

## Summary Report

# Performance Monitoring of Urban Water Supply and Sanitation Utilities

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### Semi Annual Report (January – June 2012)

Water Sector Program  
Component 1 – Coordination of  
Emergency Measures

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## Background

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The German water program – component 1 is reporting for the period January –June 2012 as a continuous process of monitoring the performance of UWSS utilities before, during and after the crisis, and already had issued the report for the year 2011 related to the performance of the water local corporations and autonomous Utilities and the impacts due to the political crisis in Yemen. The results attained encouraged the WSP arranging for a workshop “Performance Report 2011 for Urban Water Supply and Sanitation Sector” held on 20<sup>th</sup> June 2012 - Sana’a and inaugurated by the Deputy Minister. The workshop emphasized on the significance of the performance reporting and enhancing methods of cooperation through periodic PIIS data submission by the Utilities to the WP. The WP-Component 1 emphasized for its part the continuity of following-up the performance via various means and PIIS in particular. The established working group discussed issues related to causes of bad results and role of PIIS as management tool.

The purpose of performance monitoring is to trace the trends of performance for utilities in terms of operational, financial and administrative aspects. To do so, a monthly follow up of data and indicators is needed to mark utilities that are underperforming. Although LCs and utilities were induced and agreed to exchange data with WP on monthly basis, however some LCs and utilities unfortunately are not in the position to comply with this agreement. We can attribute these factors mostly to:

- Lack of cooperation harmony between different departments with PIIS unit and the utilities management.
- Unknown date of closing financial transactions and accounts while official date of closing accounts expected to be on the fifteen of the next month.
- Some of technical dilemmas faced by the PIIS administrator like power interruption for long periods, lack of office and stationery equipment that required to be upgraded.

It is obvious that the reader of this report will derive incomplete data for some utilities for the above reasons. We hope that the PIIS administrators in utilities will exercise pressure on the management to improve the sequence of data flow between departments and commit that all related data (automated and manual) are exported to PIIS on time.

Finally, this report covers the period between January to June 2012 through which we can measure the performance trends of the utilities in the period after the crisis, and how the situation has improved in some utilities, and remained as it is in other utilities which raises here some questions about whether the improved performance of some utilities were a result of quasi-political and security stability in the country or an emergency measures had been taken by the managers to tackle the administrative impediments .

## Reporting Process

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The German Water Program adopted the PIIS (Performance indicators Information System) as monitoring tool installed in all the LCs and Utilities since Comp. 1 report of 2011 ,some LCs and utilities are still not included for reasons related to functionality and accessibility to these Utilities like Abyan ,Lahj ,Al-Dalea and Yareem and The report is limited to utilities in the table below :

**Table 1: LCs and Utilities –PIIS reports**

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

As a reminder, the same key indicators (below) had been selected to measure the performance in respect to financial, administrative and operational capacity of the utility, and we were able by the results of these indicators to some extent to determine the pattern of performance of the utilities and areas of success and weaknesses.

- Collection Efficiency for Domestic, Commercial & Government Connection
- Non-Revenue Water
- Operational Actual Cost Coverage
- Continuity of Water Supply

The WSP represented by Comp. 1 is keen to keep this information subjected to plausibility and reliability check by sharing it with the utilities to revise the results for clearance. Then we disseminate the report to all stakeholders and if possible discuss the results in a workshop event or something similar.

## Analysis of Performance Indicators of urban WSS utilities

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The average of indicators for the first half of 2012 (January – June) used. PIIS data collection from utilities was followed up. However, due to the slow response from utilities and incorrect data entry, some figures are inconsistent which will explain in the below analysis for each utility.

### Sana'a

- Collection Efficiency
  1. Domestic collection: shows a marked improvement from 68% in 2011 to 77% in 2012. The improvement in collection revenues is a result of improved water supply services in the beginning of 2012.
  2. Governmental collection: drops from 56% in 2011 to 49% in 2012.
  3. Commercial: increased steadily from 54% in 2011 to 70% in 2012 due to improved service provision.
- Operational actual cost coverage: increased slightly from 83% in 2011 to 87% in 2012.
- Non-Revenue Water: increased significantly to 49% in 2012 compared to 32% in 2011.
- Continuity of water supply: stays in the same level of 2011 for 3-4 times per month.

### Aden

- Collection Efficiency
  1. Domestic collection: shows no significant improvement in the domestic collection from the previous year. The domestic collection efficiency is 52% in 2011 and 2012.
  2. Governmental collection: increased considerably from 28% in 2011 to 62% in 2012.
  3. Commercial: increased from an average of 83% in 2011 to 91% in 2012.
- Operational actual cost coverage: had increased significantly from an average of 71% in 2011 to 87% in 2012.
- Non-Revenue Water: increased slightly from 33% to 34% in 2011..
- Continuity of water supply: decreases from 14 – 16 hours a day in the beginning of the year to 5 -8 hours a day due to the continuous electricity cuts.

### Taiz

- Collection Efficiency
  1. Domestic collection: A slight decrease of 2% from 2011 to reach 70% in 2012 compared to 72% in 2011.
  2. Governmental collection: decreases dramatically from 93% in 2011 to 71% in 2012.
  3. Commercial: increases by 6% over the last year to become 72% in 2012 compared to 66% in 2011.
- Operational actual cost coverage: decreases from 86% in 2011 to 69% in 2012.
- Non-Revenue Water: improves slightly from 21% to 20% in 2011.

- Continuity of water supply: improves in the last two months May and June to reach once a month where it was one every two months in 2011 and the first four months in 2012.

### Mukala

- Collection Efficiency
  1. Domestic collection: increases slightly from 87% in 2011 to 91% in 2012.
  2. Governmental collection: increases incredibly from 70% in 2011 to 135% in 2012.
  3. Commercial: drops slightly to 83% in 2012 compared to 85% in 2011.
- Operational actual cost coverage: increased significantly by 46% from 2011 to be 135% in 2012.
- Non-Revenue Water: increased 5% in average from 35% 2011 to 40% in 2012.
- Continuity of water supply: is constantly supplied at a rate of 8 hours daily till June.

### Hodeidah

- Collection Efficiency
  1. Domestic collection: increased remarkably from 69% in 2011 to 82% in 2012.
  2. Governmental collection: improved significantly to 65% in 2012 from 15% in 2011.
  3. Commercial: increased 4% in average from 76% in 2011 to 80% in 2012.
- Operational actual cost coverage: was significantly increased from 51% in 2011 to 86% in 2012.
- Non-Revenue Water: decreased in average from 44% 2011 to 40% in 2012.
- Continuity of water supply: 24hours a day.

### Dhamar

- Collection Efficiency
  1. Domestic collection: increased to 93% in 2012 compared to 82% in 2011.
  2. Governmental collection: improved remarkably to 142% in 2012 compared to 41% in 2011.
  3. Commercial: increased slightly by 1% to be 82% in 2012.
- Operational actual cost coverage: improved from 67% in 2011 to 91% in 2012.
- Non-Revenue Water: decreased by 2% in average from 48% 2011 to 46% in 2012.
- Continuity of water supply: 20-24 hours a day.

### Rada'a

- Collection Efficiency
  1. Domestic collection: remained in the same rate of 84% for 2011 and 2012.
  2. Governmental collection: declined from 10% in 2011 to 7% in 2012.
  3. Commercial: decreased from 93% in 2011 to 79% in 2012.

- Operational actual cost coverage: improved to reach 100% in 2012 compared to 89% in 2011.
- Non-Revenue Water: increased significantly by 10% in 2012 which was 22% in 2011 compared to 33% in 2012.
- Continuity of water supply: supplied to the customer one time a week in average.

**Al Mansouriah** did not provide complete data in 2012. The analysis will build on submitted data from utility.

- Collection Efficiency
  1. Domestic collection: showed a slight improvement to reach 100% in March 2012 compared to the average of 96% in 2011.
  2. Governmental collection: In January 2012 it was 1% compared to the average of 5% in 2011.
  3. Commercial: increased 5% in the first three months in 2012 to reach 99% compared to 94% in 2011.
- Operational actual cost coverage: increased significantly by 73% in average till May 2012 reached to 159% compared to 86% in 2011
- Non-Revenue Water: increased slightly 1% to reach 18% in 2012.
- Continuity of water supply: no data submitted from utility for 2012

### **Ibb**

- Collection Efficiency
  1. Domestic collection: increased 10% in 2012 to reach 96%
  2. Governmental collection: decreased dramatically from 46% in 2011 to 8% in 2012.
  3. Commercial: increased to 91% in 2012 compared to 80% in 2011.
- Operational actual cost coverage: stayed above 100% in both years with 9% increase in 2012 compared to 2011.
- Non-Revenue Water: increased 2% in average from 23% in 2011 to 24% in 2012.
- Continuity of water supply: 24hours a day.

### **Al-Sheher**

- Collection Efficiency
  1. Domestic collection: decreased by 1% from 90% in 2011 compared to 89% in 2012.
  2. Governmental collection: showed double increments from 52% in 2011 to 104% in 2012. The collection efficiency reached to 100% in February 2012.
  3. Commercial: dropped by 9% from 75% in 2011 compared to 67% in 2012.
- Operational actual cost coverage: increased by 10% in average in 2012. The cost coverage reached to 100% in January and February decreased in the following months due to the decrease of collection efficiency. .
- Non-Revenue Water: increased by 4% in 2012 to reach 30%.
- Continuity of water supply: supplied 18 hours a day.

### Seyuon

- Collection Efficiency
  1. Domestic collection: increased 3% in average to reach 85% in 2012.
  2. Governmental collection: dropped from 68% in 2011 to 49% in 2012. It is usual to collect the bills of last year in March.
  3. Commercial: increased slightly from 78% 2011 to 82% 2012.
- Operational actual cost coverage: dropped by 2% from 91% in 2011 to 89% in 2012.
- Non-Revenue Water: increased by 1% to reach 30% in 2012.
- Continuity of water supply: in average supplied 24 hours a day.

### Mocha

- Collection Efficiency
  1. Domestic collection: declined from 102% 2011 to 92% in 2012.
  2. Governmental collection: dropped from 40% in 2011 to 34% in 2012.
  3. Commercial: dropped from 101% in 2011 to 89% in 2012.
- Operational actual cost coverage: declined from 86% in 2011 to 68% in 2012 as a result of low collection efficiency. It reached to 100% in January to reflect the higher collection efficiency from domestic and commercial customers that ranged from 100-120%.
- Non-Revenue Water: improved slightly by 2% from 23% in 2011 to 21% 2012.
- Continuity of water supply: 24 hours a day.

