants	%	100	100	
7 Continuity of water supply		6h/day	6h/day	→
8 Total water produced (with 1st half 2013)	m3	367630	375990	↓
9 Total sewerage treated (with 1st half 2013)	m3	167911	129340	↑
10 Effluent treatment ratio	%	46	50	
11 Operational actual cost coverage	%	88	93	↓
12 Operational billed cost coverage	%	96	107	↓
13 Actual cost coverage of O&M and electro-mechanical equipment	%	83	82	→
14 Billed cost coverage of O&M and electro-mechanical equipment	%	86	92	→
15 Personnel cost per total operational costs	%	43	50	↓
16 Energy cost per total operational costs	%	0	20	
17 Collection efficiency	%	96	87	↑
18 Water expenses per poor household income using up to 5 m3.	%	0	1	
19 Average applied tariff per m3 for total water billed	yr/m3	184	184	
20 Average applied tariff per m3 for water billed domestic	yr/m3	160	164	
21 Average total water consumption	lpcd	0	60	
22 Average domestic water consumption	lpcd	0	57	
23 Water supply services coverage	%	0	91	
24 Sewerage services coverage	%	0	79	
25 Population served with water	no	0	26796	
26 Population served with sewerage	no	0	23011	
27 Number of water connections	no	5428	5321	
28 Number of sewerage connections	no	4543	4485	↑

16-Al-Mansouriah

Indicator Name		Unit	Present Value	Reference Value	Trend/ Status
			Jan-June 2014	Year 2013	
1	No. of staff per 1000 water con.	no	10	10	→
2	No. of staff per 1000 water and sewerage con.	no	10	10	→
3	Non-revenue water	%	27	24	↑
4	No. of repaired leakages per no. of reported leakages	%	83		
5	Bacteriological quality of water distributed	%	0	0	
6	Continuity of water supply		8h/day	8h/day	→
7	Total water produced	m3	165577	162589	↑
8	Effluent treatment ratio	%	0		
9	Operational actual cost coverage	%	102	98	↑
10	Operational billed cost coverage	%	158	166	↑
11	Actual cost coverage of O&M and electro-mechanical equipment	%	89	86	→
12	Billed cost coverage of O&M and electro-mechanical equipment	%	137	143	→
13	Personnel cost per total operational costs	%	76	78	
14	Energy cost per total operational costs	%	18	5	
15	Collection efficiency	%	76	64	↑
16	Water expenses per poor household income using up to 5 m3.	%	1	1	
17	Average applied tariff per m3 for water billed domestic	yr/m3	226	187	
18	Average total water consumption	lpcd	42	0	
19	Average domestic water consumption	lpcd	40	37	
20	Water supply services coverage	%	0	0	
21	Sewerage services coverage	%	0	0	
22	Population served with water	no	18051	17507	
23	Population served with sewerage	no	0		
24	Number of water connections	no	2703	2623	↑
25	Number of sewerage connections	no	0	0	

3. Brief Analysis

1- Sana'a LC

Sana'a LC is the local authority that provides water supply & sanitation services to population of the Capital. As widely known of the water resources scarcity suffered by the city that inversely resulted to interrupted water supply (Once/two times a week) with average non-revenue water reaches to 30% of the total production. Sana'a LC can barely cover its operation cost (81%) due to collection efficiency (88%), overstaffing, fuel and electricity prices inflation, and unfit tariffs that need to be adjusted.

Where also personnel cost reaches to 48% of total operational costs. Its worthy to indicate that major parts of the city depends totally on water tankers as consequences of population growth, city expansion and scarce water resources in concurrence with the Utility efforts to extend water networks connections (93,678) currently in total.

Sana'a LC frequently receives many grants to develop its infrastructure (software & hardware) by many regional and international agencies such as Arabic funds, German, World Bank and others to raise the coverage ratio of water supply serving most people of the city.

2-Aden LC

The impact of 2011 political crises straightly affected the utility in terms of finance and management. The Utility withdraw all of its depreciation account to cover O&M. Late payment of salaries drives some staff to create riot and disturbance in the utility that widened to sabotage the networks.

In general, the Utility seems to find no solution to control the water loss that reaches to 41%, coupled with unsatisfactory revenue collections of about 67% average. However; the utilities must embrace several methods to acquire its outstanding bills payments through:

1. Intensive collection and awareness campaigns.
2. Disconnection of illegal meter connections for those who refuse to pay their bills, and due to the fact that utility staffs are faced with violence by some illegal customers.
3. Attempts to install amounts of invoices on intermittent periods of time.
- 4- Calculate the effect of Fuel increase and other O&M increase and reflected to tariff adjustment without any fear.

Great efforts and attentions are being paid to Aden LC to raise its performance to restore optimum service delivery as a typical Utility in the country.

3-Taiz LC

This LC had a historical tragedy of scarce water resources, whereas most population in the city basically depends on water tankers, water supplied by the LC improved to 2-3 times per month while it was once every 40 days and contains high precipitations of water minerals plus increasing rate of population growth.

The coverage of O&M is still less than the required as a result of poor collection efficiency 53% and water production.

There is an outlook for a possible significant improvement in the water resources accessibility due to implementation of desalination project of Al-Mocha that recently considered one of the prioritized topics of Taiz governorate.

4- Hodeidah LC

The LC witnessed a disastrous sewage over flow from networks during the passing two years, these crises need for more interventions to upgrade the current sewage system.

The LC provides sustained water delivery in the presence of many financial dilemmas. The replacement of some electromechanical equipment assisted so far for better performance.

The LC is seeking to regulate the setup of organizational procedures and workflows to minimize excessive personnel and develop new approaches for customer services.