### Zabid

- Collection Efficiency
  1. Domestic collection: decreased slightly by 1% in average of 100% 2012 compared to 101% 2011.
  2. Governmental collection: dropped 12% from 33% 2011 to 21 % in 2012.
  3. Commercial: decreased from 96% for 2011 and to 92% in 2012.
- Operational actual cost coverage: increased from 89% in 2011 to 145% in 2012. The good collection efficiency in January, February, March, May and June reached to 100% for domestic and commercial customers reflected positively to improve the operational cost coverage in average and in these months to reach 100%.
- Non-Revenue Water: increased slightly from 19% in 2011 to 21% in 2012.
- Continuity of water supply: 24 hours a day.

### Bajil

- Collection Efficiency
  1. Domestic collection: improved 13% in average to reach 95% in 2012 compared to 82% in 2011.
  2. Governmental collection: increased unexpectedly from 80% in 2011 to 503% in 2012.
  3. Commercial: increased from 84% in 2011 to 105% in 2012.
- Operational actual cost coverage: increased by 66% in average to reach 144% in 2012 compared to 78% in 2011.
- Non-Revenue Water: increased by 3% in 2012 to reach 26 %.
- Continuity of water supply: no data available

### Bait Alfaqih

- Collection Efficiency
  1. Domestic collection: increased slightly from 82% in 2011 to 84% in 2012.
  2. Governmental collection: dropped significantly from 84% 2011 to 8% in 2012.
  3. Commercial: increased by 1% from 94% in 2011 to 95% in 2012.
- Operational actual cost coverage: decreased to 69% in 2012 and was 93% in 2011 due to the low collection efficiency
- Non-Revenue Water: improved by 2% in 2012 from 22% in 2011 compared to 20% in 2012.
- Continuity of water supply: stayed at the same level of 15 hours per day

### AlMahweet

- Collection Efficiency
  1. Domestic collection: increased by 4% in average and reached to 81% in 2012 compared to 77% 2011.
  2. Governmental collection: decreased dramatically from 51% in 2011 compared to only 10% in 2012. The utilities have the lowest collection efficiency from government and collected 10% of revenues in 2012 compared to 51% in 2011.
  3. Commercial: increased to 88% in 2012 compared to 69% in 2011.
- Operational actual cost coverage: decreased sharply from an annual average of 61% 2011 to 45% in 2012 as a result of low collection efficiency.
- Non-Revenue Water: increased by 3% in average to reach 26% compared to 23% in 2011
- Continuity of water supply: 24 hours for a day in a month.



## Hajjah

- Collection Efficiency
  1. Domestic collection: Increased steadily by 16% in average to reach 100% in March and June 2012.
  2. Governmental collection: increased remarkably to 191% in 2012 compared to 2011 (62%). April and June reached to 100% of collection efficiency.
  3. Commercial: increased significantly from 97% in 2011 to 129% in 2012.
- Operational actual cost coverage: increased 69% in average in 2012 compared to 2011 as a result of improved collection efficiency from domestic, commercial and government customers.
- Non-Revenue Water: dropped significantly from 15% 2011 to 10% 2012.
- Continuity of water supply: Once a week.

## Amran

- Collection Efficiency
  1. Domestic collection: stayed in a good level of more than 100% in 2011 and 2012.
  2. Governmental collection: increased from 24% in 2011 to 68% in 2012. It reached to the highest level in April with 100%.
  3. Commercial: increased significantly to 112% in 2012 compared to 82% 2011.
- Operational actual cost coverage: increased considerably in February and March 2012 to reach the average of 271% in the first six months of 2012 compared to 2011.
- Non-Revenue Water: increased to 29 % in 2012 compared to 20% in 2011.
- Continuity of water supply: no data available

## Conclusion

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The report covers the first half of 2012 (from January to June) and compared with the performance report findings of 2011 (during crisis). The difficulty of obtaining complete and correct data is the main obstacle that discussed in a workshop attended by utilities managers and PIIS administrator on 20 June 2011. Although it was agreed to submit the data on 15<sup>th</sup> of the next month, some utilities did not meet this date or submitted missed data. Component 1 adapted different methods to follow up the collection of data to report utilities' performance to assess their performance and compare it with 2011 findings. All data indicators in this report came from the source of PIIS. Except for the indicator that relates to the water supply services, a questionnaire had been used for this purpose.

The overall performance of the utilities in 2012 were satisfactory results and reached a semiannual average performance to 94% in contrast with the outcome of the past year 2011 which are estimated by 74% as a result of the crisis and its consequences related to electricity cuts and shortage of fuel.

Even though the indicators demonstrate positive results for the year 2012 in collection efficiency, operational actual cost coverage, continuity of water supply, the dramatic increase of Non-water revenue with overall average of 29% shows an alarming increase especially for Sana'a, Mukala, Hodeidah and Dhamar.

The utilities that were able to cover its operational cost are Mukala, Rada'a, Al-Mansouriah, Zabid, Bajil, Hajjah and Amran. Although, Aden covered 97% of its operational cost with lower collection efficiency for domestic customer, it cannot be ranked as good performer because it covered it from its depreciation account.

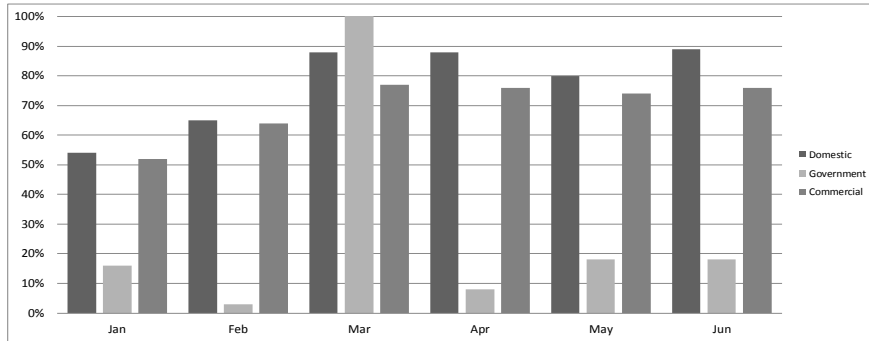
Utilities which reached a high level of performance reached to average 100% in 2012 are Mukala, Dhamar, Bajil, Hajjah and Amran. However, the financial difficulties of Al-Mahweet related to collecting debts and high operational costs are the reasons of its lowest performance. These obstacles should be solved at the local and national levels to ensure financial viability of utilities to provide sustainable services.

GIZ is working with the Ministry of Water and Environment and other stakeholders to assess the emergency needs of utilities to provide improved services. It is looking to areas of coordination with MWE and provides the technical support for activating PIIS unit and regenerating the process of monitoring and evaluation the performance of the urban sector.

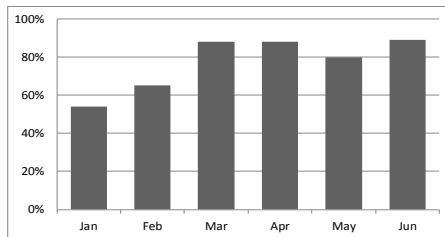
## Annex 1

Sana'a LC Jan-June 2012

### 1 Collection Efficiency for Domestic, Government & Commercial

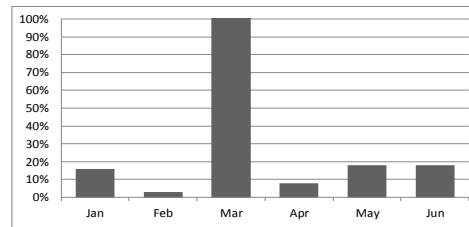


### 2 Collection Efficiency for Domestic



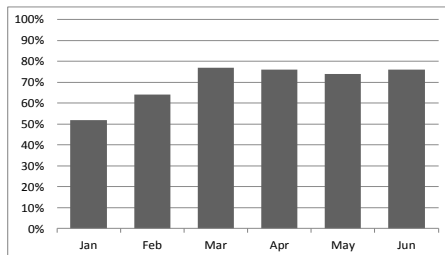
average 2011: 68%  
average 2012: 77%

### 3 Collection Efficiency for Government



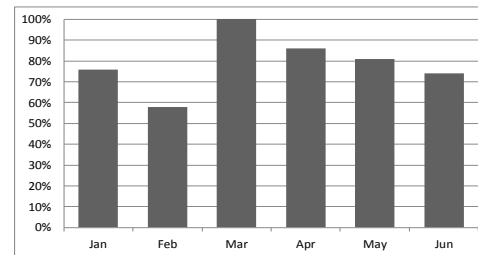
average 2011: 56%  
average 2012: 49%

### 4 Collection Efficiency for Commercial



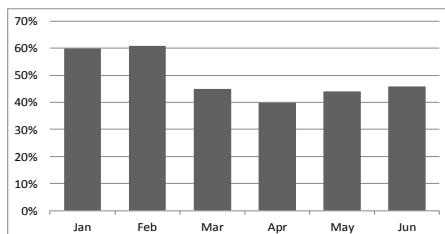
average 2011: 54%  
average 2012: 70%

### 5 Operational Actual Cost Coverage



average 2011: 83%  
average 2012: 87%

### 6 Non Revenue Water



average 2011: 32%  
average 2012: 49%

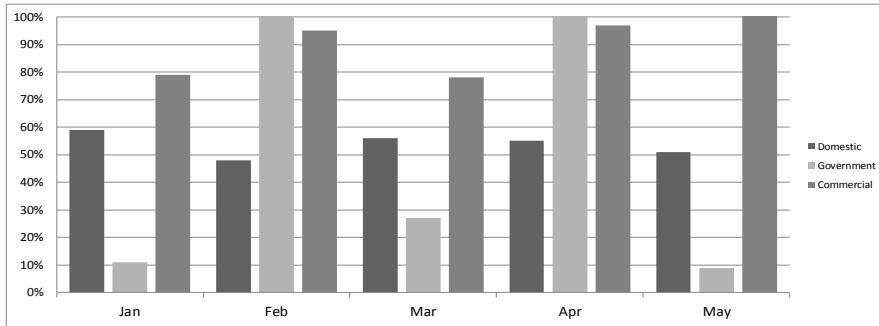
### 7 Continuity of Water Supply

Month	Daily	Weekly		Monthly	
	Hours/Day	Hours/Day	Day/Week	Hours/Day	Day/Month
Jan		5	1	5	3
Feb		5	1	5	3
Mar		5	1	5	4
April		5	1	5	4
May		5	1	5	3
June		5	1	5	4

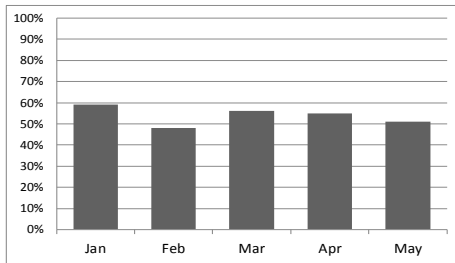
Comment :