5- IBB LC

We can positively report IBB LC performance as consequences of steady financial and management status with qualified employee to run the LC. All performance indicators within this report showed promising results. The LC proves to provide a suitable environment for external aid cooperation.

There is around 75% of water coverage with 64% of sewage coverage. Regular revenue collections provide enough cash to cover O&M 127%. People receives water supply twice a week with NRW of 27%.

6- Mukala LC

Number of staff for each 1000 water connection reaches to 18 person. Non-revenue water records high values that reaches in March to 48%. The LC steadily tries to maintain its collection efficiency (100%) and O&M coverage (118%). Collection efficiency cost coverage and Management is the footsteps behind the curving performance of the LC that can be attributed to the political uprising encountered in Hadramout region.

7- Seyuon LC

We can easily compare the agreeable performance of Seyuon LC if compared with Mukala LC through the water supply frequency that reached to people 24 h per day. Collection efficiency and O&M coverage still on the usual level (=80%). To cover optimum cost coverage, the LC need to earn revenues to achieve 100% of cost coverage.

8- Amran LC

Several events witnessed in Amran governorate in 2014. All available information received from Amran LC indicates smooth flow of operations with no hint of exact situation. People work in the LC claim no changes in the organizational and functional state of the LC. We need to induce Ministry of Water & Environment and other stakeholders to go through deep assessment to conclude the capability of Amran LC from different operational perspectives.

9- Dhamar LC

Dhamar LC suffers from extreme water loss, and thus can be attributed to:

1. Leakage from Transmission and Distribution Mains
2. Meter reading error.
3. Water theft.

Anyhow, water is still provided on daily basis, with modest rate of collection efficiency and O&M coverage. Cost of working personnel is an additional burden. The LC need to support the investment plans to extend its coverage above 60% of the population at minimum.

10-Hajjah LC

All results shows no worries (see Hajjah table & Annex).

11- Bait Al-Faqih

The Utility is now under new management since September 2014 that inherited long list of complicated issues (Financial, Security, Operational and Management).The Utility is unable to control water loss and enhancing revenue collections, and water is supplied adequately by 14 h/day.

The Utility claims to suffer from some local offenders that threat the utility for financial benefits in order to be allowed to work in peaceful and secured conditions.

It's worth mentioning that Bait Al-Faqih remains one of the best Utilities in compared to other deteriorated Utilities in Tehama district.

Also it will receive some investments from PTOF project in cooperation with the GIZ WSP-Area 3 to provide the needed institutional support.

12- Mocha Utility

The Utility is always showing good progress in areas of management and operations throughout the passing years, most indicators are reflecting an incline in the operations of the utility, the utility had no suffering of water resources added in the presence of motivated cadre in the utility.

It is expecting that KFW (PTOF) is planning to make interventions and implement infrastructure projects in the utility serving area.

13- Al Shaher Utility

Non-revenue water is observed to be 37% compare to 32% in 2013 due to old network from 70's, whereas MWE and KFW stopped the project for security considerations.The collection efficiency is at its acceptable range 93%. Al Shaher is also providing 24 h/day of water to customer. The utility are sometimes affected by external political and security events that impede its operations and financial trends.

14-Yareem Utility

Yareem Utility is unlike IBB LC in its performance, weak collection efficiency and high rates of O&M for employees costs. Water is provided to people only 2 times in a month. Average applied tariff per m3 for water billed domestic is 192 YR/m3, and Operational actual cost coverage reaches to 69%.

15-Zabid Utility

All performance indicators are showing good progress compare to other sister Utilities in Tehama region.

16-Al Mansouriah Utility

Results of this utility are reporting for bad management practices. The utility is missing major management and financial mainstays of a water utility. Most revenues are paid for personnel, and barely can afford for other capital operating costs.

Annex Detailed Data of PIIS Jan-June 2014(Monthly)

Indicator Code		Unit	Sanaa					
			2014/ 01	2014/ 02	2014/ 03	2014/ 04	2014/ 05	2014/ 06
1	No. of staff per 1000 water con.	no					12	12
2	No. of staff per 1000 water and sewerage con	no					6	6
3	Non-revenue water	%	26		31	41	26	
4	No. of repaired leakages per no. of reported leakages	%	126	123	100	128	158	136
5	Bacteriological quality of water distributed	%	100	100	100	100	100	No Data
6	Effluent quality of treatment plants	%			50			
7	Continuity of water supply	category	6 h/ day	6 h/ day	6 h/ day	6 h/ day	6 h/ day	6 h/ day
8	Total water produced	m3	1417781	1420123	1364410	1593470	1272546	
9	Total sewerage treated	m3	1674000	1566000	1566000	1532634	1581000	1674000
10	Effluent treatment ratio	%	118	110	115	96	124	
11	Operational actual cost coverage	%	93	No Data	85	70	70	90
12	Operational billed cost coverage	%	122	No Data	120	91	109	59
13	Actual cost coverage of O&M and electro-mechanical equipment	%	0	0	0	0	0	0
14	Billed cost coverage of O&M and electro-mechanical equipment	%	0	0	0	0	0	0
15	Personnel cost per total operational costs	%	45	No Data	50	42	47	54
16	Energy cost per total operational costs	%	43	No Data	42	42	39	27
17	Investment implementation progress	%	0	0	0	0	0	0
18	Collection efficiency	%	76	No Data	70	77	64	153
19	Water expenses per poor household income using up to 5 m3.	%	0	0	0	0	0	0
20	Expenses for sewerage per poor household income using up to 5 m3.	%	0	0	0	0	0	0
21	Average applied tariff per m3 for water billed domestic	yr/m3	258	No Data	266	270	266	283
22	Average total water consumption	lpcd	0	0	0	0	0	0
23	Average domestic water consumption	lpcd	0	0	0	0	0	0
24	Water supply services coverage	%	0	0	0	0	0	0
25	Sewerage services coverage	%	0	0	0	0	0	0
26	Population served with water	no	0	0	0	0	0	0
27	Population served with sewerage	no	0	0	0	0	0	0
28	Number of water connections	no	92909	92909	93264	93448	93585	93678
29	Implementation progress ratio for approved investments (local and foreign)	%	0	0	0	0	0	0

Indicator Name		Unit	Aden					
			2014/ 01	2014/ 02	2014/ 03	2014/ 04	2014/ 05	2014/ 06
1	No. of staff per 1000 water con.	no	16	16	16	16	16	16
2	No. of staff per 1000 water and sewerage con	no	9	9	9	9	9	9
3	Non-revenue water	%	47	33	41	41	41	44
4	No. of repaired leakages per no. of reported leakages	%	No Data	No Data	No Data	No Data	No Data	No Data
5	Bacteriological quality of water distributed	%	No Data	No Data	No Data	No Data	No Data	No Data
6	Effluent quality of treatment plants	%	No Data	No Data	No Data	No Data	No Data	No Data
7	Continuity of water supply	category	15 h/ day	15 h/ day	15 h/ day	15 h/ day	15 h/ day	15 h/ day
8	Total water produced	m3	3891175	3044727	3495565	3483791	3530840	3530000
9	Total sewerage treated	m3	No Data	No Data	No Data	No Data	No Data	No Data
10	Effluent treatment ratio	%						
11	Operational actual cost coverage	%	98	40	215	75	66	37
12	Operational billed cost coverage	%	169	106	161	104	120	83
13	Actual cost coverage of O&M and electro-mechanical equipment	%	96	43	204	77	65	41
14	Billed cost coverage of O&M and electro-mechanical equipment	%	162	105	155	104	116	85
15	Personnel cost per total operational costs	%	90	56	85	55	66	74
16	Energy cost per total operational costs	%	9	42	11	28	24	24
17	Investment implementation progress	%	No Data	No Data	No Data	No Data	No Data	No Data
18	Collection efficiency	%	58	38	134	72	55	45
19	Water expenses per poor household income using up to 5 m3.	%						
20	Expenses for sewerage per poor household income using up to 5 m3.	%						
21	Average applied tariff per m3 for water billed domestic	yr/m3	103	102	102	102	102	101
22	Average total water consumption	lpcd						
23	Average domestic water consumption	lpcd						
24	Water supply services coverage	%						
25	Sewerage services coverage	%						
26	Population served with water	no						
27	Population served with sewerage	no						
28	Number of sewerage connections	no	103332	103499	103666	103905	104172	104495

	Indicator Name	Unit	Taiz					
			2014/ 01	2014/ 02	2014/ 03	2014/ 04	2014/ 05	2014/ 06
1	No. of staff per 1000 water con.	no	15	15	15	15	15	15
2	No. of staff per 1000 water and sewerage con	no	8	8	8	8	8	8
3	Non-revenue water	%	8	13	23	19	17	20
4	No. of repaired leakages per no. of reported leakages	%	108	108	108	108	107	107
5	Bacteriological quality of water distributed	%	57	53	No Data	No Data	No Data	No Data
6	Effluent quality of treatment plants	%	No Data	No Data	No Data	No Data	No Data	No Data
7	Continuity of water supply	category	3 time/Month	3 time/Month	3 time/Month	3 time/Month	3 time/Month	3 time/Month
8	Total water produced	m3	356576	374234	391482	383030	339244	337807
9	Total sewerage treated	m3	7000	7000	7000	7000	7000	7000
10	Effluent treatment ratio	%	2	2	2	2	2	2
11	Operational actual cost coverage	%	219	57	60	44	45	28
12	Operational billed cost coverage	%	102	103	96	83	100	59
13	Actual cost coverage of O&M and electro-mechanical equipment	%	213	60	63	48	46	30
14	Billed cost coverage of O&M and electro-mechanical equipment	%	106	108	107	93	108	67
15	Personnel cost per total operational costs	%	57	52	54	46	57	69
16	Energy cost per total operational costs	%	27	29	25	35	30	19
17	Investment implementation progress	%	No Data	No Data	0	No Data	No Data	No Data
18	Collection efficiency	%	214	55	62	53	45	48
19	Water expenses per poor household income using up to 5 m3.	%						
20	Expenses for sewerage per poor household income using up to 5 m3.	%						
21	Average applied tariff per m3 for water billed domestic	yr/m3	223	233	252	260	274	273
22	Average total water consumption	lpcd						
23	Average domestic water consumption	lpcd						
24	Water supply services coverage	%						
25	Sewerage services coverage	%						
26	Population served with water	no						
27	Population served with sewerage	no						
28	Number of sewerage connections	no	41073	43385	43417	43476	43525	43655