## Aden Jan-June 2012

### 1 Collection Efficiency for Domestic, Government & Commercial

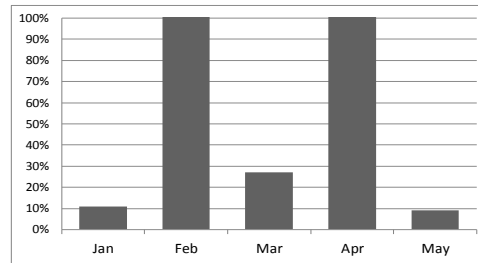


### 2 Collection Efficiency for Domestic



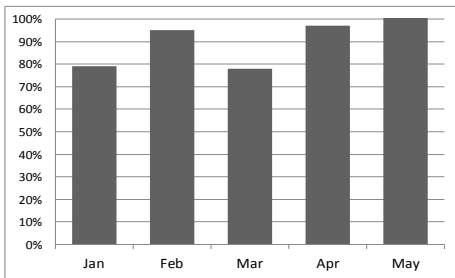
average 2011 52%  
average 2012 52%

### 3 Collection Efficiency for Government



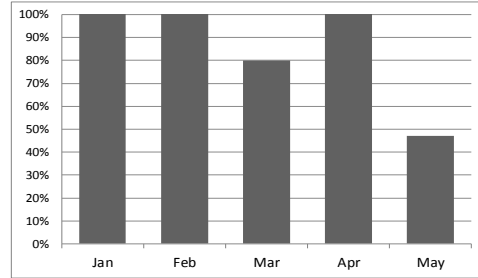
average 2011:28%  
average 2012: 62%

### 4 Collection Efficiency for Commercial



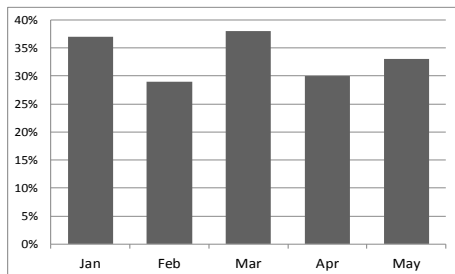
average 2011 83%  
average 2012 91%

### 5 Operational Actual Cost Coverage



average 2011:71%  
average 2012:87%

### 6 Non Revenue Water



average 2011 33%  
average 2012 34%

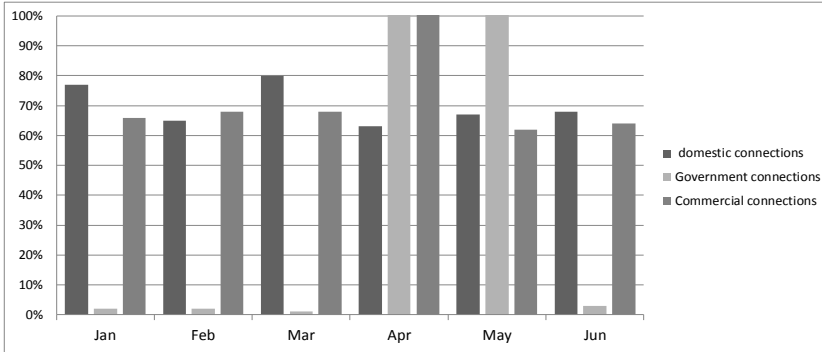
### 7 Continuity of Water Supply

Month	Daily	Weekly		Monthly	
	Hours/Day	Hours/Day	Day/Week	Hours/Day	Day/Month
Jan	14-16				
Feb	14-16				
Mar	14-16				
April	14-16				
May	8 - 10				
June	5 - 8				

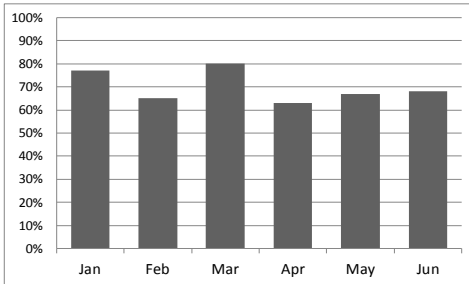
Comment

## Taiz Jan-June 2012

### 1 Collection Efficiency for Domestic, Government & Commercial

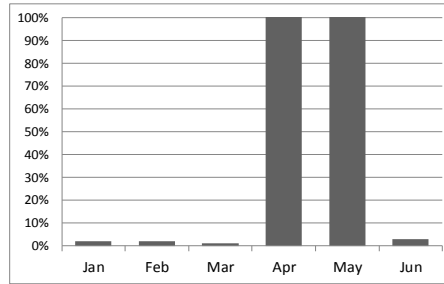


### 2 Collection Efficiency for Domestic



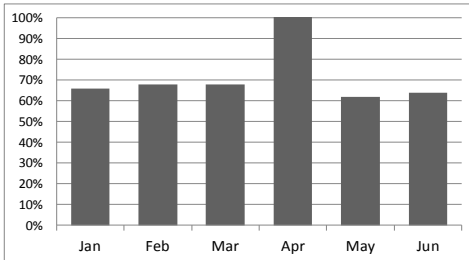
average 2011: 72%  
average 2012: 70%

### 3 Collection Efficiency for Government



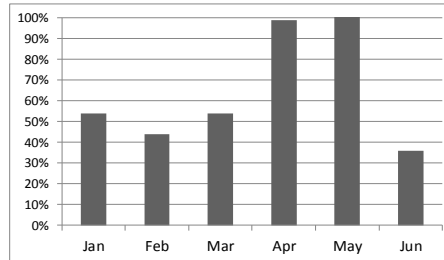
average 2011: 93%  
average 2012: 71%

### 4 Collection Efficiency for Commercial



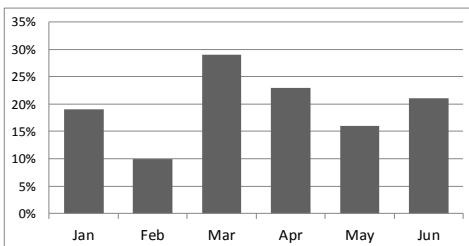
average 2011: 60%  
average 2012: 72%

### 5 Operational Actual Cost Coverage



average 2011: 86%  
average 2012: 69%

### 6 Non Revenue Water



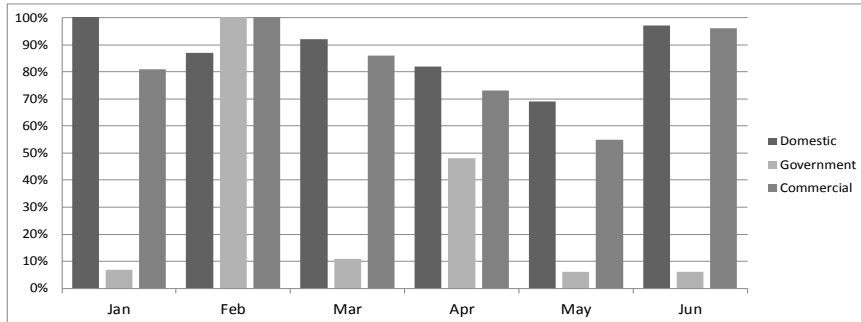
average 2011: 21%  
average 2012: 20%

### 7 Continuity of Water Supply

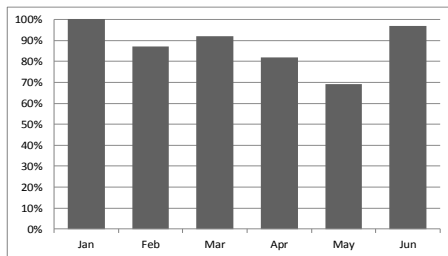
Month	Monthly		Two Months	
	Hours/Day	Day/Month	Hours/Time	Time/Two months
Jan			75	1
Feb			75	1
Mar			80	1
April			80	1
May	90	1		
June	90	1		

Comment :

**1 Collection Efficiency for Domestic, Government & Commercial**

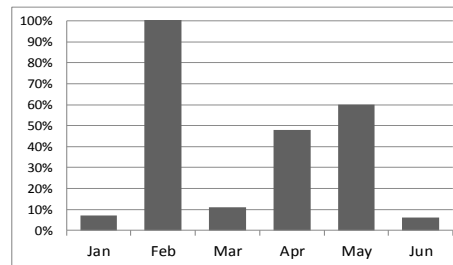


**2 Collection Efficiency for Domestic**



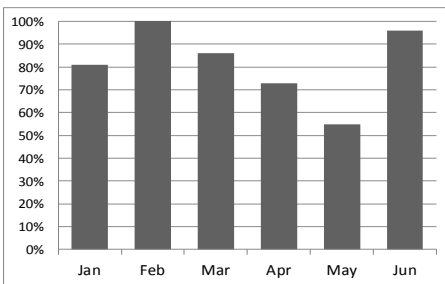
average 2011: 87%  
average 2012: 91%

**3 Collection Efficiency for Government**



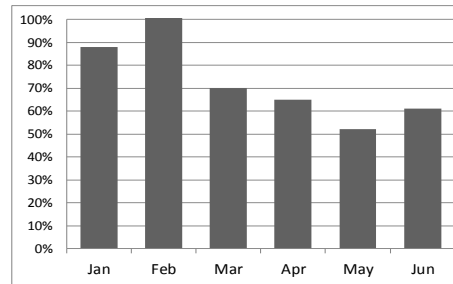
average 2011: 70%  
average 2012: 135%

**4 Collection Efficiency for Commercial**



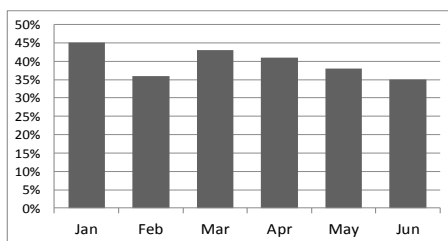
average 2011: 87%  
average 2012: 85%

**5 Operational Actual Cost Coverage**



average 2011: 103%  
average 2012: 135%

**6 Non Revenue Water**



average 2011: 35%  
average 2012: 40%

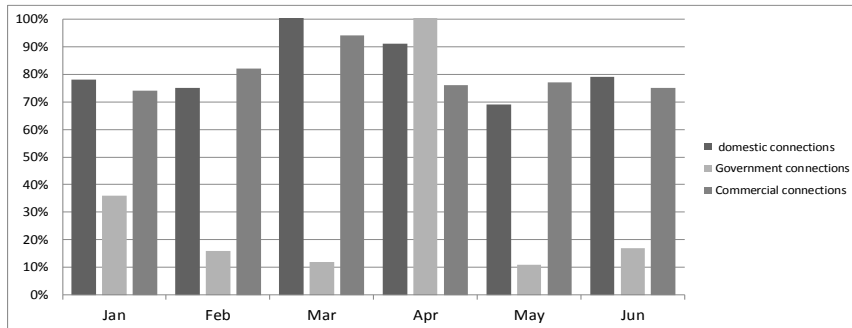
**7 Continuity of Water Supply**

Month	Daily	Weekly		Monthly	
	Hours/Day	Hours/Day	Day/Week	Hours/Day	Day/Month
Jan	12				
Feb	12				
Mar	12				
April	8				
May	8				
June	8				