	Indicator Name	Unit	Hudeidah					
			2014/ 01	2014/ 02	2014/ 03	2014/ 04	2014/ 05	2014/ 06
1	No. of staff per 1000 water con.	no	13	13	13	13	13	13
2	No. of staff per 1000 water and sewerage con	no	8	8	8	8	8	8
3	Non-revenue water	%	25	27	34	38	35	41
4	No. of repaired leakages per no. of reported leakages	%	No Data	No Data	No Data	No Data	No Data	No Data
5	Bacteriological quality of water distributed	%	100	100	100	100	100	100
6	Effluent quality of treatment plants	%	No Data	No Data	No Data	No Data	No Data	No Data
7	Continuity of water supply	category	24 h/day	24 h/day	24 h/day	24 h/day	24 h/day	24 h/day
8	Total water produced	m3	1234567	1184242	1211099	1221479	1192144	1223248
9	Total sewerage treated	m3	567890	688000	719400	703400	690450	427700
10	Effluent treatment ratio	%	46	58	59	58	58	35
11	Operational actual cost coverage	%	35	143	56	48	139	106
12	Operational billed cost coverage	%	135	176	98	116	86	168
13	Actual cost coverage of O&M and electro-mechanical equipment	%	39	147	59	51	140	108
14	Billed cost coverage of O&M and electro-mechanical equipment	%	138	180	101	118	88	169
15	Personnel cost per total operational costs	%	49	69	41	51	51	76
16	Energy cost per total operational costs	%	42	20	49	38	43	3
17	Investment implementation progress	%	No Data	No Data	No Data	No Data	No Data	No Data
18	Collection efficiency	%	26	81	57	41	161	63
19	Water expenses per poor household income using up to 5 m3.	%						
20	Expenses for sewerage per poor household income using up to 5 m3.	%						
21	Average applied tariff per m3 for water billed domestic	yr/m3	141	143	140	142	144	145
22	Average total water consumption	lpcd						
23	Average domestic water consumption	lpcd						
24	Water supply services coverage	%						
25	Sewerage services coverage	%						
26	Population served with water	no						
27	Population served with sewerage	no						
28	Number of sewerage connections	no	39543	39713	39762	39947	40012	40069

Indicator Name		Unit	Ibb					
			2014/ 01	2014/ 02	2014/ 03	2014/ 04	2014/ 05	2014/ 06
1	No. of staff per 1000 water con.	no	11	11	11	11	11	11
2	No. of staff per 1000 water and sewerage con	no	6	6	6	6	6	6
3	Non-revenue water	%	27	26	27	20	19	24
4	No. of repaired leakages per no. of reported leakages	%	100	100	100	103	119	103
5	Bacteriological quality of water distributed	%	88	91	89	84	96	90
6	Effluent quality of treatment plants	%	92	91	93	93	93	94
7	Continuity of water supply	category	2 times/week	2 times/week	2 times/week	2 times/week	2 times/week	2 times/week
8	Total water produced	m3	432752	444707	432952	441969	419243	429501
9	Total sewerage treated	m3	340282	304683	338489	332052	347408	358338
10	Effluent treatment ratio	%	79	69	78	75	83	83
11	Operational actual cost coverage	%	119	134	133	127	158	91
12	Operational billed cost coverage	%	115	142	124	146	132	88
13	Actual cost coverage of O&M and electro-mechanical equipment	%	122	139	139	133	160	93
14	Billed cost coverage of O&M and electro-mechanical equipment	%	125	155	142	162	139	95
15	Personnel cost per total operational costs	%	46	54	50	52	50	63
16	Energy cost per total operational costs	%	36	37	39	34	35	25
17	Investment implementation progress	%	No Data	No Data	No Data	No Data	No Data	No Data
18	Collection efficiency	%	104	94	107	87	120	103
19	Water expenses per poor household income using up to 5 m3.	%	2	2	2	2	2	2
20	Expenses for sewerage per poor household income using up to 5 m3.	%	2	2	2	2	1	1
21	Average applied tariff per m3 for water billed domestic	yr/m3	201	200	196	200	198	195
22	Average total water consumption	lpcd	40	46	39	45	41	41
23	Average domestic water consumption	lpcd	38	44	37	43	39	39
24	Water supply services coverage	%	73	74	75	75	75	76
25	Sewerage services coverage	%	63	63	64	64	64	65
26	Population served with water	no	248446	250030	252054	253946	255365	256784
27	Population served with sewerage	no	212806	213939	215127	216557	217591	219626
28	Number of water connections		23,390	23,534	23,723	23,897	24,031	24,160
29	Number of sewerage connections	no	20139	20240	20354	20484	20584	20771

Indicator Name		Unit	Mukallah					
			2014/ 01	2014/ 02	2014/ 03	2014/ 04	2014/ 05	2014/ 06
1	No. of staff per 1000 water con.	no	18	18	18	18	18	18
2	No. of staff per 1000 water and sewerage con	no	11	11	11	11	11	11
3	Non-revenue water	%	0	36	48	44	40	41
4	Number of average monthly reported leakages per 1000 water con.	no	3	4	6	3	3	5
5	Bacteriological quality of water distributed	%	95	100	82	97	98	98
6	Effluent quality of treatment plants	%						
7	Continuity of water supply	category	12 h/day	12 h/day	12 h/day	12 h/day	12 h/day	12 h/day
8	Total water produced	m3		1117838	1203541	1254057	1299603	1235401
9	Total sewerage treated	m3						
10	Effluent treatment ratio	%						
11	Operational actual cost coverage	%	72	292	85	54	124	80
12	Operational billed cost coverage	%	136	122	99	118	122	110
13	Actual cost coverage of O&M and electro-mechanical equipment	%	71	288	88	54	123	83
14	Billed cost coverage of O&M and electro-mechanical equipment	%	132	124	103	116	120	112
15	Personnel cost per total operational costs	%	65	66	65	58	59	58
16	Investment implementation progress	%						
17	Collection efficiency	%	53	239	85	46	102	73
18	Water expenses per poor household income using up to 5 m3.	%						
19	Expenses for sewerage per poor household income using up to 5 m3.	%						
20	Average applied tariff per m3 for water billed domestic	yr/m3	141	140	142	142	144	144
21	Average total water consumption	lpcd						
22	Average domestic water consumption	lpcd						
23	Water supply services coverage	%						
24	Sewerage services coverage	%						
25	Population served with water	no						
26	Population served with sewerage	no						
27	Number of water connections	no	43578	43800	43919	43997	44358	44447
28	Number of sewerage connections	no	29787	29900	29975	30020	30226	30273

Indicator Name		Unit	Seiyun					
			2014/ 01	2014/ 02	2014/ 03	2014/ 04	2014/ 05	2014/ 06
1	No. of staff per 1000 water con.	no					12	12
2	No. of staff per 1000 water and sewerage con	no					11	11
3	Non-revenue water	%	27	28	36	34	36	37
4	Number of average monthly reported leakages per 1000 water con.	no	30	18	31		17	17
5	Bacteriological quality of water distributed	%						
6	Effluent quality of treatment plants	%						
7	Continuity of water supply	category	24 h/day	24 h/day	24 h/day	24 h/day	24 h/day	24 h/day
8	Total water produced	m3	1061715	1010494	1108655	1242855	1381594	1411685
9	Total sewerage treated	m3						
10	Effluent treatment ratio	%						
11	Operational actual cost coverage	%	89	79	102	68	101	80
12	Operational billed cost coverage	%	118	101	96	94	116	101
13	Actual cost coverage of O&M and electro-mechanical equipment	%						
14	Billed cost coverage of O&M and electro-mechanical equipment	%						
15	Personnel cost per total operational costs	%	60	57	57	57	53	54
16	Energy cost per total operational costs	%	33	31	30	27	35	36
17	Collection efficiency	%	76	78	106	73	87	79
18	Water expenses per poor household income using up to 5 m3.	%						
19	Average applied tariff per m3 for total water billed	yr/m3	94	95	94	98	99	99
20	Average applied tariff per m3 for water billed domestic	yr/m3	73	70	69	74	76	76
21	Average total water consumption	lpcd						
22	Average domestic water consumption	lpcd						
23	Water supply services coverage	%						
24	Sewerage services coverage	%						
25	Population served with water	no						
26	Population served with sewerage	no						
27	Number of water connections	no	46600	46714	46863	47017	47149	47341
28	Number of sewerage connections	no	2147	2154	2156	2155	2155	2160

Indicator Name		Unit	Amran					
			2014/ 01	2014/ 02	2014/ 03	2014/ 04	2014/ 05	2014/ 06
1	No. of staff per 1000 water con.	no						
2	No. of staff per 1000 water and sewerage con	no						
3	Non-revenue water	%	23	13	18	6	8	4
4	Number of average monthly reported leakages per 1000 water con.	no	1	1	2	1	1	1
5	Bacteriological quality of water distributed	%						
6	Effluent quality of treatment plants	%						
7	Continuity of water supply	category	3	3	3	3	3	3
8	Total water produced	m3	54467	49233	56024	54048	50371	41602
9	Total sewerage treated	m3						
10	Effluent treatment ratio	%						
11	Operational actual cost coverage	%	172	57	94	64	127	150
12	Operational billed cost coverage	%	104	67	148	73	96	183
13	Actual cost coverage of O&M and electro-mechanical equipment	%	152	54	87	62	115	130
14	Billed cost coverage of O&M and electro-mechanical equipment	%	91	62	136	68	86	158
15	Personnel cost per total operational costs	%	72	44	68	59	42	80
16	Energy cost per total operational costs	%	15	50	24	33	49	13
17	Collection efficiency	%	166	85	64	89	133	82
18	Water expenses per poor household income using up to 5 m3.	%						
19	Average applied tariff per m3 for total water billed	yr/m3	254	258	563	319	276	442
20	Average applied tariff per m3 for water billed domestic	yr/m3	201	199	192	185	197	194
21	Average total water consumption	lpcd						
22	Average domestic water consumption	lpcd						
23	Water supply services coverage	%						
24	Sewerage services coverage	%						
25	Population served with water	no						
26	Population served with sewerage	no						
27	Number of water connections	no	4362	4362	4382	4403	4403	4403
28	Number of sewerage connections	no	3087	3087	3272	3307	3303	3296

Indicator Name		Unit	Dhamar					
			2014/ 01	2014/ 02	2014/ 03	2014/ 04	2014/ 05	2014/ 06
1	No. of staff per 1000 water con.	no	15	15	15	15	15	15
2	No. of staff per 1000 water and sewerage con	no	9	10	10	10	10	10
3	Non-revenue water	%	52	46	46	33	31	30
4	Number of average monthly reported leakages per 1000 water con.	no	2	2	3	4	3	3
5	Bacteriological quality of water distributed	%						
6	Effluent quality of treatment plants	%						
7	Continuity of water supply	category	24 h/day	24 h/day	24 h/day	24 h/day	24 h/day	24 h/day
8	Total water produced	m3	414458	401562	407911	310620	316422	321200
9	Total sewerage treated	m3						
10	Effluent treatment ratio	%	68	70	69	90	88	87
11	Operational actual cost coverage	%	74	68	78	70	160	67
12	Operational billed cost coverage	%	95	104	121	97	106	109
13	Actual cost coverage of O&M and electro-mechanical equipment	%	51	46	50	48	106	45
14	Billed cost coverage of O&M and electro-mechanical equipment	%	65	71	77	66	71	73
15	Personnel cost per total operational costs	%	62	64	70	64	69	65
16	Energy cost per total operational costs	%	27	26	24	28	19	29
17	Collection efficiency	%	78	65	65	71	151	61
18	Water expenses per poor household income using up to 5 m3.	%	2	2	2	2	2	2
19	Average applied tariff per m3 for total water billed	yr/m3	185	189	186	182	183	186
20	Average applied tariff per m3 for water billed domestic	yr/m3	151	154	153	151	155	155
21	Average total water consumption	lpcd	47	56	52	50	50	54
22	Average domestic water consumption	lpcd	44	52	48	47	48	50
23	Water supply services coverage	%	55	55	56	56	56	56
24	Sewerage services coverage	%	33	33	33	33	33	33
25	Population served with water	no	129850	130053	130396	130620	131642	132146
26	Population served with sewerage	no	76783	76797	77042	77133	77378	77623
27	Number of water connections	no	19591	19642	19681	19718	19851	19907
28	Number of sewerage connections	no	11715	11737	11763	11780	11804	11826