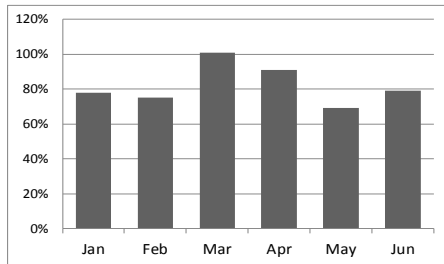
Comment

## Hodeidah Jan-June 2012

### 1 Collection Efficiency for Domestic, Government & Commercial

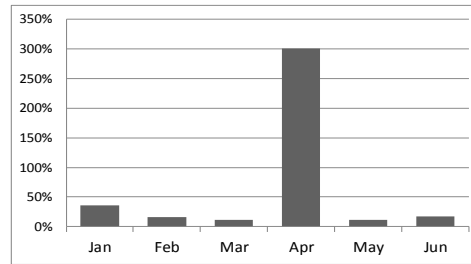


### 2 Collection Efficiency for Domestic



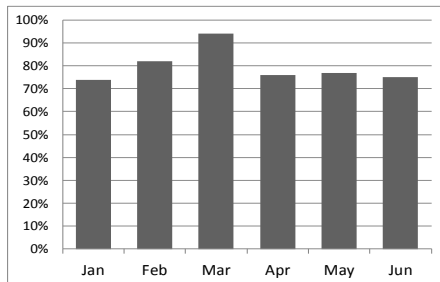
average 2011: 69%  
average 2012: 82%

### 3 Collection Efficiency for Government



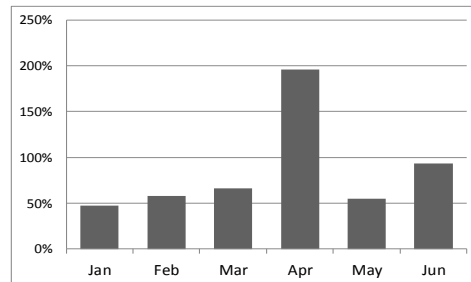
average 2011: 15%  
average 2012: 65%

### 4 Collection Efficiency for Commercial



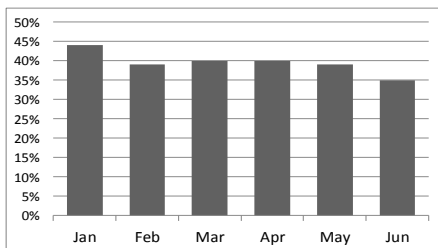
average 2011: 76%  
average 2012: 80%

### 5 Operational Actual Cost Coverage



average 2011: 51%  
average 2012: 86%

### 6 Non Revenue Water



average 2011: 44%  
average 2012: 40%

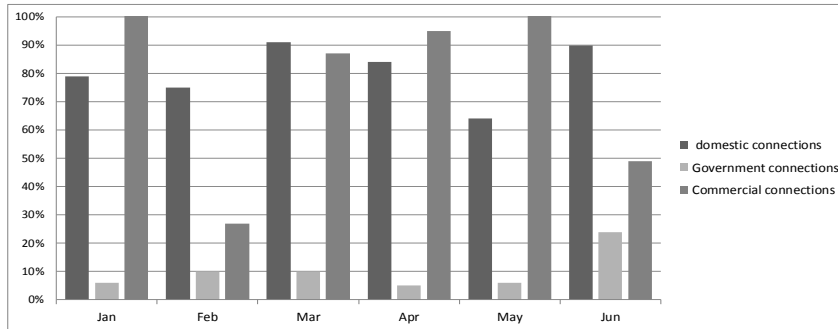
### 7 Continuity of Water Supply

Month	Daily	Weekly		Monthly	
	Hours/Day	Hours/Day	Day/Week	Hours/Day	Day/Month
Jan	24				
Feb	24				
Mar	24				
April	24				
May	24				
June	24				

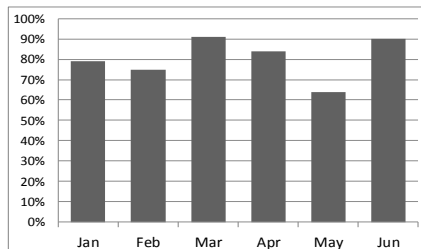
Comment :

## Al-Mahweet Jan-June 2012

### 1 Collection Efficiency for Domestic, Government & Commercial

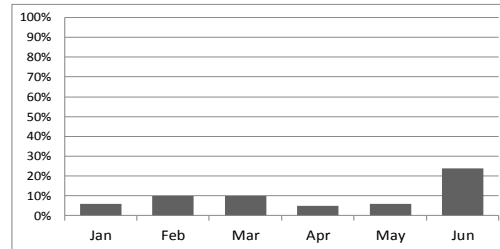


### 2 Collection Efficiency for Domestic



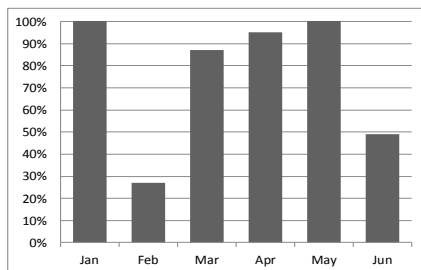
average 2011: 77%  
average 2012: 81%

### 3 Collection Efficiency for Government



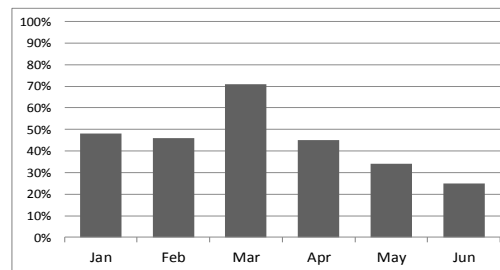
average 2011: 51%  
average 2012: 10%

### 4 Collection Efficiency for Commercial



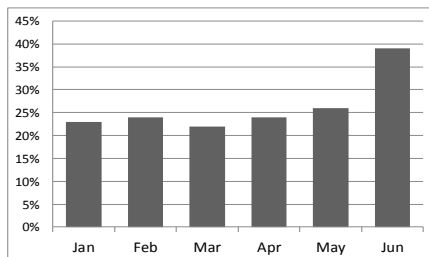
average 2011: 69%  
average 2012: 88%

### 5 Operational Actual Cost Coverage



average 2011: 61%  
average 2012: 45%

### 6 Non Revenue Water



average 2011: 23%  
average 2012: 26%

### 7 Continuity of Water Supply

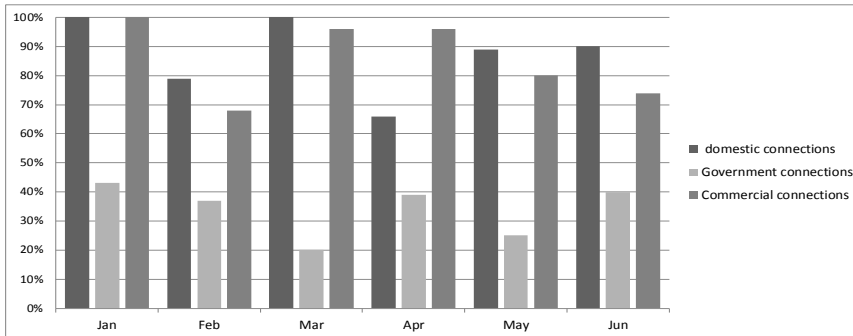
Month	Daily	Weekly		Monthly	
	Hours/Day	Hours/Day	Day/Week	Hours/Day	Day/Month
Jan				24	1
Feb				24	1
Mar				24	1
April				24	1
May				24	1
June				24	1

Comment :

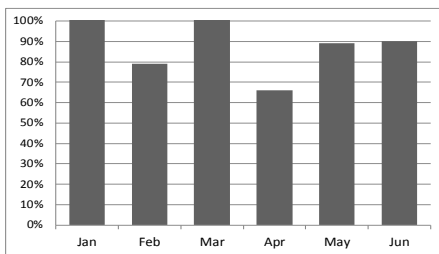


## Mocha Jan-June 2012

### 1 Collection Efficiency for Domestic, Government & Commercial

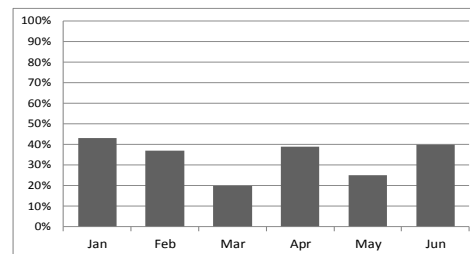


### 2 Collection Efficiency for Domestic



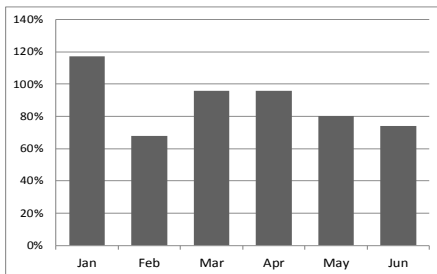
average 2011: 102%  
average 2012: 92%

### 3 Collection Efficiency for Government



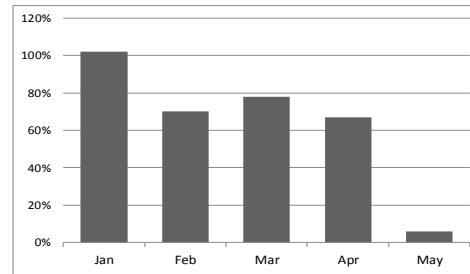
average 2011: 40%  
average 2012: 34%

### 4 Collection Efficiency for Commercial



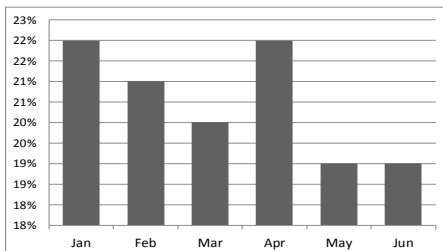
average 2011: 101%  
average 2012: 89%

### 5 Operational Actual Cost Coverage



average 2011: 85%  
average 2012: 68%

### 6 Non Revenue Water



average 2011: 23%  
average 2012: 21%

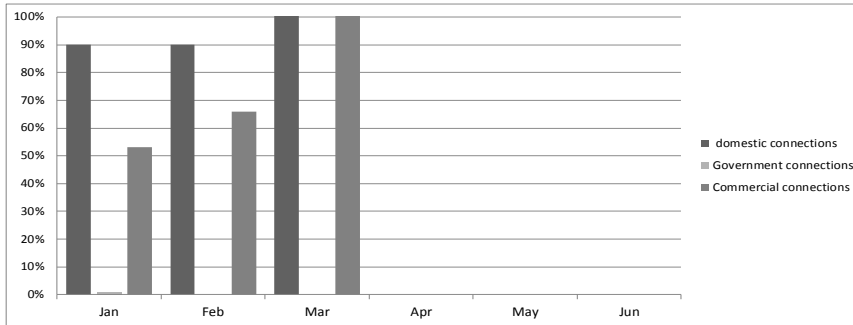
### 7 Continuity of Water Supply

Month	Daily	Weekly		Monthly	
	Hours/Day	Hours/Day	Day/Week	Hours/Day	Day/Month
Jan	24				
Feb	24				
Mar	24				
April	24				
May	24				
June	24				