Indicator Name		Unit	Hajjah					
			2014/ 01	2014/ 02	2014/ 03	2014/ 04	2014/ 05	2014/ 06
1	No. of staff per 1000 water con.	no	19	19	19	18	18	18
2	No. of staff per 1000 water and sewerage con	no	12	12	12	12	12	12
3	Non-revenue water	%	11	11	9	7	5	9
4	Number of average monthly reported leakages per 1000 water con.	no	4	3	3	3	3	2
5	Bacteriological quality of water distributed	%	82	76	84	100	83	83
6	Effluent quality of treatment plants	%	92			91	72	62
7	Continuity of water supply	category	1-2 time/week	1-2 time/week	1-2 time/week	1-2 time/week	1-2 time/week	1-2 time/week
8	Total water produced	m3	88120	82190	81090	82950	81000	80070
9	Total sewerage treated	m3	48894	44725	49107	47180	48690	46590
10	Effluent treatment ratio	%	55	54	61	57	60	58
11	Operational actual cost coverage	%	177	106	110	39	48	103
12	Operational billed cost coverage	%	138	119	122	123	138	147
13	Actual cost coverage of O&M and electro-mechanical equipment	%	155	94	98	203	43	89
14	Billed cost coverage of O&M and electro-mechanical equipment	%	120	105	108	109	120	125
15	Personnel cost per total operational costs	%	46	43	45	42	47	48
16	Energy cost per total operational costs	%	43	46	38	37	36	38
17	Collection efficiency	%	128	89	90	32	35	70
18	Water expenses per poor household income using up to 5 m3.	%	4	4	4	4	4	4
19	Average applied tariff per m3 for total water billed	yr/m3	468	473	457	471	478	472
20	Average applied tariff per m3 for water billed domestic	yr/m3	245	249	243	263	274	273
21	Average total water consumption	lpcd	44	45	41	44	42	41
22	Average domestic water consumption	lpcd	29	30	27	29	28	28
23	Water supply services coverage	%	93	93	94	94	95	95
24	Sewerage services coverage	%	51	51	52	52	52	52
25	Population served with water	no	55824	56032	56312	56536	56760	56832
26	Population served with sewerage	no	30848	30872	30928	31064	31136	31184
27	Number of water connections	no	7227	7255	7289	7319	7345	7340
28	Number of sewerage connections	no	4052	4057	4063	4082	4089	4087

Indicator Name		Unit	Bayt Al-Faqih					
			2014/ 01	2014/ 02	2014/ 03	2014/ 04	2014/ 05	2014/ 06
1	No. of staff per 1000 water con.	no	10	10	10	10	10	10
2	No. of staff per 1000 water and sewerage con.	no	6	6	5	5	5	5
3	Non-revenue water	%	33	38	31	32	35	40
4	No. of repaired leakages per no. of reported leakages	%	100	100	100	100	100	100
5	Bacteriological quality of water distributed	%	0	0	0	0	0	0
6	Effluent quality of treatment plants	%	100	100	100	100	100	0
7	Continuity of water supply	category	14h/day	14h/day	14h/day	14h/day	14h/day	14h/day
8	Total water produced	m3	110480	114100	113800	117030	118300	118900
9	Total sewerage treated	m3	79250	56167	65280	76485	73580	
10	Effluent treatment ratio	%	72	49	57	65	62	
11	Non-Revenue Water	m3	36839	43165	34929	37116	41394	46990
12	Operational actual cost coverage	%	62	72	70	93	37	70
13	Operational billed cost coverage	%	72	65	94	143	71	100
14	Actual cost coverage of O&M and electro-mechanical equipment	%	59	74	61	72	39	58
15	Billed cost coverage of O&M and electro-mechanical equipment	%	64	63	76	106	65	78
16	Personnel cost per total operational costs	%	32	26	37	52	29	48
17	Energy cost per total operational costs	%	26	20	26	13	45	22
18	Collection efficiency	%	87	111	75	65	52	70
19	Water expenses per poor household income using up to 5 m3.	%						
20	Average applied tariff per m3 for total water billed	yr/m3	142	136	145	144	143	141
21	Average applied tariff per m3 for water billed domestic	yr/m3	128	121	132	129	131	128
22	Average total water consumption	lpcd	0	0	0	0	0	0
23	Average domestic water consumption	lpcd	0	0	0	0	0	0
24	Water supply services coverage	%	0	0	0	0	0	0
25	Sewerage services coverage	%	0	0	0	0	0	0
26	Population served with water	no	0	0	0	0	0	0
27	Population served with sewerage	no	0	0	0	0	0	0
28	Number of water connections	no	8088	8088	8178	8236	8262	8262
29	Number of sewerage connections	no	6024	6023	6280	6313	6327	6326