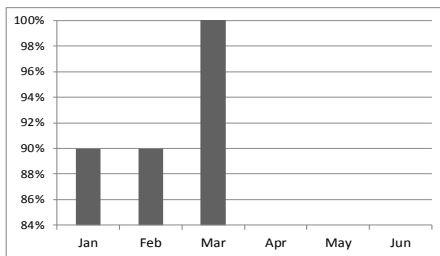
Comment :

Al-Mansouriah Jan-June 2012

**1 Collection Efficiency for Domestic, Government & Commercial**

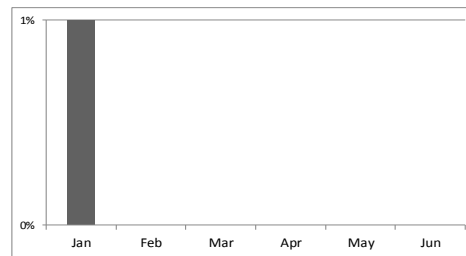


**2 Collection Efficiency for Domestic**



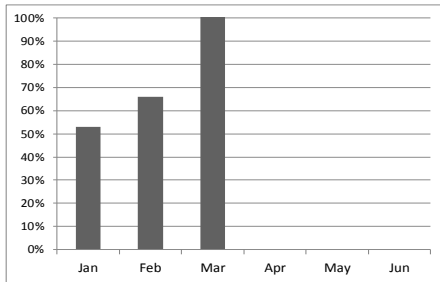
average 2011: 96%  
average 2012: 100%

**3 Collection Efficiency for Government**



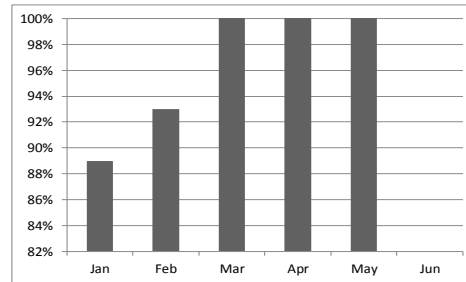
average 2011: 5%  
average 2012: 1%

**4 Collection Efficiency for Commercial**



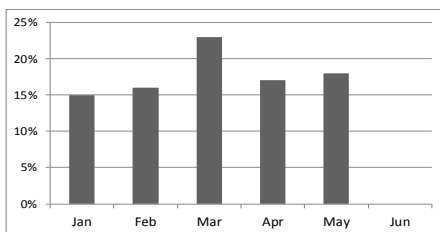
average 2011: 94%  
average 2012: 99%

**5 Operational Actual Cost Coverage**



average 2011: 86%  
average 2012: 159%

**6 Non Revenue Water**



average 2011: 17%  
average 2012: 18%

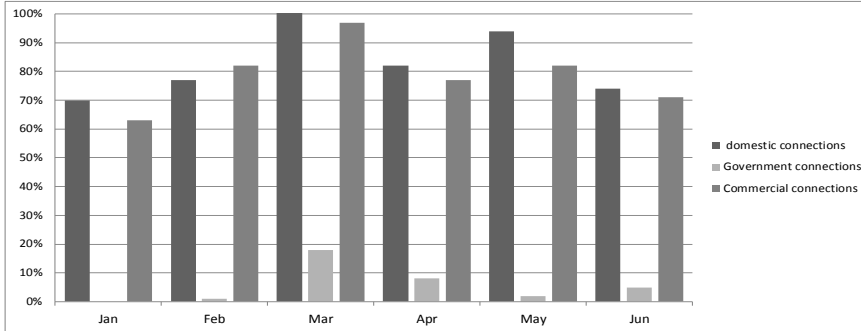
**7 Continuity of Water Supply**

Month	Daily	Weekly		Monthly	
	Hours/Day	Hours/Day	Day/Week	Hours/Day	Day/Month
Jan					
Feb					
Mar					
April					
May					
June					

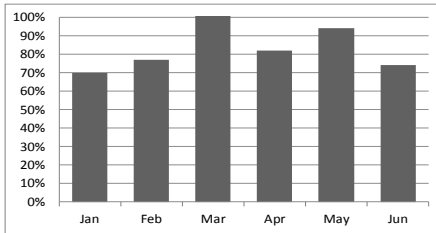
Comment :

## Rada'a Jan-June 2012

### 1 Collection Efficiency for Domestic, Government & Commercial

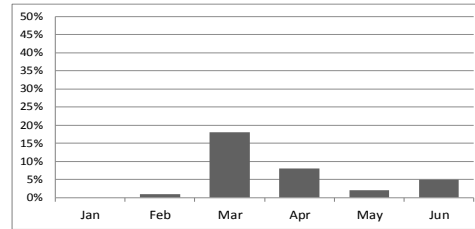


### 2 Collection Efficiency for Domestic



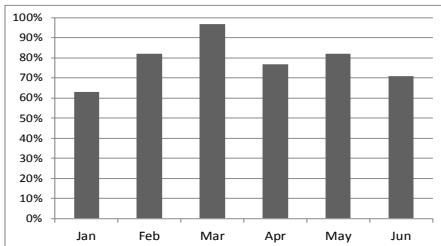
average 2011: 84%  
average 2012: 84%

### 3 Collection Efficiency for Government



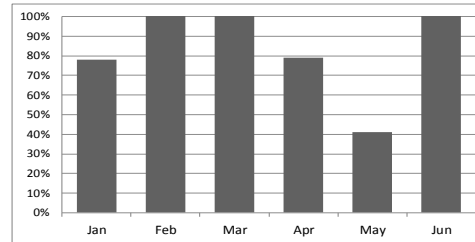
average 2011: 10%  
average 2012: 7%

### 4 Collection Efficiency for Commercial



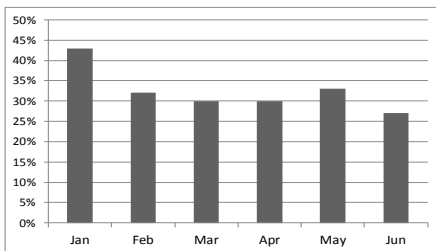
average 2011: 93%  
average 2012: 79%

### 5 Operational Actual Cost Coverage



average 2011: 89%  
average 2012: 100%

### 6 Non Revenue Water



average 2011: 22%  
average 2012: 33%

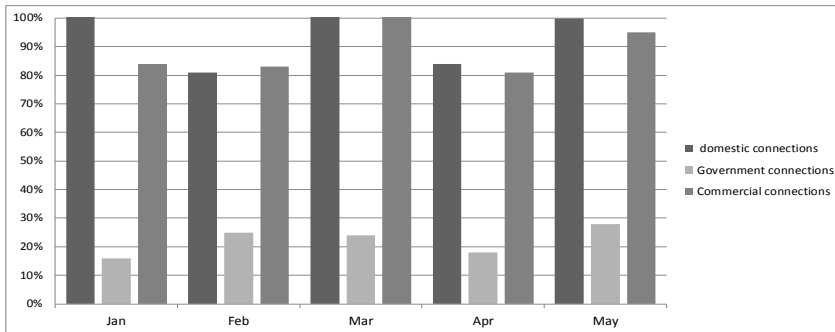
### 7 Continuity of Water Supply

Month	Daily	Weekly		Monthly	
	Hours/Day	Hours/Day	Day/Week	Hours/Day	Day/Month
Jan	24	24	4		
Feb	24	24	4		
Mar	24	24	4		
April	24	24	4		
May	24	24	1		
June	24	24	1		

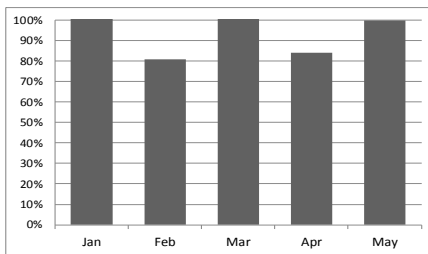
Comment :

**Zabid Jan-June 2012**

**1 Collection Efficiency for Domestic, Government & Commercial**

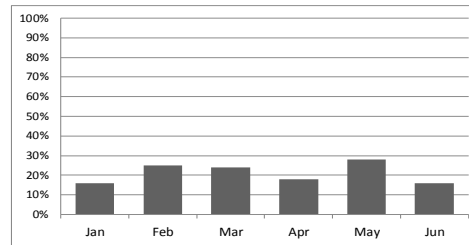


**2 Collection Efficiency for Domestic**



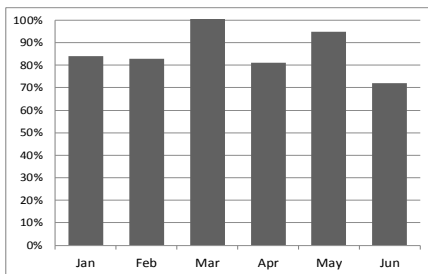
average 2011: 101%  
average 2012: 100%

**3 Collection Efficiency for Government**



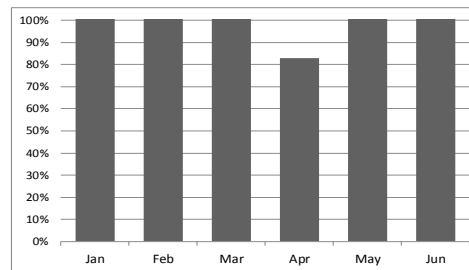
average 2011: 33%  
average 2012: 21%

**4 Collection Efficiency for Commercial**



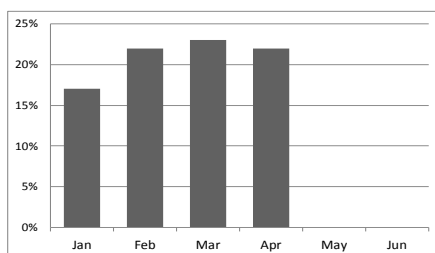
average 2011: 96%  
average 2012: 92%

**5 Operational Actual Cost Coverage**



average 2011: 89%  
average 2012: 145%

**6 Non Revenue Water**



average 2011: 19%  
average 2012: 21%

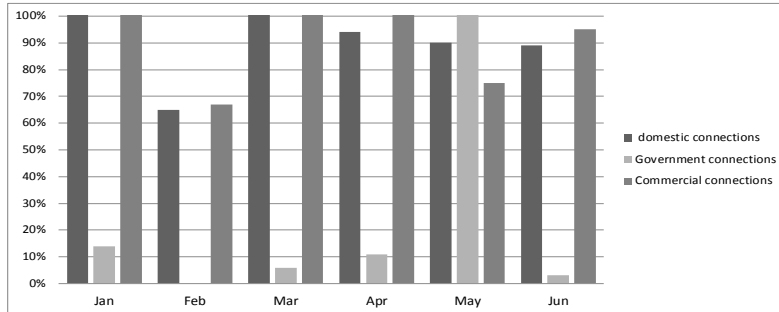
**7 Continuity of Water Supply**

Month	Daily	Weekly		Monthly	
	Hours/Day	Hours/Day	Day/Week	Hours/Day	Day/Month
Jan	24				
Feb	24				
Mar	24				
April	24				
May	24				
June	24				