Indicator Name	Unit	Al-Mokha					
		2014/ 01	2014/ 02	2014/ 03	2014/ 04	2014/ 05	2014/ 06
1 No. of staff per 1000 water con.	no	11	11	11	11	11	12
2 No. of staff per 1000 water and sewerage con	no	11	11	11	11	11	12
3 Non-revenue water	%	25	30	22	23	21	21
4 No. of repaired leakages per no. of reported leakages	%	67	100	50		100	
5 Bacteriological quality of water distributed	%						
6 Effluent quality of treatment plants	%						
7 Continuity of water supply		24h/day	24h/day	24h/day	24h/day	24h/day	24h/day
8 Total water produced	m3	47372	49308	43832	50725	53202	54826
9 Total sewerage treated	m3	No Data	No Data	No Data	No Data	No Data	No Data
10 Effluent treatment ratio	%	0	0	0	0	0	0
11 Non-Revenue Water	m3	11953	15019	9434	11517	11344	11498
12 Operational actual cost coverage	%	113	107	150	100	69	100
13 Operational billed cost coverage	%	147	115	73	135	80	165
14 Actual cost coverage of O&M and electro-mechanical equipment	%	661	104	147	105	70	114
15 Billed cost coverage of O&M and electro-mechanical equipment	%	138	109	72	135	80	172
16 Personnel cost per total operational costs	%	76	69	43	65	36	68
17 Energy cost per total operational costs	%	18	16	10	17	14	1
18 Collection efficiency	%	77	93	207	74	85	61
19 Water expenses per poor household income using up to 5 m3.	%	1	1	1	1	1	1
20 Average applied tariff per m3 for total water billed	yr/m3	159	157	158	167	161	182
21 Average applied tariff per m3 for water billed domestic	yr/m3	107	101	104	110	111	112
22 Average total water consumption	lpcd	65	69	63	74	76	80
23 Average domestic water consumption	lpcd	59	63	57	67	69	74
24 Water supply services coverage	%	102	102	102	103	103	104
25 Sewerage services coverage	%	0	0	0	0	0	0
26 Population served with water	no	16051	16128	16163	16240	16268	16429
27 Population served with sewerage	no	0	0	0	0	0	0
28 Number of water connections	no	2507	2521	2525	2540	2543	2570
29 Number of sewerage connections	no	0	0	0	0	0	0

Indicator Name		Unit	Al-Shaher					
			2014/ 01	2014/ 02	2014/ 03	2014/ 04	2014/ 05	2014/ 06
1	No. of staff per 1000 water con.	no	11	11	11	10	10	10
2	No. of staff per 1000 water and sewerage	no	7	7	7	7	7	7
3	Non-revenue water	%	35	35	44	40	37	33
4	No. of repaired leakages per no. of reported leakages	%	No Data	No Data	No Data	No Data	No Data	No Data
5	Bacteriological quality of water distribution	%	No Data	No Data	No Data	No Data	No Data	No Data
6	Effluent quality of treatment plants	%	No Data	No Data	No Data	No Data	No Data	No Data
7	Continuity of water supply		24h/day	24h/day	24h/day	24h/day	24h/day	24h/day
8	Total water produced	m3	293338	275938	307257	298554	321139	300180
9	Total sewerage treated	m3	No Data	No Data	No Data	No Data	No Data	No Data
10	Effluent treatment ratio	%	0	0	0	0	0	0
11	Non-Revenue Water	m3	104023	96034	134527	120134	118271	99532
12	Operational actual cost coverage	%	76	219	89	62	94	117
13	Operational billed cost coverage	%	107	116	128	105	126	125
14	Actual cost coverage of O&M and electro-mechanical equipment	%	72	200	82	59	89	109
15	Billed cost coverage of O&M and electro-mechanical equipment	%	99	106	117	98	118	116
16	Personnel cost per total operational cost	%	63	62	64	65	63	59
17	Energy cost per total operational costs	%	30	17	28	26	27	26
18	Collection efficiency	%	71	189	69	60	75	94
19	Water expenses per poor household income using up to 5 m3.	%	0	0	0	0	0	0
20	Average applied tariff per m3 for total water billed	yr/m3	125	140	146	137	144	140
21	Average applied tariff per m3 for water billed domestic	yr/m3	95	111	115	116	118	117
22	Average total water consumption	lpcd	0	0	0	0	0	0
23	Average domestic water consumption	lpcd	0	0	0	0	0	0
24	Water supply services coverage	%	0	0	0	0	0	0
25	Sewerage services coverage	%	0	0	0	0	0	0
26	Population served with water	no	0	0	0	0	0	0
27	Population served with sewerage	no	0	0	0	0	0	0
28	Number of water connections	no	14047	14084	14102	14120	14149	14215
29	Number of sewerage connections	no	6882	6895	6900	6943	6952	6962

Indicator Name		Unit	Yarim					
			2014/ 01	2014/ 02	2014/ 03	2014/ 04	2014/ 05	2014/ 06
1	No. of staff per 1000 water con.	no	17	17	17	17	17	17
2	No. of staff per 1000 water and sewera	no	10	10	9	9	9	9
3	Non-revenue water	%	12	15	19	20	16	25
4	No. of repaired leakages per no. of reported leakages	%	117	100	140	100	100	100
5	Bacteriological quality of water distrib	%	No Data	No Data	No Data	No Data	No Data	No Data
6	Effluent quality of treatment plants	%	33	33	33	33	33	33
7	Continuity of water supply		2 time/month	2 time/month	2 time/month	2 time/month	2 time/month	2 time/month
8	Total water produced	m3	42868	43483	43433	37260	41389	41674
9	Total sewerage treated	m3	27848	30632	29036	29878	31052	34888
10	Effluent treatment ratio	%	65	70	67	80	75	84
11	Non-Revenue Water	m3	5099	6620	8297	7495	6579	10357
12	Operational actual cost coverage	%	79	73	105	78	21	58
13	Operational billed cost coverage	%	104	83	94	81	29	62
14	Actual cost coverage of O&M and electro-mechanical equipment	%	68	65	93	74	22	54
15	Billed cost coverage of O&M and electro-mechanical equipment	%	89	73	80	74	28	55
16	Personnel cost per total operational c	%	65	57	71	64	22	50
17	Energy cost per total operational costs	%	10	19	16	10	6	27
18	Collection efficiency	%	76	88	112	96	71	93
19	Water expenses per poor household income using up to 5 m3.	%	0	0	0	0	0	0
20	Average applied tariff per m3 for total water billed	yr/m3	205	199	190	216	193	196
21	Average applied tariff per m3 for water billed domestic	yr/m3	196	191	184	208	184	187
22	Average total water consumption	lpcd	0	0	0	0	0	0
23	Average domestic water consumption	lpcd	0	0	0	0	0	0
24	Water supply services coverage	%	0	0	0	0	0	0
25	Sewerage services coverage	%	0	0	0	0	0	0
26	Population served with water	no	0	0	0	0	0	0
27	Population served with sewerage	no	0	0	0	0	0	0
28	Number of water connections	no	5275	5274	5285	5315	5318	5331
29	Number of sewerage connections	no	4298	4305	4316	4332	4340	4361

Indicator Name		Unit	Zabid					
			2014/ 01	2014/ 02	2014/ 03	2014/ 04	2014/ 05	2014/ 06
1	No. of staff per 1000 water con.	no	12	12	12	12	12	12
2	No. of staff per 1000 water and sewerage	no	6	6	6	6	6	6
3	Non-revenue water	%	22	23	24	26	25	22
4	No. of repaired leakages per no. of reported leakages	%	100	100	100	100	100	100
5	Bacteriological quality of water distribution	%	0	0	0	0	0	0
6	Effluent quality of treatment plants	%	100	100	100	100	100	100
7	Continuity of water supply		6h/day	6h/day	6h/day	6h/day	6h/day	6h/day
8	Total water produced	m3	61560	61960	57090	67430	61530	58060
9	Total sewerage treated	m3	31220	33601	24520	20820	18110	39640
10	Effluent treatment ratio	%	51	54	43	31	29	68
11	Non-Revenue Water	m3	13750	14358	13550	17652	15446	12789
12	Operational actual cost coverage	%	156	80	99	118	77	1
13	Operational billed cost coverage	%	189	68	97	121	97	1
14	Actual cost coverage of O&M and electro-mechanical equipment	%	118	73	87	105	66	48
15	Billed cost coverage of O&M and electro-mechanical equipment	%	139	61	83	106	82	46
16	Personnel cost per total operational cost	%	20	32	51	58	57	44
17	Energy cost per total operational costs	%	0	0	0	0	0	0
18	Collection efficiency	%	83	117	101	97	79	100
19	Water expenses per poor household income using up to 5 m3.	%	0	0	0	0	0	0
20	Average applied tariff per m3 for total water billed	yr/m3	179	192	194	178	177	
21	Average applied tariff per m3 for water billed domestic	yr/m3	154	165	164	158	156	163
22	Average total water consumption	lpcd	0	0	0	0	0	0
23	Average domestic water consumption	lpcd	0	0	0	0	0	0
24	Water supply services coverage	%	0	0	0	0	0	0
25	Sewerage services coverage	%	0	0	0	0	0	0
26	Population served with water	no	0	0	0	0	0	0
27	Population served with sewerage	no	0	0	0	0	0	0
28	Number of water connections	no	5349	5365	5383	5398	5416	5428
29	Number of sewerage connections	no	4502	4509	4518	4532	4540	4543

Indicator Name		Unit	Al-Mansouriah					
			2014/01	2014/02	2014/03	2014/04	2014/05	2014/06
1	No. of staff per 1000 water con.	no	10	10	10	10	10	11
2	No. of staff per 1000 water and sewerage con.	no	10	10	10	10	10	11
3	Non-revenue water	%	27		29	32	29	16
4	No. of repaired leakages per no. of reported leakages	%	0	0	0	0	500	0
5	Bacteriological quality of water distributed	%	0	0	0	0	0	0
6	Continuity of water supply		8h/day	8h/day	8h/day	8h/day	8h/day	8h/day
7	Total water produced	m3	24,869	26,240	25,464	29,859	29,431	29,714
8	Effluent treatment ratio	%	0	0	0	0	0	0
9	Non-Revenue Water	m3	6,686		7,303	9,587	8,589	4,760
10	Operational actual cost coverage	%	90	150	70	131	70	99
11	Operational billed cost coverage	%	94	368	75	151	87	176
12	Actual cost coverage of O&M and electro-mechanical equipment	%	80	127	64	111	65	86
13	Billed cost coverage of O&M and electro-mechanical equipment	%	83	310	68	127	81	152
14	Personnel cost per total operational costs	%	73	94	60	82	57	92
15	Energy cost per total operational costs	%	10		8		35	
16	Collection efficiency	%	96	41	94	87	81	56
17	Water expenses per poor household income using up to 5 m3.	%	1	1	1	1	1	1
18	Average applied tariff per m3 for water billed domestic	yr/m3	121	157	124	127	126	137
19	Average total water consumption	lpcd	31	74	31	36	35	43
20	Average domestic water consumption	lpcd	31	70	29	35	34	41
21	Water supply services coverage	%	0	0	0	0	0	0
22	Sewerage services coverage	%	0	0	0	0	0	0
23	Population served with water	no	17,808	17,892	17,997	18,144	18,214	18,249
24	Population served with sewerage	no	0	0	0	0	0	0
25	Number of water connections	no	2,666	2,681	2,696	2,717	2,727	2,733
26	Number of sewerage connections	no	0	0	0	0	0	0