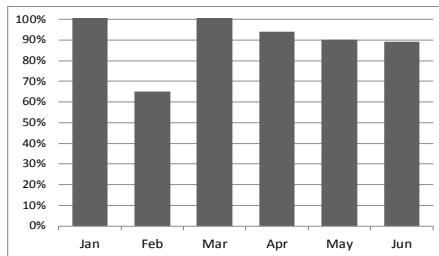
Comment : No of hours of water frequency (Avg)

## Bajil Jan-June 2012

### 1 Collection Efficiency for Domestic, Government & Commercial

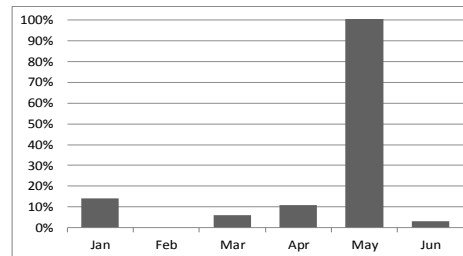


### 2 Collection Efficiency for Domestic



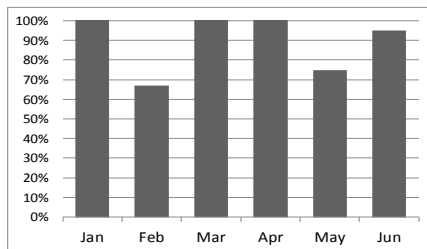
average 2011: 82%  
average 2012: 95%

### 3 Collection Efficiency for Government



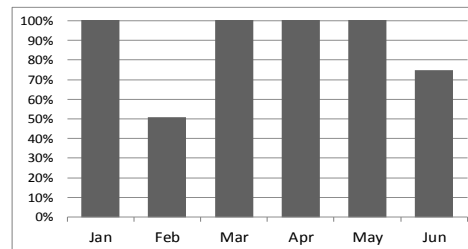
average 2011: 80%  
average 2012: 503%

### 4 Collection Efficiency for Commercial



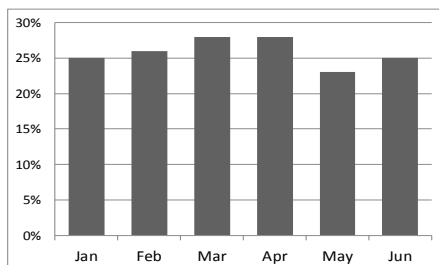
average 2011: 84%  
average 2012: 105%

### 5 Operational Actual Cost Coverage



average 2011: 78%  
average 2012: 144%

### 6 Non Revenue Water



average 2011: 23%  
average 2012: 26%

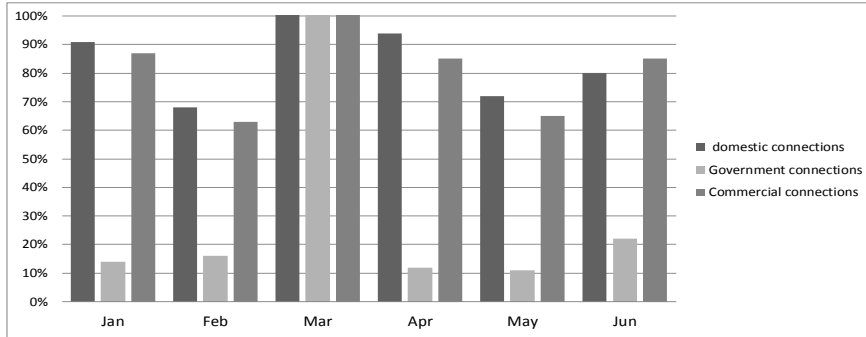
### 7 Continuity of Water Supply

Month	Daily	Weekly		Monthly	
	Hours/Day	Hours/Day	Day/Week	Hours/Day	Day/Month
Jan					
Feb					
Mar					
April					
May					
June					

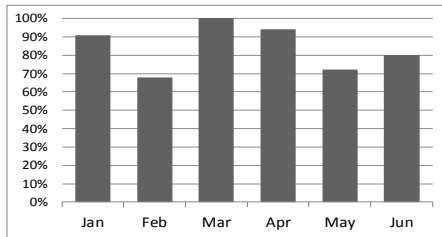
Comment :

**Seyoun** Jan-June 2012

**1 Collection Efficiency for Domestic, Government & Commercial**

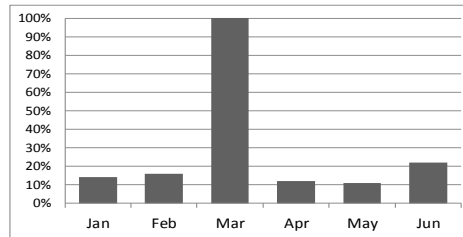


**2 Collection Efficiency for Domestic**



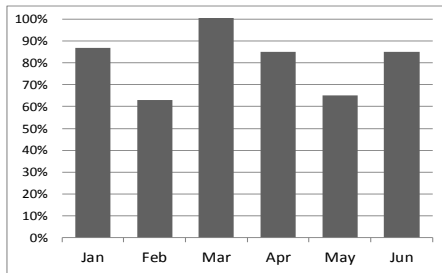
average 2011: 82%  
average 2012: 85%

**3 Collection Efficiency for Government**



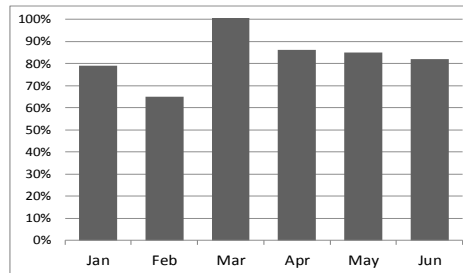
average 2011: 68%  
average 2012: 49%

**4 Collection Efficiency for Commercial**



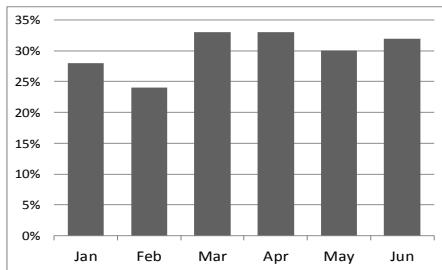
average 2011: 78%  
average 2012: 82%

**5 Operational Actual Cost Coverage**



average 2011: 91%  
average 2012: 89%

**6 Non Revenue Water**



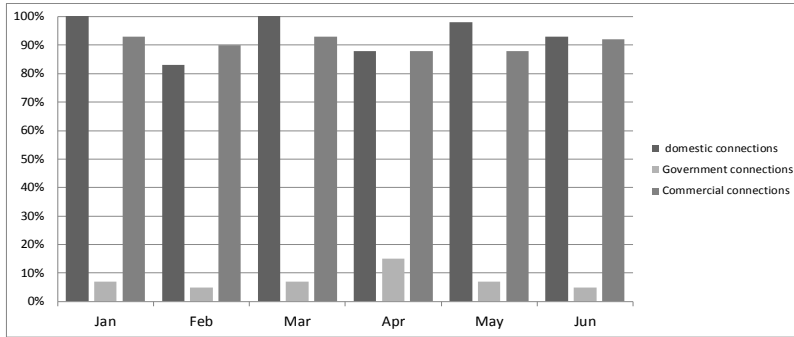
average 2011: 29%  
average 2012: 30%

**7 Continuity of Water Supply**

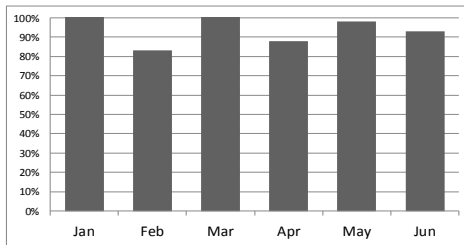
Month	Daily	Weekly		Monthly	
	Hours/Day	Hours/Day	Day/Week	Hours/Day	Day/Month
Jan	24				
Feb	24				
Mar	24				
April	24				
May	24				
June	24				

**IBB Jan-June 2012**

**1 Collection Efficiency for Domestic, Government & Commercial**

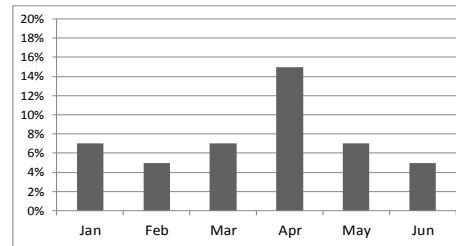


**2 Collection Efficiency for Domestic**



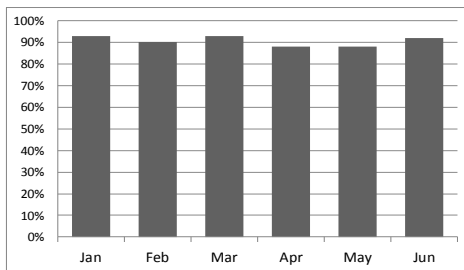
average 2011: 86%  
average 2012: 96%

**3 Collection Efficiency for Government**



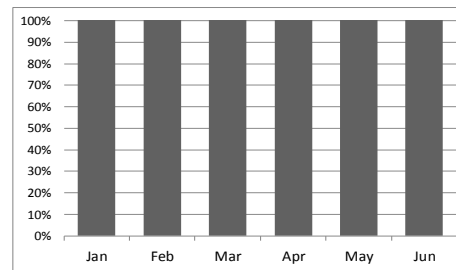
average 2011: 46%  
average 2012: 8%

**4 Collection Efficiency for Commercial**



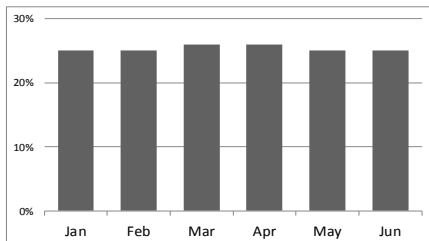
average 2011:  
average 2012:

**5 Operational Actual Cost Coverage**



average 2011: 123%  
average 2012: 132%

**6 Non Revenue Water**



average 2011: 23%  
average 2012: 25%

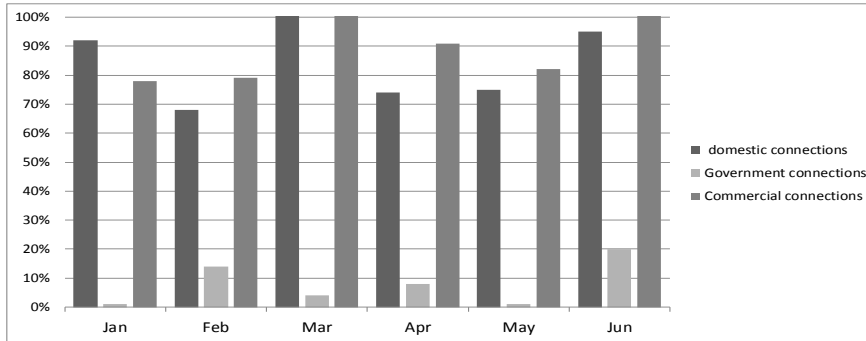
**7 Continuity of Water Supply**

Month	Daily	Weekly		Monthly	
	Hours/Day	Hours/Day	Day/Week	Hours/Day	Day/Month
Jan	24	24	2		
Feb		24	2		
Mar		24	2		
Apr		24	2		
May		24	2		
Jun		24	2		

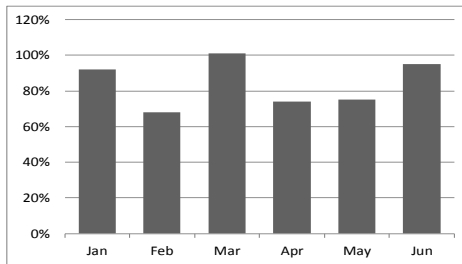
Comment : No of hours of water frequency (Avg)

## Bait Alfaqih Jan-June 2012

### 1 Collection Efficiency for Domestic, Government & Commercial

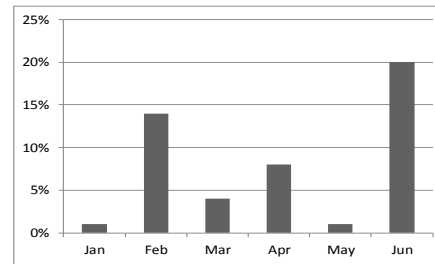


### 2 Collection Efficiency for Domestic



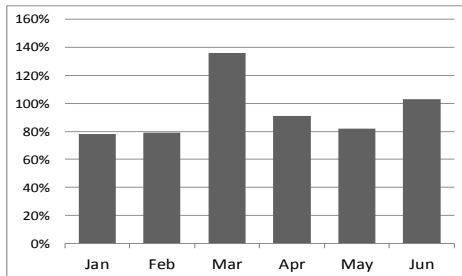
average 2011: 82%  
average 2012: 84%

### 3 Collection Efficiency for Government



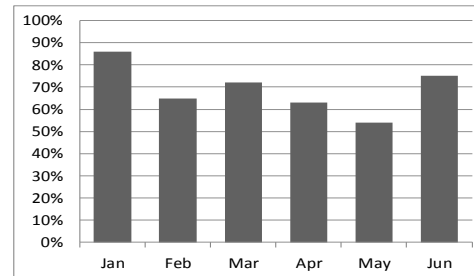
average 2011: 84%  
average 2012: 8%

### 4 Collection Efficiency for Commercial



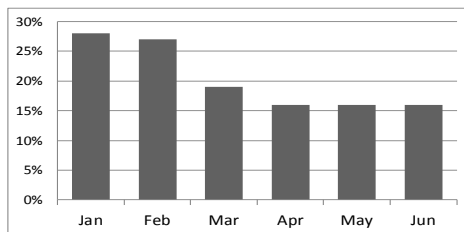
average 2011: 94%  
average 2012: 95%

### 5 Operational Actual Cost Coverage



average 2011: 93%  
average 2012: 69%

### 6 Non Revenue Water



average 2011: 22%  
average 2012: 20%

### 7 Continuity of Water Supply

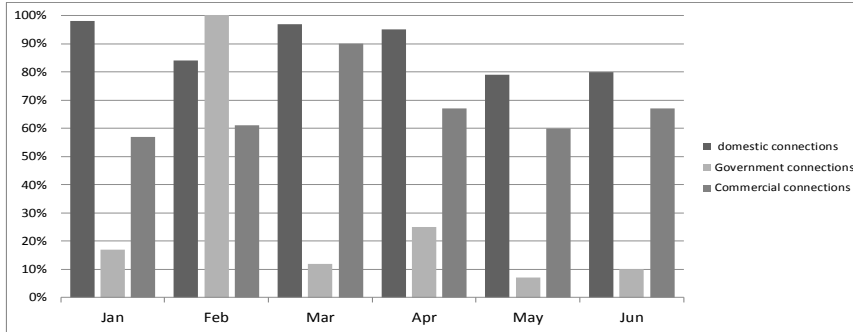
Month	Daily	Weekly		Monthly	
	Hours/Day	Hours/Day	Day/Week	Hours/Day	Day/Month
Jan	15				
Feb	15				
Mar	15				
Apr	15				
May	15				
Jun	15				

Comment :

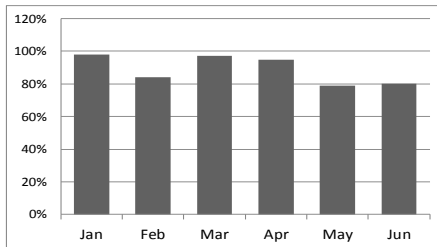


## AISheher Jan-June 2012

### 1 Collection Efficiency for Domestic, Government & Commercial

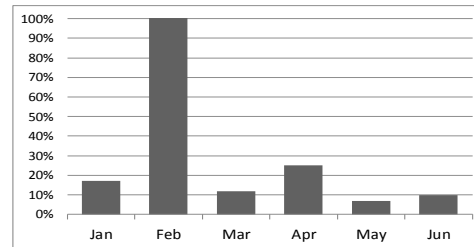


### 2 Collection Efficiency for Domestic



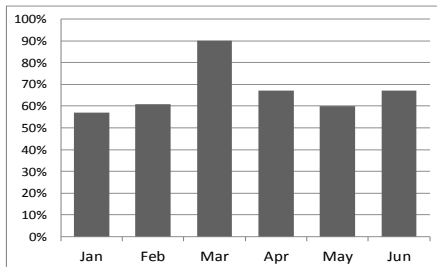
average 2011: 90%  
average 2012: 89%

### 3 Collection Efficiency for Government



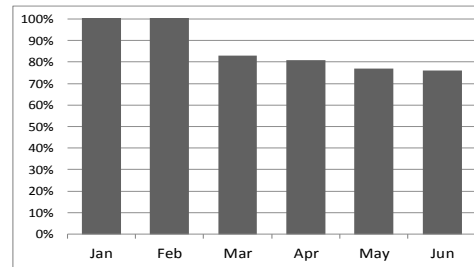
average 2011: 52%  
average 2012: 104%

### 4 Collection Efficiency for Commercial



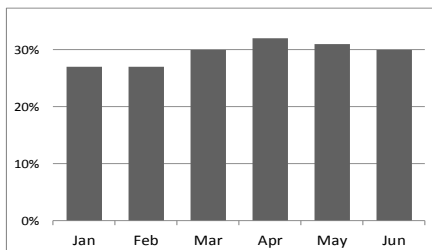
average 2011: 75%  
average 2012: 67%

### 5 Operational Actual Cost Coverage



average 2011: 87%  
average 2012: 97%

### 6 Non Revenue Water



average 2011: 26%  
average 2012: 30%

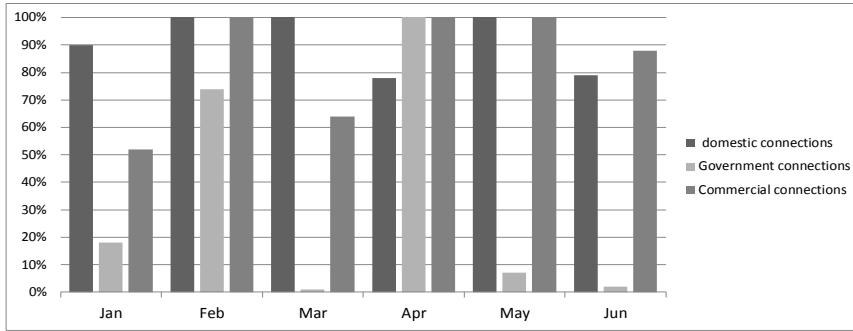
### 7 Continuity of Water Supply

Month	Daily	Weekly		Monthly	
	Hours/Day	Hours/Day	Day/Week	Hours/Day	Day/Month
Jan	24				
Feb	24				
Mar	24				
April	18				
May	18				
June	18				

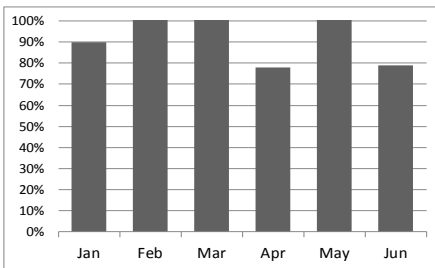
Comment : No of hours of water frequency (Avg)

## Amran Jan-June 2012

### 1 Collection Efficiency for Domestic, Government & Commercial

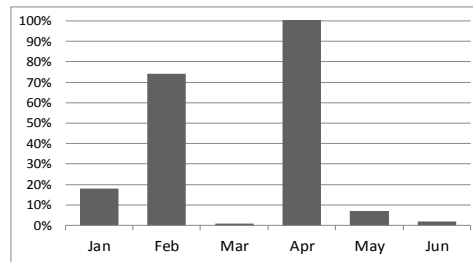


### 2 Collection Efficiency for Domestic



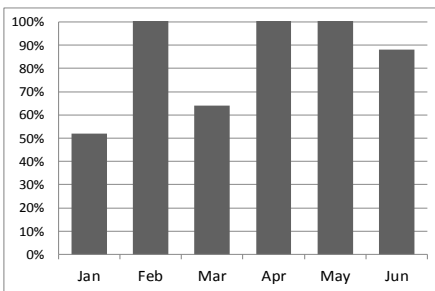
average 2011: 105%  
average 2012: 102%

### 3 Collection Efficiency for Government



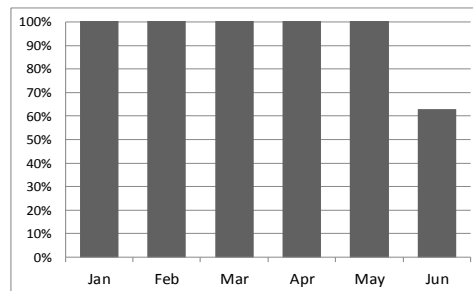
average 2011: 24%  
average 2012: 68%

### 4 Collection Efficiency for Commercial



average 2011: 82%  
average 2012: 112%

### 5 Operational Actual Cost Coverage



average 2011: 90%  
average 2012: 271%

### 6 Non Revenue Water

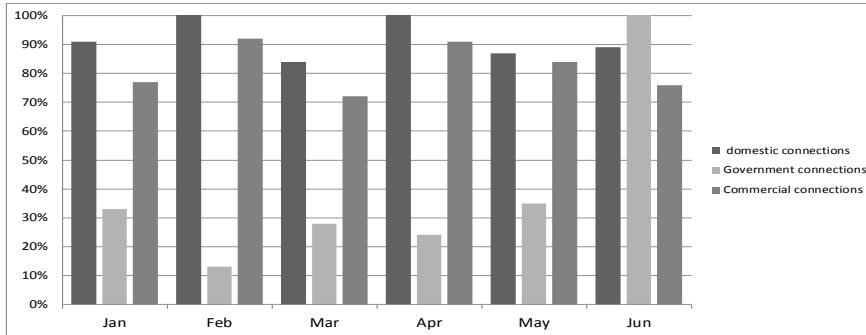
### 7 Continuity of Water Supply

Month	Daily	Weekly		Monthly	
	Hours/Day	Hours/Day	Day/Week	Hours/Day	Day/Month
Jan					
Feb					
Mar					
April					
May					
June					

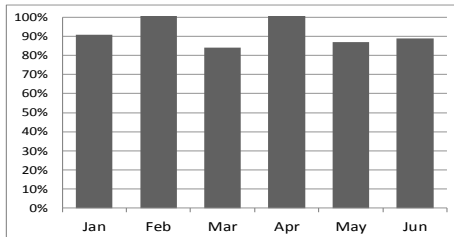
Comment :

## Dhamar Jan-June 2012

### 1 Collection Efficiency for Domestic, Government & Commercial

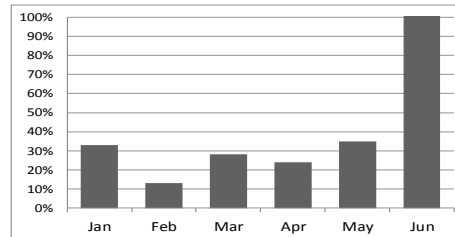


### 2 Collection Efficiency for Domestic



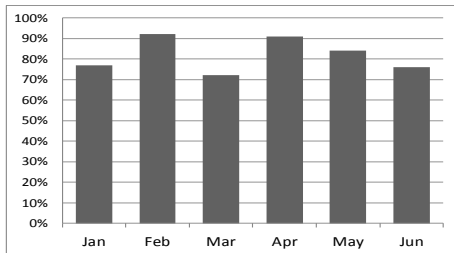
average 2011: 82%  
average 2012: 93%

### 3 Collection Efficiency for Government



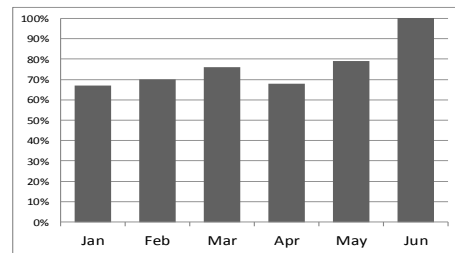
average 2011: 41%  
average 2012: 142%

### 4 Collection Efficiency for Commercial



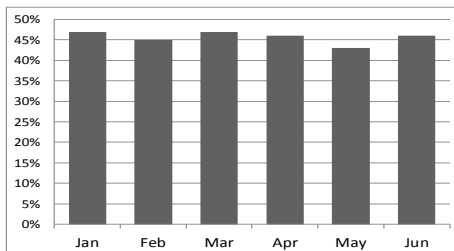
average 2011: 81%  
average 2012: 82%

### 5 Operational Actual Cost Coverage



average 2011: 67%  
average 2012: 97%

### 6 Non Revenue Water



average 2011: 48%  
average 2012: 46%

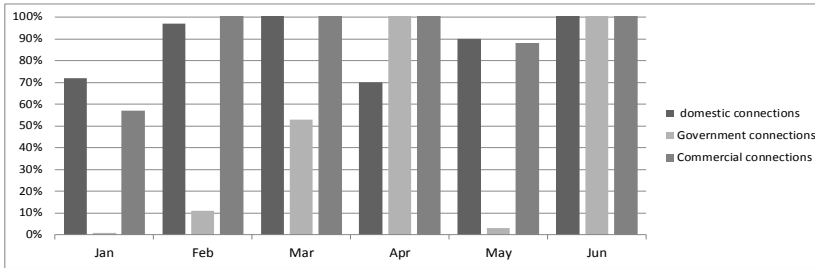
### 7 Continuity of Water Supply

Month	Daily	Weekly		Monthly	
	Hours/Day	Hours/Day	Day/Week	Hours/Day	Day/Month
Jan	16 -24				
Feb	16 -24				
Mar	16 -24				
April	16 -24				
May	20 -24				
June	20 -24				

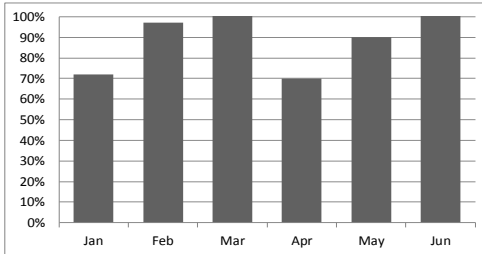
Comment :

## Hajjah Jan-June 2012

### 1 Collection Efficiency for Domestic, Government & Commercial

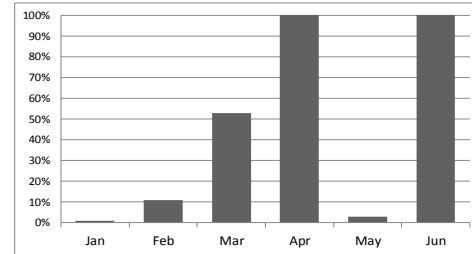


### 2 Collection Efficiency for Domestic



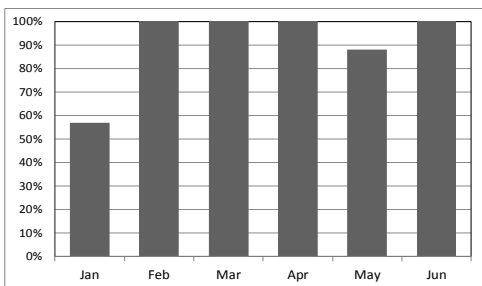
average 2011: 78%  
average 2012: 94%

### 3 Collection Efficiency for Government



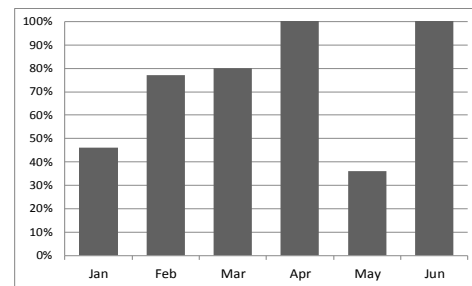
average 2011: 62%  
average 2012: 191%

### 4 Collection Efficiency for Commercial



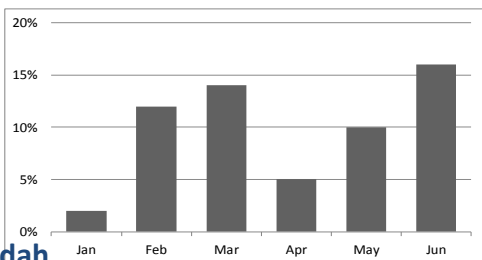
average 2011: 97%  
average 2012: 129%

### 5 Operational Actual Cost Coverage



average 2011: 83%  
average 2012: 152%

### 6 Non Revenue Water



Sa'dah

average 2011: 15%  
average 2012: 10%

### 7 Continuity of Water Supply

Month	Daily	Weekly		Monthly	
	Hours/Day	Hours/Day	Day/Week	Hours/Day	Day/Month
Jan				12	2
Feb				12	2
Mar		18	1		
April		18	1		
May		18	1		
June		18	1		

Comment : No of hours of water frequency (Avg)

**giz**



Data not available yet

## Annex 2

PIIS 2010-2011-2012

No.	LC/Utility	Collection Efficiency Domestic (Average)			Collection Efficiency Government (Average)			Collection Efficiency Commercial (Average)			Operational actual cost coverage (Average)			Non-revenue water (Average)		
		2010	2011	2012	2010	2011	2012	2010	2011	2012	2010	2011	2012	2010	2011	2012
1	Aden	77%	52%	52%	49%	28%	62%	98%	83%	91%	82%	71%	87%	29%	33%	34%
2	Sana'a	91%	68%	77%	71%	56%	49%	85%	54%	70%	109%	83%	87%	31%	32%	49%
3	Taiz	88%	72%	70%	40%	93%	71%	90%	66%	72%	78%	86%	69%	23%	21%	20%
4	Mukala	93%	87%	91%	68%	70%	135%	89%	87%	85%	101%	103%	135%	35%	35%	40%
5	Hodeidah	92%	69%	82%	34%	15%	65%	84%	76%	80%	82%	51%	86%	42%	44%	40%
6	Dhamar	90%	82%	93%	55%	41%	142%	84%	81%	82%	85%	67%	91%	47%	48%	46%
7	Rada'a	83%	84%	84%	13%	10%	7%	82%	93%	79%	144%	89%	100%	19%	22%	33%
8	Al Mansouriah	95%	96%	100%	14%	5%	1%	93%	94%	99%	106%	86%	159%	16%	17%	18%
9	Ibb	95%	86%	96%	34%	46%	8%	94%	80%	91%	133%	123%	132%	18%	23%	25%
10	Alsheher	98%	90%	89%	83%	52%	104%	87%	75%	67%	96%	87%	97%	23%	26%	30%
11	Seyuon	98%	82%	85%	57%	68%	49%	96%	78%	82%	93%	91%	89%	28%	29%	30%
12	Mocha	116%	102%	92%	79%	40%	34%	105%	101%	89%	110%	86%	68%	25%	23%	21%
13	Zabid	106%	101%	100%	38%	33%	21%	96%	96%	92%	100%	89%	145%	18%	19%	21%
14	Bajil	106%	82%	95%	30%	80%	503%	107%	84%	105%	88%	78%	144%	25%	23%	26%
15	Bait Alfaqih	94%	82%	84%	7%	84%	8%	96%	94%	95%	87%	93%	69%	15%	22%	20%
16	AlMahweet	80%	77%	81%	33%	51%	10%	57%	69%	88%	59%	61%	45%	20%	23%	26%
17	Hajjah	91%	78%	94%	103%	62%	191%	99%	97%	129%	71%	83%	152%	22%	15%	10%
18	Amran	104%	105%	102%	47%	24%	68%	116%	82%	112%	99%	90%	271%	26%	20%	29%
19	Sa'adah	81%	71%		179%	23%		87%	108%		79%	94%		35%	33%	